

Twin Cities Campus Class Schedule MGC/C568

UNIVERSITY OF MINNESOTA

FALL

1991



Fall 1991 | **Class Schedule**

BULLETIN USE

The contents of this schedule and other University bulletins, publications, or announcements are subject to change without notice. University offices can provide current information about possible changes.

EQUAL OPPORTUNITY

The University of Minnesota is committed to the policy that all persons shall have equal access to its programs, facilities, and employment without regard to race, religion, color, sex; national origin, handicap, age, veteran status, or sexual orientation. In adhering to this policy, the University abides by the requirements of the Minnesota Human Rights Act, Minnesota Statute Ch. 363; by the Federal Civil Rights Act, 420 S.C. 2000e; by Title IX of the Education Amendments of 1972; by Sections 503 and 504 of the Rehabilitation Act of 1973; by Executive Order 11246, as amended: 38 U.S.C. 2012; by the Vietnam Era Veterans Readjustment Assistance Act of 1972, as amended; and by other applicable statutes and regulations relating to equality of opportunity.

Inquiries regarding compliance may be addressed to Patricia A. Mullen, Director, Office of Equal Opportunity and Affirmative Action, 419 Morrill Hall, University of Minnesota, 100 Church Street S.E., Minneapolis, MN 55455 (612/624-9547); to the Director of the Office of Civil Rights, Department of Education, Washington, DC 20202; or to the Director of the Office of Federal Contract Compliance Programs, Department of Labor, Washington, DC 20210.

ACCESS TO STUDENT EDUCATIONAL RECORDS

In accordance with regents' policy on access to student records, information about you generally may not be released to a third party without your permission. (Exceptions under the law include state and federal educational and financial aid institutions.) The regents' policy also permits you to review your educational records and to challenge the contents of those records.

Some student information—name, address, telephone number, dates of enrollment and enrollment termination, college and class, major, adviser, academic awards and honors, and degrees earned—is considered public or directory information. You may prevent release of public information outside the University only during your terms of enrollment. To do so, you must notify the records office on your campus.

Students are advised that disciplinary action will be taken if academic records are forged or altered.

The regents' policy, including a directory of student records, is available for review at the information center in Williamson Hall, Minneapolis, and at records offices on other campuses of the University. Questions may be directed to the Office of the Registrar, 150 Williamson Hall (612/625-5333).

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THIS CLASS SCHEDULE CAN BE RECYCLED WITH
NEWSPRINT. LOOK FOR THE GOLD NEWSPRINT-
RECYCLING BARRELS AROUND CAMPUS.

UNIVERSITY CALENDAR

Twin Cities Campus

Fall Quarter 1991

AUGUST 1991

- 19-September 20 Orientation program for new students.
26 Fall quarter registration reopens.

SEPTEMBER 1991

- 2 Labor Day, holiday. University offices closed.
20 Last day to register for fall without paying late registration fee.
23-28 Welcome Week.
23 **Fall quarter classes begin.**

OCTOBER 1991

- 1 Last day for Graduate School students who want to participate in fall commencement ceremony to pay graduation fees.
4 Last day to cancel individual course without transcript record.
14 Last day for undergraduates and students in professional degree programs to pay graduation fees for fall quarter.
25 Graduate School application deadline for winter quarter.

NOVEMBER 1991

- 7 Winter quarter registration begins.
28-29 Thanksgiving holiday. Classes excused and University offices closed.

DECEMBER 1991

- 3 Last day of instruction.
4 Study day.
5-11 Final examinations.
11 **End of fall quarter.**
Commencement. Commencement ceremonies are held by colleges once or twice a year. Check with your college office for information.
15 Graduate School application deadline for spring quarter.
23-25 Christmas holiday. University offices closed.

Winter Quarter 1992

JANUARY 1992

- 1 New Year's holiday. University offices closed.
3 Last day to register for winter quarter without paying late registration fee.
6 **Winter quarter classes begin.**
1992-93 financial aid application packets available.
17 Last day to cancel individual course without transcript record.
20 Martin Luther King's Birthday observed. Classes excused and University offices closed.

FEBRUARY 1992

- 11 Last day for undergraduates and students in professional degree programs to pay graduation fees for winter quarter.
21 Spring quarter registration begins.

MARCH 1992

- 13 Last day of instruction.
14 Study day.
16-21 Final examinations.
21 **End of winter quarter.**
Commencement. Commencement ceremonies are held by colleges once or twice a year. Check with your college office for information.

Spring Quarter 1992

MARCH 1992

- 27 Last day to register for spring without paying late registration fee.
30 **Spring quarter classes begin.**

APRIL 1992

- 8 Last day for undergraduates and students in professional degree programs to pay graduation fees for spring quarter.
10 Last day to cancel individual course without transcript record.
15 Graduate School application deadline for first term of summer session.

MAY 1992

- 11 Summer registration begins for currently enrolled students.
14 Early registration for fall 1992 begins.
15 Graduate school application deadline for second term of summer session.
25 Memorial Day, holiday. Classes excused and University offices closed.

JUNE 1992

- 5 Last day of instruction.
6 Study day.
8-13 Final examinations.
13 **End of spring quarter.**
Commencement. Commencement ceremonies are held by colleges once or twice a year. Check with your college office for information.

Summer Session—First Term 1992

JUNE 1992

- 11** Last day for undergraduates and students in professional degree programs to pay graduation fees for first term.
- 16** *First term classes begin.*

JULY 1992

- 3** Independence Day holiday observed. Classes excused and University offices closed.
- 15** Graduate School application deadline for fall quarter.
- 21** *End of first term.*
Commencement. Commencement ceremonies are held by colleges once or twice a year. Check with your college office for information.

Summer Session—Second Term 1992

JULY 1992

- 22** Last day for undergraduates and students in professional degree programs to pay graduation fees for second term.
- 23** *Second term classes begin.*

AUGUST 1992

- 26** *End of second term.*
Commencement. Commencement ceremonies are held by colleges once or twice a year. Check with your college office for information.

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- First and Last Days of Instruction
- Final Examination Dates
- Classes Excused or Holidays

CALENDAR FOR FALL 1991 REGISTRATION

Fall Class Schedules available	May 3
Queued registration for fall	May 9-May 31
Open registration for fall	June 3-June 14
Fall registration closed	June 17-August 23
Transcripts mailed	second week in July
Fall Quarter Update mailed	second week in August
Fall registration reopens—queued cancel/adding	August 26
Fall quarter begins	Monday, September 23
First installment of tuition due	October 21

REGISTRATION INSTRUCTIONS

Students Who Register in May or June—Registration begins May 9 and is queued. (If you did not receive your Registration Status Notice, you can find your registration time by looking at the queue on pages 14-15.) Refer to the calendar at the top of this page for complete registration dates.

Tuition rates for the 1991-92 school year will not be approved until later in the summer. When you register, you will be given a course confirmation form listing your courses, but you will *not* be given a fee statement showing your tuition and fees. A complete fee statement—showing your assessment for fall quarter—will be mailed to you in August. This mailing will also include a copy of *Fall Quarter Update*, a listing of all course changes since the beginning of registration, complete tuition and fee information, and instructions for changing your program during the August-September queue.

Your August fee statement will not have a due date for tuition. You will instead receive a billing statement from Student Accounts Receivable after the beginning of the quarter. Tuition for fall quarter will be due October 21. See page 20 for more information on the new billing system for tuition and fees.

REMEMBER: It is your responsibility to report any change in your address to the University. If you will be moving or will not be on campus during the summer, submit an address change to 150 Williamson Hall or 130 Coffey Hall. If, for any reason, you do not receive your *Fall Quarter Update* mailing, you can pick up a copy at your *Class Schedule* distribution site during the August queue.

Some students will need to obtain an adjusted fee statement before their tuition and fees are due. *Reciprocity students* whose 1991-92 authorizations are approved after they receive their fee statements in August will need to obtain adjusted fee statements, as will *students whose tuition is paid by an outside agency and graduate assistants, trainees, and fellows* who qualify later for tuition scholarships. Check your fee statement when you receive it to determine whether or not you will need an adjustment.

If you are waiting to hear about a *transfer within the University*, you should register in your old college. If you do not register un-

til August, many courses may already be closed. Your college office can help you with any questions about course selection. After your transfer is approved, you may need to adjust your course selections and/or college of registration.

Students Who Register in August or September—Welcome to campus! Whether you are a new student or one returning for another year, this *Class Schedule* is an especially important resource for you. The registration check list, below, will help walk you through the registration process.

Because this *Class Schedule* was prepared in April, some scheduling changes have occurred. Make sure you have received the *Fall Quarter Update*—a listing of all course changes, tuition and fee information, and registration dates. Use this *Update* to check your courses for changes *before* you register.

Once the quarter begins, hour and day changes are published in the Official Daily Bulletin, a column in the school newspaper *Minnesota Daily*. Room changes will be posted on classroom doors. Registration terminals always contain the most current and accurate information.

Student Responsibility—The policies in this *Class Schedule* directly affect your registration. You are responsible for all the information contained in this book: avoid potential problems by reading carefully through the various sections. You can receive credit only for those courses for which you are properly registered. Likewise, you must pay for any course for which you register unless you officially cancel at your registration center. In addition, if you attend a class without registering for it, you will be considered an auditor in the course and will be billed for full tuition and fees. To prevent misunderstandings and errors in registration, you should register in person. If you cannot register in person, you can have someone register for you only with your written permission and student ID card.

RECENT CHANGES

If you are a continuing or returning student, the following recent changes in procedures or policy will be of special interest to you:

- New billing system for tuition and fees p. 20

Steps in Registration—

Step 1—Complete the registration check list on the this page.

Step 2—Bring your Course Request form and this *Class Schedule* to your registration center. The registration center in 202 Fraser Hall, Minneapolis, is primarily for students in Minneapolis colleges, although St. Paul students may also register there. Minneapolis students with mobility restrictions, including temporary problems, can register at 150 Williamson Hall. The registration center in 130 Coffey Hall, St. Paul, is for students in St. Paul colleges. Students in units based both in Minneapolis and St. Paul (the Graduate School, and the colleges of Education and Architecture and Landscape Architecture) may use either registration center.

Step 3—Pay your tuition and fees. See pages 20-22 for complete information on paying your fees.

Late Registration Fee—You must register by September 20 to avoid a late registration fee. Students who register from September 23-October 4 will be charged a \$10 late registration fee. Students who register on or after October 7 will be charged a \$20 late registration fee.

A Registration Check List—Run through this check list before you go to your registration center. You will be able to avoid frustrating delays by following these hints:

Fill out a Course Request form completely. (Course Request forms are found on page 119.) Be sure to list a new address on the form if you have moved or have a new local address; a correct address will be needed for mailing your Registration Status Notice for the next registration period. List alternate courses in case your first choices are not available. Obtain college or adviser approval (departmental approval in I.T.) as required.

Do you know the name and policy number of your hospitalization insurance company or HMO? Unless you provide this information on the Student Hospitalization Insurance Form (on page 121) every quarter when you register, you will **automatically** be charged for University-sponsored hospitalization insurance if you take 6 or more credits. See Health Service and Hospitalization Charges, page 17, for more information.

Have you checked the Section Status Report? Check the report (posted outside of 101 Fraser Hall, B18 and 16 Johnston Hall, 4 Mechanical Engineering, 170 Anderson Hall, and 130 Coffey Hall) to see if space is available in limited enrollment (**R**) courses. Remember: The Section Status Report lists only limited enrollment courses. If you use it exclusively to plan your program, you may overlook courses that have no limit on enrollment.

Do you need any Registration Override Permits? Is there a # or Δ or \square in the prerequisite statement of your course? (All symbols used in prerequisite statements are defined on page 27.) Are you trying to register in a closed

course? Remember: You must have a signed Registration Override Permit; handwritten notes will *not* be accepted.

Do you have any holds you need to clear? You will not be able to register if you have any holds on your record. Clear your holds as soon as possible. See Holds, page 5, for further information.

International students—are you new to campus? You must go to the Office of International Education before you register. See page 6.

International students—have you registered for a full course of study? See International Students, page 6, for credit requirements.

Are you a CLA student? Read your college instructions on pages 9.

Are you a student in the Graduate School? The Graduate School instructions on pages 7-8 govern your registration.

Are you taking Carlson School of Management courses? Read the special instructions on page 10 that apply to those courses.

Are you taking Institute of Technology courses? There are instructions on page 10 that apply to I.T. courses.

HOLDS

If you have a hold on your record, you may not register or, in many cases, obtain transcripts until that hold is cleared with the office imposing the hold. A hold may be imposed for financial indebtedness to the University (e.g., for unpaid tuition or fees, unpaid library fines, or delinquent health service payments) or for disciplinary or scholastic reasons. You will usually be notified of an existing or impending hold by the department or office authorizing the hold. Notice of any hold, including the name of the department or office where it may be cleared, also appears on your Registration Status Notice.

To remove a hold from your record, you must first pay the debt owed, correct the scholastic deficiency, or be cleared by the Special Counseling Office. For most debts, you will receive a billing statement, which you will submit with payment at the Bursar's Office; you may present the receipted billing statement to the department or office that authorized the hold as evidence that the debt has been paid.

When you clear any hold *in advance of registration*, the unit imposing the hold must notify your registration center (202 Fraser Hall in Minneapolis, 130 Coffey Hall in St. Paul) that the hold may be removed from your record. *If you have not cleared holds in advance*, you may be given a hold release to take with you to your registration center. When you are given a *permanent hold release*, you must leave the release form with the operator when you register. On occasion, units may issue *temporary hold releases*. Temporary releases will allow you to either receive one transcript or to register during the quarter in

progress. Because a hold remains on your record until it is permanently cleared, you must show a temporary release for registration each time you return to your registration center. If you are issued a temporary hold release for registration, be sure it is returned to you after you have registered.

If, in order to register, you pay a Student Accounts Receivable hold for a previous quarter with a personal check, and that check does not clear the bank, you will be sent a notice by Student Accounts Receivable. Your current registration may be cancelled if you fail to respond to this notice and pay your debt.

INTERNATIONAL STUDENTS

If you hold a non-immigrant visa of any type, have been formally admitted to the University of Minnesota, and are registering for the first time, three holds have been placed on your record—AI (check of non-immigrant status documents), ME (health clearance), and AZ (English proficiency). Please read the following information carefully.

Preregistration Program and Document Check (AI Hold)—Go to the Office of International Education (OIE), 20 Nicholson Hall. You must sign up for a mandatory Preregistration Program for International Students. During this program, you will receive information about living and studying in the U.S. and at the University. You will also have your non-immigrant status documents checked and your AI, ME, and AZ holds released. You must bring your passport and non-immigrant status documents (I94 form, pages 3-4 of your I-20AB, and/or IAP-66). Sponsored students must also provide documentation of their financial support. If you are a permanent resident, you must present documented evidence of your status.

Health Clearance (ME Hold)—If you are not a citizen of the United States and if you are registering for the first time at the University, a hold has been placed on your record and you must have a health clearance in order to register. You will be given a release for this hold after your visit to Boynton Health Service. This visit is arranged as part of the OIE Preregistration Program for International Students.

At that visit, you will be tested for tuberculosis unless you have been tested within the past 12 months and bring proof in English of your testing.

If you arrived too late to attend the OIE preregistration program, go immediately to the information desk at Boynton Health Service, 410 Church Street, Minneapolis, for instructions.

A positive reaction to the tuberculin test indicates that you have been exposed to tuberculosis but it does not necessarily mean that you have contracted the disease. If your test is positive, you will be allowed to register for classes, but you will be required to have a chest x-ray and to return for the results.

In addition to the above health clearance, Minnesota law requires that all students provide in writing the month and year when they were immunized against measles, mumps, rubella, tetanus, and diphtheria. You must complete and sign the Student Immunization Form you received with your admission letter. See Immunization Clearance, page 17.

Mandatory Health/Hospitalization Insurance—All international students must carry hospitalization insurance for themselves and their dependents. Insurance coverage must be continuous from the date of arrival in the U.S. through the final date of departure from the U.S. This means that international students must have insurance coverage even if they are registered for fewer than 6 credits or are away from campus for the summer or an academic quarter. See Health Service and Hospitalization Charges, page 17.

English Proficiency (AZ Hold)—All new international students have holds placed on their records to make sure that they meet the University's English proficiency requirements. The AZ hold will be released by the Minnesota English Center (MEC) as part of the OIE mandatory Preregistration Program for International Students (see above).

Permanent AZ hold releases will be given to international students who have TOEFL scores that meet or exceed the minimum required by their college, or who have completed two years of academic work at a U.S. college.

Students with a TOEFL score lower than that required by their college, or for whom the TOEFL was waived at the time of admission, may be required to take the Minnesota Battery English Language Proficiency test. Register for this test at the MEC office as soon as possible because results are not available for two weeks. You must pay a \$25 testing fee when you register for the test. You can receive information about the test and about requirements for English classes by visiting the MEC office (102 Klaeber Court, 320 16th Avenue S.E.) or by calling 624-1503.

If you have not met the English requirements for your college, you will be required to register for 1-3 noncredit English classes each quarter until you achieve the required test score.

Full Course of Study—All foreign students holding F-1 and J-1 visas are required by the Immigration and Naturalization Service to register for a full course of study each academic quarter. (NOTE: For graduate students and adult specials, a full course of study is 7 credits; for undergraduates it is 12 credits.) Exceptions to this rule are possible only in a limited number of circumstances. In such instances an Application for Exception from the Full Course of Study Requirement must be completed, signed by your adviser, and submitted to the OIE, 20 Nicholson Hall, by the first day of each quarter for undergraduates, and by the end of the second week of each quarter for graduate students and adult specials. (Forms are available at the OIE or 130 Coffey Hall.) If you have questions about this requirement, call 626-7100.

GRADUATE SCHOOL REGISTRATION INSTRUCTIONS

New Students—If you are registering for the first time in the Graduate School, obtain your registration materials in 309 Johnston Hall.

Active Students—If you have registered in the Graduate School at least once in the last two years, have your adviser sign your Course Request form. Follow the steps below to clear any Graduate School holds:

MAST PROG	Take signed master's program to 316 Johnston Hall.
DOCT PROG	Take signed doctoral program to 316 Johnston Hall.
SPEC PROG	Take signed specialist program to 316 Johnston Hall.
THES TITLE	Take signed thesis title to 316 Johnston Hall.
BACH DEGREE	Take bachelor's transcript, showing degree awarded, to 316 Johnston Hall.
GPA	Take letter releasing hold from major field director of graduate studies to 316 Johnston Hall.
INCOMPLETE	Take letter releasing hold from major field director of graduate studies to 316 Johnston Hall.
DEAN'S HLD	Go to 316 Johnston Hall for explanation and instructions for clearing.
GRAD ASST	Go to 416 Johnston Hall for explanation and instructions for clearing.

Have your adviser sign your Course Request form.

Inactive Students—If you have not registered in the Graduate School at least once in the last two years, you must be readmitted before you will be allowed to register. Contact the Graduate School Admissions Office, 306 Johnston Hall (625-8060).

Maximum Credits—The maximum credit load for fall, winter, and spring quarters is 18.

Grading Option—Two grading systems, A-B-C-D-F and S-N, are used in the Graduate School. You must designate your grading option for each course at registration. (However, if either A-F only or S-N only is printed after the prerequisite statement for a course, you *must* register for that grading system.) Any change to your designated grading option must be made at your registration center during the first two weeks of the quarter on a Course Request form signed by your adviser. Similarly, any change to or from auditor status must be made during the first two weeks of the quarter on a Course Request form signed by your adviser. See below for specific deadlines.

Registration Deadlines—Students in the Graduate School must register no later than the end of the second week of the

quarter. Friday of the second week (October 4 for fall 1991) is the last day to:

- register,
- add a course or change sections of a course,
- change grading option, including changing to or from audit status, and
- cancel a course without a W appearing on your record.

All changes in registration require your adviser's signature. Courses may be *cancelled* through Friday of the sixth week of the quarter. Courses cancelled after the sixth week will require the signature of *both* your adviser and the instructor. No registration changes will be permitted after the last day of instruction.

These registration deadlines are strictly enforced. (Remember, registration changes are not effective until you take a completed Course Request form to your registration center.) Exceptions will be considered only by written request to the Graduate School. Such requests *will not* be routinely approved. If circumstances will prevent you from meeting the above deadlines, contact the Graduate School *before* the deadline.

NOTE: These deadlines in no way change the current policy regarding assessment of late registration fees (you must register before the beginning of the quarter—by September 20 for fall 1991—to avoid such a fee); nor do they affect the University's refund policies.

Thesis Credits—All students are required to register for thesis credits before receiving a Plan A master's or a professional master of engineering degree (at least 16 credits of 8777 required) or a Ph.D., Ed.D., or D.M.A. degree (at least 36 credits of 8888 required). Beginning fall 1991, doctoral students may not register for thesis credits until the quarter after they have passed their preliminary oral examinations.

Some students who were first registered in the graduate School before fall quarter 1983 may have their thesis credit requirements reduced or eliminated. For more information, contact 316 Johnston Hall (625-3490). Contact 316 Johnston Hall (625-3490) if you have questions regarding thesis credit requirements.

Tuition for thesis credits is assessed the same way course credits are assessed, with both resident and nonresident rates.

You must register for all thesis credits under your major field course designator. (Note that any earlier thesis credit registrations under the designator GRAD will remain on your transcript and will still count toward your Graduate School degree requirements.) In most cases, your course designator will match that of the department in which you take your major field courses. Some major fields will share a single designator, while new designators have been created for interdisciplinary graduate programs. Consult the course listings in Section 3 for the proper designator and current call numbers.

If you have any questions about registering for thesis credits, including which course designator to use, contact your director

of graduate studies or the Graduate School, 316 Johnston Hall (625-3490).

Doctoral Residency Requirement—Doctoral students are required to complete a residency requirement of 9 quarters full-time registration. Full-time registration during the academic year is defined as 7 or more credits per quarter.

All credits taken in the Graduate School may be used to fulfill the residency requirement. During the academic year, part-time students (registering for 1-6 credits) will accumulate 0.1 quarter residency for each credit taken. Credits for registrations in first and second terms of the summer session will be added together. For 7 or more total credits, 1.0 quarter of residency will be granted; if the credit total is 1-6, 0.1 quarter of residency will be granted for each credit taken.

Residency may not be earned for credits accepted for transfer to a doctoral degree program, nor can residency be earned using master's degrees from other institutions or from other colleges of the University.

Some students who were first registered in the Graduate School before fall 1984 may be exempted from the residency requirement. For more information, contact 316 Johnston Hall (625-3490).

Tuition Privileges for Graduate Assistants, Fellows, and Trainees—*Graduate assistants* with 25% time appointments or more for an *entire* quarter receive tuition benefits equal to twice the percentage of their appointment for the quarter in which they hold the appointment. For more information, see page 24. Graduate assistants whose remaining tuition and fees total \$150 or more may qualify for payroll deduction. See page 22 for application procedures.

Nonresident graduate assistants, trainees, and fellows who hold at least a 25% time appointment are eligible for resident tuition rates. This eligibility also extends to members of the immediate family. Refer to page 25 for details.

Graduate Assistant Health-Care Plan—See page 25 for information.

Doctoral Oral Examinations—You must schedule your preliminary and final oral exams *at least one week in advance*. You may schedule your exams by going to 316 Johnston Hall or by calling 625-5367 for a preliminary exam or 625-5833 for a final oral exam. These exams should not be scheduled from the beginning of second term of summer session to the beginning of fall quarter unless members of the assigned committee can be assembled without substitution. If you are not active (registered in the Graduate School at least once in the last two years), you may not schedule your examination. Contact the Graduate School Admissions Office, 306 Johnston Hall (625-8060), regarding readmission.

Graduation—Graduate School degrees are awarded monthly. To graduate at the end of any given month you must:

- *submit your Application for Degree form* in 150 Williamson Hall or 130 Coffey Hall on or before the first workday of the month. When you submit your application, you must also pay your graduation fee.
- *complete all other requirements* by the last workday of the month.

Graduating before the end of the quarter may affect your eligibility for student loans, housing, etc. Check with the appropriate office if you have questions on eligibility.

Plan A master's, professional master of engineering, and doctoral students receive an Application for Degree form plus detailed graduation instructions when they register their thesis or project titles in the Graduate School, 316 Johnston Hall. Plan B and specialist students receive Application for Degree forms and graduation instructions when they pick up their Final Examination Report forms from the Graduate School, 316 Johnston Hall. Students must be active (registered in the Graduate School at least once in the last two years) and have approved program or thesis title forms on file at the Graduate School before Applications for Degree and other graduation forms can be released.

Fall Commencement Ceremony—The fall commencement ceremony will be held on December 1, 1991 for all students graduating from July through December. If you wish to attend this ceremony and/or have your name appear in the commencement program, do the following by October 1:

- *complete your commencement attendance form* and return it to 316 Johnston Hall, and
- *pay your graduation fee* (see above).

You should pick up a commencement handbook (containing information on academic costume, rehearsal, parking, and other topics) at University Relations, 6 Morrill Hall, at the information desk in the west bank bookstore, at the St. Paul campus bookstore, or at 130 Coffey Hall.

REGISTRATION INSTRUCTIONS FOR COLLEGE OF LIBERAL ARTS STUDENTS

Before Registering—You may not register until all holds have been cleared from your record. To clear CLA holds follow these steps:

- ADV APP or FALL SIG Your adviser must sign your Course Request form. Get your adviser's approval at least 24 hours before you register.
- CLA, CLA2, or CSS A scholastic committee action. Contact your college office.
- MAJ PROG You must bring an approved program from your major department to your college office.
- ORIENT MTG Contact the office named.
- UD-MAJ MTG Contact your college office, make an appointment, and attend this orientation.
- REASSIGN Students will be asked to confirm or change their intended major. Contact 214 Johnston Hall.

Read official CLA communications—you are responsible for knowing their contents:

- All CLA students— any material available at your *Class Schedule* distribution point.
— registration, grading, and progress policies published in the *CLA Bulletin*.
- Honors students— (admitted to the Honors Program)—honors course listings available in 115 Johnston.

Read the CLA instructions on this page.

Check the Section Status Reports in Johnston Hall, ground floor, or in your college office.

Registration Deadlines—CLA strictly enforces the following registration deadlines. Be sure to make any adjustments in your registration promptly. All changes must be made at the registration center in 202 Fraser Hall.

Friday of the second week (October 4 for fall 1991) is the last day to:

- register (instructor's signature needed after the fifth day of the quarter),
- add a course or change sections of a course (instructor's signature needed after the fifth day of the quarter),
- change grading systems (to or from S-N grading), and
- cancel a course without transcript notation.

Any course cancellations must be done through 202 Fraser Hall by Friday of the sixth week of the quarter (November 1 for fall 1991).

You may cancel completely (cancel *all* your courses) through December 4, 1991.

Exceptions to these deadlines may be approved only by petition to the CLA scholastic committee. Such petitions are not routinely approved. If circumstances prevent you from meeting a deadline, you must contact your college advising office *before* the deadline.

Program Approval—Registration for more than 19 credits per term requires approval of the scholastic committee.

Registrations for *independent study, extra credit, directed study, directed research, and directed instruction* require the approval of the instructor, department, and college. Obtain a special permission slip for independent and directed study from the department, get approval of the instructor and department, and bring the form to 214 Johnston Hall for college approval.

Registration in *8000-level courses* must be approved by the instructor, the director of graduate studies, and the Graduate School. Approval forms are available in 306 Johnston Hall.

5000-level courses are intended for juniors, seniors, and graduate students. 3000-level courses are intended for sophomores, juniors, and seniors. To prevent inappropriate registrations, sophomores should not register for 5000-level courses, nor freshmen for 3000- or 5000-level courses without first consulting their college advising office.

Courses not listed in the *CLA Bulletin* may not be applicable towards a CLA degree. Consult your college advising office before registering for courses not listed in the *CLA Bulletin*.

S-N Registration—Changes to or from S-N registration may be made through the first two weeks of the quarter. Follow the cancel/add procedure outlined on page 10. For *sophomores, juniors, seniors, and adult specials*, there is no limit on the number of S-N courses in one quarter; *freshmen* may take no more than *half* of a quarter's credits S-N.

The number of S-N credits that can be applied to a CLA degree is limited. See the *CLA Bulletin* for details. Courses in departmental majors may be taken S-N only if the department has approved such a policy. Otherwise, S-N registration is allowed in all courses listed in the *CLA Bulletin*.

Ask in your college office about restrictions on the use of S-N credits in premedicine, predentistry, prepharmacy, and all interdepartmental programs (such as American Studies, International Relations, and Urban Studies). If you are in a preprofessional program, you should follow the requirements of the college that you plan to enter.

REGISTRATION INSTRUCTIONS FOR CARLSON SCHOOL OF MANAGEMENT COURSES

UNDERGRADUATE COURSES

Carlson School of Management Majors—Students enrolled in Carlson School undergraduate degree programs may register for 3000- and 5000-level Carlson School courses on or after their queue time. Undergraduates may not register for more than 20 credits without approval from an adviser in the undergraduate studies office, 290 Humphrey Center.

Degree-seeking Students In Approved Units—If you are a student in an approved unit with 90 or more credits and your GPA is 2.8 or higher, you may register for all 3000- and 5000-level general management courses (excluding practicum, honors, and special sections). You may register for these courses during queued registration by going directly to your registration center. Your college office can provide you with a detailed list of general management courses. Approved units include the following major programs: College of Agriculture—agricultural business, food science, animal and plant systems (environmental horticulture emphasis) nutrition; College of Education—business studies, business and marketing education, recreation, park, and leisure studies; College of Human Ecology—all majors; College of Liberal Arts—journalism (professional track), international relations (commerce and political economy tracks), urban studies; College of Natural Resources—fisheries and wildlife, forest resources (management and administration emphasis), forest products marketing, production management, urban forestry; Institute of Technology—actuarial science, computer science, mechanical engineering (EIP and IE emphasis). BIS and ICP majors should consult their program offices for information.

Other non-Carlson School of Management Students—Any non-Carlson School student with 90 or more credits and a cumulative GPA of 2.8 or higher may be able to register for open 3000- and 5000-level Carlson School courses during open registration by bringing a current transcript to 290 Humphrey Center. Occasionally, select Carlson School courses are available to non-Carlson School students, meeting the above criteria, during queued registration. Details are available in 290 Humphrey Center.

Accounting Courses—Accounting 1050 is available to all students who have completed 40 or more credits. Accounting 3001 is available to all Carlson School students and select majors outside the Carlson School. Students with a declared finance emphasis have access to accounting 3101 and 3201 during queued registration and do not need an override. Non-accounting majors may submit an accounting request form in 290 Humphrey Center to obtain permission to register for Accounting 3101 and 3201, and all other 3000- and 5000-level accounting courses; non-Carlson School students must attach a current transcript which shows 90 credits completed and a GPA of 2.8 or higher.

GRADUATE COURSES

Carlson School of Management and IR Graduate Students—Graduate students enrolled in the Carlson School or the Industrial Relations program may register for most Carlson School courses on or after their queue time. M.B.A. courses are restricted to students enrolled in the M.B.A. program.

Non-Carlson School of Management Graduate Students—Non-Carlson School graduate students may request approval to register for Carlson School graduate courses by completing a petition for entry form. Approval will be given just prior to the first class meeting based on availability of space in courses. Forms and additional information will be available in 295 Humphrey Center after September 1. Approval for IR graduate courses must be obtained from the director of graduate studies in Industrial Relations, 537 Management/Economics.

Adult Special Students—Adult special students generally may not register for graduate courses. Any exceptions for IR courses must be approved by the director of graduate study in Industrial Relations, 537 Management/Economics.

REGISTRATION INSTRUCTIONS FOR INSTITUTE OF TECHNOLOGY COURSES AND STUDENTS

Engineering Courses—If you are *not* enrolled in the Institute of Technology, you may not register for any engineering course without an approved and signed Registration Override Permit from the department offering the course.

Department Approval—If you are enrolled in the Institute of Technology, you must obtain department approval on your Course Request form before you register or cancel/add.

Credit Limit—Registration for more than 19 credits requires college approval for students enrolled in the Institute of Technology. Apply for this approval in 105 Lind Hall before you register.

Grading Option—Students in the Institute of Technology may change their designated grading options (i.e., to or from S-N grading) without approval through the second week of the quarter. Changes after the second week require approval from 105 Lind Hall.

Course Cancellations—If you are enrolled in the Institute of Technology, you must obtain department approval for all cancellations through the sixth week of the quarter. Cancellations after the sixth week require approval from 105 Lind Hall.

THE FIRST WEEK OF CLASS

Fall quarter classes begin Monday, September 23.

Mandatory Attendance—You must attend the first class meeting of every course in which you are registered, unless you obtain approval for your intended absence *before* the first meeting. Without this prior approval, you may lose your place in class to another student. If you wish to remain in a course from which you have been absent the first day without prior approval, contact your instructor as soon as possible. Instructors have the right to deny you admission if the course is full. You must *officially cancel* any course to which you are denied admission.

Gaining Admission to a Closed Course—You should first go to the department offering the course, where you may be put on a waiting list or be referred to the instructor for permission to register. Attend the first class meeting if you are on a waiting list or need the instructor's permission, to see if more students will be admitted. To register in a closed course you must have a signed Registration Override Permit from the instructor.

Senior Citizen Education Program—If you are 62 or older and a Minnesota resident, you may audit courses free of charge or take courses for credit at \$6 per credit whenever space is available after the first day of class. (The Section Status Reports located outside of 101 Fraser Hall, B18 and 16 Johnston, 4 Mechanical Engineering, 170 Anderson Hall, and 130 Coffey Hall, can tell you if a course with limited enrollment—R before the course number— is open or closed. If a course is not on the report, it has no limit on enrollment and space will be available.) Under this plan, you will not pay the student services fee, but must pay any required laboratory or materials fees.

Registration for the Senior Citizen Education Program is on the second day of class (Tuesday, September 24 for fall quarter). Attend the first day of class, however, to see if space is available and to receive information about class procedures. To register, go to 202 Fraser Hall (150 Williamson Hall for those with mobility impairments) or 130 Coffey Hall with your registration forms and identification to verify age and Minnesota residency. Call 625-5333 for more information.

CHANGE OF REGISTRATION

General Guidelines—Subject to certain limitations, you may add or cancel courses or may change grading systems. Course cancellations and changes to or from S-N grading are generally allowed without college permission during the first two weeks of the quarter or before.

When you cancel an individual course during the first two weeks of the quarter there is no transcript record of that course. If you cancel *all* courses during the first two weeks of the quarter, a notation of cancellation will appear on your record, although no Ws will be recorded. Cancellation of any course after the second week of the quarter will generally result in a W on your record.

Graduate students must follow all registration deadlines outlined on page 7.

When to Cancel Courses—If you decide before the quarter begins not to attend, cancel before the first day of classes. If you stop attending class for any reason, cancel immediately. On occasion, a course may be cancelled by the department offering the course. Contact the department immediately to see if other arrangements have been made. If no arrangements exist, it is then your responsibility to remove the course from your record by filing an official cancellation at your registration center.

Cancellations are effective the day you *officially* cancel (by taking a completed Course Request form to your registration center) *not* on the date you stopped attending class. If you fail to cancel any course for which you have registered but not paid, you will receive billing statements from Student Accounts Receivable for your tuition and fees, including additional billing charges and late payment fees. If you fail to pay by the due date on your first bill, a hold will be placed on your record.

Tuition Charges and Refunds for Course Additions and Cancellations—Full tuition is charged on a per-credit basis for all changes in registration that increase your credit load, except for those credits that fall within the 14-18 credit undergraduate or 7-15 credit graduate plateaus. For example, if you are an undergraduate and add a 4-credit course, increasing your credit load from 12 to 16 credits, you will be charged only for your 13th and 14th credits because your 15th and 16th credits fall within the undergraduate plateau.

No additional tuition is charged when any course addition is balanced *at the same time* by a course cancellation, i.e., a cancellation equal to the number of credits being added or a cancellation and course addition that keeps the total number of credits within the undergraduate or graduate plateaus.

Refunds are issued on a per-credit basis according to the refund rate that applies to the date of cancellation. (In a very limited number of circumstances, retroactive cancellations and refunds may be authorized.) For more information on refunds, see page 22. There is no refund for those credits that fall within the undergraduate or graduate plateaus. For example, if you are an undergraduate registered for 14 credits and you cancel a three credit course, lowering your credit load to 11, you will receive a refund for 3 credits. If you are registered for 18 credits, however, and cancel 3 credits, you will not be issued a refund because your credit total remains within the plateau.

How to Change Your Registration—To change your course load or grading system, you should:

1. Fill out a Course Request form. Use the extra form in this schedule or obtain a form from your college office or registration center. Check the box indicating cancel/add and note the number of credits you will have after this change. If you are cancelling *all* courses, check the appropriate box.
2. Obtain instructor, adviser, and/or college office approval if required.
3. Turn in your Course Request form at your registration center, where you will receive a revised fee statement. Any assessment or credit amount that results from a change in registration is posted to your account at Student Accounts Receivable. New assessments will appear on your next billing statement. See Payment of Fees, pages 20-22, for more information.

CHANGE OF COLLEGE

Any student who wishes to transfer from one college of the University to another fall or winter quarter should submit a completed Application for Change of Status or College to the Office of the Registrar (150 Williamson Hall or 130 Coffey Hall) according to the following schedule for admitting colleges. Applications and general information are available from the Office of the Registrar. College offices can provide information on admission requirements.

Fall 1991

Agriculture	June 1
Biological Sciences	July 15
Education	
Master of Education	July 1
Human Ecology	June 1
Institute of Technology	June 1
Liberal Arts	
Undergraduate	June 1
Adult Special	September 1
Management	June 15
Medical Technology	May 30
Mortuary Science	July 15
Natural Resources	June 1
Pharmacy	May 15

Winter 1992

Agriculture	October 15
Biological Sciences	November 1
Education	
Master of Education	October 1
Science postbaccalaureate	October 1
EEd postbaccalaureate	October 15
Undergraduate	October 15
Human Ecology	October 15
Institute of Technology	October 15
Liberal Arts	October 15
Mortuary Science	November 15
Natural Resources	October 15

REGISTRATION SERVICES

Registration Center

202 Fraser Hall, Minneapolis
Monday 8 a.m.-6 p.m.; Tuesday-Friday 8-4
(September 24, 25—8 a.m.-5:30 p.m.)

For turning in scholarships, registration materials, cancel/add materials, and obtaining fee statements; processing payroll deductions

Office of the Registrar

150/155 Williamson Hall, Minneapolis
Monday 8 a.m.-6 p.m.; Tuesday-Friday 8-4
(September 24, 25—8 a.m.-5:30 p.m.)

Transcript Service (155), 624-4115

For regular service for official transcripts (\$3 charge), rush service for official transcripts (\$6 charge; \$9 charge beginning July 1, 1991), and for unofficial copies of student records (limit one copy per day)

Student Relations (150), 625-5333

For assistance with individual student record problems, questions; registration services for students with mobility impairments; name and address changes; student loan deferments; turning in Application for Degree forms and Application for Change of Status or College forms

Certifications (155)

For certification letters and Veterans certification

St. Paul Admissions and Records

130 Coffey Hall, 624-3731
Monday 8 a.m.-6 p.m.; Tuesday-Friday 8-4
(September 24, 25—8 a.m.-5:30 p.m.)

Registration Service

For turning in registration materials and cancel/add materials and obtaining fee statements (St. Paul colleges, Architecture and Landscape Architecture, Education, and Graduate School only)

Student Contact Area

For registration services for students with disabilities. For assistance with individual student record problems and questions; for certifications; for turning in Application for Degree forms, Application for Change of Status or College forms, and address changes. For regular service for official transcripts (\$3 charge), rush service for official transcripts (\$6 charge; \$9 charge beginning July 1, 1991), and for unofficial copies of student records (limit one copy per day). For obtaining college bulletins

Student Accounts Receivable

20 Fraser Hall, Minneapolis 625-8500
107 Coffey Hall, St. Paul
Monday-Friday 8-3:30

For obtaining refunds, payroll deduction information, obtaining fee payment verifications, receiving assistance with student billing problems, questions. Picture ID required for service

Bursar's Office

145 Williamson Hall, East Bank
Anderson Hall ground level, West Bank
107 Coffey Hall, St. Paul
Monday-Friday 8-3:30

For paying tuition and fees, cashing refund vouchers and checks (student ID card and bottom half of fee statement necessary for check cashing; \$50 limit per day; \$.25 charge per check; \$15 charge for returned check), purchasing deposit cards and student ID card authorizations

ID Card Office

248 Williamson Hall, Minneapolis
Monday-Friday 8-4
(September 24, 25—8 a.m.-5:30 p.m.)

For obtaining new student ID cards; lost student ID cards turned in

Information Center

first floor concourse,
Williamson Hall, Minneapolis
Monday-Friday 7:45-4:30
(September 24, 25—8 a.m.-5:30 p.m.)

For obtaining college bulletins, maps, campus bus information (route 13 and MTC routes 52 only), and miscellaneous publications and information; no *Class Schedules* issued

EARLY REGISTRATION QUEUE—FALL QUARTER 1991

The registration queue on this page and the next has three parts—stage 1 for graduate, pharmacy, and public health students, and seniors (135 or more credits); stage 2 for juniors, sophomores and freshmen; and stage 3 for adult and high school specials. Within each stage, there are name ranges—listing last names (up to 10 letters) and sometimes partial first names. To find your registration time, locate the name range for your last name. For example, if you are a junior named Chris R. Student, your name falls between Stoos, Denj—Subaiya, Ap in stage 2, and you may register at or after 9:30 a.m. on May 29.

NOTE: The August-September queue will be published in the *Fall Quarter Update*, available in mid-August at *Class Schedule* distribution sites. Your queue will also be on your August Registration Status Notice.

MORNING HOURS

Stage 1—Graduate, Pharmacy, and Public Health Students and Seniors (135 or more credits)

	8:00 a.m.	8:30 a.m.	9:00 a.m.	9:30 a.m.	10:00 a.m.	10:30 a.m.	11:00 a.m.	11:30 a.m.
May 9	A- Arunkumar	Arunkumas- Berg, Steve	Berg, Stevf- Brandt, Rut	Brandt, Ruu- Carlson, Ka	Carlson, Kb- Clothier, K	Clothier, L- DeGroot, Ro	DeGroot, Rp- Duran, Kath	Duran, Kati- Esser, Matt
May 10	Jensen, Roc- Kamps, Meli	Kamps, Melj- Kleinbaum	Kleinbaun- Kwon, Yoohe	Kwon, Yoohf- Lenzen, Ter	Lenzen, Tes- Luksan, Mar	Luksan, Mas- Maye, Tracy	Maye, Tracz- Merth, Gail	Merth, Gaim- Mohr, Chris
May 13	Rodgers, Mb- Sauder, Mat	Sauder, Mau- Sen, Anindy	Sen, Anindz- Snuggerud	Snuggerue- Strub, Matt	Strub, Matu- Thompson, T	Thompson, U- Tozer, Chri	Tozer, Chrj- Uecker, Jil	Uecker, Jim- Vavreck, Da

Stage 2—Juniors, Sophomores, and Freshmen

	8:00 a.m.	8:30 a.m.	9:00 a.m.	9:30 a.m.	10:00 a.m.	10:30 a.m.	11:00 a.m.	11:30 a.m.
May 14	A- Albers, Mic	Albers, Mid- Anderson, B	Anderson, C- Anderson, T	Anderson, U- Arndt, Lisa	Arndt, Lisb- Awad, Zane	Awad, Zanf- Baldauff, C	Baldauff, D- Barrows, An	Barrows, Ao- Bawol, Mark
May 15	Briesemeit- Bruns, Rona	Bruns, Ronb- Busch, Jenn	Busch, Jeno- Carhart, Ma	Carhart, Mb- Cashman, Ti	Cashman, Tj- Ching, Crai	Ching, Craj- Clarke, Ste	Clarke, Stf- Colombe, Ta	Colombe, Tb- Corrigan, D
May 16	Duffort, Nb- Eaton, N. Su	Eaton, N. Sv- Eider, Kath	Eider, Kati- Enyart, Dei	Enyart, Dej- Etsel, Jane	Etsel, Janf- Federline	Federlinf- Fischer, Tr	Fischer, Ts- Fontanive	Fontanivf- Franzen, La
May 20	Grussing, K- Hage, Rober	Hage, Robes- Hammer, Nic	Hammer, Nid- Hanson, Wen	Hanson, Weo- Hass, Krist	Hass, Krisu- Hedin, Laro	Hedin, Larp- Henderson	Hendersoo- Heumann, Na	Heumann, Nb- Hirsch, Ken
May 21	Johnson, Ao- Johnson, Ju	Johnson, Jv- Johnston, T	Johnston, U- Jussila, Ch	Jussila, Ci- Karow, Aaro	Karow, Aarp- Kelly, Wend	Kelly, Wene- Kieliszews	Kieliszewt- Kirkwood, M	Kirkwood, N- Klotzbach
May 22	Larson, Nae- Le, Tuan Tr	Le, Tuan Ts- Lehman, Mic	Lehman, Mid- Levin, Lind	Levin, Line- Lindeberg	Lindeberh- Lohonen, Ga	Lohonen, Gb- Lucking, Sh	Lucking, Si- Lyfoung, Le	Lyfoung, Lf- Magnus, Kat
May 23	Meyer, Rogf- Miller, Jul	Miller, Jum- Moe, Christ	Moe, Chrisu- Moorman, Ro	Moorman, Rp- Mua, Phui K	Mua, Phui L- Murphy, Yoi	Murphy, Yom- Nelson, Lor	Nelsen, Los- Nelson, Sha	Nelson, Shb- Nguyen, Dac
May 24	Pagnotta, N- Parranto, P	Parranto, Q- Pavlick, Ch	Pavlick, Ci- Permuth, Pe	Permuth, Pf- Peterson, J	Peterson, K- Pharis, Tim	Pharis, Tin- Piper, Elai	Piper, Elaj- Pooley, Dav	Pooley, Daw- Pribbernow
May 28	Rono, Elizb- Rowland-Co	Rowland-Cp- Ruth, Richa	Ruth, Richb- Salim, Ivan	Salim, Ivao- Sauter, Car	Sauter, Cas- Schlecht, K	Schlecht, L- Schnell, Da	Schnell, Db- Schuh, Kris	Schuh, Krit- Schweizer
May 29	Sorrell, Jf- Stafford, R	Stafford, S- Steltzner	Steltznes- Stoos, Deni	Stoos, Denj- Subaiya, Ap	Subaiya, Aq- Swanke, Som	Swanke, Son- Taintor, Je	Taintor, Jf- Teclaw, Hei	Teclaw, Hej- Theisen, Th
May 30	Van Lith, C- Vennewitz	Vennewiu- Vogt, Rebec	Vogt, Rebed- Wahl, Heath	Wahl, Heati- Walton, Jen	Walton, Jeo- Washington	Washingtoo- Wehrle, Ter	Wehrle, Fes- Welsh, Jaso	Welsh, Jasp- Westervelt
May 31	Wurl, Paulb- Yant, Rain	Yang, Raio- Yi, Kil-Chi	Yi, Kil-Chj- Yuan, Jenni	Yuan, Jennj- Zeaman, Jas	Zeaman, Jat- Zimmer, Rob	Zimmer, Roc- ZZZZZZZZ		

Stage 3—Adult and High School Specials

	8:00 a.m.	8:30 a.m.	9:00 a.m.	9:30 a.m.	10:00 a.m.	10:30 a.m.	11:00 a.m.	11:30 a.m.
May 31							A- Christians	Christiant- Guest, John

AFTERNOON HOURS

Stage 1—Graduate, Pharmacy, and Public Health Students and Seniors (135 or more credits)

	12:00 noon	12:30 p.m.	1:00 p.m.	1:30 p.m.	2:00 p.m.	2:30 p.m.	3:00 p.m.	3:30 p.m.
May 9	Esser, Matu-Forshay, An	Forshay, Ao-Gerstenhab	Gerstenhac-Grorud, Cra	Grorud, Crb-Hanson, Mic	Hanson, Mid-Henry, Tala	Henry, Talb-Houck, John	Houck, Joho-Ihrcke, Nat	Ihrcke, Nau-Jensen, Rob
May 10	Mohr, Chrit-Nambiar, Sh	Nambiar, Si-Ninteman, D	Ninteman, E-Olson, Mary	Olson, Marz-Paulsen, Ho	Paulsen, Hp-Pietrowski	Pietrowskj-Rahimian, M	Rahimian, N-Rendahl, To	Rendahl, Tp-Rodgers, Ma
May 13	Vavreck, Db-Wagner, Llo	Wagner, Lip-Warner, Gre	Warner, Grf-Wendahl, Ma	Wendahl, Mb-Wilder, Tim	Wilder, Tin-Wojahn, Amy	Wojahn, Amz-Yan, Hong	Yan, Honh-Zarazaga, C	Zarazaga, D- <u>ZZZZZZZZ</u>

Stage 2—Juniors, Sophomores, and Freshmen

	12:00 noon	12:30 p.m.	1:00 p.m.	1:30 p.m.	2:00 p.m.	2:30 p.m.	3:00 p.m.	3:30 p.m.
May 14	Bawol, Marl-Benham, Jil	Benham, Jim-Bergstedt	Bergstedu-Bina, Blake	Bina, Blakf-Blomberg, K	Blomberg, L-Bolton, She	Bolton, Shf-Bowman, Rob	Bowman, Roc-Brau, Rober	Brau, Robes-Briesemeis
May 15	Corrigan, E-Crowley, An	Crowley, Ao-Dahlgren, A	Dahlgren, B-Davidson, E	Davidson, F-Delmont, Wi	Delmont, Wj-Dickson, Ce	Dickson, Cf-Dombrowske	Dombrowskf-Dove, Angel	Dove, Angem-Duffort, Na
May 16	Franzen, Lb-Furth, Lisa	Furth, Lisb-Garrity, Ca	Garrity, Cb-Gerhardson	Gerhardsoo-Gladieux, L	Gladieux, M-Gorans, Ama	Gorans, Amb-Greaves, Ch	Greaves, Ci-Grinois, Gr	Grinois, Gs-Grussing, J
May 20	Hirsch, Keo-Hoglund, Ke	Hoglund, Kf-Hong, Karyn	Hong, Karyo-Huber, Mich	Huber, Mici-Huynh, Bang	Huynh, Banh-Iverson, Br	Iverson, Bs-Janzen, Jin	Janzen, Jio-Jenson, Dar	Jenson, Das-Johnson, An
May 21	Klotzbaci-Koffron, Pe	Koffron, Pf-Kost, Dana	Kost, Danb-Krenz, Kurt	Krenz, Kuru-Kuebelbeck	Kuebelbecl-La Joy, Ski	La Joy, Skj-Lane, Brian	Lane, Briao-Larntz, Jos	Larntz, Jot-Larson, Nad
May 22	Magnus, Kau-Maniquiz, M	Maniquiz, N-Martin, Bri	Martin, Brj-Matthias, T	Matthias, U-McCoy, Chri	McCoy, Chrj-McKay, Bria	McKay, Brib-Meeden, Mar	Meeden, Mas-Menken, Jen	Menken, Jeo-Meyer, Roge
May 23	Nguyen, Dad-Nicholson	Nicholsoo-Nordmeyer	Nordmeyes-O'Bryan, Ke	O'Bryan, Kf-Ogiluie, Je	Ogiluie, Jf-Olson, Jeff	Olson, Jefg-Orre, Jenni	Orre, Jennj-Ottman, Jen	Ottman, Jeo-Pagnotta, M
May 24	Pribbernox-Quion, Wino	Quion, Winp-Rasinski, C	Rasinski, D-Reed, Rober	Reed, Robes-Reuss, Ryan	Reuss, Ryao-Riemer, Car	Riemer, Cas-Robinson, G	Robinson, H-Roepke, Ken	Roepke, Keo-Rono, Eliza
May 28	Schweizes-Serio, Wend	Serio, Wene-Sherburne	Sherburnf-Sieben, Jea	Sieben, Jeb-Sisavat, An	Sisavat, Ao-Smith, A. J	Smith, A. K-Smith, Wind	Smith, Wine-Sollie, Dua	Sollie, Dub-Sorrell, Je
May 29	Theisen, Ti-Thompson, J	Thompson, K-Timmons, Mi	Timmons, Mj-Torbenson	Torbensoo-Tranby, Kyl	Tranby, Kym-Truong, Con	Truong, Coo-Tushaus, St	Tushaus, Su-Unnasch, Ni	Unnasch, Nj-Van Lith, B
May 30	Westervelu-Whitelaw, M	Whitelaw, N-Wildes, Pet	Wildes, Peu-Williams, T	Williams, U-Winge, Trac	Winge, Trad-Woldt, Robe	Woldt, Robf-Woodberry	Woodberrz-Wrabetz, Br	Wrabetz, Bs-Wurl, Paula

Stage 3—Adult and High School Specials

	12:00 noon	12:30 p.m.	1:00 p.m.	1:30 p.m.	2:00 p.m.	2:30 p.m.	3:00 p.m.	3:30 p.m.
May 31	Guest, Joho-Jeffrey, El	Jeffrey, Em-Laber, Terr	Laber, Ters-Malaret, En	Malaret, Eo-Noir, Olivi	Noir, Ollvj-Ratner, Les	Ratner, Let-Skaja, Debr	Skaja, Debs-Vajda, Zolt	Vajda, Zolu- <u>ZZZZZZZZ</u>

NAME ROTATION THROUGH FUTURE QUEUES

	Winter 1992	Spring 1992	Fall 1992
Registration starts on	November 7, 1991	February 21, 1992	May 14, 1992
Each stage queue begins with . .	Harmsen	Olson, R	Buenger

1991-92 Undergraduate, Graduate, and Professional School Tuition Rates—Tuition rates for the 1991-92 academic year had not been set when this *Class Schedule* was published. Complete tuition information will be published in August in the *Fall Quarter Update*. If you register in May or June, you will receive a copy of the *Update* in the mail. Copies will also be available beginning August 26 at your *Class Schedule* distribution point.

RESIDENCE REGULATIONS

Because the University is a state institution, residents of Minnesota pay lower tuition than nonresidents, and, in many programs, receive priority consideration for admission. To qualify for resident status, you must reside in Minnesota for at least one calendar year *prior* to the first day of class attendance. During that one year waiting period, your primary reason for living in Minnesota must be something other than school attendance. There are few exceptions to this rule, and these generally apply to veterans, migrant workers, specific federal employees, refugees, and faculty at Minnesota colleges. Students holding temporary international visas (F-1, J-1, H-1, etc.) *do not* qualify for resident tuition.

If you have moved here from another state, resident status is not automatically granted; you must apply and present evidence that: you have abandoned your former domicile; you have made Minnesota your *permanent home*; you are not a tax dependent of a parent or spouse living out-of-state; and you have taken reasonable steps to substantiate your desire to remain in Minnesota. Although acceptance of employment, registration of automobiles, payment of local taxes, etc. may support an application for resident status, these actions, by themselves, do not constitute sufficient evidence of residence.

You may apply for or appeal your resident status by obtaining an application in 240 Williamson Hall or 130 Coffey Hall. An administrative classification will follow a review of the application. To appeal, you must file within 30 days after notification of classification. If the review board finds that an erroneous classification has been made, it will be corrected.

STUDENT SERVICES FEE

All students registered for 6 or more credits must pay a student services fee in addition to tuition. The fee proposed for the 1991-92 school year by the student services fee committee is \$117.76¹ per quarter (\$176.64 per semester). Courses that carry no degree credit (Comp 0011, GC 0401, 0402, 0419, 0611, 0615, 0616, 0617, 0618, 0621, 0623, 0625, 0631, 0641, 0643, and all courses in which you register as an auditor) count in the determination of the credit total for the student services fee on a one class hour = one

credit basis. For example, registration in GC 0625, which meets for 5 class hours per week, counts as 5 credits towards assessment of the fee. Credit courses for which a course fee is charged instead of tuition (Math 1008, 1111, and 1201) also count in the determination of the credit total for the student services fee.

Students who are registered only for research or other independent work do not need to pay the student services fee if the work is done exclusively outside the 9-county metro area (Hennepin, Ramsey, Dakota, Washington, Scott, Anoka, Carver, Wright, and Chisago). Students registered in minimum fee classifications are also exempted from the student services fee requirement. Students meeting the exemption criteria may elect to pay the fee if they wish to use or support the services covered by the fee.

¹Subject to review and approval by University administration and the Board of Regents.

HEALTH SERVICE AND HOSPITALIZATION CHARGES

General Information—All students who take 6 or more credits must pay the student services fee. By paying the fee, you become eligible to receive most outpatient services at Boynton Health Service at no charge and others at reduced cost. Coverage for fall quarter begins Monday, September 16. (Students whose programs do not follow the regular quarterly calendar are usually covered on their first day of class. Call 624-1471 for further information.) If you do not pay the student services fee, you may purchase outpatient health coverage through the Extended Coverage Plan available at the cashier's window, second floor, Boynton Health Service. Your spouse may also buy the Extended Coverage Plan if both you and your spouse are covered by University-sponsored hospitalization insurance. Students who do not pay the student services fee or purchase extended coverage (and spouses and children of students) may use Boynton Health Service on a fee-for-service basis.

Boynton Health Service is open 8 a.m.-5 p.m. Monday through Friday. Prepaid medical care at Boynton includes general medical services, internal medicine, orthopedics, chest clinic, women's clinic, laboratory procedures, and eye clinic. Partial fees are charged for routine physical exams, annual dental exams, and some specialty care. Charges for mental health clinic visits, x-rays, and minor surgical procedures must be submitted by you to your hospitalization insurance company; your student services fee will cover the costs that your hospitalization insurance does not. Students without hospitalization in-

insurance will be responsible for full payment of these charges. Full fees are charged for prescription drugs, eye glasses, and most dental care.

During the hours that Boynton is closed, emergency care is available at the University Hospital emergency department. However, the charges for such after-hours care are only partially covered by the student services fee. In most cases, Boynton will pay 50% of charges that cannot be collected from your insurance. You are responsible for the remainder of the bill or for the entire bill if you do not have insurance. Visits to other emergency rooms are *not* covered by the student services fee. Follow-up care after an emergency must be obtained at Boynton to be covered.

For detailed information, see *Welcome to Boynton Health Service*, a brochure available at Boynton. General information and a copy of the brochure may be obtained by calling 625-8400.

Hospitalization Insurance—The Board of Regents requires all students taking 6 or more credits per quarter to carry hospitalization insurance. International students must carry hospitalization insurance for themselves and their dependents for the entire time they are in the U.S. If you already have insurance, be sure to fill in the name of your insurance company and your policy number on the hospitalization insurance form in the back of this *Class Schedule* and bring the form with you when you register. If you do not provide your insurance information when you register, you will automatically be charged for University-sponsored hospitalization insurance. To cancel this assessment and receive a full refund, you must return to your registration center with your insurance information by the end of the *first* week of classes.

Even if you are taking fewer than 6 credits, you have the option of purchasing hospitalization insurance. Coverage may be purchased at registration or at the cashier's window, second floor, Boynton Health Service. You must pay either the student services fee or the extended coverage fee in order to be eligible to purchase this insurance. Coverage must be purchased by the end of the second week of classes (October 4 for fall quarter).

For more information on insurance or an insurance brochure, contact the Student Insurance Office at Boynton, room W228 (624-0627).

Summer Insurance Coverage—If you enroll in the University-sponsored hospitalization insurance plan during spring quarter, you may purchase summer coverage, even if you do not take summer classes. It is important to maintain insurance coverage through the summer so you are protected in case of a summer accident or illness. You may also purchase the Extended Coverage Plan for \$110 for summer 1992, but you are not required to do so in order to be eligible to purchase the hospitalization insurance.

For information about purchasing summer insurance coverage, contact the Student Insurance Office at Boynton Health Service, room W228, (624-0627).

Graduate Assistant Health-Care Plan—See page 25 for information.

Immunization Clearance—Minnesota law requires all students born after December 31, 1956, to provide documentation of immunization for measles, mumps, rubella, tetanus, and diphtheria. This documentation must be entered on a Student Immunization Form and must include the month and year each immunization was given. Forms are available at your registration center and at the Boynton Health Service information desk. You only need to fill out a Student Immunization Form the first time you register for classes.

Check your medical or high school immunization records. All students are legally required to provide information on immunizations or exemptions; students who fail to provide the required information will have holds placed on their records and will not be allowed to register for classes. (The law does allow for some exceptions based on documented medical or conscientious exemptions.) If you need any of the required immunizations, call your family doctor or the Boynton Immunization Clinic (625-2929) for an appointment.

TRANSCRIPT FEES

There are two types of service for *official* transcripts: regular service and rush service. (Official transcripts are certified and signed by the University Registrar.) Regular service is available for \$3 a copy. Processing time for regular service is 2-3 workdays; after processing, your copies will be mailed to the places you have specified. Rush service on your official transcript requests is available for \$6 (\$9 beginning July 1, 1991) a copy. Rush service guarantees your transcript will be issued to you in person or put in the mail on the same day it is requested. You must have a picture ID (student ID card, driver's license, or current passport) to receive over-the-counter rush service. Prepaid courier service may also be requested for both regular and rush service. Visit the transcript service (155 Williamson Hall, Minneapolis, or 130 Coffey Hall, St. Paul) for more information or call 625-5333.

Official transcripts can be requested by mail. Requests can also be dropped off at the locations below. No phone or FAX requests will be accepted. Requests should include your full name, your student ID number, college, dates of enrollment, and complete address(es) to send the transcript(s) to. Minneapolis students should send their requests to the Certifications Unit, 155 Williamson Hall, 231 Pillsbury Drive S.E., Minneapolis, MN 55455. St. Paul students should send their requests to St. Paul Admissions and Records, 130 Coffey Hall, 1420 Eckles Avenue, St. Paul, MN 55108. (If your last registration in Extension was spring 1989 or earlier, you must request your Extension record at the Certifications Unit in Minneapolis.) Your request must include a check or money order payable to the University of Minnesota for \$3 or \$6 (\$9 beginning July 1, 1991) per transcript or the same amount in transcript vouchers from the Bursar.

You may pick up an *unofficial* copy of your record by presenting your student ID card at the transcript window in 155 Williamson Hall or at 130 Coffey Hall. There is no charge for an unofficial copy of your record; there is, however, a limit of one copy per day.

Students are advised that disciplinary action will be taken if academic records are forged or altered.

SPECIAL FEES¹

BILLING CHARGE

\$5 per billing cycle for a maximum of \$10 per quarter.

BUSINESS QUARTERLY

\$2.75² Required of all School of Management students who pay the student services fee—assessed at registration.

COGS (COUNCIL OF GRADUATE STUDENTS)

\$1.19² Required of all graduate students

COLLEGE OF EDUCATION—PLACEMENT SERVICE FEE

\$40—Registration fee for graduate students, alumni, and others (annual fee).

\$25—College of Education students completing a teacher licensing program (annual fee—assessed with graduation fee)

\$8—Vacancy bulletin service fee to receive vacancy bulletins by mail (quarterly fee)

Bachelor of Science degree candidates in the teacher licensing program areas from the College of Education are required to register with the placement section of the Education Student Affairs Office or to secure an official exemption from that office. Graduate students and alumni seeking employment in education positions may also use the placement services.

CREDIT BY SPECIAL EXAMINATION

\$30—Check with your college office for further information.

DIPLOMA, OVERSEAS MAILING

\$5—For sending a diploma *air mail* to address outside the United States, Canada, or Mexico (Fee optional)

DIPLOMA REPLACEMENT FEE

\$15

ENGLISH FOR INTERNATIONAL STUDENTS²

For international students who are required to take English as a Second Language courses—a fee ranging from \$600 (5 hours per week) to \$1400 (25 hours per week) is charged separate from tuition and fees charged for academic classes.

GRADUATION FEE (each degree)

\$25—Includes diploma

HOSPITALIZATION INSURANCE, UNIVERSITY SPONSORED

\$141 per quarter—Available only to students who pay the student services fee or the extended coverage fee.

INTERNATIONAL STUDENT AID FEE

\$4 per quarter—Required of all students who hold nonimmigrant visas.

I.T. BOARD OF PUBLICATIONS

\$2.90²—Required of all Institute of Technology students who pay the student services fee—assessed at registration.

LATE PAYMENT FEE

\$10-15 per billing cycle for a maximum of \$45 per quarter.

LATE REGISTRATION FEE

\$10 through the first two weeks of classes and \$20 thereafter.

MINNESOTA PUBLIC INTEREST RESEARCH GROUP (MPIRG)

\$2.50² (refusable/refundable)—Assessed with student services fee.

MUSIC PRACTICE ROOMS

Rooms with upright or grand piano, harp, harpsichord, organ, or percussion as well as rooms with no instrument will be available on a quarterly basis. Check in 100 Ferguson Hall for rental information and rates.

ORIENTATION FEE

\$25—Required of all new students except: high school and adult specials; graduate students who attended the University as undergraduates; students in law, medicine, veterinary medicine, dentistry, and public health; and students in postbaccalaureate education, master of education, and master of agriculture programs.

RECREATIONAL SPORTS PARTICIPATION FEE/LOCKER RENTALS

Currently enrolled students who do not pay the student services fee must purchase a quarterly permit to become eligible to use recreational facilities and programs. Similar permits (at different costs) are available for faculty and staff.

For further information, including the current fee rates, call or visit one of the Recreational Sport offices: 101 Cooke Hall, Minneapolis, (625-6800) or 104 St. Paul Gym (625-8283).

Sports lockers and towel service can be rented at the equipment rooms in the University Recreation Center and Norris Hall at the following rates:

\$1—Daily rate for locker/towel rental

\$15—Quarterly locker/towel rental for students

\$20—Quarterly locker/towel rental for staff/faculty

SERVICE FEE, INTERNATIONAL PROGRAMS

\$100-\$250 per quarter according to services provided—For international students supported under contractual arrangements with sponsoring agencies or entities requiring special administrative or management services beyond those normally provided.

SPEECH AND HEARING CLINIC

U of M students, staff, and faculty are not charged for clinical services provided in the Speech and Hearing Clinic.

¹Fees are subject to change without notice.

²1990-91 fees listed. 1991-92 fees not set at time of publication.

COURSE FEES¹

All fees are per quarter unless otherwise indicated.

Students taking the following courses will pay course fees as follows:

COMPOSITION AND COMMUNICATION

\$192²—0011

ECOLOGY AND BEHAVIORAL BIOLOGY

\$15—5014, 5016, 5132, 5134
Transportation Fee

FIELD STUDIES HEALTH SERVICE FEE

\$54 per quarter³—Required of students on University field studies such as Anthropology, Geology, etc. (covers outpatient medical care for emergency illness at nearest facility on approval of the person in charge of the group. Eligible charges which are not collectible from a student's insurance carrier will be paid by Boynton Health Service up to a maximum of \$100 per visit).

FOREST PRODUCTS

\$50—ForP 3300 Wood Industries Tour

GENERAL COLLEGE

\$192²—0401, 0402, 0419, 0611, 0615, 0616, 0617, 0618, 0621, 0623, 0625, 0631, 0641, 0643. Preparatory Mathematics and Composition

LANDSCAPE ARCHITECTURE

\$35—5073, 5107

MATHEMATICS

\$213²—1008
\$266²—1111, 1201

MUSIC, APPLIED

Applied lessons—1 half-hour lesson per week for 2 credits; 2 half-hour lessons or 1 hour lesson per week for 4 credits.

Music majors who have passed the entrance exam: \$0 per 2 credits

Majors taking extra credits (beyond requirement) or taking lessons on a second instrument: \$45 per 2 credits

Students taking lessons for minor in music: \$45 per 2 credits
Non-majors, elective credit: \$115 (0-2 credits)

PLANT BIOLOGY

\$10—1009 Transportation Fee

SOIL SCIENCE

\$6—3220 Field Course
\$19—3520, 5510 Transportation Fee

STUDIO ARTS⁴

Materials fees:

\$ 5—1101, 1102, 1404, 5190
\$20—1702, 3720
\$25—1701, 3710, 5710, 5790
\$30—3430, 5430
\$35—1510, 1520, 1530, 1540
\$40—3510, 3520, 3530, 3540, 3550, 5510, 5520, 5530, 5540, 5550, 5590, 8360
\$45—3306, 5360
\$56—3830
\$60—1301, 1302, 1802, 1811, 1812, 3301, 3302, 3303, 3304, 3305, 3307, 5310, 5320, 5330, 5340, 5350, 5370, 5390, 8310, 8320, 8330, 8340, 8350, 8370

\$66—5830, 5890

\$70—3810

\$80—5810, 5821

\$91—3820

\$106—5820

\$225—8810

Arranged (amount adjusted to individual needs of students or particular class project)—3420, 3970, 3980, 5420, 5970, all other 8000-level courses

¹Fees are subject to change without notice.

²In lieu of tuition. 1990-91 fees listed. 1991-92 fees not set at time of publication.

³1990-91 fees listed. 1991-92 fees not set at time of publication.

⁴Materials fees—assessed at the time of registration. Arranged fees are collected by department.

DEPOSIT CARDS AND RENTAL CARDS

Deposit Cards—Deposit cards may be purchased from the Bursar's Offices, 145 Williamson Hall, 107 Coffey Hall, or ground floor of Anderson Hall (no pharmacy cards available at west bank). Chemistry cards are \$30; microcomputer lab cards are \$30; pharmacy cards are \$10; art cards are \$5. Chapter 31 veterans (veterans on vocational rehabilitation) should obtain a voucher from the Certifications Unit, 155 Williamson Hall, and present this voucher at the Bursar's Office when they purchase a card.

Chemistry and Pharmacy Cards—Chemistry and pharmacy cards must be presented for admittance to the first meeting of lab classes. One card may serve for more than one class. Partially depleted cards are acceptable for admittance to class, provided that the unused portion is not less than the minimum stipulated for that course. The deposit card requirement is waived for graduate teaching assistants.

Lab material and breakage will be charged against your deposit card. Any unused balance will be refunded at the end of the course.

You must present your deposit card to be assigned a lab desk. If you are disabled, you should speak with your instructor about any special arrangements that are necessary.

Microscope Rental Cards—Students enrolling in the following courses who do not provide their own microscopes must purchase one microscope rental card for Biology 3013 and two cards for the following Microbiology courses: 1101, 3103, 5105, 5106, 5233, 5234. The nonrefundable cards are \$3 each and may be purchased from the Bursar's Offices.

¹Fees are subject to change without notice.

FACILITY FEES¹

Students registered in the following courses must pay the amount indicated to the appropriate facility operator for the use of the facility and/or equipment.

AnSc 1601 Horse Equitation.....	\$60
PE 1034 Judo	\$18 (maximum)
PE 1035 Karate.....	\$23 (maximum)
PE 1048, 1148 Bowling	each \$15 (maximum)
PE 1057, 1157, 1257 Skiing	each \$75 (maximum)
PE 1205 Scuba and Skin Diving.....	\$25 (maximum)

¹Fees are subject to change without notice.

STUDENT ID CARD REPLACEMENT

Student ID cards are required in many areas of the University to process student services. Cards can only be produced for students who are currently registered or who are admitted for a future quarter.

You will not be charged a replacement ID fee if you request a legal name change (you must provide a copy of legal documentation if you are requesting a change in both first and last names or if you have made previous name changes); a multi-part name change (ST JAMES rather than STJAMES); or a social security number update (you must show a copy of your SSN card). You will also not be charged for card replacement due to: typographical errors, a name cut off due to lack of available space, an embossed surface or bar code that is worn due to normal wear and tear, or if you have not registered within the past two years and have lost or never been issued a card. For all of the above, you may obtain a new card at the ID Office, 248 Williamson Hall.

You will be charged a replacement fee if you have registered within the past two years and need a replacement ID for any reason other than those listed above, if you are requesting a cosmetic name change (changing Patrick to Pat, spelling out a middle name rather than using a middle initial, or having a maiden name removed without a legal name change), or if you need to replace a card damaged due to negligence. In these instances, you will need to purchase an authorization card for \$10 at the Bursar's Office, 145 Williamson Hall (or from the cashier in 107 Coffey Hall, St. Paul). Bring the authorization card to the ID Office, 248 Williamson Hall, where your student status will be verified and you will be issued a new ID card. (NOTE: Lost ID cards that have been turned in are kept at the ID Office for 6 months.)

PAYMENT OF FEES

BILLING AND PAYMENT DATES FOR FALL QUARTER

	Billing Date	Payment Date	Balance Due
Billing Statement #1	September 30	October 21	30%
Billing Statement #2	October 25	November 18	60%
Billing Statement #3	November 22	December 13	100%

Student Accounts Receivable Billing System for Tuition and Fees—A new student billing system will be in place for fall quarter. With this new billing system, every student will have an account at Student Accounts Receivable and will receive a bill for tuition and fees at the beginning of each quarter. Each time you register for, cancel, or add courses, your tuition and fees will be charged to your account. This account, unlike individual fee statements, will reflect your *total* charges for tuition and fees.

You will continue to receive fee statements, but they will no longer carry payment due dates. Instead, your tuition due dates will be on your billing statements.

The new billing system will expand installment payments, with three payments possible over the quarter. Your first billing statement will list a minimum payment amount. To make installment payments you need only pay the minimum payment listed. You will receive up to two additional billing statements during the quarter, each indicating a minimum amount due. There is a nominal billing charge (\$5) for each installment. If you choose to pay the minimum payment, you will be assessed this \$5 billing charge on your next statement. Every time you pay *less* than the minimum amount due, you will be charged \$10-15 in late payment fees in addition to the \$5 billing charge and a hold will be placed on your record. (Billing charges and late payment fees will appear under Charges and Debits on your bill.) Any bill can also be paid *in full* by the due date to avoid additional billing charges.

Installment payments may not be suitable for certain students who need to be certified as having paid tuition and fees in full by the beginning of the quarter. Check with the Certifications Unit, 155 Williamson Hall, for more information.

You can make installment payments only for charges for the current quarter—balances or transactions from previous quarters are always due in full. You will be assessed billing charges for the current quarter if you have a previous balance outstanding. Any payments that you make will *always* be applied to the oldest charge on your account.

The chart at the top of the page lists the billing dates and the payment dates for fall quarter. For fall quarter, your first billing statement will be mailed to you on September 30 and your first payment will be due October 21. This billing statement will list a

minimum payment of 30% of all charges for fall quarter plus 100% of any previous charges. Your second bill will be mailed on October 25 with a due date of November 18. The minimum payment for the second bill is 60% of all unpaid charges for the quarter (plus 100% of any charges for previous quarters or terms). The final bill for the quarter will be mailed on November 22 with payment due on December 13. With the final bill you will be expected to pay any amount not yet paid. For example, if your tuition and fees total \$900, the minimum payment on your first bill would be \$270 (30% of your total tuition and fees) and this amount would be due October 21. After you make your first payment of \$270, your second bill would be for \$635 (your balance of \$630 plus a \$5 billing charge). You would have a minimum payment due on November 18 of \$381 (60% of the balance of \$635 remaining on your account). Your final bill would be for \$259 (your balance of \$254 plus a \$5 billing charge); payment would be due December 13.

It is your responsibility to report any change in address to the University. When you register, verify that the address printed on your course confirmation form is correct. (You may report an address change to Student Accounts Receivable by calling 625-8500.) If you do not receive any billing statement, you *must* obtain a payment voucher on or before the payment due dates listed on the chart at the top of this page. Payment vouchers are available at Student Accounts Receivable, 20 Fraser Hall in Minneapolis (Bursar's departmental window, 145 Williamson Hall, for students with mobility impairments) or 107 Coffey Hall in St. Paul. If you want to pay your balance *before* you receive your billing statement, go to Student Accounts Receivable where a payment voucher will be prepared for you.

When to Pay—For students who register through September 30, the first payment is due October 21. Students whose registrations occur after the first billing date will be billed in the next billing cycle (October 25) and will have a November 18 due date. Always pay by the due date listed on your bill. **REMEMBER:** Initial registrations that occur after September 20 are subject to late registration fees.

Where to Pay—Pay your tuition and fees at the Bursar's Office (145 Williamson Hall on the east bank, ground floor of Anderson Hall on the west bank in Minneapolis, or 107 Coffey Hall in St. Paul). Your billing statement (or fee statement) and a check

or money order may also be dropped in any of the fee deposit boxes on campus: in the Fraser and Coffey Hall registration centers; both concourses of Williamson Hall; Anderson Hall; Coffman Union Service Center; and all dorms. Payments are picked up at 8 a.m. and are credited to the previous day. The receipted statement may be picked up after five workdays at 145 Williamson Hall or 107 Coffey Hall. Your receipted statement will be mailed to you if you enclose a self-addressed, stamped envelope.

Mailing Your Payment—Your billing statement (or fee statement) and a check or money order may be mailed, using the envelope enclosed with your billing statement, to the Bursar's Office, PO Box 88, Minneapolis, MN 55440-0088. Write your student ID number on your check or money order and enclose all copies of your statement. (If you are paying with your fee statement, do not remove the student copy before sending in payment but do remove the lower portion—your course confirmation form.) Your mailed payment must be received by the billing statement due date, or you will be billed for additional charges on the following statement. If you want your receipted statement returned to you by mail, you must enclose a self-addressed, stamped envelope. If you do not include this return envelope, you can pick up your receipted copy after five workdays at the Bursar's Office in Minneapolis (145 Williamson Hall).

Monthly Budget Plan—A monthly budget plan is offered for the academic year. With this plan, you or your sponsor (your parent or spouse, for example) can pay your estimated fall, winter, and spring quarter tuition and University housing costs in 9 equal installments. These installments will run from July through March each year.

Each spring, you will receive information about this plan from Student Accounts Receivable. For more information, including information on entering the plan mid-year, call Student Accounts Receivable (625-8500) or go to 20 Fraser Hall or 107 Coffey Hall.

Collection Procedures and Costs—Past due accounts may be subject to handling charges and collection procedures. Collection can include court action or referral to outside collection agencies. You are responsible for any and all costs necessary for the collection of any amount not paid when due.

Fee Statements, Course Confirmation Forms—Do not destroy or throw away any fee statements you receive from the registration center. Although your tuition is billed by Student Accounts Receivable, you may use your fee statements to pay at the Bursar's Office prior to receiving your billing statement.

The bottom half of your fee statement—your course confirmation form—is your proof of enrollment. Keep all copies for the quarter together with your student ID card. Many University facilities such as the libraries, Boynton Health Service, the Bursar's check cashing service, and athletic facilities require your course confirmation form as proof of enrollment. In addition, if you do not have these copies, you will not be able to pick up your financial aid or loan checks without a lengthy replacement procedure.

Duplicate Fee Statements—Duplicate unreceipted fee statements for the current quarter may be obtained at your registration center. If your fees are paid, Student Accounts Receivable can issue a payment verification letter or validate your unreceipted copy at 20 Fraser Hall or 107 Coffey Hall (150 Williamson Hall for students with mobility impairments).

Credit Balance Fee Statements—Credit balance fee statements have a dollar amount in the "Amount Due" box that is followed by "CR," which means that your obligation to the University has been reduced by that amount. If you have already paid your fees *in full*, you may obtain a refund by presenting the credit balance fee statement to Student Accounts Receivable. (See also Refunds, on page 22.) If all of your fees have not been paid and the amount on the credit balance fee statement is less than what you owe, this credit will be reflected on your next bill from Student Accounts Receivable. This credit could also lower the minimum amount due on your current billing: for information on your current billing, call Student Accounts Receivable at 625-8500. If all of your fees have not been paid and the credit amount is *more* than the amount that you owe, go to Student Accounts Receivable for further information or call 625-8500.

Zero Balance Fee Statements—Zero balance fee statements have zeros printed in the "Amount Due" box on the fee statement. This means that no *additional* tuition and fees have been charged to your account at Student Accounts Receivable. All previous amounts owed remain unchanged. If you have questions about your balance, call 625-8500 for more information.

Credit for Tuition Deposit—If you are registering for the first time at the University and you paid a tuition deposit, you will receive credit for that deposit on your first billing statement from Student Accounts Receivable.

Paying Tuition Holds—If, in order to register, you pay a Student Accounts Receivable hold for a previous quarter with a personal check and that check does not clear the bank, you will be sent a notice by Student Accounts Receivable. Your current registration may be cancelled if you fail to respond to this notice and pay your debt.

NOTE: If you pay a hold by check, it will be two weeks before you can obtain a transcript. For an immediate transcript release, pay with cash.

Financial Aid Recipients—You must turn in your Course Request form and receive your course confirmation form by September 20, even though you will have not yet received your financial aid check. If you register after September 20, you will be charged a late registration fee.

If you present a restrictively endorsed financial aid check in payment of tuition and fees, it will be applied in full toward the total amount of tuition and fees assessed. You are not eligible for installment payments if your financial aid check is 100% or more of your tuition and fees. If your check is less than 100% of the amount due on your billing statement, you can make installments payments—your check, *in full*, would be your first payment, and your balance would be billed during the next

billing cycle. With a financial aid check that is less than the minimum due, you can still make installment payments by using other funds to complete the first payment. Call Student Accounts Receivable (625-8500) for further information.

REMEMBER: If, for any reason, you do not receive your financial aid, you are still responsible for paying your tuition and fees.

Tuition and Fees Paid by Various Agencies—If you have authorization for the University to bill a sponsor for your tuition and fees, you should bring your authorization *before the beginning of registration* to your registration center (202 Fraser Hall for Minneapolis students, 130 Coffey Hall for St. Paul students, or 150 Williamson Hall for students with mobility impairments). If you are unable to present your authorization before the beginning of registration, bring it with you when you register. International students who need assistance with documentation or translation should contact the Office of International Education, 626-7100.

NOTE: You will have a hold placed on your record if your sponsoring agency falls behind in payment for more than two quarters. You will be held responsible for all unpaid tuition and fees if your sponsoring agency does not fulfill its obligations. It is your responsibility to monitor payments made to your account by your sponsor.

Regents' Scholarships—If you are registering for a course with a Regents' Scholarship, you should bring your authorization to your registration center when you register. If you receive your authorization after you have registered, you must return to your registration center for an adjusted fee statement. (Regents' Scholarship authorizations should never be mailed to the Bursar.) If you fail to receive authorization by the due date on your first billing statement from Student Accounts Receivable, you will be liable for billing charges and late payment fees. Regents' Scholarships cover only tuition for approved courses. You are responsible for all course fees and special fees. If you fail to pay these fees by the due dates on your billing statements, you will be liable for billing charges and late payment fees.

Payroll Deduction for Graduate Assistants—To be eligible for payroll deduction, you must be enrolled in the Graduate School or in a professional post-baccalaureate degree program and hold at least a 25% graduate assistant appointment for the entire quarter. Those students holding only hourly graduate assistant appointments, including those teaching classes in Continuing Education and Extension, are not eligible. Your tuition and student services fee must total at least \$150. (The student services fee is the only deductible fee.) In addition, you must earn enough in your last four pay periods to cover your tuition and fees in four equal installments (see NOTE, below).

Application for payroll deduction is *never* possible after the fifth day of the quarter. Request payroll deduction when you register. After you fill out a payroll deduction authorization card, you will be credited directly on your billing statement for the amount to be deducted.

All students must pay all fees not covered by payroll deduction (e.g., MPIRG, hospitalization, course fees) by the due dates on

their billing statements to avoid billing charges and late payment fees.

If upon review Student Accounts Receivable denies your application for any reason (e.g., temporary or incorrect Social Security Number, insufficient income to cover deducted amount in four payments), a billing statement with a new due date will be sent to you. This bill must be paid by the due date to avoid a billing charges and late payment fees.

If you cancel/add anytime through the first week of the quarter, go to Student Accounts Receivable (20 Fraser Hall) to have your payroll deduction application adjusted. After the first week of the quarter, tuition and fees for added courses cannot be put on your payroll deduction and must be paid by the due dates on your billing statements. If you cancel courses after the first week of the quarter, you cannot receive a refund for credited tuition and fees until the last of the four payroll deductions has been made.

NOTE: Tuition and fees are withheld in four equal installments from the last four pay periods of the quarter. For example, if your tuition and deductible fees total \$400, this amount will be withheld from your last four paychecks in equal installments of \$100. To be eligible for payroll deduction, you must *net* at least \$120 per paycheck (the extra \$20 is added because no payroll check can be issued for less than \$20). If you discover, after you have applied, that your net pay will not cover your deductions, contact Student Accounts Receivable in 20 Fraser Hall (625-8500) for a new fee statement. If you are ineligible for payroll deduction, you can make installment payments by paying the minimum amount due on your billing statements.

REFUNDS

Tuition and Course Fees—Tuition and course fees are refunded on the following general schedule: if you cancel during the first week of the quarter or before, you will receive a 100% refund; 75% during the second week; 50% during the third week, and 0% thereafter. Refer to the table below for those dates for fall quarter.

For refund of:	Cancel by:
100%	September 27
75%	October 4
50%	October 11
0%	on or after October 14

Special length courses that begin after the first week of the quarter may be cancelled for a 100% refund through the first day of the course. Cancellations after the first day of the course but during the second and third weeks of the quarter follow the refund schedule above. After the third week of the quarter, *no* refund is available if the course is cancelled after the first day.

Remember: Cancellations are effective the day they are processed. Your refund will be based on the date you *officially* cancel (by taking a completed Course Request form to your registration center) not on the date you stopped attending class. Cancel immediately if you stop attending class for any reason.

In a very limited number of circumstances (e.g., active military duty, scholastic drop) retroactive cancellation may be possible. If retroactive cancellation is authorized within one calendar year after the end of the quarter, you may be entitled to a tuition refund. Check with the Student Relations staff in 150 Williamson Hall (625-5333) or 130 Coffey Hall (624-3731) for details.

If your tuition and fees are not paid in full, any refund you receive will be a monetary credit applied to your unpaid balance. Read Payment of Fees, pages 20-22.

Student Services Fee and University-Sponsored Hospitalization Insurance Fee—If you drop your credit load to below 6 credits, you can request a refund of the student services fee and the University-sponsored hospitalization insurance fee when you process your cancellation. All refunds of these fees are based on the date that the cancellation is processed (see above table for deadlines) and are not affected by retroactive cancellation. If you wish to continue your hospitalization insurance, you cannot receive a refund of the student services fee.

If you receive a refund of the student services fee, you can no longer use the services provided by the fee. To continue using these services, you must continue to be registered and not be issued any refund.

If you cancel *all* courses and qualify for a tuition refund, you must also accept a prorated refund of the student services fee unless you retain University-sponsored hospitalization insurance.

Special Fees—The orientation fee and the late registration fee are never refunded. MPIRG is not refunded through the Registration Centers—refund instructions are published every quarter in the *Minnesota Daily*. All other special fees assessed at registration are refunded through the third week of the quarter at the same rate as tuition and course fees. There is *no* refund of special fees after the third week of the quarter, even if retroactive cancellation is authorized.

How to Obtain Your Refund—If you have paid your fees in full, you may obtain a refund by presenting your credit balance fee statement and picture ID to Student Accounts Receivable, 20 Fraser Hall or 107 Coffey Hall. There is a two week waiting period for your refund beyond the last date any payment was receipted, unless your fees were paid only with cash or a University of Minnesota check. You can request a refund be sent to you by mail by calling Student Accounts Receivable, 625-8500. Allow an additional three to four weeks, beyond the two week waiting period, for a refund by mail.

If you have *not* paid your fees in full, any refund you receive will be a monetary credit applied to your unpaid balance. Read Payment of Fees, pages 20-22.

Refunds for Students on Payroll Deduction—If you cancel courses, you cannot receive a refund for tuition and fees that are being deducted until after all four payments have been deducted from your check. To receive a refund, bring your *last* pay check stub to Student Accounts Receivable at 20 Fraser Hall (Bursar's departmental window, 145 Williamson Hall, for

students with mobility impairments) in Minneapolis or 107 Coffey Hall in St. Paul.

Financial Aid Refund Policy—If you receive financial aid, you must maintain full-time status (a minimum of 12 credits for undergraduates, 7 credits for graduate students). If you cancel courses and your credit total falls below full-time status, report your cancellation to Student Accounts Receivable, 20 Fraser Hall. Federal regulations require that all or a portion of your tuition refund must be credited to the financial aid funds from which you received assistance. Refunds may also be sent to the lender of a student loan to reduce the principal on that loan. Repayment of financial aid is calculated according to the date on which your cancellation is effective. If you cancel courses at the 100% refund rate during a quarter, you must repay all financial aid received during that quarter. If the refund amount is insufficient to repay the appropriate financial aid fund, you will be billed for the difference by Student Accounts Receivable. You will be notified by mail of the disposition of your refund.

VETERANS CERTIFICATION

Students under Chapters 30, 32, 35, 106, and 901—The following is a summary of University and Department of Veteran Affairs (V.A.) procedures and does not include all the information you may need. You can contact the Certifications Office, 155 Williamson Hall, 625-8076, or the St. Paul Veterans Assistance Office, 190 Coffey Hall, 625-5284, for further information. However, only the V.A. can determine an applicant's eligibility for educational assistance. Because eligibility criteria are different for the several educational assistance programs and the benefits for the programs vary, students with specific questions about eligibility should contact the V.A.

If you plan on attending fall, winter, and spring quarters, you can request certification for the entire academic year by coming in person to the Certifications Office or the St. Paul Veterans Assistance Office. If you enroll for (or drop to) less than half time, you can be certified only for the current term; when you register for the next term you will have to reapply for certification.

You can request continuous enrollment/payment for fall quarter beginning August 1 if you were enrolled and certified for both summer sessions or for the 10-week term. You can request continuous enrollment/payment during fall, winter, or spring quarters for the next quarter if you did not initially sign up for the academic year. Continuous enrollment/payment *cannot* be requested in the following instances:

if you are attending less than half time, are on active duty, or are receiving chapter 901 benefits, *or*

if you withdrew from all courses in the preceding term.

If you will be enrolling at a half-time rate or more when you enter school initially or reenter, but are not eligible for continuous payment, you may elect to be paid in advance for the first partial (or full) month of training plus the following full month. Payment for the next month, however, will not be available until the very end of that month. This means that if you receive advance payments for September and October for fall, you will not re-

ceive your November check until about December 1. Advance payment for fall may be requested from June 14-July 25.

If you do not participate in advance payment or if you are not eligible for continuous pay, you must be officially registered before requesting certification. Certification cannot be sent to the V.A. until the first day of the quarter.

You are no longer required to present a paid fee statement each quarter for day school courses. Whenever you register for *extension* courses, however, you are required to show a paid fee statement by the first day of each quarter to be certified. If you requested certification for the academic year, you must be officially registered by the first day of each quarter. Failure to register by the first day of the quarter will result in notification of the V.A. and cancellation of payments.

If you cancel any or all of your courses, notify the Certification Office or the St. Paul Veterans Assistance Office. Your reduction in credits will be reported to the V.A. The V.A. will adjust your benefits retroactive to the first day of the quarter and may require you to repay all money paid to you for any courses that you cancel.

Any grade of N will be reported to the V.A. The V.A. will adjust your benefits retroactive to the first day of the quarter and require that you repay all money paid to you for that course. Likewise, any grade of I will be reported to the V.A. However, the V.A. will allow one year for completion of the course before repayment is required. You are responsible for notifying the Certifications Office or the St. Paul Veterans Assistance Office once you receive a grade to replace the I.

Whenever you claim mitigating circumstances for reductions in your credit load, you should present written evidence to the Certifications Office to be included with the report submitted to the V.A.

Chapter 31 Veterans—If you receive vocational rehabilitation assistance, you can refer questions to the scholarship terminal at 202 Fraser Hall. Bring your fee statement and course list to the appropriate bookstore to obtain books and supplies.

CERTIFICATION FOR LOAN DEFERMENTS

Occasionally you may be required to have your attendance at the University certified as full time or half time in order to defer payment of your student loan. This certification is especially required of transfer students who received loans at their previous institutions.

For students in undergraduate and professional units (law, dentistry, medicine, and veterinary medicine) full-time status is defined as 12 or more credits per quarter; half-time status is 6-11 credits per quarter.

For students in the Graduate School, the Pharm.D. program, master's programs in agriculture and education, and dental and psychology fellow specialist programs, full-time status is defined as 7 or more credits per quarter; half-time status is 3-6 credits per quarter. For students in master's programs in public health, full-time status is 9 credits; part-time status is 4 credits. Audit registrations are not applicable for certification purposes.

To have your attendance certified, bring your loan deferment form to 150 Williamson Hall (130 Coffey Hall for St. Paul students). More information about deferments and exceptions to the definitions of full-time and half-time status is also available at 150 Williamson Hall or 130 Coffey Hall.

RECIPROACITY

The University has reciprocity agreements with Wisconsin, North Dakota, South Dakota, and Manitoba; and a limited Western Undergraduate Exchange Program with Alaska, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, and Wyoming. If you are a resident of any of these states or provinces, you may qualify for reciprocity tuition rates, which are lower than nonresident tuition rates and, in some cases, comparable to resident rates. There are some exceptions:

Wisconsin students entering the School of Dentistry, the Medical School, or the College of Veterinary Medicine for the first time are not eligible for reciprocity.

Students who first enroll during the summer must *reapply* for reciprocity for the academic year.

You must apply for reciprocity prior to the quarter in which you wish your reciprocity to begin. After your first year, *provided you have earned credits*, your reciprocity will automatically be renewed.

Delays in your reciprocity credit will not exempt you from billing charges or late payment fees. For information and application forms, check with your home state reciprocity office. You can also obtain application forms and information in 240 Williamson Hall or 130 Coffey Hall.

TUITION AND HEALTH-CARE BENEFITS FOR GRADUATE ASSISTANTS

Tuition Benefits—Graduate assistants who hold at least a 25% time appointment for six full pay periods (130 hours per quarter) receive tuition benefits (tuition waivers) equal to twice the percentage of their appointment for the quarter in which they hold the appointment. For example, those holding a 25% appointment will receive a 50% tuition benefit, while those with an appointment of 50% or more will receive a 100% tuition benefit. These benefits waive tuition only and do not cover the student services fee or course fees.

For benefit purposes, the quarter is defined as six full pay periods: 9/16-12/15 for fall; 12/16-3/15 for winter; and 3/16-6/15 for spring. *Appointments which begin after the quarter has started will be prorated*, but must be the equivalent of at least a 25% appointment to qualify. For example, a 50% appointment for half the quarter would be adjusted to a 25% appointment for benefit purposes, and a 50% tuition benefit would be awarded.

Tuition benefits will be available to teaching assistants, research assistants, administrative fellows, legal project assistants, dental fellows, medical fellows, and veterinary medical associates. Graduate assistants who hold at least a 12.5% time appointment for six full pay periods (65 hours per quarter)

must register no later than the end of the second week of the quarter for every quarter they hold the assistantship.

Graduate assistants with percentage appointments who are paid on regular payroll are eligible for the tuition benefit at the beginning of the quarter. If you are on regular payroll but do not automatically receive the tuition benefit when you register, you must obtain an authorized Tuition Benefit Information Form and a photocopy of your payroll document (PAF) from your work department. Take the tuition benefit form and the PAF to the Graduate Assistant Office (GAO), 416 Johnston Hall, before returning to registration to obtain a corrected fee statement.

As a graduate assistant on miscellaneous hourly or biweekly payroll, you may be eligible for a provisional tuition benefit at the beginning of the quarter, provided your work department can predict fairly accurately the number of *hours* (not the percentage) you are expected to work as a graduate assistant for the quarter. (For a miscellaneous payroll *percentage* appointment, follow the instructions in the preceding paragraph.) Your work department should provide you with a letter on department stationery estimating the number of hours you are expected to work, a copy of your PAF, and a Tuition Benefit Information Form. When you have these items, go to the GAO, 416 Johnston, to finish processing your tuition benefit.

Qualifying hourly graduate assistants who can not (or choose not to) receive tuition benefits provisionally may receive those benefits retroactively. To receive benefits retroactively, you must bring documentation of the total hours paid as a graduate assistant for the quarter to the GAO, along with an authorized Tuition Benefit Information Form. This documentation must be either copies of payroll abstracts, authorized timecards, or paycheck stubs. After you bring these items to the GAO, you may proceed to registration for a credit balance fee statement. In some cases (CEE, work-study, or independent study), a credit balance fee statement reflecting your tuition benefit will automatically be mailed to you 3-4 weeks after the end of the quarter. CEE, work-study, and independent study graduate assistants not wishing to wait 3-4 weeks can walk through the appropriate documentation as outlined above.

To avoid billing charges and late payment fees you must pay in full by the due date on your first billing statement from Student Accounts Receivable. If you are paid on regular payroll and are entitled to a tuition benefit (whether or not your tuition benefit has been entered into the registration system), or if you are eligible to receive a provisional tuition benefit at the beginning of the quarter, your tuition benefit credit must be processed and you must pay any remaining balance by the due date on your billing statement to avoid billing charges and late payment fees. In all other instances, you must pay *all* tuition and fees in full by the due date on your billing statement to avoid billing charges and late payment fees. If you have paid in full and subsequently receive a tuition benefit credit, you can take your credit balance fee statement to Student Accounts Receivable to receive a refund. Read How to Obtain Your Refund on page 23.

NOTE: If you do not complete your appointment (i.e., leave in the middle of the quarter, graduate early, or work less than the estimated number of hours), you will be billed for tuition for the

uncompleted portion of the appointment. This billing may include the difference between resident and nonresident rates if you are a nonresident and work less than 130 hours between the quarter dates listed above.

More information on tuition benefit eligibility and procedures is available from your department or the GAO, 416 Johnston Hall, 626-1310.

Graduate Assistant Health-Care Plan—Graduate assistants with appointments of 25% or more in class titles 9511 (teaching assistant), 9521 (research assistant), and 9531 (administrative fellow) are eligible to receive a health-care package provided by Group Health and Boynton Health Service. To obtain this coverage you must:

- *complete a Group Health application* during the first two weeks of your initial quarter of eligibility and
- *pay the student services fee.*

As with tuition benefits, the percentage of the Group Health premium that the University will pay equals twice the percentage of your graduate assistant appointment. For example, for graduate assistants with a 25% appointment, the University will pay 50% of the premium cost. You will be billed for your portion of the premium cost by Student Accounts Receivable.

Once you are enrolled in Group Health, your coverage will continue as long as your appointment remains at 25% or more. If you have Group Health coverage spring quarter, you will be covered through the summer even if you are not working as a graduate assistant. The percentage that the University will pay of the summer premium will be twice the average of your winter and spring appointments.

If you leave your graduate assistant appointment before the end of the term, your graduate assistant health-care coverage will end. However, you have the option of purchasing continuing coverage at your own expense. If you are on a provisional hourly appointment and end up working fewer than the estimated number of hours, you will be billed for a portion of the Group Health premium.

For more information, contact the Graduate Assistant Insurance Office, 411 Johnston, 625-4346.

RESIDENT TUITION PRIVILEGES

Graduate Assistants and Immediate Family Members—Non-resident students enrolled in the Graduate School or in another post-baccalaureate degree program who hold at least a 25% time appointment as a teaching assistant, research assistant, or administrative fellow are eligible for resident tuition rates. This eligibility extends only to parent, spouse, child, or ward.

If you hold such an appointment, and your appointment has been processed, you will automatically be charged the resident tuition rate when you register. If, for some reason, you are charged the nonresident tuition rate, you should contact the Graduate Assistant Office (GAO), 416 Johnston Hall, 626-1310.

If you hold such an appointment and you want your family member to receive resident tuition rates, you must contact the GAO for more information.

Graduate School Fellows/Trainees and Immediate Family Members—Graduate students who hold fellowships or traineeships are eligible for resident tuition rates, provided the award is administered by the University and the stipend is at least equal to a 25% time graduate assistantship. This eligibility also extends to members of the *immediate* family (i.e., parent, spouse, child, or ward).

If you hold a fellowship or traineeship, codes for resident tuition have, most likely, already been entered into the computerized registration system. If, for some reason, you are charged the nonresident tuition rate when you register, you should contact the Graduate Fellowship Office, 422 Johnston Hall, 625-7579.

If you hold a qualifying fellowship or traineeship and you want your family member to receive resident tuition rates, contact the Graduate Fellowship Office for more information.

Professional School Fellows/Trainees and Immediate Family Members—Professional school fellows/trainees and immediate family members are also eligible for resident tuition rates, provided the fellowship/traineeship is at least equal to a 25% graduate assistantship. If, for some reason, you are charged the nonresident tuition rate when you register, first contact your department payroll personnel and then the Graduate Assistant Office, 416 Johnston Hall.

Former Graduate Assistants, Trainees, and Fellows and Immediate Family Members—If you no longer hold a graduate assistantship, fellowship, or traineeship, but *have* held qualifying appointments for three or more quarters, you and your immediate family members may still be eligible for up to six more quarters of resident tuition. Contact the Graduate Assistant Office, 416 Johnston Hall, 626-1310, for more information.

Academic Appointees and Immediate Families—Academic appointees at the University of Minnesota and their immediate family members are eligible to pay resident tuition rates subject to the following rules concerning class title and percentage of appointment.

Appointees (and their immediate family members) who hold 75% appointments for an entire quarter in the following class titles are eligible to pay resident rates during that quarter:

- all 93xx academic administrative classes
- all 94xx faculty rank classes
- 9544—Pharm D associate
- 9546—post doctoral associate
- 9548—veterinary medical assistant
- 9551—post doctoral fellow
- 9556—medical fellow specialist
- 9563—dental fellow specialist
- all 96xx Agricultural Extension Service classes
- all 97xx professional classes

Appointees (and their immediate family members) who hold at least a 25% appointment in the following class titles, with a level of support equal to or greater than that provided by a 25% graduate assistantship, are eligible to pay resident tuition rates during the quarter of their appointment:

- 9538—legal project assistant I
- 9539—legal project assistant II
- 9545—pre-doctoral assistant
- 9550—pre-doctoral fellow
- 9558—psychology fellow specialist

To claim the resident tuition benefit, appointees or immediate family members from both groups listed above should have the appointee's employing department complete a Tuition Status Verification form. A separate form will be needed for each individual appointee or immediate family member for each quarter in which resident tuition is requested. Completed forms should be taken to your registration center, 202 Fraser Hall (130 Coffey Hall for St. Paul students); resident rates will then be assessed.

Appointees to the above class titles do not accrue extended resident tuition credit. Resident tuition privileges are available to appointees and their immediate family members *only* during quarters of qualifying appointment.

Civil Service Employees—Civil service employees of the University of Minnesota who work 75% time or more during an entire quarter and their immediate family members are eligible to pay resident tuition rates. These resident tuition privileges are available *only* during quarters of qualifying employment.

To claim the resident tuition benefit, *employees on regular payroll* or their immediate family members should have the employee's department complete a Tuition Status Verification form. Every quarter a separate form is needed for each employee and family member. Completed forms should be taken by the student to the Registration Center, 202 Fraser Hall (130 Coffey Hall for St. Paul students); resident rates will then be assessed. *Employees on miscellaneous payroll* and their immediate family members must initially pay nonresident tuition and be reimbursed after the quarter ends. The employment department must certify that the employee worked at least 390 hours during the quarter.

HOW TO USE THIS SCHEDULE

Call Number—This six-digit number appears to the left of each course or each section of a course. You must use the course numbers and these specific call numbers when you fill out your Course Request form.

Prerequisites—In order to enroll in some courses, you must either complete or concurrently enroll in certain other courses or have certain qualifications or class standing. These requirements, known as prerequisites, are listed inside the parentheses after the course titles. If no prerequisites are listed, there are usually none, except for the class standing requirement indicated by the course number.

Class standing requirements, unless otherwise noted, are indicated by course numbers as follows:

0000 to 0999 noncredit courses

1000 to 1999 introductory courses—primarily for freshmen and sophomores

3000 to 3999 intermediate courses—primarily for juniors and seniors, but sometimes open to others with a C average overall and in prerequisites

5000 to 5999 advanced courses—open to juniors, seniors, and graduate students

8000 to 8999 graduate courses—open to graduate students only

When courses that must be taken in sequence are prerequisites, only the last course of the sequence is listed.

When no course designator precedes the course number listed as a prerequisite (e.g., 'prereq 3221'), that course is in the same department as the course being offered. Likewise, a prerequisite reading "6 cr" means 6 credits in courses offered by the same department.

Work equivalent to a prerequisite course (having either the same content or requiring the same competence) is ordinarily accepted in place of that prerequisite. An instructor may, in some instances, waive prerequisites at her or his discretion. See your college bulletin for further information.

A comma always means "and."

In addition to the prerequisites listed above and expressed in the symbols listed below, departments and colleges may use the registration system to help place certain categories of qualified students into courses or sections on a priority basis (seniors, majors, etc.). If you meet all stated prerequisites for the course, including class standing, you may also need to meet other qualifications established at the time of registration. For this reason, it is helpful to list both first and second course choices on your Course Request form.

Symbols—The following symbols are used throughout this schedule:

- † All courses preceding this symbol must be completed before credit will be granted for any quarter of the sequence.
- § Credit will not be granted if credit has been received for the course listed after this symbol.
- ¶ Concurrent registration is required (or allowed) in the course listed after this symbol.

- # Registration Override Permit, completed and signed by the instructor, is required for registration.
- △ Registration Override Permit, completed and signed by the department offering the course, is required for registration.
- Registration Override Permit, completed and signed by the college offering the course, is required for registration.
- H Honors course (follows the course number).
- R The letter R preceding the course number indicates limited enrollment.
- ★ This symbol designates a part of a course (e.g., lecture) for which you are automatically registered when registering for a corresponding part of the same course (e.g., lab).
- ◆ This symbol will precede the call numbers of a course with multiple section types (e.g., LECT, LAB, REC) without automatic registration. You must select and register for one of each of the parts of the course.

Number of Credits—The number of credits approved for a particular course or section of a course appears at the end of the time and room information for each course or course section: e.g., 1015-1100 MWF, BlegH 450, Brown, 4 cr. You must register for the number of credits indicated; you may not, for example, take a 4-credit course for either more or fewer than the approved 4 credits. (Extra credit is sometimes possible, however, through X registration. See below.) A few courses are offered for a variable number of credits, as indicated by the notation "ar cr" (credits arranged) or by an optional-credit notation (e.g., "3-4 cr"). In such cases, you may register for the number of credits agreed upon by you and the instructor.

Registering for Topics Courses—A number of departments offer "topics" courses. A "topics" course usually is assigned a single course number (e.g., 3910), but subjects, course titles, and number of credits may change from quarter to quarter. Besides the usual prerequisites, there sometimes are limitations on registration for these courses. You usually may not register for the same course more than a certain number of times over a series of quarters. In the course listing, this restriction appears as part of the prerequisite information inside the parenthesis: "(max 12 cr; prereq...)" for example, means your total registrations in the course may not exceed a maximum total of 12 credits.

X and Y Registration—Most colleges permit X and Y registration (directed or independent study) in their regular courses. Through X registration, you can earn extra credits (with a limit of 3) in a course by arranging with the instructor to complete additional work or explore a subject in more depth. Through Y registration, you can complete a course by studying independently under the instructor's guidance without attending class. Regular fees, deadlines, and grading policies apply, and you must register only for the number of credits approved for the course. Requirements for completing the course must be agreed upon by you and your instructor.

Both types of registration require instructor and department approval. When you receive this approval, you must also obtain a call number with which to register for the course (call numbers for X and Y registrations are not available at the registration centers). For further information, check with your college or department office.

Auditing Courses—Most colleges permit auditing in their courses. As an auditor, you enroll in, pay tuition and fees for, and attend classes but do not complete assignments or take examinations. You receive no credit for the course, but the course will be placed on your transcript with the symbol V (Visitor) to indicate your special registration status. Although you do not receive credit, the credit value for the course counts in determining the credit total for the student services fee.

Colleges may have additional requirements for you to meet before you register as an auditor. It may be necessary to have approval from your adviser, instructor, and/or special scholastic committees. Many colleges do not permit registration as an auditor in required courses. Nor do colleges generally allow you to repeat an audited course for credit. For further information, check with your college office.

To register as an auditor once you have received any necessary approval, list the course on your Course Request form and place a V in the grading option column for that course.

Grading Option—If either A-F only or S-N only is printed after the prerequisite statement for a course, you must register for that grading system. If no grading system is listed, you may often register for either A-F or S-N grading. For information on courses offered for S-N grading and any degree or quarter limits on credits taken under this system, consult both your own college office and the college offering the course. You may not change your grading option after the second week of classes.

Course Changes—Your registration terminal always contains the most current and accurate information. Hour and day changes are also published in the Official Daily Bulletin, a column in the *Minnesota Daily*. Room changes are posted on classroom doors.

Hours and Days—This schedule lists both a starting time and an ending time for all classes, using a 24-hour clock. Refer to the table below for help in interpreting these times. To convert any time between 1:00 p.m. and 12:00 midnight from standard time to the 24-hour clock, add 1200 (for example, 3:45 p.m. + 1200 = 1545). To convert from the 24-hour clock to standard time, subtract 1200 (for example, 1615 - 1200 = 4:15 p.m.).

24-hour clock	0800	0900	1000	1100	1200	1300
Standard Time	8:00 a.m.	9:00 a.m.	10:00 a.m.	11:00 a.m.	12:00 noon	1:00 p.m.
24-hour clock	1400	1500	1600	1700	1800	1900
Standard Time	2:00 p.m.	3:00 p.m.	4:00 p.m.	5:00 p.m.	6:00 p.m.	7:00 p.m.

In both Minneapolis and St. Paul, classes continue for 50 minutes after the start time. Because there is a 15-minute break between classes, start times for classes are staggered throughout the day. For example, the first class of the day in Minneapolis starts at 8:00 a.m. and ends at 8:50; the second class starts at 9:05 and ends at 9:55; the third class starts at 10:10 and ends at 11:00. In St. Paul, the first class begins at 8:30 and ends at 9:20, the second class runs from 9:35 to 10:25, the third from 10:40 to 11:30, and so on throughout the

day. The class periods for Minneapolis and St. Paul are listed below.

Minneapolis	St. Paul
0800-0850	0830-0920
0905-0955	0935-1025
1010-1100	1040-1130
1115-1205	1145-1235
1220-1310	1250-1340
1325-1415	1355-1445
1430-1520	1500-1550
1535-1625	1605-1655
1640-1730	1710-1800

The University Senate approved the above 50-minute class periods with the understanding that classes may continue for 55 minutes after the starting time whenever students' schedules permit.

There are also standard approved 75-minute periods usually meeting on Tuesday and Thursday. In Minneapolis, times for these classes are 0815-0930; 0945-1100; 1115-1230; 1245-1400; 1430-1545; 1600-1715. Corresponding St. Paul times are 0845-1000; 1015-1130; 1145-1300; 1315-1430; 1500-1615; 1630-1745.

Days of the week are abbreviated M, T, W, Th, F, and S.

No Time or Place—When hours and days or the place of meeting are missing, consult the instructor or department offering the course.

Choice of Classes—When section numbers precede the hours and days listed, you may choose the section in which you wish to enroll (see the first example below). Many courses have a choice of laboratory or recitation periods but only a single lecture period, in which all students taking the course are automatically registered (see the second example below). If laboratory or recitation sections are distributed under different lecture hour headings (as in the third example below), then your choice of laboratory or recitation hours determines which lecture you are automatically registered in. Occasionally there will be a choice of both lecture and laboratory or recitation periods. If the sections are listed after two or more lecture hour headings (as in the fourth example below), then you must register for and attend any one lecture and any one lab or recitation section.

Example 1	Example 3	Example 4
315330—1 0815-0900 TTThS	★LECT 0915-1000 T	◆837302—1 LECT 0815-0900 T
115331—2 0915-1000 MWF	415335—1 LAB 1015-1200 T	◆637303—2 LECT 0915-1000 Th
015332—3 1115-1200 TTThS	215336—2 LAB 1015-1200 Th	437304—1 REC 1015-1200 T
Example 2	★LECT 0915-1000 Th	237305—2 REC 1315-1500 T
★LECT 1015-1100 MWF	115337—3 LAB 1315-1500 T	137306—3 REC 1015-1200 Th
815333—1 LAB 1215-1400 M	645742—4 LAB 1315-1500 Th	937307—4 REC 1315-1500 Th
615334—2 LAB 1215-1400 W		

Course Descriptions—Courses are listed in this *Class Schedule* with a minimum of information—title, prerequisites, day and time, location, and sometimes instructor. For more information about a course, you should consult your college bulletin, where course listings include descriptions of course content. You should not choose your classes on the basis of title alone. Bulletins are available from the information center in Williamson Hall and from 130 Coffey Hall. You may also consult bulletins in the libraries and in college and department offices, but these copies may not be removed.

schedule of classes

ACCOUNTING (Acct) Management

- r1050 Introduction to Financial Reporting** (§8050; prereq 40 or more credits) (A-F only)
★LECT 1300-1415 MW, AndH 370
109649 -1 LAB 0800-0850 TF, BlegH 130, 4 cr
107660 -2 LAB 0905-0955 TF, BlegH 125, 4 cr
205650 -3 LAB 1010-1100 TF, BlegH 125, 4 cr
602647 -4 LAB 1115-1205 TF, BlegH 220, 4 cr
★LECT 1430-1545 MW, AndH 370
110672 -5 LAB 1115-1205 TF, BlegH 120, 4 cr
402648 -6 LAB 1220-1310 TF, BlegH 115, 4 cr
101591 -7 LAB 1325-1415 TF, BlegH 145, 4 cr
910673 -8 LAB 1430-1520 TF, BlegH 220, 4 cr
- r3001 Introduction to Management Accounting** (prereq 1050) (A-F only)
★LECT 0915-1015 MW, AndH 330
409650 -1 LAB 0800-0900 F, BlegH 440, 4 cr
907661 -2 LAB 0915-1015 F, BlegH 440, 4 cr
★LECT 1030-1130 MW, AndH 330
111692 -3 LAB 1030-1130 F, BlegH 440, 4 cr
209651 -4 LAB 1145-1245 F, BlegH 440, 4 cr
★LECT 1145-1245 MW, AndH 330
105851 -5 LAB 1145-1245 F, BlegH 240, 4 cr
602650 -6 LAB 1300-1400 F, BlegH 440, 4 cr
★LECT 1300-1400 MW, AndH 330
710674 -7 LAB 1300-1400 F, BlegH 240, 4 cr
308653 -8 LAB 1415-1515 F, BlegH 240, 4 cr
- r3101 Intermediate Financial Reporting** (prereq 1050, acct maj or gen mgmt maj with finance emphasis) (A-F only)
108086 -1 1300-1400 MWF, BlegH 420, 4 cr
006162 -2 1415-1515 MWF, BlegH 420, 4 cr
- 3199 Internship in Public Accounting** (prereq 5125; for accounting majors only) (S-N only)
408773 Berryman, 3 cr
- r3299 Internship in Management Accounting** (prereq 3102; for accounting majors only) (S-N only)
608772 Berryman, 3 cr
- r5101 Corporate Financial Reporting** (prereq 1050 or MBA 8030, MBA stu) (A-F only)
175822 1730-2100 M, BlegH 110, 4 cr
- r5125 Auditing Principles and Procedures** (prereq 5102) (A-F only)
605368 -1 1315-1445 MW, BlegH 240, 4 cr
802923 -2 1315-1445 MW, BlegH 240, 4 cr (MBA stu only)
075823 -3 1500-1630 MW, BlegH 240, 4 cr
875824 -4 1500-1630 MW, BlegH 240, 4 cr (MBA stu only)
675825 -5 1730-2100 W, BlegH 230, 4 cr (MBA stu only)
- r5135 Income Tax Accounting** (prereq 1025 or 1050) (A-F only)
375821 -1 0800-0900 MWF, BlegH 240, 4 cr
475826 -2 0800-0900 MWF, BlegH 240, 4 cr (MBA stu only)
175828 -3 1810-1940 MW, BlegH 220, 4 cr (MBA stu only)
- r5180 Advanced Financial Reporting II** (prereq 5102, mgmt or MBA student) (A-F only)
304652 -1 0945-1115 TTh, BlegH 240, 4 cr
602440 -2 0945-1115 TTh, BlegH 240, 4 cr (MBA stu only)
275830 -3 1130-1300 TTh, BlegH 240, 4 cr
775833 -4 1130-1300 TTh, BlegH 240, 4 cr (MBA stu only)
776888 -5 1810-1940 TTh, BlegH 10, 4 cr (MBA stu only)
- r5310 Current Topics in Financial Accounting** (prereq 5102; for accounting majors only) (A-F only)
575634 -1 0800-0900 MWF, BlegH 220, 4 cr
175836 -2 0800-0900 MWF, BlegH 220, 4 cr (MBA stu only)
- r8805 Seminar I** (prereq PhD student or grad SMgt approval) (A-F only)
875841 1500-1700 MW, HHHCtr 20, 4 cr

- r8990 Readings in Accounting** (prereq #, grad SMgt approval) (A-F only)
507551 1500-1700 TTh, HHHCtr 20, ar cr

ADULT AND TEACHER EDUCATION (AdEd) Curriculum And Instruction Education

- 5103 Adult Education Workshop** (§Educ 5103; max 12 cr; prereq practicing adult educator or #) (A-F only)
804722 1830-2100 T, PeikH 33, Rohde, 3 cr
- 5104 Survey of Adult Education** (§Educ 5104; prereq sr) (A-F only)
402794 1535-1800 M, PeikH 155, 3 cr
- 5201 Introduction to the Undereducated Adult** (§Educ 5201) (A-F only)
511762 1535-1800 M, PeikH 33, Park, 3 cr
- 5205 Field Experience in Adult Education** (§Educ 5205; max 8 cr; prereq #) (A-F only)
809726 -1 Bruning, 4-8 cr
407736 -2 Willie, 4-8 cr
405727 -3 Park, 4-8 cr
202795 -4 Williams, 4-8 cr
601661 -5 Rohde, 4-8 cr
- 5401 Adult Learning and Development through the Life Span** (§Educ 5401) (A-F only)
401662 1640-1900 T, PeikH 225, Williams, 3 cr
- 5411 Strategies for Teaching Adults** (§Educ 5411) (A-F only)
675288 1535-1800 W, PeikH 225, Willie, 3 cr
- r5440 Multidisciplinary Perspectives on Aging** (§CPsy 5305, Educ 5440, HSU 5009, PA 5414, PubH 5520, PubH 5737, SAHP 5009, Soc 5960, SW 5024) (A-F only)
110744 1640-1825 MW, MoosT 2690, Williams, 4 cr
- 5603 International Education and Development** (§Educ 5603) (A-F only)
808723 1640-1910 T, PeikH 48, Paigé, 3 cr
- 8100 Research in Adult Education** (§Educ 8100; prereq #, coursework in experimental design)
306739 1640-1910 Th, PeikH 33, Williams, 3 cr
- 8284 Problems: Teacher Education** (§Educ 8284; prereq #)
902797 Bruning, 3-9 cr
- 8302 Problems: Adult Education** (§Educ 8302; prereq #)
609727 -1 Bruning, 1-9 cr
207737 -2 Willie, 1-9 cr
111764 -3 Park, 1-9 cr
409728 -4 Williams, 1-9 cr

ADULT PSYCHIATRY (AdPy) Medical School

- r5109 Externship in Clinical Psychiatry: Duluth Hospital** (prereq regis med)
702980 Olson, 9 cr
- r5110 Contemporary Hospital Psychiatry: St. Luke's Hospital, Duluth** (prereq regis med)
406909 Cowan, 9 cr
- 5500 Psychiatry Externship** (prereq regis med)
309463 Eckert, 9 cr
- 5501 Elective Rotation in Alcohol Problems Clinics** (prereq 3rd or 4th yr med stu)
505363 Willenbring, 4.5-9 cr
- 5504 Elective Experience in Psychiatry** (prereq 5500, regis med)
912648 Willenbring, 4.5-9 cr
- r5511 Psychiatry in Medicine: Consultation-Liaison: University Hospitals** (prereq regis med)
510353 Popkin, 9 cr
- r5514 Substance Abuse and Associated Psychiatric Disorders** (prereq MD or #)
710254 Halikas, 3 cr

- 5515 Neuropsychology: University Hospitals** (prereq regis med)
912374 Meier, 9 cr
- r5516 St. Mary's Extended Care Center, Alcoholic Treatment Unit** (prereq regis med)
805322 Hiers, 4.5-9 cr
- r5518 Community Psychiatry: Brahm, MN** (prereq regis med)
110929 Walton, 9 cr
- 5530 Independent Study** (prereq Δ)
107898 Mackenzie, ar cr
- 5602 Clinical Psychopharmacology Seminar** (prereq regis med)
202232 Abuzzahab, ar cr
- 5800 Case Conference: Psychiatry in Medicine** (prereq MD or #)
112034 Popkin, 1 cr
- 5801 Consultation-Liaison Psychiatry** (prereq MD)
405890 Popkin, ar cr
- 5811 Applied Behavior Analysis** (prereq MD or #)
910463 Eckert, Hatsukami, 3 cr
- 5825 Psychiatric Interviewing** (prereq MD or #)
204109 Halikas, 3 cr
- 8201 Clinical Psychiatry** (prereq MD)
506819 Meller, ar cr
- 8203 Advanced Clinical Psychiatry** (prereq MD, 8201)
711114 Meller, ar cr
- 8205 Special Assignments** (prereq MD, 8201, 8203)
505394 Meller, 1 cr
- 8206 Research** (prereq #)
311083 Meller, ar cr
- 8208 Survey: Physiological Treatments** (prereq #)
406957 Eckert, 2 cr
- 8238 Case Conference in Psychological Medicine** (prereq MD or #)
411995 1 cr
- 8239 Continuous Case Seminar: Psychoanalytically Oriented Psychotherapy** (max 3 cr; prereq #)
210413 Dieperink, 1 cr
- 8247 Research Topics in Psychophysiology** (prereq 8266, #)
706561 Mitchell, Lykken, 3 cr
- 8248 Introduction to Psychopharmacology** (prereq grad or #)
002497 Meller, 1 cr
- 8284 Presentations on Current, Appropriate Literature Pertaining to all Phases of Medical Health Care** (prereq #)
806034 Meller, 1 cr
- 8265 Readings in Psychosomatic Medicine, Consultation-Liaison Psychiatry** (max 3 cr; prereq MD, #)
008316 Meller, ar cr
- 8777 Thesis Credits: Masters**
907224 Meller, 1-16 cr
- 8970 Directed Studies** (max 9 cr)
505220 Eckert, ar cr

AEROSPACE ENGINEERING AND MECHANICS (AEM) Institute of Technology

- r1001 Aerospace Engineering Orientation** (prereq IT fr or soph) (S-N only)
804123 1325-1415 Th, EE/CS 3210, Garrard, 1 cr
- r1015 Statics** (prereq IT stu, Phys 1271 or equiv, Math 1241) (A-F only)
★LECT 1220-1310 MWF, NichH 211
412578 -1 REC 1220-1310 TTh, AkerH 225, 4 cr
602017 -2 REC 1220-1310 TTh, AkerH 215, 4 cr
512619 -3 REC 1220-1310 TTh, AkerH 313, 4 cr
409230 -4 REC 1220-1310 TTh, AkerH 209, 4 cr
006050 -5 REC 1220-1310 TTh, AkerH 211, 4 cr
403296 -6 REC 1220-1310 TTh, Arch 25, 4 cr
910527 -7 REC 1220-1310 TTh, MechE 202, 4 cr

- r3016 Deformable Body Mechanics** (prereq IT stu, 1015, ¶Math 3321 or equiv) (A-F only)
★LECT 0905-0955 MWF, Arch 35
210928 -1 REC 0905-0955 TTh, AkerH 225, 4 cr
704969 -2 REC 0905-0955 TTh, Arch 5, 4 cr
403685 -3 REC 0905-0955 TTh, AkerH 215, 4 cr
910429 -4 REC 0905-0955 TTh, AkerH 313, 4 cr
203316 -5 REC 0905-0955 TTh, AkerH 211, 4 cr
- r3036 Dynamics** (prereq IT stu, 1015, ¶Math 3321 or equiv) (A-F only)
★LECT 1430-1520 MWF, AkerH 209
003679 -1 REC 1430-1520 TTh, AkerH 211, 4 cr
509946 -2 REC 1430-1520 TTh, AkerH 313, 4 cr
604978 -3 REC 1430-1520 TTh, AkerH 309, 4 cr
- r3401 Introduction to Dynamical Systems** (SME 3201; prereq 3036, IT stu)
712103 1115-1205 MTWThF, AkerH 209, 4 cr
- r5200 Kinematics and Dynamics of Fluid Flow** (prereq upper div IT or grad IT stu, 3036, ¶Math 3331) (A-F only)
506531 1010-1100 MTWThF, Arch 50, 4 cr
- r5300 Flight Mechanics** (prereq 1005 or 5206, IT or grad IT stu) (A-F only)
375916 1010-1100 MTWF, AkerH 209, 4 cr
- r5319 Dynamics and Control of Aerospace Vehicles** (prereq 3401, 5300 or #, IT or grad IT stu) (A-F only)
810312 1535-1730 MW, AkerH 209, 4 cr
- r5329 Fundamentals of Aerospace Vehicle Design** (prereq AEM sr, 5300 or #)
★LECT 1220-1415 MW, AkerH 209, Vano
307714 -1 REC 1430-1520 MW, AkerH 211, 4 cr
705703 -2 REC 1430-1520 MW, AkerH 309, 4 cr
- r5410 Introduction to Astrodynamics** (prereq 3036)
175917 1325-1520 TTh, AkerH 215, Zhao, 4 cr
- r5438 Intermediate Dynamics** (prereq 3036)
703305 0905-0955 MTWF, Arch 10, 4 cr
- r5515 Aerospace Structures I** (prereq 3016, IT stu)
075918 1220-1415 MW, FordH 155, Shield, 4 cr
- r5580 Mechanics and Thermodynamics of Solids** (prereq Math 3311 or #, IT or grad stu)
010289 0905-1100 TTh, AkerH 309, Leo, 4 cr
- r5645 Aeromechanics Laboratory I** (prereq 3016, 5200, upper div IT stu) (A-F only)
★LECT 0800-0850 MW, AkerH 225
903528 -1 LAB 0800-1205 T, AkerH 30A, 30B, 30, 2 cr
003147 -2 LAB 1325-1730 T, AkerH 30A, 30B, 30, 2 cr
712098 -3 LAB 0800-1205 Th, AkerH 30A, 30B, 30, 2 cr
305171 -4 LAB 1325-1730 Th, AkerH 30A, 30B, 30, 2 cr
012172 -5 LAB 0800-1205 F, AkerH 30A, 30B, 30, 2 cr
- r5687 Introduction to Acoustics and Environmental Noise** (prereq Phys 1291 or Phys 1341 or equiv, Math 3321 or equiv, IT or grad IT stu) (A-F only)
009837 1115-1205 MTWF, AkerH 225, Wilson, 4 cr (lab ar)
- 5800 Problems in Mechanics and Materials** (prereq Δ)
412225 1-4 cr
- 5810 Problems in Fluid Mechanics** (prereq Δ)
210265 1-4 cr
- 5821H Aerospace Engineering and Mechanics Honors Thesis I** (prereq #, upper div AEM honors program stu) (A-F only)
103373 4 cr
- 5838 Summer Engineering Employment** (prereq completion of 3rd yr, Δ)
203607 1-4 cr
- 5840 Industrial Assignment** (prereq regis in engineering intern program, Δ)
509459 2 cr
- 5841 Industrial Assignment** (prereq regis in engineering intern program, Δ)
008199 2 cr
- 5842 Industrial Assignment** (prereq regis in engineering intern program, Δ)
111165 2 cr
- 5843 Industrial Assignment** (prereq regis in engineering intern program, Δ)
504911 2 cr

- 8001 Seminar: Aerospace Engineering and Mechanics** (prereq consent of director of graduate studies) (S-N only)
111389 1430-1520 F, AkerH 225, 1 cr
- r8201 Fluid Mechanics I** (prereq undergrad fluid mechanics, vector analysis)
110470 1010-1100 MTWF, AkerH 225, 4 cr
- 8410 Advanced Dynamics** (prereq 5438 or #)
006677 1115-1205 MTWF, AkerH 227, 4 cr
- 8413 Advanced Topics: Dynamical Systems IV** (prereq 8411, 8412 or #)
875919 1010-1100 MTWF, AkerH 227, Sethna, 3 cr
- 8501 Research Seminar in the Mechanics of Materials** (A-F only)
005027 1325-1520 T, AkerH 227, Fosdick, Truskinovsky, 2-4 cr
- r8510 Continuum Mechanics I** (prereq Δ)
510286 1535-1730 MW, AkerH 227, Fosdick, 4 cr
- 8595 Elastostatics II** (prereq 8594)
875922 1115-1205 MWThF, AkerH 211, Truskinovsky, 3 cr
- 8601 Finite Element Methods in Computational Mechanics** (prereq IT grad or Δ)
508909 1535-1730 TTh, AkerH 227, Tezduyar, 4 cr
- 8777 Thesis Credits: Masters**
811900 1-16 cr
- 8800 Selected Topics in Mechanics and Materials** (prereq Δ)
209388 1-4 cr
- 8801 Selected Topics in Mechanics and Materials** (prereq Δ)
510532 1-4 cr
- 8802 Selected Topics in Mechanics and Materials** (prereq Δ)
010857 1-4 cr
- 8810 Selected Topics in Fluid Mechanics** (prereq Δ)
105455 -1 0905-0955 MTWF, AkerH 227, Lundgren, 4 cr
175920 -2 1325-1415 MTWF, AkerH 313, Lyrintzis, 4 cr
075921 -3 1-4 cr
- 8880 Plan B Project** (max 4 cr; prereq grad aerospace engineering or mechanics maj, Δ) (S-N only)
405341 1-4 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
402360 1-36 cr

AEROSPACE STUDIES (Air)

- 1104 U.S. Air Force**
612482 -1 0905-0955 W, Armory 105, 1 cr
804249 -2 1325-1415 W, Armory 105, Patterson, 1 cr
- 1204 Early History of Air Power**
512328 -1 1115-1205 T, Armory 12, 1 cr
606553 -2 1325-1415 T, Armory 12, 1 cr
- 3301 Military Management** (prereq 1104, 1105, 1106)
605175 -1 0815-0930 MW, Armory 12, 3 cr
905375 -2 1430-1545 MW, Armory 12, Bradley, 3 cr
- 3401 Military in Society** (prereq 3301, 3302, 3303) (A-F only)
604043 -1 0815-0930 TTh, Armory 105, 3 cr
812304 -2 1115-1230 TTh, Armory 105, Devereaux, 3 cr

AFRO-AMERICAN STUDIES (Afro)

Afro-American & African Studies Liberal Arts

- r1021 Introduction to African Studies**
107111 1325-1415 MWF, AndH 350, Coifman, 4 cr
- r1301 The Music of Black Americans**
211075 0905-0955 MWF, FergH 80, McCurdy, 4 cr

- r1334 Black Women: Interdisciplinary Perspectives**
475924 1430-1520 MWF, BlegH 135, Brewer, 4 cr
- r3001 Introduction to West African History: Early Times to 1800**
406781 1010-1100 MWF, BlegH 115, Coifman, 4 cr
- r3061 The Black Family**
911693 1325-1415 MWF, AndH 230, Brewer, 4 cr
- r3225 Intermediate Swahili** (prereq 1223 or #)
810889 1245-1400 TTh, BlegH 235, Pike, 4 cr
- r3591 Introduction to Afro-American Literature** (§5591, Engl 3591)
706673 0945-1100 TTh, BlegH 255, Wright, 4 cr
- r3601 Introduction to African Literature**
275925 1430-1545 TTh, BlegH 145, Pike, 4 cr
- 3970 Directed Studies** (prereq #, Δ, □)
503452 1-15 cr
- 3991 Senior Project in Afro-American and African Studies** (3991-3992-3993†; prereq completed CLA advanced composition requirement, permission of undergrad adviser) (A-F only)
112090 2 cr
- 3992 Senior Project in Afro-American and African Studies** (3991-3992-3993†; prereq 3991) (A-F only)
604432 2 cr
- 3993 Senior Project in Afro-American and African Studies** (3991-3992-3993†; prereq 3992) (A-F only)
609243 2 cr
- r5201 The Black Composers: Contributions to Western Music and Culture** (§Mus 5708; prereq grad or #)
905408 1640-1835 TTh, FergH 203, Southall, 4 cr
- 5970 Directed Studies** (prereq #, Δ, CLA approval)
907255 1-6 cr

AGRICULTURAL AND APPLIED ECONOMICS (AgEc) Agriculture

- 1000 Orientation to Agricultural and Applied Economics** (S-N only)
907417 1145-1235 TTh, ClaOff B25, Buttman, 1 cr (meets Sept 24-Nov 7)
- r1101 Principles of Microeconomics** (§Econ 1101)
009112 -1 0935-1025 MTThF, ClaOff B45, Peterson, 4 cr
408921 -2 1355-1445 MTThF, ClaOff B45, Peterson, 4 cr
- 1250 Principles of Accounting**
409132 1040-1140 MTWTh, ClaOff B35, Pederson, 4 cr
- r3001 Agricultural Markets and Prices** (§Econ 3101; prereq 1101 or Econ 1101, Math 1142 or Math 1211, Stat 1001 or IDSc 1010, OMS 1020 or #)
★LECT 0900-1030 TTh, ClaOff B35, Senauer
805739 -1 LAB 1250-1450 M, ClaOff 135, 4 cr
502818 -2 LAB 1250-1450 T, ClaOff 135, 4 cr
404772 -3 LAB 0830-1030 W, ClaOff 135, 4 cr
911614 -4 LAB 1250-1450 F, ClaOff 135, 4 cr
- r3040 Economic Development of American Agriculture** (prereq 1101 or Econ 1101)
110901 1145-1235 MWF, ClaOff B25, Sundquist, 4 cr
- r3070 Agriculture and Economic Growth in Developing Countries** (prereq 1101 or Econ 1101, 1102 or Econ 1102)
506089 1015-1140 TTh, ClaOff B30, 4 cr
- 3420 Grain Marketing Economics** (prereq 1101 or Econ 1101)
808950 0935-1025 MTWF, ClaOff B25, Dahl R., 4 cr
- 3450 Agricultural Input Marketing Economics** (prereq 1101 or Econ 1101)
509221 1040-1130 MTWF, ClaOff B36, Dahl D., 4 cr
- r3500 Agribusiness Finance** (prereq 1250 or 3002, Acct 1050 or #)
876035 0830-0920 MTWTh, ClaOff B25, Pederson, 4 cr

- r3610 Resource Development and Environmental Economics** (prereq 1101, 1102 or Econ 1101, Econ 1102 or #)
711548 1500-1605 MWF, ClaOff B25, Easter, 4 cr
- 3810 Principles of Farm Management** (prereq 1101 or Econ 1101; AgBus, AgEcon, Applied Econ maj excluded)
★LECT 1315-1430 TTh, ClaOff B36, Apland 101672 -1 LAB 1250-1450 W, ClaOff 135, 4 cr
- 3990 Independent Study in Agricultural and Applied Economics** (prereq #)
708374 ar cr
- 5580 Human Capital and Household Economics** (prereq 3001 or Econ 3101 or #)
406635 1040-1155 MW, ClaOff B30, Kinsey, 3 cr
- 5620 Regional Economic Analysis** (prereq 1101 or Econ 1101)
907112 1630-1745 TTh, ClaOff B30, Maki, 3 cr
- 5750 Agricultural Trade and Commercial Policies** (prereq 3001, 3006 or Econ 3101, Econ 3102 or #)
708911 1355-1445 MWF, ClaOff B42, Houck, 3 cr
- 5790 World Food Problems** (§Agro 5200, FScN 5643, LACS 5280, Soc 5675)
111160 1800-2100 W, ClaOff B35, Peterson, Cardwell, others, 3 cr
- 5860 Economics of Agricultural Production** (prereq 3003 or #)
907014 1500-1615 MW, ClaOff B30, Aplano, 3 cr
- 5890 Independent Study: Advanced Topics in Farm Management** (prereq #)
602986 1-6 cr
- 5990 Special Topics and Independent Study in Agricultural and Applied Economics** (prereq #)
905229 -1 ar cr
408708 -2 ar cr
- 8200 Advanced Topics in Agricultural and Applied Economics**
309348 -1 1530-1645 W, ClaOff B42, 1-9 cr
104614 -2 1-9 cr
- 8270 Applied Welfare Economics and Public Policy** (prereq calculus and intermediate economic theory)
308622 1250-1340 MWF, ClaOff B36, Graham-Tomasi, 3 cr
- 8288 Dynamic Production Economics** (prereq 5860, Econ 8101)
409549 1040-1155 MW, ClaOff 27, Eidman, 3 cr
- 8591 Consumption Economics** (prereq 5000-level microeconomic theory, basic regression analysis)
304280 0830-0945 MW, ClaOff 27, Senauer, 3 cr
- 8777 Thesis Credits: Masters**
603930 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
411172 1-36 cr

AGRICULTURAL EDUCATION (AgEd)

Vocational And Technical Education Education

- 1001 Introduction to Agricultural Education** (A-F only)
903853 1250-1340 W, VoTech R385, Peterson, 1 cr
- 3029 Directed Experience in Agricultural Education** (prereq Δ) (A-F only)
002287 1250-1340 Th, VoTech R385, Bear, 1-3 cr
- 5026 Extension Administration** (§HEEd 5026; prereq #) (A-F only)
906171 1500-1745 Th, VoTech R380, 3 cr
- 5027 Practicum: Placement for Extension Experiences** (max 9 cr; §HEEd 5027) (S-N optional)
110341 Norenberg, 2-9 cr
- 5028 Teaching Methods in Agricultural Education** (prereq SeEd 3155 or #) (A-F only)
403573 0830-0920 MTWThF, VoTech R385, Peterson, 5 cr

- 5049 Agricultural Education for Adults** (prereq 6 cr in agriculture and applied economics, 5010 or #) (A-F only)
702204 1145-1300 TTh, VoTech R375, Persons, 3 cr
- 5082 Current Issues in Agricultural Education** (max 9 cr; prereq #) (A-F only)
211562 1500-1745 M, VoTech R375, Persons, 1-3 cr
- 5090 Independent Study** (prereq sr) (A-F only)
103437 1-3 cr
- 5095 Integrating Paper: Master of Education** (prereq Med student in agricultural education) (A-F only)
504262 3 cr
- 8001 Research in Agricultural Education** (prereq 15 cr educ)
908549 ar cr
- 8091 Field Problems**
901729 3 cr
- 8777 Thesis Credits: Masters**
109853 1-16 cr

AGRICULTURAL ENGINEERING (AgEn) Institute of Technology

- 1060 Agricultural Engineering Orientation** (S-N only)
606407 1500-1655 Th, AgEng 307, Chaplin, 1 cr
- r3052 Engineering Principles of Soil-Water-Plant Systems** (prereq AEM 3016 or #3016, IT stu)
★LECT 1030-1145 TTh, AgEng 303E, Clanton
102555 -1 LAB 1230-1445 Th, AgEng 303E, Clanton, 4 cr
707614 -2 LAB 1500-1715 Th, AgEng 303E, Clanton, 4 cr
- 3970 Directed Studies in Agricultural Engineering** (prereq #)
802968 2-5 cr
- 5050 Intern Reports** (prereq IT stu, #)
212159 Foster, 2 cr
- r5074 Microcomputer Interfacing** (prereq IT upper div or grad IT, AgET 3030 or CSci 3101 or 3102)
★LECT 0830-0920 TTh, AgEng 103, Goodrich
010082 -1 LAB 0935-1130 TTh, AgEng 103, Goodrich, 4 cr
- 5191 Special Problems** (prereq #)
911886 2-5 cr
- 5192 Special Problems** (prereq 5191, #)
009806 2-5 cr
- 5350 Agricultural Machinery and Terramechanics** (prereq IT upper div or grad IT maj, AEM 3016, AEM 3036)
★LECT 1250-1405 TTh, AgEng 307, Chaplin
976897 -1 LAB 1420-1650 T, AgEng 307, Chaplin, 4 cr
- r5540 Watershed Engineering** (prereq 3052 or CE 3300, CE 3400, IT upper div or grad IT)
★LECT 0800-0915 MW, AgEng 16B, Wilson
005433 -1 LAB 1355-1655 Th, AgEng 16B, Wilson, 4 cr
- 5745 Ventilating Systems for Indoor Air Quality** (prereq IT upper div or grad IT maj, ME 3301, CE 3400 or AEM 3200)
576899 1430-1625 MW, AmundH 120, Janni, 4 cr
- 5891 Senior Design I** (†5891-5892; prereq IT upper div, sr, or #)
776898 0800-0940 F, AgEng 101, Schertz, 1 cr
- 8100 Seminar** (prereq #, grad IT maj)
202330 Schertz, 1 cr
- 8190 Advanced Problems and Research** (prereq 5191, 5192, Δ)
704180 2-6 cr
- 8191 Advanced Problems and Research** (prereq 5191, 5192, Δ)
111496 2-6 cr
- 8192 Advanced Problems and Research** (prereq 5191, 5192, Δ)
512507 2-6 cr

- 8777 Thesis Credits: Masters**
302433 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
305204 1-36 cr

AGRICULTURAL ENGINEERING TECHNOLOGY (AgET) Agriculture

- r1020 Agricultural Shop-Metalwork** (prereq Chem 1004 or #)
★LECT 1355-1445 MW, AgEngShop 42, Bear
104488 -1 LAB 1500-1800 MW, AgEngShop 20, Bear, 4 cr
- 1090 Directed Studies** (prereq #)
310533 ar cr
- 3091 Special Problems in Agricultural Engineering** (prereq #)
408188 2-5 cr
- 5020 Program Planning and Instructional Methods in Agricultural Mechanics** (prereq 10 cr in agri eng tech, AgEd 3031 or #) (A-F only)
★LECT 1500-1550 TTh, AgEngShop 42, Bear
103124 -1 LAB 1605-1800 TTh, AgEngShop 20, Bear, 3 cr
- r5027 Appropriate Technology for International Development** (prereq Math 1111, Chem 1001 or 1004, Phys 1041)
103809 1730-2000 MW, AgEng 307, Goodrich, 4 cr
- 5034 Problems and Field Studies in Advanced Agriculture: Natural Resources Development and Management** (prereq 5020 or #)
876505 Bear, 1-3 cr
- 5091 Special Problems in Agricultural Engineering** (prereq #)
405002 2-5 cr
- 5092 Special Problems in Agricultural Engineering** (prereq 5091)
207950 2-5 cr

AGRICULTURAL INDUSTRIES AND MARKETING (AIM) Agriculture

- 1001 Orientation to Agricultural Industries and Marketing** (S-N only)
101705 1500-1630 M, BioSci 12, Cardwell, 1 cr

AGRICULTURE (Agri) Agriculture

- 1000H Honors Colloquium: The Environment: Conquest, Collapse, or Coexistence** (prereq honors program registration, □) (A-F only)
810603 1500-1640 T, CofH 120, Goodrich, 2 cr
- r1200 Computer Applications in Your Profession** (prereq Coll of Agric undergrad stu) (A-F only)
411804 0900-1030 TTh, AlderH 310, Jom, 3 cr
- 3100H Honors Experience** (prereq approved proposal by Coll of Agri Honors Prog Comm) (A-F only)
475809 3-4 cr

AGRONOMY AND PLANT GENETICS (Agro) Agriculture

- r1010 Principles of Agronomy** (§3010, 3020, 3030)
★LECT 1145-1235 MTWTF, BorH 335, Sheaffer
475762 -1 LAB 0935-1130 T, AgGhCl 103, Sheaffer, 5 cr
275763 -2 LAB 1355-1550 W, AgGhCl 103, Sheaffer, 5 cr
- 1020 Special Problems** (prereq 5 cr agronomy, #)
411222 Smith, 1-3 cr
- r1100 Morphology and Identification of Crops and Weeds**
★LECT 0830-0920 TTh, BorH 335, Maxwell
276668 -1 LAB 1500-1655 MW, BorH 210, 4 cr
176669 -2 LAB 1040-1235 TTh, BorH 210, 4 cr
476670 -3 LAB 1355-1550 TTh, BorH 210, 4 cr

- r3030 Maturation, Harvest, and Storage of Field Crops** (prereq Biol 1009, Chem 1005)
★LECT 1040-1130 MWF, BorH 335, Smith
911189 -1 LAB 0935-1130 T, BorH 207, Smith, 4 cr
003259 -2 LAB 1250-1445 W, BorH 207, Smith, 4 cr
912245 -3 LAB 0935-1130 Th, BorH 207, Smith, 4 cr
- r3120 Grain Grading and Utilization** (†AgEc 3420-recommended)
809631 0935-1130 TTh, Agr A104, Cardwell, 2 cr
- 3150 Advanced Seed and Grain Evaluation** (prereq 1100 or #...1110 rec)
507260 1355-1800 TTh, Agr A104, Cardwell, 4 cr
- r3200 Seminar** (prereq jr or sr)
107805 1500-1630 T, BorH 306, Cardwell, 1 cr
- 5001 Problems in Agronomy for Advanced Students** (prereq 20 cr agronomy, #)
109151 Cardwell, 1-5 cr
- r5030 Weed Control** (prereq 1010 or #)
★LECT 1355-1445 MTWTh, BorH 335, Wyse
405176 -1 REC 1040-1130 F, AgGhCl 103, Wyse, 5 cr
405372 -2 REC 1145-1235 F, AgGhCl 103, Wyse, 5 cr
004119 -3 REC 1355-1445 F, AgGhCl 103, Wyse, 5 cr
- r5130 Maturation, Harvest, and Storage of Field Crops** (§3030; prereq Biol 1009, Chem 1005)
★LECT 1040-1130 MWF, BorH 335, Smith
★REC 1500-1550 M, Agr A202, Smith
707936 -1 LAB 0935-1130 T, BorH 207, Smith, 4 cr
908275 -2 LAB 1250-1445 W, BorH 207, Smith, 4 cr
909829 -3 LAB 0935-1130 Th, BorH 207, Smith, 4 cr
- 5200 World Food Problems** (§AgEc 5790, FScN 5643, Soc 5675, LACS 5280; prereq sr or grad with #)
207267 1800-2100 W, ClaOff B35, Cardwell, Peterson, others, 3 cr
- 5310 Orientation to Field Crop Breeding** (prereq 5020 or #) (S-N only)
704096 Stuthman, 1 cr
- 8000 Supervised Teaching Experience** (§Hort 8000, Soil 8000; prereq #) (S-N only)
710349 1355-1540 M, BorH 409, Simmons, 2 cr
- 8010 Research in Agronomy** (prereq #)
011507 ar cr
- 8020 Seminar: Agronomy**
104992 1600-1700 W, BorH 306, Burnside, 1 cr
- r8050 Physiology of Field Crops** (prereq 5120, PIPH 5131 or #)
507355 0935-1025 MWF, BorH 365, Jones, 3 cr
- 8070 Colloquium in Agroecology** (prereq 5070, 8050 or #)
404870 1500-1630 T, Soils S415, Putnam, 1-3 cr
- r8220 Application of Quantitative Genetics to Plant Breeding** (prereq 8210, 8260, GCB 5042 or #)
611672 0830-0920 MWF, BorH 210, Stucker, 3 cr
- 8230 Cytogenetics** (prereq GCB 5034 or #)
209309 1040-1130 MWF, BorH 306, Phillips, 4 cr (2 hr lab ar)
- 8270 Seminar: Plant Breeding**
310421 1600-1700 M, BorH 306, Phillips, 1 cr
- 8320 Orientation to Agronomy and Soils Field Research Techniques** (§Soils 8320; prereq 5040 or #) (S-N only)
509171 Cardwell, 1 cr
- 8330 Research in Plant Genetics**
703045 ar cr
- 8777 Thesis Credits: Masters**
611901 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
806437 1-36 cr

AMERICAN INDIAN STUDIES

(AmIn)

Liberal Arts

- 1021 Beginning Ojibwe**
303727 1115-1205 MTWThF, WullH 130, 5 cr

- 1031 Beginning Dakota**
503306 1220-1310 MTWThF, WullH 130, Schommer, 5 cr
- r1771 Introduction to American Indian Studies** (§AmSt 1771)
910950 1245-1400 TTh, FordH 155, 4 cr
- 3024 Intermediate Ojibwe** (prereq 1023)
206068 1325-1415 MTWThF, WullH 130, 5 cr
- 3034 Intermediate Dakota** (prereq 1033)
805255 1430-1520 MTWThF, WullH 130, Schommer, 5 cr
- r3036 Dakota History and Culture**
175487 1325-1415 MWF, ScottH 4, 4 cr
- r3242 Survey of American Indian Arts**
608304 0945-1100 TTh, ScottH 4, Libertus, 4 cr
- 3810 Field Practice: Indian Studies** (prereq soph or jr or sr, #)
806972 3-9 cr
- 3970 Directed Studies** (prereq #, Δ)
404643 1-15 cr
- 3980 Directed Instruction** (prereq #, Δ, □)
103860 5 cr
- r5411 Urban Indian Communities**
611588 1115-1230 TTh, ScottH 4, Libertus, 4 cr
- 5990 Directed Research** (prereq by petition only, #, Δ, CLA approval)
410135 1-15 cr

AMERICAN STUDIES (AmSt)

Liberal Arts

- r1001 American Cultures**
★LECT 0945-1100 TTh, NichH 211, May, Menard
975653 -1 REC 0800-0850 M, BuH 123, 4 cr
875662 -2 REC 1325-1415 M, JonesH 2, 4 cr
075658 -3 REC 1430-1520 M, ScottH 4, 4 cr
775668 -4 REC 1115-1205 T, BuH 125, 4 cr
575669 -5 REC 1325-1415 T, MRRC 211, 4 cr
775654 -6 REC 0800-0850 W, BuH 123, 4 cr
475664 -7 REC 1325-1415 W, BuH 123, 4 cr
875659 -8 REC 1430-1520 W, ScottH 4, 4 cr
975670 -9 REC 1325-1415 Th, FelH 426, 4 cr
575665 -10 REC 1325-1415 Th, PeikH 225, 4 cr
175666 -11 REC 1325-1415 F, BuH 123, 4 cr
175660 -12 REC 1430-1520 F, ScottH 4, 4 cr
- r1001H American Cultures**
★LECT 0945-1100 TTh, NichH 211, May, Menard
475650 -80 REC 1325-1415 Th, LindH 216, Richter, 4 cr
- r1003 American Cultures**
★LECT 1430-1545 TTh, ScottH 4
575672 -1 REC 1010-1100 W, LindH 325, 4 cr
775671 -2 REC 1535-1625 M, ScottH 4, 4 cr
- r3106 Introduction to Chicano Studies** (§Chic 3106)
275648 0800-0850 MWF, ScottH 4, 4 cr
- r3112 American Everyday Life**
011884 0815-0930 TTh, ScottH 4, Delattre, 4 cr
- r3113 American Cultural Diversity** (§Clit 3979)
606987 1220-1440 TTh, FolH 104, Sarles, 4 cr
- r3301 Proseminar: American Studies** (prereq American Studies sr)
007053 1325-1525 T, ScottH 2, Prell, 4 cr
- r3920 Topics in American Studies: Folklore of Greater Mexico** (max 12 cr; prereq jr or sr) (A-F only)
075644 1115-1205 MWF, ScottH 4, Montano, 4 cr
- 3970 Directed Studies** (prereq #, Δ, □)
205034 1-15 cr
- r5101 Religion and American Culture** (§RelS 5101)
875645 1115-1230 TTh, BuH 120, Delattre, 4 cr
- r5920 Topics in American Studies: Semiotics of Culture** (max 12 cr; §CSDS 5910, sec 2, Hum 5910, sec 1)
612045 1430-1545 TTh, FordH 150, Fiske, 4 cr
- r8201 Introduction to American Studies: History, Theory, Methodology** (prereq admission to AmSt grad program) (A-F only)
110937 1325-1525 M, ScottH 2, Noble, 4 cr
- r8239 Gender, Race, Class and/or Ethnicity in America** (prereq # or Δ) (A-F only)
675646 -1 1000-1200 T, ScottH 2, Prell, 4 cr (Understanding American Ethnicity through Cultural Images of Intimacy)

- 275651 -2 1300-1530 F, FordH 349, Kohlstedt, 4 cr (Women in Science)

- r8249 Material Culture and/or Popular Culture: Theories of Popular Culture** (§CSDS 8910; prereq # or Δ) (A-F only)
475647 1325-1625 W, FordH 50, Fiske, 4 cr
- 8777 Thesis Credits: Masters**
903643 1-16 cr
- 8801 Dissertation Seminar** (prereq #) (A-F only)
409406 1325-1525 Th, ScottH 2, Howe, 4 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
106296 1-36 cr
- 8970 Readings in American Civilization**
210508 ar cr

ANCIENT NEAR EASTERN (ANE) Classical & Near Eastern Studies Liberal Arts

- 1001 The Bible: Narrative Texts** (§3001, RelS 3201)
775332 0905-0955 MWF, FolH 306, Paradise, 4 cr
- 3001 The Bible: Narrative Texts** (§1001, RelS 3201)
575333 0905-0955 MWF, FolH 306, Paradise, 4 cr
- 3101 Ancient Near Eastern Texts in English**
375334 0905-0955 MWF, FolH 246, Reisman, 4 cr
- 3117 Dead Sea Scrolls: The Intertestamental Period** (§RelS 3117; prereq no knowl of Hebr req)
975331 1115-1230 TTh, FolH 50, Zahavy, 4 cr
- 5970 Directed Studies** (prereq #)
206801 1-4 cr

ANCIENT STUDIES (AnSt) Liberal Arts

- 5100 Topics in Ancient Studies** (prereq enrollment in AnSt or #)
675792 1820-2050 M, FolH 344, Marchese, 4 cr
- 8001 Basic Seminar: Understanding the Past: Method and Theory in Archaeology** (prereq grad maj or #)
512622 1325-1520 T, FolH 224, Wellis, 4 cr
- 8100 Interdisciplinary Seminar** (prereq grad maj or #)
702977 0815-0930 TTh, BlegH 415, Lukermann, 4 cr
- 8200 Directed Readings** (prereq Δ)
908194 1-3 cr
- 8300 Directed Research** (prereq Δ)
809886 1-3 cr
- 8777 Thesis Credits: Masters**
612255 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
703496 1-36 cr

ANESTHESIOLOGY (Anes) Medical School

- r3107 Individual Study in Respiratory Therapy** (prereq #)
504505 1415-1500 W, Mayo C559, Larsen, ar cr
- 5015 Directed Study, Anesthesia Topics/Project Course Development** (prereq CRNA, regis B.S. in nurs anes, #)
011474 ar cr
- 5181 Externship in Clinical Practice of Anesthesiology** (prereq regis med)
103776 Anderson, 4.5-9 cr
- 5182 Independent Study, Anesthesiology** (prereq regis med)
906865 ar cr
- 5186 Clinical Practice in Anesthesia** (prereq CRNA, regis B.S. in nurs anes, 5086, #)
110106 Palahniuk, 15 cr
- 5268 Seminar in Anesthesia** (prereq CRNA, regis B.S. in anes)
108825 1500-1700 F, Mayo B560, Palahniuk, 2 cr
- 5286 Directed Study, Anesthesia Topics/Project: Clinical** (prereq CRNA, regis B.S. in nurs anes, #)
103339 Bell, ar cr

- 5386 Education in Nurse Anesthesia** (prereq CRNA, regis B.S. in nurs anes, #)
906557 Bell, 1 cr
- 5486 Nurse Anesthesia: Education/Management, the Affective Domain** (prereq CRNA, regis B.S. in nurs anes, #)
511938 1615-1900 W, MoosT 2580, Bell, 4 cr
- 8265 General Anesthesia**
808124 12 cr
- 8266 Regional Anesthesia**
110954 Palahniuk, 4 cr
- 8267 Pre-Postanesthetic Evaluation**
604009 1530-1800 MTWTh, Mayo B580, Palahniuk, 2 cr
- 8268 Seminar: Anesthesia**
802047 1500-1700 F, Mayo B580, Palahniuk, 2 cr
- 8269 Research in Anesthesia**
103910 Palaniuk, ar cr
- 8777 Thesis Credits: Masters**
402066 1-16 cr

ANIMAL PHYSIOLOGY (AnPh)

- 8777 Thesis Credits: Masters**
102286 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
203784 1-36 cr

ANIMAL SCIENCE (AnSc)

Agriculture

- 1100 Introductory Animal Science**
102398 0935-1025 MTWThF, PetH 110, Young, others, 5 cr
- 1110 Dairy Cattle Judging** (prereq #)
206636 1400-1600 MTWThF, McNH 198, Hansen, 2 cr
- r1120 Livestock and Meat Evaluation**
★LECT 1400-1600 M, AnAren, 1500-1655 F, PetH 110, Meiske, 607377 -1 LAB 1500-1600 W, PetH 110, Meiske, 4 cr
- 1301 Management Techniques: Swine** (prereq #) (S-N only)
808110 Hawton, 1 cr
- 1302 Management Techniques: Sheep** (prereq #) (S-N only)
506478 Christians, 1 cr
- 1303 Management Techniques: Beef** (prereq #) (S-N only)
910558 1355-1630 T, BCB, HckrH 70, Meiske, 1 cr
- 1304 Management Techniques: Dairy** (prereq #) (S-N only)
311889 1355-1455 MTWThF, ClaOff 27, Otterby, 1 cr
- r3130 Beginning Livestock Judging** (prereq soph or #...1120 rec)
409759 1500-1800 TTh, AnAren, Hawton, 2 cr
- 3142 Advanced Livestock Judging** (prereq 3130) (A-F only)
910513 1500-1745 TTh, AnAren 115, Hawton, 1 cr
- 3143 Meats Judging and Grading** (prereq 1120 or 1)
904615 1355-1550 Th, ABLMS 125, Epley, 2 cr
- r3220 Principles of Animal Breeding** (GCB 3022 rec)
507890 1040-1130 MTWThF, PetH 108, 110, Rempel, 5 cr
- r3301 Systemic Physiology** (prereq Biol 1011, BioC 1301)
★LECT 1145-1235 MTWThF, PetH 110, Hunter, El Halawani
711016 -1 LAB 1500-1800 W, AnScVM 164, 168, Hunter, El Halawani, 6 cr
401936 -2 LAB 1355-1655 Th, AnScVM 164, 168, Hunter, El Halawani, 6 cr
- 3306 Artificial Insemination Techniques Laboratory** (prereq #...3305 rec) (S-N only)
004850 1500-1550 MTWThF, AnScVM 495J, Crabo, 1 cr
- 3401 Principles of Animal Nutrition** (§1401; prereq Chem 1002 or BioC 1301 or Chem 3301)
212470 0830-0920 MWF, ClaOff B35, Pettigrew, 3 cr

- 3730H Honors Seminar** (prereq animal science maj, jr or sr, 3.25 GPA, Δ) (A-F only)
001723 0935-1025 F, AnScVM 495J, Wheaton, 1 cr
- 3770H Honors Senior Research Thesis in Animal Science** (prereq animal science maj, sr, 3.25 GPA, Δ) (A-F only)
010356 Wheaton, 2 cr
- r5322 Physiology of Reproduction** (prereq 6 cr systemic physiology)
706530 1500-1550 MTWThF, HckrH 312, Crabo, 5 cr
- r5401 Swine Nutrition and Feeding** (prereq 1401 or 3401)
★LECT 1355-1445 MWF, ClaOff B36
601837 -1 REC 1355-1445 T, ClaOff B42, 4 cr
- 5605 Poultry Production** (§5615; prereq 1401 or 3401...5405 rec)
202098 1500-1655 TTh, PetH 108, Hamre, 4 cr
- 5710 Special Problems** (prereq #)
903772 ar cr
- 5715 Tutorial** (prereq #)
803036 ar cr
- 8420 Animal Bioenergetics and Nutritional Physiology** (prereq #...BioC 5002 rec)
110856 Crooker, 3 cr
- 8603 Graduate Seminar** (prereq #)
003178 1250-1340 M, PetH 108, Hunter, 1 cr
- 8742 Concepts and Developments in Swine Nutrition** (prereq #)
905862 2 cr
- 8750 Concepts and Developments in Meat Science and Technology** (prereq #)
611431 Dayton, 1 cr
- 8777 Thesis Credits: Masters**
401791 1-16 cr
- 8810 Research in Animal Science** (prereq #)
903874 ar cr
- 8820 Research in Animal Genetics** (prereq #)
607976 ar cr
- 8830 Research in Animal Physiology** (prereq #)
109988 Hunter, ar cr
- 8840 Research in Animal Nutrition** (prereq #)
509901 ar cr
- 8850 Research in Muscle Chemistry and Physiology** (prereq #)
109196 Dayton, ar cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
310807 1-36 cr

ANTHROPOLOGY (Anth)

Liberal Arts

- r1101 Human Origins**
★LECT 1010-1100 MWF, SciCB 175
408241 -1 REC 0800-0850 T, FordH 20, 5 cr
703143 -2 REC 0905-0955 T, FordH 20, 5 cr
511924 -3 REC 1010-1100 T, FordH 20, 5 cr
604477 -4 REC 1115-1205 T, FordH 20, 5 cr
706477 -5 REC 1220-1310 T, FordH 20, 5 cr
410930 -6 REC 0800-0850 Th, FordH 20, 5 cr
103275 -7 REC 0905-0955 Th, FordH 20, 5 cr
202005 -8 REC 1010-1100 Th, FordH 20, 5 cr
110087 -9 REC 1115-1205 Th, FordH 20, 5 cr
511860 -10 REC 1220-1310 Th, FordH 20, 5 cr
- r1101H Honors Course: Human Origins** (prereq B avg or #)
★LECT 1010-1100 MWF, SciCB 175
601904 -80 REC 1325-1415 Th, FordH 20, 5 cr
- r1102 Introduction to Social and Cultural Anthropology** (§1115, 5102)
★LECT 0905-0955 MWF, NichH 45, Rowe
006856 -1 REC 0800-0850 T, FordH 15, 5 cr
607234 -2 REC 0905-0955 T, FordH 15, 5 cr
410166 -3 REC 0905-0955 T, Phys 157, 5 cr
307101 -4 REC 1010-1100 T, FordH 15, 5 cr
910978 -5 REC 1115-1205 T, FordH 175, 5 cr
106024 -6 REC 1115-1205 T, FordH 15, 5 cr
011362 -7 REC 1220-1310 T, FordH 15, 5 cr
408403 -8 REC 0800-0850 Th, FordH 15, 5 cr
104502 -9 REC 0905-0955 Th, KolH S137, 5 cr
707385 -10 REC 0905-0955 Th, EE/CSci 3230, 5 cr
608934 -11 REC 1010-1100 Th, EE/CSci 3230, 5 cr
810262 -12 REC 1010-1100 Th, FordH 15, 5 cr
607007 -13 REC 1115-1205 Th, FordH 15, 5 cr
701876 -14 REC 1220-1310 Th, FordH 15, 5 cr

- r1102H Introduction to Social and Cultural Anthropology** (prereq GPA 3.0 or #)
★LECT 0905-0955 MWF, NichH 45, Rowe
012432 -80 REC 0905-0955 Th, FordH 15, Rowe, 5 cr
- r3003 The Rise of Civilization**
304456 1115-1205 MWF, MoosT 2620, Gibbon, 4 cr
- r3111 Introduction to Archaeology**
★LECT 0905-0955 MWF, FordH 150, Gibbon
403606 -1 REC 1325-1415 T, FordH 15, 5 cr
910852 -2 REC 1325-1415 Th, FordH 15, 5 cr
- r3224 Hispanic Cultures of Latin America** (prereq 1102 or #)
576966 1245-1400 TTh, FordH 150, Gudeman, 4 cr
- r3366 Language and Social Analysis** (prereq 1102 or 5102 or #)
302660 1010-1100 MWF, FordH 285, Dunnigan, 5 cr
- r3960 Anthropology Proseminar: Archaeology of the Old World**
175568 1115-1230 TTh, FordH 130, Wells, 4 cr
- 3970 Directed Studies** (prereq #, Δ, □)
808236 ar cr
- 3992H Honors Tutorial** (can not be applied toward any CLA degree) (S-N only)
903030 1 cr
- r5102 Principles of Cultural Anthropology** (§1102; prereq jr standing only or #)
203669 0815-0930 TTh, FordH 285, Penn, 4 cr
- r5104 History of Anthropology** (prereq 1102, 15 cr in 3xxx and 5xxx level courses)
801724 1115-1205 MWF, FordH 285, Ogan, 4 cr
- r5115 Economic Anthropology** (prereq 1102 or 5102, 3201 or #)
201596 0945-1100 TTh, FordH 150, Gudeman, 4 cr
- r5118 Political Anthropology** (prereq 1102 or 5102 or #)
975569 1115-1230 TTh, FordH 150, Lipset, 4 cr
- r5392 Philosophical Anthropology** (prereq 1102 or 5102)
275570 1245-1400 TTh, FordH 130, Penn, 4 cr
- r5910 Topics in Anthropology: Media as Culture**
275567 1220-1310 MWF, FordH 285, Dunnigan, 4 cr
- r5920 Topics in Anthropology: Anthropology of AIDS**
207978 1630-1800 TTh, FordH 120, Rowe, 4 cr
- r5960 Senior Seminar: Applied Anthropology** (prereq sr maj)
812187 1010-1200 W, FordH 235, Miller, 4 cr
- 5961 Senior Research Project** (prereq sr maj, #) (A-F only)
608562 4 cr
- 5970 Directed Readings** (prereq #, Δ, CLA approval)
009014 2-4 cr
- 6001 History of Anthropological Theory** (prereq anth grad student or #)
903299 1535-1700 TTh, FordH 290E, Raheja, 3 cr
- 8201 Methods and Theory in Archaeology**
103079 1325-1520 T, FolH 224, Wells, 3 cr
- 8350 Seminar: Culture and Personality**
175571 1325-1520 Th, FordH 235, Ingham, 3 cr
- 8777 Thesis Credits: Masters**
407865 1-16 cr
- 8810 Seminar: Durkheim**
975572 1325-1520 W, FordH 290E, Lipset, 3 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
202361 1-36 cr
- 8950 Directed Studies** (prereq #)
512068 ar cr

ARABIC (Arab)

Afro-American & African Studies

Liberal Arts

- r1101 Beginning Arabic**
103818 1115-1205 MTWThF, BlegH 210, AshShareef, 5 cr

- R3101 Intermediate Arabic** (prereq 1103 or #)
101980 1325-1520 MWF, BlegH 350, AshShareef,
4 cr
- R5870 Directed Readings** (prereq #, Δ, CLA
approval)
208144 AshShareef, ar cr

ARCHITECTURE (Arch) Arch & Landscape Arch

- R1010 Introduction to Architecture, Drawing**
811685 1325-1710 TTh, Arch 60, Piotrowski, 4 cr
- R1021 History of Architecture** (SLA 1021)
904131 1115-1310 TTh, NichH 45, Satkowski, 4 cr
- R1041 Architectural Graphics** (prereq arch maj or
pre-arch maj or premajor arch or #)
006355 1615-1730 TTh, Arch 10, Grebner, 2 cr
- R3060 Teknos: Force, Form and Architecture**
(prereq 1021, arch maj, 13081) (A-F only)
003438 1010-1205 WF, Arch 35, Lavine, 4 cr
- R3064 Environmental Management and Control**
(prereq 3062, arch maj or adult special)
★LECT 1010-1205 WF, Arch 55, Huizenga,
4 cr
606665 -1 REC 1010-1205 M, Arch 45
204644 -2 REC 1010-1205 M, Arch 55
202635 -3 REC 1010-1205 M, Arch 35
- R3081 Architectural Design** (prereq arch maj) (A-F
only)
★LECT 1325-1730 MWF, Arch 55, Weeks,
6 cr
206460 -1 LAB 1325-1730 MWF, Arch 230,
Weeks
- R3091 Architectural Design** (prereq 3083, arch maj)
(A-F only)
★LECT 1325-1730 MWF, Arch 50, 6 cr
902945 -1 LAB 1325-1730 MWF, Arch 220,
Mullfingher
- R3092 Architectural Design** (prereq 3091) (A-F only)
★LECT 1325-1730 MWF, Arch 50, 6 cr
411432 -1 LAB 1325-1730 MWF, Arch 220,
Mullfingher
- R3093 Architectural Design** (prereq 3092) (A-F only)
★LECT 1325-1730 MWF, Arch 50, 6 cr
208550 -1 LAB 1325-1730 MWF, Arch 220,
Mullfingher
- R3970 Directed Study** (prereq 3081 or Δ)
806115 ar cr
- R5054 Renaissance Architecture in Italy** (§ArH
5054; prereq 1021 or #, arch maj) (A-F only)
104645 1010-1205 WF, Arch 25, Satkowski, 4 cr
- R5055 18th Century Architecture and the
Enlightenment** (§ArH 5055; prereq 1021 or #)
102636 1010-1205 TTh, Arch 25, James, 4 cr
- R5111 Architectural Design** (prereq 3093, 3064-3065
or #, CE 3600-3601-3602 or #, arch maj)
★LECT 1325-1730 MWF, Arch 35, 6 cr
403699 -1 LAB 1325-1730 MWF, Arch 145,
Rockcastle
- R5112 Architectural Design** (prereq 5111, arch maj)
★LECT 1325-1730 MWF, Arch 35, 6 cr
101941 -1 LAB 1325-1730 MWF, Arch 145,
Rockcastle
- R5113 Architectural Design** (prereq 5112, arch maj)
★LECT 1325-1730 MWF, Arch 35, 6 cr
706401 -1 LAB 1325-1730 MWF, Arch 145,
Rockcastle
- R5121 Architectural Design** (prereq 5113, CE 3602,
arch maj) (A-F only)
★LECT 1325-1730 MWF, Arch 40, Fraker,
6 cr
806003 -1 LAB 1325-1730 MWF, Arch 240
- R5122 Architectural Design** (prereq 5121, arch maj)
★LECT 1325-1730 MWF, Arch 40, 6 cr
901813 -1 LAB 1325-1730 MWF, Arch 240
- R5123 Architectural Thesis** (prereq 5122, submit
thesis plan qtr prior to writing, 800 hrs practical
exp, 36 lab hrs, Δ)
111305 1325-1730 MTWThF, Arch 125, Lockhart,
12 cr
- 5128 Law for Architects** (prereq 3093 or Δ)
206877 1815-2120 W, Arch 60, Tanick, 4 cr
- R5137 Planning: Urban Function and Structure**
(prereq 3093 or #)
101857 0800-0955 WF, Arch 25, 4 cr

- 5141 Historic Preservation Process** (prereq 1021
or #)
408594 1715-1900 TTh, Arch 35, Mack, 4 cr
- R5850 Topics in Theory** (prereq arch maj or adult
special)
801741 -1 1535-1730 T, Arch 45, Jara, 2 cr (grad
only)
203283 -2 1535-1730 T, Arch 20, Dorgan, 2 cr
902430 -3 1535-1730 Th, Arch 45, 2 cr
- R5851 Architecture: Theory and Philosophy** (prereq
3093 or #, arch maj or adult spec stu) (A-F
only)
975913 1535-1730 Th, Arch 20, Dittmar, 3 cr
- R5854 The Language of Architecture: Semiotics,
Symbolism, and Metaphor** (prereq 3083 or #,
arch maj or adult special)
110887 1535-1730 Th, Arch 30, Rockcastle, 3 cr
- R5951 Architecture and Behavior** (prereq 3083 or #,
arch maj or adult special)
503354 1010-1205 WF, Arch 45, Robinson, 3 cr
- R5961 Computer-Aided Architectural Design**
(prereq architecture maj, 3083 or #)
211500 1325-1520 T, Arch 45, Anderson, 4 cr
- R5970 Directed Study** (prereq #)
203879 ar cr
- R8251 Architectural Design** (prereq grad status in
architecture) (A-F only)
★LECT 1325-1730 MWF, Arch 35,
Rockcastle, 6 cr
507971 -1 LAB 1325-1730 MWF, Arch 145
- R8252 Architectural Design** (prereq grad status in
architecture) (A-F only)
★LECT 1325-1730 MWF, Arch 35,
Rockcastle, 6 cr
605953 -1 LAB 1325-1730 MWF, Arch 145
- R8253 Architectural Design** (prereq grad status in
architecture) (A-F only)
★LECT 1325-1730 MWF, Arch 35,
Rockcastle, 6 cr
308099 -1 LAB 1325-1730 MWF, Arch 145
- R8254 Architectural Design** (prereq grad status in
architecture) (A-F only)
★LECT 1325-1730 MWF, Arch 40, Fraker,
6 cr
808141 -1 LAB 1325-1730 MWF, Arch 210
- R8255 Architectural Design** (prereq grad status in
architecture) (A-F only)
★LECT 1325-1730 MWF, Arch 40, Fraker,
6 cr
812352 -1 LAB 1325-1730 MWF, Arch 210
- R8261 Selected Problems in Architecture** (prereq
grad status in architecture)
★LECT 1325-1730 MWF, Arch 40
409227 -1 LAB 1325-1730 MWF, Arch 210,
1-9 cr
- R8262 Selected Problems in Architecture** (prereq
grad status in architecture)
★LECT 1325-1730 MWF, Arch 40, 6 cr
511552 -1 LAB 1325-1730 MWF, Arch 210
- R8263 Selected Problems in Architecture** (prereq
grad status in architecture)
★LECT 1325-1730 MWF, Arch 40, 6 cr
403900 -1 LAB 1325-1730 MWF, Arch 210
- R8271 Problems in City and Community Design**
(prereq grad Arch stu)
004444 1325-1730 MWF, Arch 210, 9 cr
- 8777 Thesis Credits: Masters**
211173 1-16 cr

ART EDUCATION (ArEd) Curriculum And Instruction Education

- R3000 Art of Children** (A-F only)
310225 1430-1625 TTh, WullH 240, Freedman,
3 cr
- R3001 Survey of Art Activities** (prereq non art
education maj) (A-F only)
811458 -1 0905-1100 MWF, WullH 220, 4 cr
103320 -2 0905-1205 TTh, WullH 220, 4 cr
- R3020 Contemporary Crafts** (A-F only)
408014 0905-1205 TTh, WullH 120, 4 cr
- 3110 Curriculum Development in Art** (prereq educ
stu) (A-F only)
910561 1010-1205 TTh, WullH 240, DiBlasio, 3 cr

- 3309 Independent Study** (max 4 cr; prereq #) (A-F
only)
106119 Freedman, 1-4 cr
- 3600 Student Teaching and Supervision of Art**
(prereq 3120, 3130, sr in art educ, SeEd 3150,
Elem 3101, 13610) (S-N only)
406215 3-12 cr
- R3610 Teaching Art in the Schools** (prereq 13600)
(A-F only)
204126 1640-1825 TTh, WullH 110, Freedman,
3 cr
- R5020 Advanced Contemporary Crafts** (prereq 3020
or #) (A-F only)
510241 0905-1205 TTh, WullH 120, 4 cr
- 5302 Curriculum Innovations in Art Education**
(A-F only)
302576 1640-1825 MW, WullH 240, DiBlasio, 4 cr
- 5600 Internship** (prereq #) (A-F only)
205521 DiBlasio, 3-9 cr
- 5605 Practicum** (prereq #) (A-F only)
209911 Freedman, 3-9 cr
- 5900 Professional Problems** (prereq MEd student,
#) (A-F only)
508232 -1 DiBlasio, 3 cr
408143 -2 Freedman, 3 cr
- 8900 Problems: Art Education** (prereq #)
312458 -1 DiBlasio, ar cr
207401 -2 Freedman, ar cr

ART HISTORY (ArH) Liberal Arts

- R1001 Introduction to Visual Arts** (§3001)
576059 1115-1205 MWF, AndH 310, McNally, 4 cr
- R1921 Introduction to Film Study** (§CLT 1921)
412242 1325-1415 MW, 1325-1600 F, AndH 310,
Silberman, 4 cr
- R3008 History of Ancient Art** (§Cias 3008)
708293 1220-1310 MWF, AndH 310, Cooper, 4 cr
- R3009 History of Medieval Art**
005268 0905-0955 MWF, AndH 310, Steyaert,
4 cr
- R3011 History of Renaissance and Baroque Art**
208368 1010-1100 MWF, AndH 310, Canedy, 4 cr
- R3014 Art of India**
976060 0815-0930 TTh, AndH 310, Asher F., 4 cr
- R3303 Baroque and Rococo Painting in France**
(§5357)
503368 0800-0850 MWF, FolH 306, Stoughton,
4 cr
- R3941 The Japanese Cinema** (§EAS 3941) (A-F only)
776061 0905-0955 MW, 0905-1130 F, WBU 20,
Silberman, Copeland, 4 cr (Auditorium)
- 3970 Directed Studies** (prereq #, Δ, □)
505315 1-5 cr
- 3971 Major Project** (prereq art history maj, #)
112549 1 cr
- 3975 Directed Museum Experience** (prereq #,
Director of Undergrad Studies) (S-N only)
009045 1-3 cr
- R5055 18th Century Architecture and the
Enlightenment** (§Arch 5055; prereq Arch 1021
or #)
277061 1010-1205 TTh, Arch 25, James, 4 cr
- R5104 Roman Architecture** (§Cias 5104; prereq jr or
sr or #)
376063 1010-1100 MWF, JonesH 207A, Cooper,
5 cr
- R5107 Roman Sculpture** (§Cias 5107; prereq jr or sr
or #) (A-F only)
176064 0905-0955 MWF, JonesH 207A, McNally,
4 cr
- R5307 15th Century Italian Architecture, Sculpture,
and Painting** (prereq 3011 or #)
109490 1220-1310 MWF, JonesH 207A, Canedy,
4 cr
- R5346 Baroque Art in Italy and Spain** (prereq 3011 or
grad student or #)
076065 1115-1205 MWF, JonesH 207B,
Stoughton, 5 cr
- R5454 Art Nouveau** (prereq one 3xxx art history
course or grad or #)
876066 0945-1100 TTh, JonesH 207B, Weisberg,
5 cr

- r5767 Japanese Painting**
676067 1115-1230 TTh, JonesH 207A, Poor, 4 cr
- r5777 Painting of India** (prereq 4 cr art hist or #)
476068 1245-1400 TTh, JonesH 207B, Asher C., 5 cr
- r5895 Methods and Research in Art History** (§8801, prereq art history maj, #)
104065-1415-1615 TTh, JonesH 202, Haxthausen, 4 cr
- 5970 Directed Readings** (prereq sr, #, Δ, CLA approval)
205311 1-5 cr
- 5990 Directed Research** (prereq sr, #, Δ, CLA approval)
606245 1-5 cr
- r8850 Seminar: Studies in Scandinavian Art** (prereq #)
101650 1415-1615 M, JonesH 202, Nelson, 4 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
803067 1-36 cr
- 8970 Directed Studies** (prereq #)
111515 1-5 cr
- 8975 Directed Museum Studies** (prereq #) (A-F only)
704132 1-3 cr

ART, STUDIO (Arts) Liberal Arts

Materials fees are assessed at the time of registration for many Studio Arts courses. See Section 2, Course Fees, for course numbers and fee amounts. Materials fees for ceramic and sculpture courses also cover rental of a Studio Arts locker and include a \$10 deposit that is refundable at the end of the course. Check with your instructor for details.

Written permission from the instructor is required for all students to register for a Studio Arts course after the first class meeting.

Open labs are scheduled for two hours each week for all 1000- and 3000-level Studio Arts courses. Labs are staffed by teaching assistants who can answer both aesthetic and technical questions and help with course work. You may attend the lab scheduled for your course or any lab scheduled in the same media (drawing/painting, ceramics, glass, photography, printmaking, or sculpture). Attendance at more than one lab is also possible. A listing of the days and times of labs will be on the fact sheet given to you the first day of class. Attendance at labs is strongly encouraged to achieve a passing grade.

- r1101 Drawing I**
308233 -1 1010-1205 MW, ArtB 140, 4 cr (Arts, premaj Arts, ArEd, or MLK stu only)
502480 -2 1010-1205 MW, ArtB 140, 4 cr (Pre-Arch, Arch, Landscape Arch maj only)
206040 -3 1010-1205 MW, ArtB 140, 4 cr
303498 -4 1325-1520 MW, ArtB 150, 4 cr (Arts, premaj Arts, ArEd, or MLK stu only)
403072 -5 1325-1520 MW, ArtB 150, 4 cr (Pre-Arch, Arch, Landscape Arch maj only)
506805 -6 1325-1520 MW, ArtB 150, 4 cr
407056 -7 1325-1520 MW, ArtB 160, 4 cr (Arts, premaj Arts, ArEd, or MLK stu only)
205454 -8 1325-1520 MW, ArtB 160, 4 cr (Pre-Arch, Arch, Landscape Arch maj only)
009515 -9 1325-1520 MW, ArtB 160, 4 cr
410040 -10 1010-1205 TTh, ArtB 150, 4 cr (Arts, premaj Arts, ArEd, or MLK stu only)
004329 -11 1010-1205 TTh, ArtB 150, 4 cr (Pre-Arch, Arch, Landscape Arch maj only)
911094 -12 1010-1205 TTh, ArtB 150, 4 cr
002192 -13 1010-1205 TTh, ArtB 140, 4 cr (Arts, premaj Arts, ArEd, or MLK stu only)
010549 -14 1010-1205 TTh, ArtB 140, 4 cr (Pre-Arch, Arch, Landscape Arch maj only)
210184 -15 1010-1205 TTh, ArtB 140, 4 cr
402388 -16 1325-1520 TTh, ArtB 160, 4 cr (Arts, premaj Arts, ArEd, or MLK stu only)
903559 -17 1325-1520 TTh, ArtB 160, 4 cr (Pre-Arch, Arch, Landscape Arch maj only)
109531 -18 1325-1520 TTh, ArtB 160, 4 cr
812643 -21 0905-1205 TTh, ArtB 141, 4 cr

- r1102 Drawing II** (prereq 1101)
109716 -1 1010-1205 MW, ArtB 141, Westendorp, 4 cr (Arts, premaj Arts or MLK stu only)
907725 -2 1010-1205 MW, ArtB 141, Westendorp, 4 cr
705717 -3 1325-1520 MW, ArtB 141, 4 cr (Arts, premaj Arts or MLK stu only)
402777 -4 1325-1520 MW, ArtB 141, 4 cr
211464 -5 1325-1520 TTh, ArtB 140, Cowette, 4 cr (Arts, premaj Arts or MLK stu only)
007294 -6 1325-1520 TTh, ArtB 140, Cowette, 4 cr
- r1301 Sculpture**
106810 -1 1010-1205 MW, ArtB 65, Rose, 4 cr (Arts, premaj Arts, or MLK stu only)
002368 -2 1010-1205 MW, ArtB 65, Rose, 4 cr
276041 -3 1010-1205 TTh, ArtB 65, 4 cr (Arts, premaj Arts, or MLK stu only)
776044 -4 1010-1205 TTh, ArtB 65, 4 cr
- r1302 Sculpture**
301654 -1 1325-1520 TTh, ArtB 50, 4 cr (Arts, premaj Arts, ArEd or MLK stu only)
505718 -2 1325-1520 TTh, ArtB 50, 4 cr
- r1401 Introduction to Studio Arts**
402178 -1 LECT 1535-1730 TTh, WilleyH 125, Lyon, 4 cr
- r1404 Color** (§1104; prereq 1101)
002645 -1 1325-1520 MW, ArtB 140, 4 cr (Arts, premaj Arts, or MLK stu only)
001589 -2 1325-1520 MW, ArtB 140, 4 cr (Pre-Arch, Arch, Landscape Arch maj only)
210671 -3 1325-1520 MW, ArtB 140, 4 cr
202778 -4 1010-1205 TTh, ArtB 160, 4 cr (Arts, premaj Arts, or MLK stu only)
101655 -5 1010-1205 TTh, ArtB 160, 4 cr (Pre-Arch, Arch, Landscape Arch maj only)
910737 -6 1010-1205 TTh, ArtB 160, 4 cr
- r1520 Printmaking: Lithography** (max 8 cr)
405081 -1 1010-1205 MW, ArtB 176, 4 cr (Arts, premaj Arts, or MLK stu only)
304201 -2 1010-1205 MW, ArtB 176, 4 cr
- r1530 Printmaking: Relief** (max 8 cr)
609856 -1 0800-0955 TTh, ArtB 170, Bethke, 4 cr (Arts, premaj Arts, or MLK stu only)
608786 -2 0800-0955 TTh, ArtB 170, Bethke, 4 cr
- r1701 Photo Medium**
903786 -1 0800-0955 MW, ArtB 120, 4 cr (Arts, premaj Arts, or MLK stu only)
702268 -2 0800-0955 MW, ArtB 120, 4 cr (CLA students only)
508716 -3 1325-1520 TTh, ArtB 120, Henkel, 4 cr (Arts, premaj Arts, or MLK stu only)
606732 -4 1325-1520 TTh, ArtB 120, Henkel, 4 cr (CLA students only)
176047 -5 1535-1730 TTh, ArtB 120, 4 cr (Arts, premaj Arts, or MLK stu only)
076048 -6 1535-1730 TTh, ArtB 120, 4 cr (CLA students only)
- r1812 Ceramics: Wheel Throwing**
609128 -1 1325-1520 MW, ArtB 10, 4 cr (Arts, premaj Arts, or MLK stu only)
504939 -2 1325-1520 MW, ArtB 10, 4 cr
- r3105 Introduction to Painting** (prereq 1101, 1102, 1401, 1404)
204112 -1 1325-1520 MW, ArtB 151, Katsiasticas, 4 cr (Arts, premaj Arts, or MLK stu only)
108422 -2 1325-1520 MW, ArtB 151, Katsiasticas, 4 cr (Pre-Arch, Arch or Landscape Arch maj only)
106573 -3 1325-1520 MW, ArtB 151, Katsiasticas, 4 cr
104202 -4 1010-1205 TTh, ArtB 151, Cowette, 4 cr (Arts, premaj Arts, or MLK stu only)
304022 -5 1010-1205 TTh, ArtB 151, Cowette, 4 cr (Pre-Arch, Arch or Landscape Arch maj only)
111076 -6 1010-1205 TTh, ArtB 151, Cowette, 4 cr
- r3110 Drawing** (max 12 cr; prereq 1102, 1401)
502351 -1 0800-0955 MW, ArtB 150, Gray, 4 cr (Arts, premaj Arts, or MLK stu only)
512197 -2 0800-0955 MW, ArtB 150, Gray, 4 cr
109277 -3 1010-1205 TTh, ArtB 141, Rowan, 4 cr (Arts, premaj Arts, or MLK stu only)
510109 -4 1010-1205 TTh, ArtB 141, Rowan, 4 cr
- r3120 Painting** (max 12 cr; prereq 1101, 1102, 1401, 1404, 3105, 4 cr or 3110 or 13110)
911354 -1 1325-1520 MW, ArtB 161, Katsiasticas, 4 cr (Arts, premaj Arts, or MLK stu only)

- 204269 -2 1325-1520 MW, ArtB 161, Katsiasticas, 4 cr
103731 -3 1325-1520 TTh, ArtB 151, Rowan, 4 cr (Arts, premaj Arts, or MLK stu only)
502947 -4 1325-1520 TTh, ArtB 151, Rowan, 4 cr
- r3160 Watercolor** (max 12 cr; prereq 1101, 1102, 1401, 1404)
102779 1325-1520 TTh, ArtB 141, Caglioti, 4 cr
- r3306 Performance Art** (prereq 1401 or #)
611753 -1 1010-1205 TTh, ArtB 50, Lucey, 4 cr (Arts or MLK only)
909717 -2 1010-1205 TTh, ArtB 50, Lucey, 4 cr
- 3411H Honors: Tutorial** (prereq honors program candidate) (A-F only)
805885 2-4 cr
- 3412H Honors: Tutorial** (prereq honors program candidate) (A-F only)
002936 2-4 cr
- 3413H Honors: Cross-Media Project** (prereq honors program candidate) (A-F only)
807443 2-4 cr
- 3414H Honors: Cross-Media Project** (prereq honors program candidate) (A-F only)
211321 2-4 cr
- 3415H Honors: Thesis** (prereq honors program candidate) (A-F only)
209147 2 cr
- 3416H Honors: Thesis** (prereq honors program summa candidate) (A-F only)
912049 2 cr
- r3420 Studio Arts Workshop**
176901 1010-1205 TTh, ArtB 150, Yourman, 1-5 cr
- 3444 Senior Project** (prereq sr art studio maj, #, Δ) (S-N only)
105200 -1 Baldwin, 2 cr
511020 -2 Bethke, 2 cr
005142 -3 Caglioti, 2 cr
810911 -4 Cowette, 2 cr
110534 -5 Feinberg, 2 cr
304649 -6 Gray, 2 cr
103972 -7 Hallman, 2 cr
405257 -8 Henkel, 2 cr
902265 -9 Hoard, 2 cr
876052 -10 Katsiasticas, 2 cr
110551 -12 Lane, 2 cr
712151 -13 Lucey, 2 cr
107254 -15 Pharis, 2 cr
107867 -17 Roode, 2 cr
506545 -18 Rose, 2 cr
106556 -19 Rowan, 2 cr
503533 -20 2 cr
111224 -21 2 cr
707029 -22 2 cr
- r3510 Printmaking: Intaglio** (max 12 cr; prereq 1401, 4 cr or 1510 or #)
209648 -1 1325-1520 TTh, ArtB 175, Bethke, 4 cr (Arts, premaj Arts, or MLK stu only)
707659 -2 1325-1520 TTh, ArtB 175, Bethke, 4 cr
- r3710 Photography** (max 12 cr; prereq 1401, 1701 or Jour 3301 or #)
803005 -1 1010-1205 MW, ArtB 120, Hallman, 4 cr (Arts, premaj Arts, or MLK stu only)
503175 -2 1010-1205 MW, ArtB 120, Hallman, 4 cr (CLA students only)
- r3830 Glass: Introduction to Neon** (max 12 cr; prereq 1401)
701991 1325-1520 MW, ArtB 186, Lane, 4 cr
- 3970 Directed Study** (max 8 cr; prereq 24 cr studio arts, #, Δ, □)
011006 -1 Baldwin, 1-5 cr
110503 -2 Bethke, 1-5 cr
805840 -3 Caglioti, 1-5 cr
102109 -4 Cowette, 1-5 cr
405470 -5 Feinberg, 1-5 cr
102644 -6 Gray, 1-5 cr
107884 -7 Hallman, 1-5 cr
803666 -8 Henkel, 1-5 cr
706334 -9 Hoard, 1-5 cr
676053 -10 Katsiasticas, 1-5 cr
209228 -12 Lane, 1-5 cr
307034 -13 Lucey, 1-5 cr
908048 -15 Pharis, 1-5 cr
206510 -17 Roode, 1-5 cr
608531 -18 Rose, 1-5 cr
106976 -19 Rowan, 1-5 cr
404884 -20 1-5 cr
011085 -21 1-5 cr
303677 -22 1-5 cr
206944 -23 1-5 cr

3980 Directed Instruction (max 8 cr; prereq #, Δ, □)

908311 -1 Baldwin, 1-5 cr
 109260 -2 Bethke, 1-5 cr
 910012 -3 Caglioti, 1-5 cr
 205275 -4 Cowette, 1-5 cr
 103849 -5 Feinberg, 1-5 cr
 111689 -6 Gray, 1-5 cr
 611929 -7 Hallman, 1-5 cr
 010325 -8 Henkel, 1-5 cr
 208452 -9 Hoard, 1-5 cr
 476054 -10 Katsiifacas, 1-5 cr
 109545 -12 Lane, 1-5 cr
 703725 -13 Lucey, 1-5 cr
 603443 -15 Pharis, 1-5 cr
 604995 -17 Roode, 1-5 cr
 610165 -18 Rose, 1-5 cr
 312590 -19 Rowan, 1-5 cr
 110260 -20 1-5 cr
 808303 -21 1-5 cr
 406473 -22 1-5 cr
 108405 -23 1-5 cr

n5110 Drawing (max 16 cr; prereq 12 cr of 3110 or #)
 809368 1010-1205 MW, ArtB 150, Gray, 4 cr

n5120 Painting (max 16 cr; prereq 12 cr of 3120 or #)
 307454 1010-1205 MW, ArtB 161, Katsiifacas, 4 cr

n5160 Watercolor (max 16 cr; prereq 12 cr of 3160 or #)
 411754 1010-1205 TTh, ArtB 141, Caglioti, 4 cr

5190 Advanced Entry: Drawing and Painting (max 16 cr; prereq #, Δ)
 305297 -3 Caglioti, 4 cr
 204353 -4 Cowette, 4 cr
 906039 -5 Feinberg, 4 cr
 409647 -6 Gray, 4 cr
 776058 -10 Katsiifacas, 4 cr
 004976 -17 Roode, 4 cr
 706950 -19 Rowan, 4 cr
 611896 -23 4 cr

n5360 Performance Art (prereq 1401 or #)
 709718 1010-1205 TTh, ArtB 50, Lucey, 4 cr

n5370 Sculpture: Modeling and Casting (§3307; prereq 1301, 1302, 1401)
 106606 1325-1625 TTh, ArtB 50, Baldwin, 4 cr

5390 Advanced Entry: Sculpture (max 16 cr; prereq #, Δ)
 504942 -1 Baldwin, 4 cr
 409308 -13 Lucey, 4 cr
 105004 -16 Potratz, 4 cr
 709153 -18 Rose, 4 cr

n5400 Concepts in Contemporary Art (prereq sr, studio art maj or #)
 209925 1535-1730 MW, RangC 810, Feinberg, 4 cr

n5420 Studio Arts Workshop
 076051 1010-1205 MW, ArtB 10, Lane, 4 cr

n5510 Printmaking: Intaglio (max 16 cr; prereq 12 cr of 3510 or #)
 905649 1325-1520 TTh, ArtB 175, Bethke, 4 cr

5590 Advanced Entry: Printmaking (max 16 cr; prereq #, Δ)
 109058 Bethke, 4 cr

n5710 Photography (max 16 cr; prereq 12 cr of 3710 or #)
 003133 1325-1520 MW, ArtB 120, Hallman, 4 cr

5790 Advanced Entry: Photography (max 16 cr; prereq #, Δ)
 776903 -7 Hallman, 4 cr
 510093 -8 Henkel, 4 cr

n5830 Glass: Neon (max 16 cr; prereq 12 cr of 3830)
 111904 1325-1625 MW, ArtB 186, Lane, 4 cr

5890 Advanced Entry: Ceramics/Glass (max 16 cr; prereq #, Δ)
 302013 -9 Hoard, 4 cr
 410586 -12 Lane, 4 cr
 504374 -15 Pharis, 4 cr

5970 Directed Studies (max 12 cr; prereq 24 cr studio arts, #, Δ, CLA approval)
 903920 -1 Baldwin, 1-5 cr
 709086 -2 Bethke, 1-5 cr
 603460 -3 Caglioti, 1-5 cr
 412015 -4 Cowette, 1-5 cr
 310340 -5 Feinberg, 1-5 cr
 907658 -6 Gray, 1-5 cr
 109318 -7 Hallman, 1-5 cr
 809421 -8 Henkel, 1-5 cr
 509168 -9 Hoard, 1-5 cr
 276055 -10 Katsiifacas, 1-5 cr
 004184 -12 Lane, 1-5 cr

112311 -13 Lucey, 1-5 cr
 608335 -15 Pharis, 1-5 cr
 605872 -17 Roode, 1-5 cr
 104287 -18 Rose, 1-5 cr
 112543 -19 Rowan, 1-5 cr
 108792 -20 1-5 cr
 711470 -21 1-5 cr
 006582 -22 1-5 cr

8110 Drawing (max 12 cr)
 503807 -3 Caglioti, 4 cr
 310872 -4 Cowette, 4 cr
 112588 -5 Feinberg, 4 cr
 105648 -6 Gray, 4 cr
 176056 -10 Katsiifacas, 4 cr
 705295 -19 Rowan, 4 cr

8120 Painting (max 24 cr)
 903089 -1 1010-1205 TTh, ArtB 161, Caglioti, 4 cr
 209164 -3 Caglioti, 4 cr
 303579 -4 Cowette, 4 cr
 807099 -5 Feinberg, 4 cr
 976057 -10 Katsiifacas, 4 cr
 503337 -17 Roode, 4 cr

n8300 20th Century Art Theories in Sculpture (prereq MFA candidate in studio arts or #) (A-F only)
 006873 1215-1315 TTh, ArtB 75, Lucey, 2 cr

n8370 Sculptura: Modeling and Casting (max 12 cr; prereq #) (A-F only)
 707726 1325-1625 TTh, ArtB 50, Baldwin, 4 cr

n8402 Seminar: Presentation and Instruction (prereq MFA candidate or #)
 502365 0905-1325 F, ArtB 161, Feinberg, 4 cr

8510 Printmaking (max 36 cr)
 903111 Bethke, 4 cr

n8710 Photography (max 24 cr)
 110235 1010-1205 TTh, ArtB 120, Henkel, 4 cr

8820 Glassworking (max 24 cr)
 604396 4 cr

ASTRONOMY (Ast) Institute of Technology

n1011 Descriptive Astronomy (§1021)
 805287 -1 0905-0955 MTWTh, Phys 166, 4 cr
 705863 -2 1010-1100 MTWTh, Phys 150, 4 cr
 408370 -3 1220-1310 MTWTh, Phys 150, 4 cr
 912214 -4 1830-2010 MW, Phys 150, 4 cr

n1015 Descriptive Astronomy Laboratories (§1025H; prereq high school algebra...high school trigonometry rec)
 505489 -1 LAB Dickey J.M., 1 cr (Lab time assigned first 2 days of quarter in Phys 450) (min one night obs req)

1021H Introduction to Astronomy (§1011; prereq high school trigonometry, physics or chemistry)
 804252 1430-1520 MTWTh, Phys 133, 4 cr

n1025H Introduction to Astronomy Laboratory (§1015, 1015H; prereq high school algebra, trigonometry, physics or chemistry)
 803120 1535-1720 M, Phys 450, 1 cr (min one night obs req)

3970 Directed Studies (prereq #, Δ)
 606990 1-5 cr

n5061 Computational Methods in the Physical Sciences I (§Phys 5061; prereq IT/CLA upper div or grad or #)
 876603 -1 1130-1300 Th, MechE 102, Woodward, 4 cr

5162 Stars and Stellar Evolution (prereq 3051, Phys 3513 or 3501 or #)
 707371 1115-1205 MWF, Phys 236A, 4 cr

5299H Senior Honors Astrophysics Research Seminar (prereq IT or CLA upper div honors stu, #) (S-N only)
 308314 1535-1635 Th, Phys 210, 1 cr

5421 High Energy Astrophysics (prereq 3051, Phys 5024, 5101 or #)
 875239 1430-1520 MWF, Phys 143, 4 cr

5970 Directed Studies (prereq #, Δ)
 105818 1-5 cr

5990 Directed Research (prereq #, Δ)
 110283 ar cr

8200 Seminar
 009059 1535-1635 Th, Phys 210, 1-3 cr

8777 Thesis Credits: Masters
 511390 1-16 cr

8888 Thesis Credits: Doctoral (max 18 cr per qtr)
 901990 1-36 cr

8990 Research in Astronomy and Astrophysics (prereq #)
 409888 ar cr

BIOCHEMISTRY (BioC) Biological Sciences

3031 Survey of Biochemistry (prereq 2 qtrs organic chem or 3001)
 076034 1250-1340 MWThF, BioSci 6, Fuchs, 4 cr

3960 Research Topics in Biochemistry (S-N only)
 505170 1605-1655 Th, GorL 342, 1 cr

n5025 Laboratory in Biochemistry (prereq Biol 5001 or 1 or 3031 with grade of B or better)
 ★LECT 1145-1235 T, GorL 239, Fuchs, 2 cr

409910 -1 LAB 0800-1140 T, BioSci 192, 198
 105827 -2 LAB 1240-1620 T, BioSci 192, 198

5525 Physical Biochemistry: Solution Structure and Interactions of Biological Macromolecules (§MdBc 5525, Chem 5525; prereq 2 qtrs physical chemistry, Biol 5001 or equiv)
 907305 1000-1130 TTh, BioSci 6, Tsong, Barry, 4 cr

5751 General Biochemistry (§MdBc 5751; prereq 3 qtrs organic chem, 2 qtrs phys chem, 1 qtr biochem or #)
 104113 0800-0930 MWF, FordH 155, Howard, Barry, 4 cr

5970 Directed Studies (prereq #, Δ)
 111840 ar cr

5990 Directed Research (prereq #, Δ)
 802114 ar cr

8084 Research and Literature Reports (S-N only)
 808530 1200-1300 F, GorL 239, Bernlohr, 1 cr

8194 Graduate Seminar (S-N only)
 307325 1600-1730 W, BorH 335, Conti-Tronconi, 1 cr

n8213 Advanced Molecular Biology I (§MdBc 8213, GCB 8213; prereq BioC/MdBc 5753 or GCB 8032 or #)
 305042 0915-1045 MW, JOAd 5137, Towle, 4 cr (Mpls)

8290 Current Research Techniques (prereq grad maj in biochem) (S-N only)
 301864 1-3 cr

8777 Thesis Credit: Masters
 906803 1-16 cr

8888 Thesis Credits: Doctoral (max 18 cr per qtr)
 109425 1-36 cr

8990 Graduate Research (prereq #)
 110050 2-5 cr

BIOCHEMISTRY, MEDICAL (MdBc) Medical School

1030 Biochemistry for the Health Sciences (§3050; prereq high school chemistry or #)
 107237 0905-0955 MTWTh, OwreH 2210, Dempsey, Van Pilsun, 4 cr

3050 Physiological Chemistry for Nurses (§1030)
 612420 1010-1100 MTWTh, MoosT 2690, Edstrom, Adolph, 4 cr

5053 Problems in Biochemistry (prereq 5100 or 5753; biochem grad stu must register S-N)
 901746 1-10 cr

5100 Biochemistry, Molecular and Cell Biology (§CBN 5104; prereq regis mod fr)
 ★LECT 0800-0955 MTWTh, PWB 2470, Livingston, 9 cr (Sept 4-Dec 14)

375320 -1 REC 1000-1100 F,
 175321 -2 REC 1115-1205 F,
 075322 -3 REC 1220-1310 F,

5201 Biochemistry for Dental Students (prereq registered dental freshmen)
 603734 0800-0850 MWF, Jach 2135, Roon, Gray, 4 cr (Sept 4-Dec 6)

- 5202 Biochemistry for Dental Students**
875323 0900-0950 MWF, Jach 2135, Room, Sanders, 3 cr
- 5203 Topics: Dental Biochemistry**
109111 0800-0845 MW (Sept 4-Nov 11), 0800-0845 F (Sept 6-Nov 8) Moost 2690, Smith, Oegema, others, ar cr
- 5300 Biochemistry** (prereq organic chem, recommended for med tech)
★LECT 0800-0850 MWF, Jach 2135, Room, 4 cr (Sept 16-Dec 8) (addtl hr 1100-1150, Sept 16-20)
675324 -1 REC 0900-0950 M, Jach 2135
- 5460 Neurochemical Communication** (NSc 5460, VB 5460; prereq biochemistry)
110042 1010-1100 MTWThF, Moost 2580, Koerner, 4 cr
- 5525 Physical Biochemistry: Solution Structure and Interactions of Biological Macromolecules** (§BioC 5525, Chem 5525; prereq 2 qtrs physical chemistry, Biol 5001 or equiv)
902203 1000-1130 TTh, BioSci 6, Barry, Tsong, 4 cr (StP)
- 5751 General Biochemistry** (§BioC 5751; prereq 3 qtrs organic chem, 2 qtrs physical chem, 1 qtr biochem or #)
306322 0800-0930 MWF, FordH 155, Howard, Barry, 4 cr
- 6150 Seminar: Biochemistry** (S-N only)
505346 1220-1310 T, OwreH 4218, Siliciano, 1 cr
- 8206 Cell Signalling and Metabolic Regulation I** (prereq BioC/MdBc 5751, 5752, 5753 or equivalent)
305168 1000-1130 TTh, BioSci 12, Bernlohr, 3 cr (StP)
- 8213 Advanced Molecular Biology I** (§BioC 8213, GCB 8213; prereq BioC/MdBc 5753 or GCB 8132 or #)
812223 0915-1045 MW, JOAd 5137, Towle, LaPorte, 4 cr
- 8290 Current Research Techniques** (prereq grad maj in biochem, #) (S-N only)
808995 1-3 cr
- 8300 Research**
408059 ar cr
- 8460 Neurochemical Communication** (NSc 8460, VB 8460; prereq 5460 or 15460, NSc 5460 or 1NSc 5460, VB 5460 or 1VB 5460)
475325 1010-1100 MTWThF, Moost 2580, Koerner, 1 cr

BIOLOGY (Biol)

Biological Sciences

- r1008 Introductory Biology: An Evolutionary Approach**
★LECT 1220-1310 MWF, Moost 2650
509199 -1 REC 0800-0850 T, FordH 70, 4 cr
004170 -2 REC 0905-0955 T, EE/CSci 3210, 4 cr
505900 -3 REC 1010-1100 T, HSUnitF 2140, 4 cr
007392 -4 REC 1115-1205 T, EE/CSci 2260, 4 cr
803442 -5 REC 1220-1310 T, LindH 315, 4 cr
608822 -6 REC 1325-1415 T, Arch 50, 4 cr
107528 -7 REC 0800-0850 W, VinH 6, 4 cr
211304 -8 REC 0905-0955 W, Phys 143, 4 cr
206555 -9 REC 1010-1100 W, Zoology 102, 4 cr
902251 -10 REC 1115-1205 W, Moost 2580, 4 cr
703238 -11 REC 1115-1205 W, LindH 229, 4 cr
107092 -12 REC 1325-1415 W, Meche 221, 4 cr
- r1009 General Biology** (§1011)
★LECT 0800-0850 MWF, WilleyH 125
111327 -1 LAB 0800-0945 TTh, Kolth S160, 5 cr
806938 -2 LAB 0800-0945 TTh, Kolth S167, 5 cr
708424 -3 LAB 0800-0945 TTh, Kolth S170, 5 cr
001981 -4 LAB 1010-1155 TTh, Kolth S160, 5 cr
003472 -5 LAB 1010-1155 TTh, Kolth S167, 5 cr
502009 -6 LAB 1220-1405 TTh, Kolth S167, 5 cr
104841 -7 LAB 1430-1615 TTh, Kolth S167, 5 cr
210542 -8 LAB 1010-1155 WF, Kolth S160, 5 cr
106127 -9 LAB 1010-1155 WF, Kolth S167, 5 cr
912505 -10 LAB 1010-1155 WF, Kolth S170, 5 cr
103284 -11 LAB 1220-1405 WF, Kolth S160, 5 cr
303050 -12 LAB 1220-1405 WF, Kolth S167, 5 cr
811430 -13 LAB 1220-1405 WF, Kolth S170, 5 cr
★LECT 1220-1310 MWF, WilleyH 175
103060 -14 LAB 0800-0945 TTh, Kolth S177, 5 cr

- 710867 -15 LAB 0800-0945 TTh, Kolth S179, 5 cr
405954 -18 LAB 0800-0945 TTh, Kolth S183, 5 cr
409924 -17 LAB 0800-0945 TTh, Kolth S187, 5 cr
812058 -18 LAB 1010-1155 TTh, Kolth S170, 5 cr
808549 -19 LAB 1010-1155 TTh, Kolth S177, 5 cr
912052 -20 LAB 1010-1155 TTh, Kolth S179, 5 cr
311049 -21 LAB 1010-1155 TTh, Kolth S183, 5 cr
708391 -22 LAB 1010-1155 TTh, Kolth S187, 5 cr
406070 -23 LAB 1220-1405 TTh, Kolth S170, 5 cr
211402 -24 LAB 1220-1405 TTh, Kolth S177, 5 cr
504052 -25 LAB 1220-1405 TTh, Kolth S179, 5 cr
109473 -26 LAB 1220-1405 TTh, Kolth S183, 5 cr
106239 -27 LAB 1220-1405 TTh, Kolth S187, 5 cr
504882 -28 LAB 1430-1615 TTh, Kolth S170, 5 cr
204305 -29 LAB 0800-0945 WF, Kolth S180, 5 cr
511549 -30 LAB 0800-0945 WF, Kolth S167, 5 cr
201937 -31 LAB 1010-1155 WF, Kolth S177, 5 cr
511292 -32 LAB 1010-1155 WF, Kolth S179, 5 cr
404108 -33 LAB 1010-1155 WF, Kolth S183, 5 cr
610134 -34 LAB 1010-1155 WF, Kolth S187, 5 cr
011281 -35 LAB 1430-1615 WF, Kolth S160, 5 cr
912035 -36 LAB 1430-1615 WF, Kolth S187, 5 cr
404173 -37 LAB 1430-1615 WF, Kolth S170, 5 cr
★LECT 1800-1915 TTh, Moost 2850
207916 -38 LAB 1930-2115 TTh, Kolth S160, 5 cr
503998 -39 LAB 1930-2115 TTh, Kolth S167, 5 cr
- r1009H General Biology** (prereq honors division or 3-4 yrs high school math, high school chem or Δ)
★LECT 1220-1310 MWF, WilleyH 175
404979 -81 LAB 1220-1405 TTh, Kolth S160, 5 cr
503421 -82 LAB 1430-1615 TTh, Kolth S160, 5 cr
- r1101 Heredity and Human Society** (§GCB 3002, no cr if taken after 5003 or GCB 3022)
209830 1115-1205 MWThF, WilleyH 175, Fan, 4 cr
- r1106 General Zoology** (prereq 1009)
★LECT 0800-0850 MWF, Botany B6
176906 -1 LAB 0905-1205 T, Zoology 101B, 5 cr
076907 -2 LAB 1325-1625 T, Zoology 101B, 5 cr
876908 -3 LAB 0905-1205 W, Zoology 101B, 5 cr
876909 -4 LAB 1220-1520 W, Zoology 101B, 5 cr
076910 -5 LAB 0905-1205 Th, Zoology 101B, 5 cr
876911 -6 LAB 1315-1600 Th, Zoology 101B, 5 cr
- r1951 Biology Colloquium** (S-N only)
908261 -1 1430-1625 M, SmithH 100, Parnellee, others, 1 cr
309222 -2 1430-1625 T, SmithH 100, Underhill, others, 1 cr
307583 -3 1500-1655 W, BioSci 12, Parnellee, 1 cr (StP)
- r3011 Animal Biology** (§1106; prereq 1009, Chem 1005)
★LECT 1730-1910 TTh, GrnH 110, Kerr, (StP)
009823 -1 LAB 1250-1430 TTh, BioSci 107, 5 cr (StP) (labs begin T, Sept 24)
608898 -2 LAB 1500-1640 TTh, BioSci 107, 5 cr (StP) (labs begin T, Sept 24)
711520 -3 LAB 1900-2040 TTh, BioSci 107, 5 cr (StP) (labs begin T, Sept 24)
911483 -4 LAB 1900-2040 TTh, BioSci 182, 5 cr (StP) (labs begin T, Sept 24)
209200 -5 LAB 1040-1220 WF, BioSci 107, 5 cr (StP) (labs begin W, Sept 25)
604785 -6 LAB 1250-1430 WF, BioSci 107, 5 cr (StP) (labs begin W, Sept 25)
- r3051 Biology and the Future of the Earth** (bioscience students may not apply these credits toward the major)
207804 1600-1740 MW, Arch 60, Cunningham, 4 cr
- 3111 Animal Biology** (§3011; prereq 1009, 1106, Chem 1005)
409180 1730-1910 TTh, GrnH 110, Kerr, 4 cr (StP)

- r3950H Undergraduate Seminar** (S-N only)
003939 -81 1500-1630 W, BioSci 758, 2 cr (StP) (PBio)
205132 -82 1500-1630 T, Zoology 108, 2 cr (EEB)
006811 -83 1355-1535 M, BioSci 280, Rosenberg, 2 cr (StP) (GCB)
506874 -84 1355-1535 T, BioSci 260, 2 cr (StP) (GCB)
- 3960H Honors Seminar** (prereq Δ) (S-N only)
807281 -81 1600-1700 M, BellMus, Barnwell, 1 cr
610882 -82 1600-1700 T, BellMus, Barnwell, 1 cr
- 3980 Directed Instruction** (prereq #) (S-N only)
603491 Parnellee, 1-3 cr
- 5001 Biochemistry** (§3021, BioC 5001; prereq 1009, 12 cr organic chem or #)
510482 1250-1340 MTWThF, ClaOff B45, Nelsestuen, 4 cr (StP)
- 5003 Genetics** (§GCB 3022, 5022; prereq 5001)
110324 1145-1250 MWF, HodsonH 495, Simmons, 4 cr (StP)
- 5004 Cell Biology** (prereq 5001)
507517 1355-1445 MWF, GrnH 110, Hooper, 3 cr (StP)
- r5013 Microbiology** (§MicB 3103, 5105, VPB 3103; prereq 5001)
★LECT 1010-1205 T, 1010-1100 Th, Moost 2520, Dunny, 5 cr
903206 -1 LAB 1325-1520 TTh, Moost 2252, Dunny
- r5041 Ecology** (§5841; prereq 1103 or 1106 or 3011 or 3012, Math 1142 or Math 1211) (A-F only)
★LECT 1010-1100 MWF, Zoology 313, Alstad
903397 -1 REC 1115-1255 M, Zoology 102, 4 cr
★LAB 1115-1255 M, Zoology 101C
505976 -2 REC 1115-1255 T, VinH 20, 4 cr
★LAB 0905-1045 T, Zoology 101C
712022 -3 REC 1325-1505 T, ChDev 218, 4 cr
★LAB 1325-1505 T, Zoology 101C
707399 -4 REC 1115-1255 W, Zoology 102, 4 cr
★LAB 1115-1255 W, Zoology 101C
107813 -5 REC 0905-1045 Th, LindH 315, 4 cr
★LAB 0905-1045 Th, Zoology 101C
503693 -6 REC 1325-1505 Th, LindH 315, 4 cr
★LAB 1325-1505 Th, Zoology 101C
- r5125 Recombinant DNA Laboratory** (§MicB 5125; prereq application necessary, Δ)
104029 1300-1700 TTh, SnH 28, Das, 4 cr (StP)

BIOMEDICAL SCIENCE (BMSc)

- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
477124 1-36 cr

BIOMEDICAL ENGINEERING (BMEn)

Mechanical Engineering Institute of Technology

- 5001 Biomaterials I** (§MatS 5481, MatS 5482; prereq IT upper div stu or grad stu or med stu or #) (A-F only)
105060 1535-1730 MW, AmundH B75, Coury, Eaton, 2-4 cr
- 8002 Internship in Biomedical Engineering** (prereq biomed engineering grad stu or Δ) (S-N only)
612417 3 cr
- 8100 Biomedical Engineering Seminar** (§ME 8485) (S-N only)
309009 1530-1645 T, MirdH 5276, 1 cr
- 8200 Biomedical Engineering Seminar** (§ME 8486) (S-N only)
109870 1530-1645 T, MirdH 5276, 1 cr
- 8300 Biomedical Engineering Seminar** (§ME 8487) (S-N only)
411544 1530-1645 T, MirdH 5276, 1 cr
- 8770 Plan B Project** (no cr toward PhD; prereq #) (A-F only)
208225 4 cr
- 8777 Thesis Credit: Masters**
508215 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
011099 1-36 cr

- 8970 **Independent Study** (prereq #) (A-F only)
312122 1-4 cr
- 8990 **Directed Research** (prereq #) (A-F only)
110372 1-4 cr

BIOPHYSICAL SCIENCES (BPhy)

Medical School

- 5138 **Seminar: Biophysical Sciences**
712277 1535-1625 Th, MoosT 2116, O'Leary,
ar cr
- 5155 **Biophysics** (prereq 28 cr between physics,
biology, #...physical chemistry, physiology rec)
908888 1325-1520 TTh, MusEd 2, Schmitt, 3 cr
- 5170 **Basic Radiological Physics** (§Rad 5170,
TRad 5170; prereq #T
004959 0730-0845 W, 1600-1715 F, UHosp 1243,
Khan, 3 cr
- 5174 **Physics of Diagnostic Radiology** (§Rad 5174,
TRad 5174; prereq 5170 or #)
403637 1400-1530 TW, Mayo B261, Ritenour, 3 cr
- 8204 **Research: Biophysics, Radiation Biology**
509008 ar cr
- 8221 **Research**
803148 1315-1445 T, 1430-1520 F, JachH 3145,
ar cr
- 8296 **Seminar**
110932 1430-1625 F, MusEd 2, Schmitt, ar cr
- 8777 **Thesis Credits: Masters**
009286 1-16 cr
- 8888 **Thesis Credits: Doctoral** (max 18 cr per qtr)
607153 1-36 cr

BUSINESS ADMINISTRATION (BA)

Management

- 3998 **Independent Study** (prereq SMgt approval)
008137 ar cr
- 8999H **Honors Course: Independent Study** (prereq
consent of supervising faculty member, SMgt
honors student or # and SMgt approval)
276864 1300-1445 W, BlegH 210, Rinehart, 2 cr
- 8888 **Thesis Credits: Doctoral** (max 18 cr per qtr)
008784 1-36 cr

BUSINESS AND MARKETING EDUCATION (BME) Vocational And Technical Education Education

- 1100 **Introduction to Marketing Education** (A-F
only)
904503 1400-1730 M, VoTech 220, 4 cr
- 81101 **Introductory Word Processing and
Transcription** (prereq intermediate typewriting
or equiv) (A-F only)
175206 1315-1445 TTh, VoTech 230, 3 cr
- 3104 **Introduction to Business Education** (§1504)
(A-F only)
075207 1400-1730 M, VoTech R285, 4 cr
- 3302 **Teaching Basic Business Subjects** (§BDE
3302; prereq SeEd 3155 or #) (A-F only)
712344 1530-1815 W, VoTech 240, 3 cr
- 83310 **Introduction to Microcomputer Applications
in Business and Marketing Education**
(§5310, BDE 5310) (A-F only)
875208 1545-1830 Th, VoTech 230, 3 cr
- 5152 **Research and Methods in Teaching the
Basic Business Subjects** (§BDE 5152) (A-F
only)
304442 1530-1815 W, VoTech 240, 3 cr
- 5157 **Materials and Methods in Office Education**
(§BDE 5157) (A-F only)
812500 1710-1955 T, VoTech 240, 230,
Lambrecht, 3 cr
- 5201 **Clinical Methods in Marketing Education**
(§5304, BDE 3304; prereq educ or grad stu)
(A-F only)
075210 1530-1835 W, VoTech 220, Schwartz,
4 cr

- 85253 **Supervisory Training** (§BDE 5253) (A-F only)
111974 1830-2115 T, VoTech R285, Stone, 3 cr
- 85335 **Teaching Microcomputer Business
Graphics** (prereq 5310 or equiv) (A-F only)
208614 1830-2115 W, VoTech 230, 3 cr
- 5340 **Trends and Issues in Business and
Marketing Education** (max 6 cr; §BDE 5155,
5250) (A-F only)
109103 1530-1815 T, VoTech R285, Hopkins, 3 cr
- 85353 **Curriculum Construction in Business and
Marketing Education** (§BDE 5353) (A-F only)
112213 1830-2205 M, VoTech 220, Schwartz, 4 cr
- 5360 **Program Developments in Business and
Marketing Education**
875211 1530-1815 W, VoTech 230, McLean, 3 cr
- 85600 **Field-Based Projects in Business and
Marketing Education** (max 12 cr; prereq #)
(A-F only)
811556 1-12 cr
- 85603 **Clinical Experience in Business or
Marketing Education** (prereq Δ)
311620 1500-1700 T, VoTech R275, 4 cr
- 85900 **Directed Study in Business and Marketing
Education** (max 6 cr; prereq Δ) (S-N optional)
502172 1-6 cr
- 8300 **Seminar: Research in Business, Marketing,
and Economic Education** (prereq #) (S-N
only)
603541 Hopkins, 1 cr
- 88600 **Internship: Business and Marketing
Education** (prereq #)
810827 1-12 cr
- 8777 **Thesis Credits: Masters**
107013 1-16 cr
- 88900 **Problems: Business and Marketing
Education** (max 9 cr; prereq #)
304215 1-9 cr

BUSINESS LAW (BLaw) Management

Non-SMgt students should refer to section 1,
Registration instructions for Carlson School of
Management Courses, before attempting to reg-
ister for BLaw courses.

- 83058 **Introduction to Law, the Law of Contracts
and Sales Contracts** (§6158; prereq Econ
1002) (A-F only)
010213 -1 0800-0930 TTh, BlegH 335, 4 cr
802257 -2 0945-1115 TTh, BlegH 335, Andrews,
4 cr

BUSINESS, GOVERNMENT AND SOCIETY (BGS) Management

Non-SMgt students should refer to section 1,
Registration instructions for Carlson School of
Management Courses, before attempting to reg-
ister for BGS courses.

- 83004 **International Business**
107416 1600-1730 TTh, BlegH 10, Seeley, 4 cr

CELL AND DEVELOPMENTAL BIOLOGY (CDB)

- 8777 **Thesis Credits: Masters**
003357 1-16 cr
- 8888 **Thesis Credits: Doctoral** (max 18 cr per qtr)
104371 1-36 cr

CELL BIOLOGY AND NEUROANATOMY (CBN) Medical School

- 83001 **Elementary Anatomy** (prereq one qtr college
biology, soph or jr or sr)
011796 0800-0955 TTh, Botany B6, Magney, 4 cr

- 3058 **Extremities** (prereq regis PT, 1004)
★LECT 1325-1415 MWF, MoosT 2530,
Allison, 5 cr
303520 -1 LAB 1430-1625 MWF, JachH 5149
812271 -2 LAB 1325-1625 TTh, JachH 5149
- 3970 **Special Problems** (prereq #)
605550 2 cr
- 5100 **Gross Human Anatomy** (prereq regis med or
dent fr, anat grad or grad with #)
★LECT 1010-1205 MW, 1010-1100 F, PWB
2470, Parsons, (Sept 4-Dec 14)
903142 -1 LAB 1325-1625 MWF, JachH 5161,
5163, 5165, 5166, 5169, 5170, 5172,
12-13 cr
- 5103 **Human Histology** (prereq regis med or dent fr,
anat grad or grad with #)
★LECT 1010-1205 TTh, PWB 2470,
Sorenson, (Oct 1-Dec 14)
308877 -1 LAB 1325-1520 T, 1535-1730 Th,
OwreH 2112, 2114, 2115, 2116, 2117,
JOAd 2118, 2120, 3-8 cr
209083 -2 LAB 1535-1730 T, 1325-1520 Th,
OwreH 2112, 2114, 2115, 2116, 2117,
JOAd 2118, 2120, 3-8 cr
- 5107 **Gross Anatomy for Dental Students:
Extremities** (§5100, §5108, 5109; prereq
registered dental freshman) (A-F only)
★LECT 1010-1205 MW, 1010-1100 F, PWB
2470, Parsons, (Sept 4-Dec 14)
312637 -1 LAB 1325-1625 MWF, JachH 5161,
5163, 5165, 5166, 5169, 5170, 5172, 4 cr
- 5108 **Gross Anatomy for Dental Students: Torso**
(§5100, §5107, 5109; prereq registered dental
freshman) (A-F only)
★LECT 1010-1205 MW, 1010-1100 F, PWB
2470, Parsons, (Sept 4-Dec 14)
308586 -1 LAB 1325-1625 MWF, JachH 5161,
5163, 5165, 5166, 5169, 5170, 5172, 4 cr
- 5109 **Gross Anatomy for Dental Students: Head
and Neck** (§5100, §5107, 5108; prereq
registered dental freshman) (A-F only)
★LECT 1010-1205 MW, 1010-1100 F, PWB
2470, Parsons, (Sept 4-Dec 14)
104533 -1 LAB 1325-1625 MWF, JachH 5161,
5163, 5165, 5166, 5169, 5170, 5172, 4 cr
- 5190 **Advanced Anatomy** (prereq regis med, 5103,
#)
811363 1-10 cr
- 5301 **Surgical Anatomy for Oral Surgeons** (prereq
participation in the Oral Surgery residency
program)
302268 Robertson, 5 cr
- 5500 **General Gross Anatomy** (prereq Phase D
medical student or #)
508070 Robertson, ar cr
- 5501 **The Extremities** (prereq Phase D medical
student or #)
104323 Robertson, ar cr
- 5502 **Head and Neck** (prereq Phase D medical
student or #)
601966 Robertson, ar cr
- 5504 **The Endocrine System** (prereq Phase D or #)
103463 Hamilton, ar cr
- 5508 **The Thorax** (prereq Phase D or #)
606956 Robertson, ar cr
- 5509 **The Abdomen** (prereq Phase D or #)
006131 Robertson, ar cr
- 5510 **Perineum, Genital-Urinary System and
Pelvis** (prereq Phase D or #)
906526 Robertson, ar cr
- 8153 **Advanced Anatomy** (prereq #)
710450 1-6 cr
- 8201 **Research in Anatomy** (prereq #)
512054 1-10 cr
- 8205 **Seminar: Cell Biology and Neuroanatomy**
(prereq #) (S-N only)
307390 Hamilton, 1 cr
- 8777 **Thesis Credits: Masters**
805420 1-16 cr
- 8888 **Thesis Credits: Doctoral** (max 18 cr per qtr)
107293 1-36 cr

CHEMICAL ENGINEERING

(ChEn)

Chemical Engineering & Materials Science Institute of Technology

- r3090 Industrial Employment**
503404 1-2 cr
- r5001 Computational Methods in Chemical Engineering and Material Science** (prereq chem engr or mat sci maj)
★LECT 0800-0850 MWF, AmundH 240, Derby
- 907031 -1 REC 0800-0850 TTh, LindH 26, 4 cr
203851 -2 REC 0905-0955 TTh, LindH 26, 4 cr
403136 -3 REC 1010-1100 TTh, LindH 26, 4 cr
408434 -4 REC 1220-1310 TTh, LindH 26, 4 cr
- r5101 Principles of Chemical Engineering I** (prereq 5001 or ♯, IT stu)
★LECT 0905-0955 MWF, AmundH B75, McCormick
- 510940 -1 REC 0800-0850 TTh, AmundH 162, 4 cr
610490 -2 REC 0800-0850 TTh, AmundH 116, 4 cr
512135 -3 REC 0905-0955 TTh, EE/CSci 3111, 4 cr
203977 -4 REC 1010-1100 TTh, AmundH 116, 4 cr
011426 -5 REC 1010-1100 TTh, AmundH 124, 4 cr
210959 -6 REC 1430-1520 TTh, AmundH 120, 4 cr
- r5104 Unit Operations and Separation Processes** (prereq 5101, upper division chem engr or mat sci maj)
★LECT 0800-0850 MWF, AmundH B75, Hu
- 002340 -1 REC 0800-0850 TTh, AmundH 124, 4 cr
504827 -2 REC 0800-0850 TTh, AmundH B75, 4 cr
309057 -3 REC 0800-0850 TTh, EE/CSci 3111, 4 cr
103561 -4 REC 1220-1310 TTh, AmundH 162, 4 cr
611056 -5 REC 1220-1310 TTh, AmundH 124, 4 cr
512250 -6 REC 1220-1310 TTh, AmundH 116, 4 cr
- r5301 Chemical Reactor Analysis** (prereq 5202, upper division chem engr or mat sci maj)
★LECT 1220-1310 MWF, AmundH B75, Srilenc
- 504326 -1 REC 0800-0850 TTh, AmundH 104, 4 cr
107206 -2 REC 0905-0955 TTh, AmundH 124, 4 cr
111215 -3 REC 1115-1205 TTh, AmundH 240, 4 cr
109943 -4 REC 1220-1310 TTh, AmundH 240, 4 cr
503810 -5 REC 1430-1520 TTh, AmundH 116, 4 cr
706298 -6 REC 1430-1520 TTh, AmundH 104, 4 cr
- r5402 Chemical Engineering Laboratory** (prereq 5103, upper division chem engr or mat sci maj)
★LECT 1115-1205 M, MoosT 2530, Geankoplis
- 710979 -1 LAB 1325-1730 M, AmundH 356, 4 cr
212050 -2 LAB 0800-1205 T, AmundH 356, 4 cr
506562 -3 LAB 1325-1730 T, AmundH 356, 4 cr
104426 -4 LAB 1325-1730 W, AmundH 356, 4 cr
202425 -5 LAB 0800-1205 Th, AmundH 356, 4 cr
309964 -6 LAB 1325-1730 Th, AmundH 356, 4 cr
- r5751 Biochemical Engineering I** (prereq grad or sr in chemical engineering or ♯)
203753 1325-1500 MWF, AmundH 240, Hu, Fredrickson, 3 cr
- r5902 Special Topics**
411897 ar cr
- 5905 Special Topics**
712005 ar cr
- r6101 Intermediate Fluid Mechanics** (prereq 5103, ♯)
605127 0800-0850 MWF, AmundH 116, Scriven, 3 cr
- r6201 Advanced Mathematics for Chemical Engineers** (prereq ♯)
608576 0800-0955 TTh, AmundH 240, Tranquillo, 3 cr

- r6403 Chemical Reaction Kinetics-Advanced Topics** (prereq ♯)
175304 1010-1205 TTh, AmundH 162, Carr, 3 cr
- r6601 Molecular Theory of Equilibrium and Nonequilibrium Processes** (prereq ♯)
002404 1010-1100 MWF, AmundH 116, Davis, 3 cr
- 8777 Thesis Credits: Masters**
012480 1-16 cr
- 8801 Seminar** (S-N only)
409034 1325-1625 TTh, AmundH B75, 1 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
909782 1-36 cr
- r6901 Research in Chemical Engineering**
110419 1430-1730 MWF, AmundH 162, ar cr
- r6903 Research in Chemical Engineering**
910107 1430-1730 F, AmundH 120, ar cr

CHEMICAL PHYSICS (ChPh)

- 8777 Thesis Credits: Masters**
809497 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
706222 1-36 cr

CHEMISTRY (Chem) Institute of Technology

Note:

For 1000-level recitation sections, rooms will be posted outside Smith H 115 (PalmC 10 for St. Paul sections) two days before the first day of classes.

Each student registering for a laboratory course must purchase a \$30 Chemistry Deposit Card from the bursar and present that card to the instructor in order to be admitted to a lab section. Students without cards will not be permitted to check into lab and will forfeit their desk assignments. A student with a deposit card used in a previous chemistry lab must have at least a \$10 balance remaining on that card to use it again; if the balance is less than \$10, the student must purchase a second card. See Section 2, Deposit Cards. Every student who checks into a lab must check out of the lab before the end of the quarter, even if she or he drops the course, or be charged a \$20 check-out fee.

- r1003 Physical World, Chemistry** (§1001-1002, 1004-1005, 1008, 1031-1032; not for IT stu; prereq 1 yr high school algebra...high school chem rec)
★LECT 1325-1415 TWThF, SciCB 375, 5 cr
- 810455 -1 REC 1325-1415 M,
★LAB 1430-1625 M, SmithH 249
- 906980 -2 REC 0800-0850 T,
★LAB 0905-1100 T, SmithH 249
- 002161 -3 REC 1220-1310 W,
★LAB 1430-1625 W, SmithH 249
- 609940 -4 REC 0800-0850 Th,
★LAB 0905-1100 Th, SmithH 249
- r1004 General Principles of Chemistry** (1004-1005†, §1001-1002, 1014, 1031-1032; prereq hs chem or equiv, placement index of Y or predicted Math GPA 1.90 on ACT or Math 0009 or college algebra...hs phys, 4 yrs math rec)
★LECT 0905-0955 MWThF, SmithH 100, 5 cr
- 112180 -1 REC 1325-1415 M, SciCB 325
- 905151 -2 REC 1325-1415 M, FordH 60
★LAB 1430-1715 M, SmithH 210
- 103673 -3 REC 0800-0850 T, Zoology 313
- 805126 -4 REC 0800-0850 T, Arch 50
- 108257 -5 REC 0800-0850 T, SmithH 331
- 204790 -6 REC 0800-0850 T, Arch 45
★LAB 0905-1150 T, SmithH 210
- 610926 -7 REC 1325-1415 T, AmundH 162
- 307955 -8 REC 1325-1415 T, AkerH 211
★LAB 1430-1715 T, SmithH 210
- 901732 -9 REC 1325-1415 W, SmithH 231
- 903402 -10 REC 1325-1415 W, SmithH 331
- 704194 -11 REC 1325-1415 W, FordH 150
★LAB 1430-1715 W, SmithH 210
- 701893 -12 REC 1325-1415 Th, VinH 20
- 710934 -13 REC 1325-1415 Th, FordH 115
★LAB 1430-1715 Th, SmithH 210
- 277139 -14 REC 1325-1415 F, SmithH 111
- 677140 -15 REC 1325-1415 F, SmithH 331
★LAB 1430-1715 F, SmithH 210
★LECT 1220-1310 MTWF, SmithH 100, 5 cr
- 477141 -16 REC 1325-1415 M, SciCB 375
- 277142 -17 REC 1325-1415 M, AkerH 319
★LAB 1430-1715 M, SmithH 210
- 177143 -18 REC 1315-1415 T, AkerH 319
- 977144 -19 REC 1325-1415 T, JonesH 4
- 777145 -20 REC 1325-1415 T, AkerH 209
★LAB 1430-1715 T, SmithH 210
- 577146 -21 REC 1325-1415 W, FolH 426
- 377147 -22 REC 1325-1415 W, AkerH 319
★LAB 1430-1715 W, SmithH 210
- 177148 -23 REC 0800-0850 Th, Zoology 313
- 077149 -24 REC 0800-0850 Th, Arch 30
- 377150 -25 REC 0800-0850 Th, VinH 1
- 177151 -26 REC 0800-0850 Th, SmithH 231
★LAB 0905-1150 Th, SmithH 210
- 077152 -27 REC 1325-1415 Th, AkerH 313
- 877153 -28 REC 1325-1415 Th, Arch 50
- 677154 -29 REC 1325-1415 Th, AkerH 319
★LAB 1430-1715 Th, SmithH 210
- 477155 -30 REC 1325-1415 F, FordH 60
★LAB 1430-1715 F, SmithH 210
- r1008 Physical World, Chemistry** (Sany other college chem course; prereq 1 yr high school algebra...high school chem rec)
611090 1325-1415 TWThF, SciCB 375, 4 cr
- r1014 Concepts of Chemistry** (prereq Phys 1105 or 1281 or 1321 or 1421 or ♯)
004945 1430-1520 MWThF, SciCB 325, 4 cr
- R1031 Chemical Principles I** (1031-1032†; §1001, 1004, 1014; prereq chem or chem engr or bioc maj or pre-maj chem, hs chem, 4 yrs hs math, Y place index, 1.90 math GPA on ACT or Math 0009 or college alg...hs phys rec) (A-F only)
★LECT 0800-0850 MWThF, SciCB 375, 5 cr
★REC 0800-0850 T, SciCB 375
- 104970 -1 LAB 0905-1150 T, SmithH 249
- 406988 -2 LAB 1430-1715 T, SmithH 249
- 103916 -3 LAB 1430-1715 W, SmithH 249
- 708066 -4 LAB 0905-1205 Th, SmithH 249
- 712215 -5 LAB 1430-1715 Th, SmithH 249
- 609551 -6 LAB 1430-1715 F, SmithH 249
- r3100 Quantitative Analysis Lecture** (3100-3101†; prereq 1005 or 1032, non-chem maj)
506903 1220-1310 MWF, SciCB 375, 3 cr
- r3101 Quantitative Analysis Laboratory** (3100-3101†; prereq 3100 or ♯)
810004 -1 LAB 1325-1715 MW, SmithH 310, 2 cr
212260 -2 LAB 1325-1715 TTh, SmithH 310, 2 cr
- r3301 Elementary Organic Chemistry I** (§3301; prereq 1005 or 1032, non-chem maj)
506397 -1 0800-0850 TWThF, SciCB 175, 4 cr
703854 -2 1010-1100 TWThF, SciCB 325, 4 cr
- r3302 Elementary Organic Chemistry II** (prereq 3301, 3305 or ♯)
302982 0905-0955 TWThF, SciCB 325, 4 cr
- r3305 Elementary Organic Chemistry Laboratory I** (prereq 3301 or ♯)
◆908356 -1 LECT 0800-0850 M, SciCB 175, 2 cr (registration for a lab section is also required)
- ◆106900 -2 LECT 1010-1100 M, SciCB 325, 2 cr (registration for a lab section is also required)
- 712294 -1 LAB 1325-1715 M, SmithH 349
- 712246 -2 LAB 0905-1310 T, SmithH 349
- 911368 -3 LAB 1325-1715 T, SmithH 349
- 509803 -4 LAB 1325-1715 W, SmithH 349
- 409907 -5 LAB 1325-1715 Th, SmithH 349
- r3306 Elementary Organic Chemistry Laboratory II** (prereq 3305, 3302 or §3302)
★LECT 0905-0955 M, SciCB 325
- 809836 -1 LAB 1325-1715 M, SmithH 349, 2 cr
- 302402 -2 LAB 1325-1715 T, SmithH 349, 2 cr
- 505251 -3 LAB 1325-1715 W, SmithH 349, 2 cr
- 208337 -4 LAB 1325-1715 Th, SmithH 349, 2 cr
- r3331 Introductory Organic Chemistry I** (§3301; prereq 1032 or 1 yr college chem, chem or chem engr or bioc maj or pre-maj chem) (A-F only)
★LECT 0800-0850 TWThF, SmithH 100,
- 409499 -1 REC 0800-0850 M, SmithH 331, 5 cr
- 901925 -2 REC 0800-0850 M, FordH 349, 5 cr
- 304859 -3 REC 0800-0850 M, FordH 150, 5 cr
- 906087 -4 REC 1325-1415 M, SmithH 231, 5 cr
- 111828 -5 REC 1430-1520 M, SmithH 231, 5 cr
- 409289 -6 REC 1535-1625 M, SmithH 111, 5 cr

- 3499 **Senior Thesis** (prereq #, 4th yr)
010485 ar cr
- 3970 **Directed Studies** (prereq #)
311407 ar cr
- 5122 **Advanced Analytical Chemistry** (prereq 1 yr
organic chem, course in thermodynamics)
976141 1010-1100 MWF, Kolth S135, 4 cr
- r5133 **Chemical Instrumentation and Analysis
Lecture** (prereq chem maj, 1133, 5534, 5535 or
#) (A-F only)
208077 1220-1310 MWF, SmithH 331, 3 cr
- r5520 **Elementary Physical Chemistry** (prereq 1 yr
college chem, Phys 1291 or f1291 or Phys
1106, Math 3211 or Math 3311)
403895 1010-1100 MWF, SciCB 375, 3 cr
- 5525 **Physical Biochemistry: Solution Structure
and Interactions of Biological
Macromolecules** (§BioC 5525, MdBc 5525;
prereq 2 qtrs physical chemistry, Biol 5001 or
equiv)
105178 1000-1130 TTh, BioSci 6, 4 cr (SIP)
- r5533 **Quantum Chemistry** (prereq 1 yr college
chemistry, Phys 1291 or f1291, or 1106 with #,
Math 3221 or Math 3331 or fMath 3321 or
fMath 3331)
601885 1010-1100 MWThF, SmithH 231, 4 cr
- r5534 **Chemical Thermodynamics** (prereq IT upper
div or CLA chem maj or Δ, Phys 1291 or fPhys
1291, or Phys 1106 with #, Math 3211 or Math
3311)
705023 1115-1205 MTWF, SciCB 375, 4 cr
- r5540 **Physical Chemistry Laboratory** (prereq chem
maj, 5533, 5535 or 5533, f5535 or f5533, 5535)
(A-F only)
★LECT 1220-1310 T, Kolth S135
611316 -1 LAB 1325-1715 TW, Kolth 284, 3 cr
203364 -2 LAB 1325-1715 TTh, Kolth 284, 3 cr
706883 -3 LAB 1325-1715 WTh, Kolth 284, 3 cr
- r5810 **Polymer Science** (§8610, MatS 5610; prereq
phys chem or MatS 5011 or #)
176140 1010-1100 MWF, MechE 108, 3 cr
- r5731 **Main Group Inorganic Chemistry** (prereq
5533 or 5534 or f5533 or f5534, chem or chem
enrg maj) (A-F only)
★LECT 0905-0955 TWF, SciCB 375, 3 cr
811847 -1 REC 0905-0955 Th, SciCB 375
- 5900 **Studies in Chemistry** (prereq CLA chem maj, jr
or sr, #) (A-F only)
412208 1-2 cr
- 5992 **Selected Topics** (prereq Δ, sr)
502544 4 cr
- 8190 **Seminar: Modern Problems in Chemical
Instrumentation and Analysis** (prereq #)
810567 1515-1630 F, SmithH 331, 1 cr
- 8290 **Seminar: Materials Chemistry** (prereq chem
grad stu)
810794 1 cr
- 8301 **Advanced Organic Chemistry I** (prereq 3303
or 3333)
407123 0905-0955 MWF, SmithH 331, 4 cr
- 8390 **Seminar: Organic Chemistry**
507968 1615-1800 F, SmithH 231, 1 cr
- 8401 **Bioorganic Chemistry I** (prereq 3303 or 3333
or equiv)
277089 1010-1100 MWF, SmithH 111, 4 cr
- 8512 **Chemical Thermodynamics** (prereq
undergrad physical chemistry) (A-F only)
★LECT 1010-1100 MWF, Kolth S136, 4 cr
311052 -1 REC 1010-1100 Th, Kolth S136
- 8531 **Introductory Quantum Mechanics and
Spectroscopy** (prereq 8521 or equiv) (A-F
only)
★LECT 1115-1205 MWF, Kolth S137, 4 cr
812237 -1 REC 1115-1205 T, Kolth S137
- 8560 **Seminar: Biological Systems**
410460 1530-1645 Th, SmithH 331, ar cr
- 8590 **Seminar: Physical Chemistry** (prereq #) (S-N
only)
908468 1615-1800 M, SmithH 331, 1 cr
- 8751 **Physical Inorganic Chemistry I** (prereq chem
grad stu or #)
777209 1010-1100 MWThF, Kolth S137, 4 cr
- 8781 **Organometallic Chemistry** (prereq chem grad
stu or #)
177210 1220-1310 MWF, SmithH 111, 4 cr

- 8777 **Thesis Credits: Masters**
604219 1-16 cr
- 8790 **Seminar: Modern Problems in Inorganic
Chemistry** (prereq Δ)
105522 1700-1900 Th, SmithH 231, 1 cr
- 8881 **M.S. Plan B Project I** (prereq grad chem or
grad chem phys maj, Δ) (A-F only)
302786 4 cr
- 8882 **M.S. Plan B Project II** (prereq grad chem or
grad chem phys maj, Δ) (A-F only)
511759 4 cr
- 8883 **M.S. Plan B Project III** (prereq grad chem or
grad chem phys, Δ) (A-F only)
509722 4 cr
- 8888 **Thesis Credits: Doctoral** (max 18 cr per qtr)
703644 1-36 cr
- 8990 **Research in Chemistry** (prereq Δ)
702946 ar cr
- 8991 **Special Topics in Chemistry** (prereq Δ)
511700 0800-0850 MWF, SmithH 231, 3 cr

CHICANO STUDIES (Chic)

Liberal Arts

- r3106 **Introduction to Chicano Studies: Mexico and
the United States** (§AmSt 3106)
502799 -1 0800-0850 MWF, ScottH 4, 4 cr
377360 -2 0800-0850 MWF, EIH N119, 4 cr
- r3428 **History of Relations Between the United
States and Mexico, 1821 to Present** (§Hist
3428)
375530 1220-1310 MWF, ScottH 4, Valdes, 4 cr
- r3441 **Chicano History to 1900** (§Hist 3441)
808558 1010-1100 MWF, ScottH 4, Valdes, 4 cr
- r3507 **Introduction to Chicano Literature**
075532 0905-0955 MWF, ScottH 4, Rojas, 4 cr
- 3970 **Directed Studies** (prereq #, Δ, □)
207236 ar cr
- 5970 **Directed Studies** (prereq #, Δ, CLA approval)
707922 ar cr

CHILD AND ADOLESCENT PSYCHIATRY (CAPy)

Medical School

- r5203 **Child and Adolescent Psychiatry for
Psychology Interns** (prereq #)
611087 Jensen, 1-5 cr
- r5204 **Diagnostic Methods in Child and Adolescent
Psychiatry** (prereq med student, #)
306112 Garfinkel, others, 1 cr
- r5520 **Outpatient Clinical Child and Adolescent
Psychiatry for Primary Care Physicians**
(prereq regis med student) (A-F only)
304036 Jensen, 4.5-9 cr
- r5603 **Inpatient Clinical Child Psychiatry for
Primary Care Physicians** (prereq med student,
#)
603815 Realmuto, ar cr
- 5609 **Introduction to Child Psychiatry** (prereq MD
or #)
005996 Jensen, 3 cr
- r8100 **Readings in Child, Adolescent, and Family
Psychiatry** (prereq MD, #)
709914 Jensen, 1 cr
- r8110 **Diagnostic Methods in Child, Adolescent,
and Family Psychiatry** (prereq MD, #)
310242 1 cr
- r8120 **Therapeutic Methods in Child and
Adolescent Psychiatry** (prereq MD, #)
407428 Jensen, 1 cr
- r8200 **Outpatient Clinical Child and Adolescent
Psychiatry** (prereq MD, #)
110582 Jensen, 3 cr
- r8212 **Clinical Inpatient Child Psychiatry** (prereq
MD, #)
912083 Realmuto, 3 cr
- r8223 **Family Therapy** (prereq MD, #)
108260 Jensen, 1 cr
- r8228 **Research in Child and Adolescent
Psychiatry** (prereq MD, #)
003164 Jensen, 1 cr

- r8233 **Mental Health Administration and Training
Seminar** (prereq MD, #)
008333 Jensen, 1 cr
- r8248 **Residential Child and Adolescent Treatment**
(prereq MD, #)
108170 Jensen, 3 cr
- r8253 **Child and Adolescent Community
Psychiatry** (prereq MD, #)
004055 Jensen, 2 cr
- r8301 **Seminar in Child, Adolescent, and Family
Psychiatry** (prereq MD, #)
910544 Jensen, 1 cr

CHILD PSYCHOLOGY (CPsy) Education

- r1301 **Introductory Child Psychology** (§3309, 5301;
prereq 5 cr introductory psychology)
506898 -1 1010-1100 MWF, Botany B6,
Maratsos, 4 cr
208113 -2 1820-2050 T, AndH 350, Hiester, 4 cr
- r1970 **Directed Study** (prereq #)
307986 ar cr
- 3303 **Adolescent Psychology** (§5303; prereq 5 cr
introductory psychology)
601840 0915-1030 TTh, FordH 55, Masten, 4 cr
- r3308 **Research Methods in Child Psychology**
(prereq 1301, Psy 1004) (S-N optional)
209570 1315-1430 MW, PeikH 155, Bauer, 4 cr
- 3309 **Introductory Child Psychology for the Social
Sciences** (§1301, 5301; prereq Psy 1001)
602373 -1 1010-1100 MWF, Botany B6,
Maratsos, 4 cr
610103 -2 1820-2050 T, AndH 350, Hiester, 4 cr
- r3313 **Psychology of Atypical Children** (§5313;
prereq 1301 or equiv)
508361 1820-2050 M, WullH 230, Brown, 4 cr
- 3331 **Introduction to Social Development** (§5331;
prereq 1301 or equiv)
908907 1115-1205 MWF, Arch 5, Schmit, 4 cr
- 3343 **Introduction to Cognitive Development**
(§5343; prereq 1301)
003052 0905-0955 MWF, BuH 120, Sera, 4 cr
- 3360H **Honors Seminar: Current Research in
Developmental Psychology** (prereq 1301 or
equiv)
709962 1315-1415 TTh, ChDev 105, Pick A., 2 cr
- r3960 **Senior Project in Child Psychology** (†3960;
max 4 cr; prereq 1301, sr, #) (A-F only)
209018 -1 1325-1415 M, WullH 230, 1-4 cr
410426 -2 1820-1910 Th, ChDev 172, 1-4 cr
- 3980 **Directed Instruction** (max 4 cr; prereq #) (A-F
only)
105804 1-4 cr
- 5302 **Infancy** (§3302; prereq 1301 or equiv)
475311 1820-2050 M, ChDev 216, Yonas, 4 cr
- 5303 **Adolescent Psychology** (§3303; prereq 5 cr
introductory psychology)
203736 0915-1030 TTh, FordH 55, Masten, 4 cr
- 5305 **Multidisciplinary Perspectives on Aging**
(§AdEd 5440, Educ 5440, HSU 5009, PA 5414,
PubH 5520, PubH 5737, SAHP 5009, Soc 5960,
SW 5024)
603300 1640-1825 MW, Moost 2690, Ostwald,
4 cr
- 5311 **Introduction to Developmental
Psychopathology** (§3311; prereq 1301 or
equiv, 3308 or Psy 1005)
609923 1045-1200 TTh, ChDev 105, Egeland,
4 cr
- r5313 **Psychology of Atypical Children** (§3313;
prereq 1301 or equiv)
806888 1820-2050 M, WullH 230, Brown, 4 cr
- r5322 **Motor Development** (§PE 5131, PE 5132;
prereq PE 3132 or #) (A-F only)
275312 1615-1815 T, CookeH 206, Wade, 3 cr
- 5329 **Genetics, Ethology, and Development**
(prereq 1301 or equiv)
510658 1325-1415 MWF, ChDev 218, 4 cr
- r5330 **Directed Experiences with Children** (prereq
3301, #) (A-F only)
606794 1815-2045 W, ChDev 216,
Mooney-McLoone, 4 cr
(postbaccalaureate only) (4 addtl daytime
hrs per wk req)

- 5332 Cross-Cultural Child Development** (§3332; prereq 1301 or equiv, 3308 or Psy 1005) 175313 1045-1200 TTh, ChDev 216, 4 cr
- 5336 Development and Interpersonal Relations** (§5339; prereq 1301 or equiv, 3308 or Psy 1005, 3331 or 5331) 975314 1620-2050 T, WullH 230, Bobbitt, 4 cr
- 5341 Perceptual Development** (prereq 1301 or #, 3308 or Psy 1005) 775315 0915-1030 TTh, ChDev 105, Pick H., 4 cr
- R5970 Directed Study** (prereq #) 607251 ar cr
- R5990 Directed Research** (prereq #) 803022 ar cr
- 8304 Research Methods In Child Psychology** 001575 1315-1430 MW, ChDev 105, Pick A., 3 cr
- 8310 Seminar: History of Child Development** 609811 1415-1630 T, ChDev 172, Hartup, Weinberg, 1 cr
- 8325 Developmental Neuropsychobiology** (S-N optional) (PhD in CPsy must take course A-F) 575316 0900-1030 MW, ChDev 105, Gunnar, Nelson, 3 cr
- 8360 Seminar: Developmental Psychology** 709850 Maratsos, ar cr
- 8605 Developmental Psychopathology** (prereq 8333) 005173 1515-1630 MW, ChDev 105, Sroufe, 3 cr
- 8777 Thesis Credit: Masters** 505279 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr) 110137 1-36 cr
- 8970 Independent Study** 102353 ar cr
- 8990 Research Problems** 005366 ar cr

CHINESE (Chn) East Asian Studies Liberal Arts

- R1011 Beginning Modern Chinese**
★LECT 0905-0955 TTh, FolH 208
503550 -1 REC 0800-0850 MTWThF, FolH 218, 5 cr
002113 -2 REC 1010-1100 MTWThF, FolH 218, 5 cr
★LECT 1115-1205 TTh, FolH 218
106337 -3 REC 1220-1310 MTWThF, FolH 318, 5 cr
911421 -4 REC 1010-1100 MTWThF, KoH S132, 5 cr
- R3021 Intermediate Modern Chinese** (prereq 1013)
★LECT 0905-0955 TTh, FolH 50, Decker
904257 -1 REC 0800-0850 MWF, FolH 114, 5 cr
412340 -2 REC 0905-0955 MWF, FolH 138, 5 cr
- 3031 Introductory Classical Chinese** (prereq 3023 or #)
102281 1325-1415 MWF, FolH 138, Wang, 4 cr
- 3041 Third Year Modern Chinese** (prereq 3023)
412435 1115-1205 MWF, FolH 234, Liu, 4 cr
- 3051 Advanced Chinese Conversation and Composition** (§5051; prereq 3023 or #)
075336 1325-1415 MWF, Arch 20, Liu, 4 cr
- 3090H Honors Tutorial** (prereq Δ)
112518 1-4 cr
- 3970 Directed Studies** (prereq #, Δ, □)
605533 1-15 cr
- 5041 Third Year Modern Chinese** (prereq 3023)
008414 1115-1205 MWF, FolH 234, Liu, 4 cr
- 5051 Advanced Chinese Conversation and Composition** (§3051; prereq 3023 or #)
177174 1325-1415 MWF, Arch 20, Liu, 4 cr
- 5970 Directed Studies** (prereq #, Δ, CLA approval)
911516 1-4 cr
- 8650 Seminar: Chinese Linguistics** (prereq 5451, 5452)
875337 1325-1520 T, FolH 114, Wang, 4 cr
- 8777 Thesis Credits: Masters**
912326 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
309995 1-36 cr

CIVIL ENGINEERING (CE) Civil And Mineral Engineering Institute of Technology

- R1001 Orientation** (S-N only)
707127 1430-1625 Th, CivMinE 210, Johnson, 1 cr
- R3020 Computer Applications In Civil Engineering I** (prereq civil engineering, geo-engineering or mining engineering maj, Math 1231) (A-F only)
205549 0800-0955 WF, CivMinE 205, Voller, 4 cr
- 3050 Engineering Intern Work Assignment** (prereq regis in intern prog, IT stu) (S-N only)
003312 4 cr
- R3100 Introduction to Surveying and Mapping** (prereq Math 1211, IT stu) (A-F only)
★LECT 1010-1100 MWF, CivMinE 210, Johnson
711887 -1 LAB 0905-1205 T, CivMinE 194, Johnson, 4 cr
812450 -2 LAB 1325-1625 T, CivMinE 194, Johnson, 4 cr
208936 -3 LAB 1430-1730 W, CivMinE 194, Johnson, 4 cr
210489 -4 LAB 0905-1205 Th, CivMinE 194, Johnson, 4 cr
078132 -5 LAB 1325-1625 Th, CivMinE 194, Johnson, 4 cr
- R3300 Elements of Soil Mechanics** (prereq AEM 3016) (A-F only)
403055 1010-1205 TTh, Arch 5, Labuz, 4 cr
- R3301 Soil Mechanics Laboratory** (prereq 3300, IT stu) (A-F only)
107061 -1 LAB 0905-1205 T, CivMinE 350, Labuz, 1 cr
703479 -2 LAB 1325-1625 T, CivMinE 350, Labuz, 1 cr
- R3400 Fluid Mechanics** (§AEM 5200; prereq Math 3221, AEM 1015 or 3018, IT stu or forest products maj) (A-F only)
★LECT 1325-1415 MWF, CivMinE 210, Farrell
604186 -1 LAB 1430-1730 M, CivMinE 277, Farrell, 4 cr
106080 -2 LAB 1430-1730 T, CivMinE 277, Farrell, 4 cr
506934 -3 LAB 1430-1730 W, CivMinE 277, Farrell, 4 cr
108525 -4 LAB 1430-1730 Th, CivMinE 277, Farrell, 4 cr
★LECT 0905-0955 MWF, CivMinE 210, Stefan
176114 -5 LAB 1010-1310 M, CivMinE 277, Stefan, 4 cr
876116 -6 LAB 1010-1310 T, CivMinE 277, Stefan, 4 cr
676117 -7 LAB 1010-1310 W, CivMinE 277, Stefan, 4 cr
476118 -8 LAB 1010-1310 Th, CivMinE 277, Stefan, 4 cr
- 3600 Structural Design for Architects** (prereq architecture maj or adult special, AEM 3092, 3093) (A-F only)
910723 0905-0955 M, 0800-0955 TTh, Arch 25, 4 cr
- R5002 Engineering Economics** (prereq jr or sr IT stu or adult special or grad) (A-F only)
676120 1220-1310 MW, CivMinE 210, Johnson, 2 cr
- 5097 Advanced Design, Analysis, Research or Tutorial in Civil Engineering** (prereq approval of faculty adviser) (A-F only)
104359 -1 1010-1205 TTh, CivMinE 210, Barnes, ar cr
704700 -2 ar cr
- 5201 Highway Traffic Characteristics and Operation** (prereq 3200, IT stu or grad) (A-F only)
406716 1640-1835 TTh, CivMinE 213, Davis, 4 cr
- 5210 Introduction to Transportation Systems Analysis** (prereq #)
511003 1430-1825 TTh, CivMinE 213, Stephanedes, 4 cr
- 5304 Design of Highway and Airport Pavements** (prereq 3300, 3700, IT stu or grad) (A-F only)
203073 1640-1835 TTh, CivMinE 205, Newcomb, 4 cr

- R5405 Hydrology and Hydrologic Design** (prereq 5401 or #, IT stu or grad) (A-F only)
★LECT 0905-0955 MWF, CivMinE 212, Foufoula
276122 -1 REC 1430-1730 M, CivMinE 202, Foufoula, 4 cr
178123 -2 REC 1430-1730 W, CivMinE 202, Foufoula, 4 cr
- R5410 Open Channel Hydraulics** (prereq 3400, 5401 or #, IT or grad stu) (A-F only)
★LECT 1010-1205 TTh, CivMinE 202, Arndt
203770 -1 LAB 1430-1730 T, HL 307, Gulliver, 4 cr
612174 -2 LAB 1430-1730 Th, HL 307, Gulliver, 4 cr
- 5425 Groundwater Mechanics** (prereq 3400 or #, IT or grad stu) (A-F only)
976124 1640-1835 MW, CivMinE 210, Strack, 4 cr
- 5435 Intermediate Fluid Mechanics with Applications** (prereq 3400, IT or grad stu) (A-F only)
312170 1010-1205 MF, CivMinE 202, Gulliver, 4 cr
- R5500 Analysis and Design of Water Supply Systems** (prereq 3400 or #, IT or grad stu) (A-F only)
★LECT 1325-1415 MWF, CivMinE 212, Semmens
908065 -1 LAB 1430-1625 T, CivMinE 212, Semmens, 4 cr
509364 -2 LAB 1430-1625 Th, CivMinE 212, Semmens, 4 cr
- R5506 Environmental Water Chemistry** (prereq Chem 1006 or #, IT or grad stu) (A-F only)
103270 0800-0955 MW, CivMinE 205, Eisenreich, 4 cr
- R5600 Linear Structural Systems** (prereq AEM 1015, 3016, IT stu or grad) (A-F only)
★LECT 0800-0955 TTh, CivMinE 210, Stolarski
404142 -1 REC 1640-1730 T, CivMinE 210, Stolarski, 4 cr
402150 -2 REC 1640-1730 Th, CivMinE 210, Stolarski, 4 cr
- 5602 Topics in Structural Mechanics** (prereq 5600, AEM 3036, IT upper div stu or grad) (A-F only)
002869 0800-0850 MT, 0800-0955 Th, CivMinE 212, Crouch, 4 cr
- R5603 Introduction to Construction Materials** (prereq IT upper div stu, AEM 3016) (A-F only)
★LECT 0800-0955 M, EE/CSci 3125, Cerny
710576 -1 LAB 1010-1205 M, CivMinE 350, Cerny, 4 cr
303243 -2 LAB 1430-1625 M, CivMinE 350, Cerny, 4 cr
102319 -3 LAB 1430-1625 W, CivMinE 350, Cerny, 4 cr
276119 -4 LAB 1430-1625 Th, CivMinE 350, Cerny, 4 cr
- R5610 Design of Metal Structures: Introduction** (prereq 5600, 5603, upper division IT stu or grad) (A-F only)
★LECT 1010-1205 MW, CivMinE 212, Galambos
376130 -1 REC 1640-1730 T, CivMinE 212, Galambos, 4 cr
176131 -2 REC 1640-1730 Th, CivMinE 212, Galambos, 4 cr
- R5613 Intermediate Reinforced Concrete Design** (prereq 5611, IT or grad stu) (A-F only)
103471 1640-1835 MW, CivMinE 205, Cerny, 4 cr
- 8360 Engineering Model Fitting** (prereq civil eng or mineral eng or geo-eng grad stu or #) (A-F only)
376127 1430-1625 TTh, CivMinE 214, Barnes, 4 cr
- 8413 Mechanics of Sediment Transport** (prereq 5401 or #)
576126 0800-0955 TTh, CivMinE 202, Parker, 3 cr
- 8435 Topics: Hydrodynamics Theory** (prereq #)
605497 Parker, 3 cr (HL 307)
- 8500 Physical and Chemical Processes for Water and Wastewater Treatment** (prereq 5500, 5501 or #)
177062 1430-1630 MW, CivMinE 214, Semmens, 3 cr
- 8605 Finite Element Method** (prereq 5601 or #)
176128 1325-1520 MW, CivMinE 205, Krauthammer, 4 cr

- 8625 Behavior of Reinforced Concrete Structure** (prereq 5611, 5613, 5615) (A-F only)
703708 1010-1205 TTh, CivMinE 202, French,
4 cr
- 8697 Seminar: Structures** (prereq #)
112025 1325-1520 TTh, CivMinE 205, Galambos,
ar cr
- 8777 Thesis Credits: Masters**
805062 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
204854 1-36 cr

CLASSICAL CIVILIZATION (CICv)

Liberal Arts

- 3950 Topics in Classical Civilization: Islamic Culture** (§ArH 3017; prereq CICv maj or #)
275293 0945-1100 TTh, FolH 306, Asher C., 4 cr
- 3970 Directed Studies** (prereq #, Δ, □)
106282 1-15 cr
- 3980 Directed instruction** (prereq #)
511843 ar cr
- 3990 Directed Research** (prereq #, Δ, □)
206457 1-15 cr

CLASSICS (Clas)

Classical & Near Eastern Studies Liberal Arts

- 1023 The Age of Constantine the Great** (§3023)
675336 1010-1150 TTh, FolH 134, Nicholson, 4 cr
- R1042 Greek and Roman Mythology**
309981 1115-1205 MWF, NichH 45, Erickson, 4 cr
- 1045 Basic Program in Technical Terminology and Word Study**
805305 1535-1700 TW, FolH 306, 3 cr
- 1048 Greek and Latin Terminology in the Medical and Biological Sciences** (§1141; prereq 1045 or #)
205020 1535-1700 TW, FolH 306, 2 cr
- 1141 Greek and Latin Terminology for Nursing** (§1048)
108839 1535-1700 TW, FolH 306, 3 cr
- R3008 History of Ancient Art** (§ArH 3008)
503502 1220-1310 MWF, AndH 310, Cooper, 4 cr
- 3023 The Age of Constantine the Great** (§1023; prereq soph)
475339 1010-1150 TTh, FolH 134, Nicholson, 4 cr
- 3046 Advanced Etymology: Vocabulary of the Sciences and Humanities** (prereq 1045 or #)
110310 1535-1700 TW, FolH 306, 2 cr
- 3970 Directed Studies** (prereq #, Δ, □)
711985 1-5 cr
- 5104 Roman Architecture** (§ArH 5104; prereq jr or #)
875340 1010-1105 MWF, JonesH 207A, Cooper,
5 cr
- 5107 Roman Sculpture** (§ArH 5107; prereq jr or #)
675341 0905-0955 MWF, JonesH 207A, McNally,
4 cr
- 5970 Directed Studies** (prereq #, Δ, CLA approval)
508344 1-5 cr
- 5980 Directed Instruction** (prereq #, Δ, CLA approval)
103754 4 cr
- 5990 Directed Research** (prereq #, Δ, CLA approval)
103186 4 cr
- 8777 Thesis Credits: Masters**
610361 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
103785 1-36 cr

CLINICAL AND POPULATION SCIENCES (CAPS) Veterinary Medicine

- 5000 Clinical Large Animal Medicine** (prereq #)
(S-N only)
674576 6 cr

- 5002 Clinical Large Animal Surgery** (prereq #)
(S-N only)
474577 6 cr
- 5004 Clinical Theriogenology** (prereq #) (S-N only)
274578 6 cr
- 5006 Clinical Herd Medicine** (prereq #) (S-N only)
174579 6 cr
- 5009 Veterinary Public Health** (prereq #) (S-N only)
474580 4 cr
- 5161 Large Animal Medicine** (prereq 5160 or #)
274581 0800-0850 MTWThF, VetTchHos A325,
Larson V., Ames, others, 5 cr
- 5183 Equine Herd Health Management** (prereq regis 3rd or 4th yr vet med or grad or #) (A-F only)
174582 1300-1450 M, VetTchHos A325, Peterson,
1 cr (2nd 5 weeks)
- 5184 Equine Neonatology** (prereq regis 3rd or 4th yr vet med or #) (S-N only)
974583 1700-1850 M, VetTchHos A325, Ames,
Geor, 1 cr
- 5185 Swine Herd Health Management I** (prereq regis 3rd or 4th yr vet med or grad or #) (A-F only)
774584 1500-1650 M, AnScVM 335K, 385J, Dial,
Morrison, 2 cr
- 5188 Advanced Total Animal Health Care, Environmental and Management Systems for Dairy Cattle** (prereq regis 4th yr vet med or grad student)
574585 1300-1450 M, VetTchHos A325, Anderson J., Bates, 1 cr (1st 5 weeks)
- 5280 World Food Problems** (prereq maj in agri, vet med, nutritional sci, social sci field or #...grads by # only)
474584 1800-2100 W, ClaOff B35, Robinson R., Peterson, 3 cr
- 5354 Bovine Soft Tissue Surgery** (prereq 5352 or equiv, regis vet med, 3rd or 4th yr or #) (A-F only)
274585 1500-1650 M, VetTchHos A325, Trent,
2 cr
- 5551 Theriogenology Diagnostica Laboratory** (prereq regis vet med or grad or #)
174596 1400-1650 M, 1300-1550 F, Olson J., Fahning, others, 1 cr (Animal Holding Facility) (1st 5 weeks)
- 5552 Veterinary Obstetrics Laboratory** (prereq 5550 or #)
974597 1300-1550 ThF, VetTchHos C208,
Fahning, 1 cr
- 5680 Problems in Veterinary Epidemiology and Public Health** (prereq 5650 or equiv or #)
774598 Diesch, Robinson R., others, ar cr
- 5951 Directed Studies** (prereq #, Δ)
574599 1-5 cr
- 8193 Advances in Clinical Immunobiology** (prereq grad or #)
174615 Molitor, ar cr
- 8194 Problems in Diagnostic Virology, Serology and Immunology** (prereq grad or #)
974616 Ames, Joo, others, ar cr
- 8195 Preventive Veterinary Medicine**
574618 Anderson J., others, ar cr
- 8199 Problems in Economics of Animal Health**
374619 1-3 cr
- 8290 Advanced Veterinary Medicine** (prereq 5162, SACS 5172, #)
574621 Larson V., Ames, others, ar cr
- 8291 Advanced Diagnosis and Therapeutics of Animal Diseases** (prereq 5162, SACS 5172, #)
374622 Larson V., Ames, others, ar cr
- 8292 Seminar: Veterinary Medicine** (prereq #)
874625 Larson V., ar cr
- 8293 Medical Conference** (prereq 5162, SACS 5172, #)
674626 Larson V., ar cr
- 8299 Research in Veterinary Medicine**
474627 Larson V., Ames, others, ar cr
- 8390 Seminar: Veterinary Surgery** (prereq DVM degree or equiv)
274628 Trent, Kobluk, others, ar cr

- 8392 Advanced Large Animal Surgery** (prereq DVM degree or equiv, #)
174629 Trent, Kobluk, others, ar cr
- 8393 Problems in Large Animal Orthopedics** (prereq 5365, #)
474630 Kobluk, Trent, others, 3 cr
- 8397 Large Animal Anesthesia** (prereq SACS 5380, #)
274631 Raffae, Robinson E., ar cr
- 8590 Advanced Diagnostic Methods in Reproductive Diseases** (prereq 5570 or #)
174632 Johnston S., others, ar cr
- 8591 Advanced Endocrinology of Reproduction** (prereq grad student) (A-F only)
974633 Fahning, others, 2 cr
- 8594 Special Problems in Animal Reproduction** (prereq 5570, #)
774634 ar cr
- 8595 Seminar: Veterinary Obstetrics** (prereq #)
574635 Seguin, 1 cr
- 8690 Epidemiology of Zoonoses and Diseases Common to Humans and Animals** (prereq #)
374636 Robinson R., Diesch, others, ar cr
- 8790 Problems in Veterinary Clinical Pharmacology and Therapeutics** (prereq grad or #)
174637 3 cr

CLINICAL LABORATORY SCIENCE (CLS)

Laboratory Medicine And Pathology Medical School

- 5011 Introduction to Urinalysis** (§MedT 5011; prereq Δ)
903805 0905-1310 W, MoosT 3349, Brunzel, 1 cr
- 5077 Hematology I: Basic Techniques** (§MedT 5077; prereq Δ)
★LECT 1010-1100 M, MoosT 2530,
Lofness
011149 -1 LAB 0905-1205 TTh, MoosT 3349,
Lofness, 3 cr
- 5120 Seminar: Clinical Laboratory Science** (§MedT 5120) (S-N only)
903237 1200-1300 W, JacH 3145, 1 cr
- 5125 Practicum Teaching** (§MedT 5125)
007991 1-3 cr
- 5130 Practicum in Laboratory Administration** (§MedT 5130)
108467 3 cr
- 5138 Clinical Microbiology Seminar** (§MedT 5138)
410149 1115-1205 F, PWB 15194, Wells, Ferner,
1 cr
- 5140 Techniques for Teaching** (§MedT 5140)
901889 1325-1615 Th, PWB 15194, Karmi, 3 cr
- 5145 Development of Medical Technology** (§MedT 5145)
708827 3 cr
- 5155 Advanced Clinical Hematology** (§MedT 5155; prereq #)
503869 5 cr
- 5165 Advanced Clinical Immunohematology** (§MedT 5165; prereq #)
511499 5 cr
- 5175 Advanced Clinical Chemistry** (§MedT 5175; prereq #)
111093 5 cr
- 5179 Chemistry Seminar** (§MedT 5179; prereq #)
606343 1 cr
- 5180 Advanced Chemistry** (prereq #)
209097 1-5 cr
- 5272 Immunohematology I: Immunology and Hematology in Immunohematology** (prereq Δ) (A-F only)
411415 Lasky, 3 cr
- 5280 Advanced Immunohematology Practicum I** (prereq #) (S-N only)
806163 Lasky, 2 cr
- 5768 Advanced Hematology** (prereq #)
906574 Brunning, ar cr

- 5864 Research Seminar** (prereq #)
904808 1200-1300 W, Mayo C231, 1 cr (Todd Amph)
- 5865 Departmental Seminar** (prereq #)
706267 0800-0900 W, Mayo D230, 1 cr (Eustis Amph)
- 8105 Principles of Diagnostic Enzymology** (prereq 5101, 5102 or #)
103043 Yasminah, 3 cr
- 8236 Research on Clinical Laboratory Problems**
811123 Hallgren, 1-10 cr
- 8777 Thesis Credits: Masters**
507792 1-18 cr

COGNITIVE SCIENCE (CgSc)

Liberal Arts

- r8000 Philosophy of Cognitive Science** (prereq #) (A-F only)
176033 1535-1735 T, EllH N227, Savage, 4 cr
- 8001 Proseminar in Cognitive Science** (prereq CgSc minor) (S-N only)
103074 1900-2100 T, EllH 204, Pick, 1 cr

COMMUNICATION DISORDERS

(CDis)

Liberal Arts

- r3100 Clinical and Research Observation** (prereq Δ) (S-N only)
101848 -1 0800-1200 W, MoosT 6274, Starr, Moller, 2 cr
812349 -2 1700-1900 W; 0900-1000 F, ShevH 125, Haroldson, 2 cr (or ar)
102426 -3 1230-1600 Th, MoosT 6274, Starr, Moller, 2 cr
202652 -4 Carlstrom, 2 cr
710111 -5 Doyle, 2 cr
307499 -6 van Deusen, 2 cr
175344 -7 Hindersheit, 2 cr (off-campus)
- 3101 Introduction to Communication Disorders**
203171 1010-1205 TTh, FolH 340, Haroldson, 4 cr
- 5301 Introduction to Acoustics**
707547 1010-1205 MW, 1010-1100 F, FolH 340, Speaks, 5 cr
- 5302 Anatomy and Physiology of Speech and Hearing Mechanisms**
803778 0800-0955 TTh, FolH 340, Liss, 4 cr
- 5303 Phonetics Laboratory**
510465 0905-0955 MW, FolH 340, Broen, 2 cr
- 5305 Language Development and Retardation**
609534 1325-1520 MW, FolH 340, Windsor, 4 cr
- 5507 Cleft Palate, Oral-Facial Anomalies and Speech** (prereq 5304, 5504, or #)
012060 1615-1800 MW, FolH 340, Starr, Moller, 4 cr
- 5611 Augmentative Systems of Communication**
203767 1830-1930 Th, BuH 120, Reichle, 4 cr (1 hr observation activities ar per week)
- 5702 Advanced Audiometry** (prereq 5701 or #)
★LECT 1010-1205 T, 1010-1100 Th, ShevH 125, Schlauch
803389 -1 LAB 1115-1310 Th, ShevH 119, Schlauch, 5 cr
- 5706 Hearing Aids** (prereq 5701 or #)
409857 1535-1835 M, 1430-1520 T, ShevH 125, Fabry, 4 cr
- r5900 Topics in Communication Disorders**
577034 -1 LECT 1535-1625 TTh, FolH 340, Hindersheit, 2 cr (Clinical Issues and Procedures) (prereq sr or grad stu)
★LECT 1630-1730 Th, FolH 340, Carlstrom, van Deusen, (Conversational Signed English)
177036 -2 LAB 1630-1830 T, FolH 340, Carlstrom, van Deusen, 2 cr
- 5970 Directed Studies** (prereq #, Δ, CLA approval)
811220 ar, cr
- 8504 Seminar: Normal and Disordered Child Phonology** (prereq 5504 or #)
775346 0905-1205 Th, Broen, 3 cr
- 8520 Clinical Education in Speech-Language Pathology** (prereq communication disorders grad stu)
307910 1-6 cr

- 8521 Clinical Education in Speech-Language Pathology** (prereq communication disorders grad stu)
107116 1-6 cr
- 8608 Seminar: Aphasia** (prereq 5608 or #)
103530 1630-1900 T, ShevH 125, Brookshire, 3 cr
- 8715 Seminar: Hearing**
007814 1430-1730 W, Ward, 3 cr (193 Research East, 2630 University Ave SE)
- 8720 Clinical Education in Audiology** (prereq CDIs grad stu)
110528 1-6 cr
- 8721 Clinical Education in Audiology** (prereq CDIs grad maj)
410877 1-6 cr
- 8777 Thesis Credits: Masters**
906221 1-18 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
206880 1-36 cr
- 8990 Research**
102331 ar, cr

COMPARATIVE LITERATURE

(CLit)

Liberal Arts

- r1921 Introduction to Film Study** (§ArH 1921) (A-F only)
105181 1325-1415 MW, 1325-1800 F, AndH 310, Silberman, 4 cr
- r3910 Issues in the Study of Literature**
309642 1010-1100 MWF, FolH 426, Tennenhouse, 4 cr
- r3979 Issues in Cultural Pluralism** (§AmSt 3113)
701747 1220-1440 TTh, FolH 104, Saries, 4 cr
- r5101 What is Comparative Literature?**
175425 1325-1825 W, FolH 114, Chow, 4 cr
- 5147 Dynamics of Pedagogy in Higher Education**
607654 1325-1625 M, FolH 426, Saries, 4 cr
- r5910 Topics in Comparative Literature** (prereq reading knowledge of French or German or Spanish, or #)
612191 -1 1430-1730 M, FolH 240, Tennenhouse, 4 cr
003374 -2 1515-1800 M, FolH 134, Talens, 4 cr (§Span 5910)
805844 -3 1430-1730 Th, FolH 142, Liberman, 4 cr (§Slav 5900)
- 5970 Directed Readings** (prereq #, Δ, CLA approval)
103401 1-4 cr
- r8001 Seminar in Comparative Literature** (8001-8002-8003-8004†)
609808 1325-1825 W, FolH 350, Jha, 4 cr
- 8004 Seminar in Comparative Literature** (8001-8002-8003-8004†; prereq 8003)
209715 1535-1625 Th, FolH 350, 1 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
104855 1-36 cr
- r8910 Advanced Comparative Literature Seminar** (prereq 8001-8002-8003 or #)
309706 -1 1640-1835 M, FolH 334, Zipes, 4 cr
107724 -2 1325-1625 T, FolH 428, Armstrong, 4 cr
275424 -3 1325-1625 Th, FolH 114, Canning, 4 cr
- 8970 Directed Reading** (prereq grad student in comparative lit, Δ)
212078 1-4 cr

COMPARATIVE STUDIES IN DISCOURSE AND SOCIETY (CSDS)

Humanities

Liberal Arts

- r5910 Topics in Comparative Studies in Discourse and Society** (prereq jr, or sr or grad stu) (A-F only)
401581 -1 1325-1520 MF, BlegH 415, Miller, 4 cr (Geographical Perspectives on Urban Planning I) (§Geog 5805)
075398 -2 1430-1545 TTh, FordH 150, Fiske, 4 cr (Semiotics of Culture) (§AmSt 5920, Hum 5910)

- 5970 Directed Studies** (prereq grad student, #)
204241 ar, cr
- r8001 Basic Research Seminar in Comparative Studies in Discourse and Society** (prereq Δ) (A-F only)
011488 1325-1625 M, FordH 50, Leppert, 4 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
012043 1-36 cr
- r8910 Advanced Topics in the Comparative Study of Discourse and Society: Theories of Popular Culture** (§AmSt 8249) (A-F only)
909460 1325-1625 W, FordH 50, Fiske, 4 cr
- 8970 Directed Studies** (prereq grad student or #)
307423 ar, cr

COMPOSITION AND COMMUNICATION (Comp)

Liberal Arts

- r0011 Preparation for Writing Practice** (prereq assignment to category 4; # after first day of class) (S-N only) (course fee)
108386 -1 0905-0955 MWF, AkerH 215, 0 cr
305817 -2 1010-1100 MWF, VinH 213, 0 cr
111112 -3 1115-1205 MWF, LindH 302, 0 cr
878490 -4 1220-1310 MWF, VinH 314, 0 cr (MLK/non-native English speakers only) (go to KiaCt 175 for override)
208340 -5 1325-1415 MWF, Arch 45, 0 cr
- r1011 Writing Practice I** (prereq assignment to category 2 or 3)
306082 -1 0800-0850 MTWF, VinH 1, 5 cr
105950 -2 0800-0850 MF, 0800-0955 Th, LindH 303, 5 cr
706558 -3 0800-0850 MTWF, JonesH 2, 5 cr
003908 -4 0800-0850 MTWF, JonesH 4, 5 cr
202084 -5 0800-0850 MF, 0800-0955 T, LindH 315, 5 cr
710268 -6 0800-0850 MWThF, Arch 60, 5 cr
104460 -7 0800-0850 MF, 0800-0955 W, LindH 325, 5 cr
109991 -8 0800-0850 MF, 0800-0955 W, PeikH 315, 5 cr
005481 -9 0905-0955 MWF, AkerH 313, 0905-0955 T, Arch 60, 5 cr
108212 -10 0905-0955 MTWF, JonesH 10, 5 cr
406151 -11 0905-0955 MWThF, Arch 60, 5 cr
704244 -12 0905-0955 MF, LindH 320, 0905-1100 T, LindH 303, 5 cr
101817 -13 0905-0955 MF, 0905-1100 W, LindH 315, 5 cr
911578 -14 0905-0955 MF, 0905-1100 W, LindH 303, 5 cr
402181 -15 0905-0955 MF, LindH 325, 0905-1100 Th, AkerH 209, 5 cr
605936 -16 0905-0955 MTWF, Phys 236A, 5 cr
306143 -17 1010-1100 MF, LindH 325, 1010-1205 T, MechE 221, 5 cr
106130 -18 1010-1100 MF, 1010-1205 T, LindH 315, 5 cr
308284 -19 1010-1100 MWF, Kolth S133, 1010-1100 T, Kolth S136, 5 cr
803182 -20 1010-1100 MTWF, Arch 30, 5 cr (non-native English speakers only) (go to KiaCt 175 for override)
611266 -21 1010-1100 MF, 1010-1205 W, LindH 320, 5 cr
503323 -22 1010-1100 MF, 1010-1205 Th, LindH 303, 5 cr
006002 -23 1115-1205 MTWF, Kolth S135, 5 cr
709234 -24 1115-1205 MF, JonesH 11, 1115-1310 Th, MechE 221, 5 cr
208354 -25 1115-1205 MTThF, AmundH 104, 5 cr (non-native English speakers only) (go to KiaCt 175 for override)
006081 -26 1115-1205 MF, 1115-1310 T, LindH 303, 5 cr
307373 -27 1115-1205 MWF, FordH 40, 1115-1205 Th, Kolth S135, 5 cr (MLK only)
511339 -28 1115-1205 MWF, LindH 215, 1115-1205 Th, AkerH 225, 5 cr
503385 -29 1115-1205 MWThF, VinH 20, 5 cr
307020 -30 1115-1205 MF, LindH 320, 1115-1310 Th, FordH 175, 5 cr
008915 -31 1115-1205 MF, 1115-1310 Th, LindH 315, 5 cr
409048 -32 1220-1310 MF, 1220-1415 Th, LindH 303, 5 cr
507484 -33 1220-1310 MWF, FolH 419, 1220-1310 T, ChDev 216, 5 cr
907238 -34 1220-1310 MF, LindH 325, 1220-1415 T, FordH 175, 5 cr

- 109876 -35 1220-1310 MF, LindH 320, 1220-1415 W, LindH 303, 5 cr
 106234 -36 1220-1310 MWThF, Arch 30, 5 cr
 506917 -37 1220-1310 MWF, AmundH 124, 1220-1310 Th, FordH 60, 5 cr
 711968 -38 1220-1310 MWF, FolH 312, 1220-1310 T, FolH 426, 5 cr
 809239 -39 1220-1310 MWF, FolH 326, 1220-1310 T, PeikH 215, 5 cr
 610974 -40 1220-1310 MWThF, VinH 20, 5 cr
 111045 -41 1220-1310 MF, 1220-1415 W, FordH 40, 5 cr (non-native English speakers only) (go to KlaCt:175 for override)
 308815 -42 1220-1310 MF, 1220-1415 W, FordH 175, 5 cr (MLK/non-native English speakers only) (go to KlaCt 175 for override)
 710271 -43 1325-1415 MF, FordH 175, 1325-1520 Th, Arch 30, 5 cr
 812075 -44 1325-1415 MTWF, Arch 30, 5 cr
 708178 -45 1325-1415 MTWF, JonesH 10, 5 cr
 401838 -46 1325-1415 MF, 1325-1520 T, LindH 315, 5 cr
 111926 -47 1325-1415 MF, 1325-1520 T, LindH 303, 5 cr
 302464 -48 1325-1415 MF, 1325-1520 W, FordH 285, 5 cr
 107911 -49 1325-1415 MWF, FordH 120, 1325-1415 Th, FordH 60, 5 cr
 010017 -50 1430-1520 MTWF, LindH 340, 5 cr
 004007 -51 1430-1520 MTWF, LindH 325, 5 cr
 476491 -52 1430-1520 MWThF, LindH 320, 5 cr
- R1011H Writing Practice I** (prereq assignment to category 2 or 3, honors student)
 101969 -80 LECT 0800-0850 MF, 0800-0955 Th, FordH 70, 5 cr
 403850 -81 LECT 0905-0955 MF, 0905-1100 T, KolH S137, 5 cr
 310970 -82 LECT 1010-1100 MTWF, AkerH 215, 5 cr
 205986 -83 LECT 1115-1205 MWF, AkerH 319, 1115-1205 T, Arch 30, 5 cr
 708343 -84 LECT 1115-1205 MWThF, Arch 30, 5 cr
 210198 -85 LECT 1220-1310 MWF, AkerH 225, 1220-1310 T, Arch 30, 5 cr
 401855 -86 LECT 1325-1410 MF, FordH 40, 1325-1520 T, MurH 308, 5 cr
 110459 -80 REC 1325-1415 MWF, CivMinE 213, 1325-1415 T, AmundH 120, 5 cr
 204658 -81 REC 1430-1520 MTWF, Arch 30, 5 cr
- 1013 Writing Practice II** (prereq grade of X in 1011 or 1012, Δ)
 903478 1-4 cr
- R1027 Intermediate Expository Writing** (prereq fulfillment of Writing Practice req)
 302447 -1 0800-0850 MWF, VinH 206, 4 cr
 102210 -2 0905-0955 MWF, VinH 20, 4 cr
 102393 -3 1010-1100 MWF, FordH 170, 4 cr
 709427 -4 1115-1205 MWF, NichH 122, 4 cr
 803229 -5 0815-0930 TTh, FolH 116, 4 cr
 106914 -6 1115-1230 TTh, JonesH 2, 4 cr
 109948 -7 1245-1400 TTh, MurH 311, 4 cr
- R3011 Writing about Literature** (prereq fulfillment of Writing Practice req, jr)
 604513 -1 0800-0850 MWF, FordH 60, 4 cr
 110400 -2 0905-0955 MWF, LindH 340, 4 cr
 312265 -3 1010-1100 MWF, LindH 215, 4 cr
 209391 -4 0815-0930 TTh, LindH 320, 4 cr
 210024 -5 0945-1100 TTh, LindH 320, 4 cr (concurrent registration in Engl 3411, sec 2 is required)
 776495 -6 1115-1230 TTh, JonesH 11, 4 cr
- R3012 Writing in the Humanities** (prereq fulfillment of Writing Practice req, jr)
 803134 -1 0800-0850 MWF, FordH 175, 4 cr
 411964 -2 1115-1205 MWF, LindH 340, 4 cr
 503080 -3 0815-0930 TTh, MurH 308, 4 cr
 812514 -4 1115-1230 TTh, LindH 340, 4 cr
 576496 -5 1245-1400 TTh, CivMinE 213, 4 cr
- R3013 Writing for the Arts** (prereq fulfillment of Writing Practice req, jr)
 506125 -1 0800-0850 MWF, LindH 320, 4 cr
 504021 -2 1010-1100 MWF, ChDev 216, 4 cr
 005299 -3 1220-1310 MWF, FordH 60, 4 cr
 611560 -4 0945-1100 TTh, LindH 325, 4 cr
 376497 -5 1245-1400 TTh, LindH 325, 4 cr
- R3014 Writing in the Social Sciences** (prereq fulfillment of Writing Practice req, jr)
 005240 -1 0800-0850 MWF, LindH 340, 4 cr
 206488 -2 0905-0955 MWF, FordH 349, 4 cr
 608478 -3 0905-0955 MWF, FordH 40, 4 cr
 104824 -4 1010-1100 MWF, LindH 340, 4 cr
 108475 -5 1115-1205 MWF, LindH 325, 4 cr
 110364 -6 1220-1310 MWF, AkerH 211, 4 cr
 608352 -7 1325-1415 MWF, LindH 302, 4 cr
 407493 -8 0815-0930 TTh, BuH 120, 4 cr
- 605208 -9 0945-1100 TTh, FordH 60, 4 cr
 402665 -10 0945-1100 TTh, FordH 50, 4 cr
 902511 -11 1115-1230 TTh, LindH 325, 4 cr
 176498 -12 1245-1400 TTh, JonesH 11, 4 cr
 076499 -13 1245-1400 TTh, ScottH 4, 4 cr
- R3015 Writing about Science** (prereq fulfillment of writing practice req, jr)
 003536 -1 1010-1100 MWF, Phys 236A, 4 cr
 110467 -2 1220-1310 MWF, FordH 50, 4 cr
 911063 -3 1325-1415 MWF, LindH 340, 4 cr
 705927 -4 0815-0930 TTh, FordH 60, 4 cr
 207219 -5 0945-1100 TTh, LindH 302, 4 cr
 776500 -6 1245-1400 TTh, LindH 320, 4 cr
- R3022 Critical Reading and Writing for Management** (prereq 1011 or equiv, Mgmt or Pre-Mgmt stu with more than 60 credits)
 006680 -1 0905-0955 MWF, FordH 50, 4 cr
 104659 -2 1010-1100 MWF, NichH 122, 4 cr
 202666 -3 1220-1310 MWF, LindH 315, 4 cr
 311701 -4 0815-0930 TTh, FordH 50, 4 cr
 576501 -5 0945-1100 TTh, VinH 20, 4 cr
 376502 -6 1115-1230 TTh, LindH 320, 4 cr
- R3027 Advanced Expository Writing** (prereq fulfillment of Writing Practice req, jr)
 605046 -1 0800-0850 MWF, LindH 229, 4 cr
 608030 -2 0905-0955 MWF, LindH 229, 4 cr
 304974 -3 1010-1100 MWF, FordH 70, 4 cr
 104791 -4 1115-1205 MWF, MurH 311, 4 cr
 208158 -5 1220-1310 MWF, LindH 340, 4 cr
 903669 -6 1325-1415 MWF, LindH 320, 4 cr
 107178 -7 0815-0930 TTh, MurH 311, 4 cr
 602180 -8 0945-1100 TTh, LindH 217, 4 cr
 010860 -9 0945-1100 TTh, LindH 340, 4 cr
 610344 -10 1115-1230 TTh, FordH 40, 4 cr
 411401 -11 1245-1400 TTh, FordH 50, 4 cr
 176503 -12 1245-1400 TTh, FordH 40, 4 cr
- R3031 Technical Writing for Engineers** (prereq fulfillment of Writing Practice req, jr, IT stu)
 106385 -1 0800-0850 MWF, FordH 50, 4 cr
 602194 -2 0905-0955 MWF, LindH 217, 4 cr
 476507 -3 1115-1205 MWF, FordH 50, 4 cr
 105309 -4 1220-1310 MWF, MurH 311, 4 cr
 512071 -5 1325-1415 MWF, LindH 325, 4 cr (non-native English speakers only) (go to KlaCt 175 for override)
 112011 -6 0815-0930 TTh, LindH 340, 4 cr
 506996 -7 0945-1100 TTh, LindH 215, 4 cr
 811895 -8 1115-1230 TTh, FordH 50, 4 cr
 707824 -9 1245-1400 TTh, LindH 340, 4 cr
- R3032 Preprofessional Writing for Business** (prereq fulfillment of Writing Practice req, School of Mgmt or BIS stu, jr)
 203400 -1 0905-0955 MWF, RangC 616, 4 cr
 910320 -2 1115-1205 MWF, RangC 616, 4 cr
 206233 -3 1325-1415 MWF, RangC 616, 4 cr
 207110 -4 0815-0930 TTh, RangC 616, 4 cr
 304134 -5 0945-1100 TTh, RangC 616, 4 cr
 109495 -6 1115-1230 TTh, RangC 616, 4 cr
- R3033 Writing for the Health Sciences** (prereq fulfillment of Writing Practice req, more than 60 credits)
 601790 -1 0800-0850 MWF, LindH 302, 4 cr
 011829 -2 0905-0955 MWF, LindH 215, 4 cr
 109660 -3 1010-1100 MWF, FordH 50, 4 cr
 076504 -4 0945-1100 TTh, FordH 40, 4 cr
 676506 -5 1115-1230 TTh, FordH 70, 4 cr
- 3080 Special Projects in Advanced Composition** (max 6 cr; prereq fulfillment of writing practice req, jr, written perm of major advisor, Δ)
 476488 -1 2 cr (non-native English speakers only) (go to KlaCt 175 for override)
 276489 -2 2 cr
- 3085 Conference Course in Advanced Composition** (prereq fulfillment of Writing Practice req, jr, written permission of major advisor, Δ)
 104063 -1 4 cr
 809371 -2 4 cr (non-native English speakers only) (go to KlaCt 175 for override)

COMPUTER SCIENCE (CSci) Institute of Technology

- R3001 Perspectives on Computers and Society** (prereq soph or #)
 111473 1430-1545 TTh, EE/CSci 3210, 4 cr
- R3101 A FORTRAN Introduction to Computer Programming** (prereq Math 1111 or 1201 or equiv or #)
 702171 -1 0800-0850 MWF, EE/CSci 3115, 4 cr
 007098 -2 0905-0955 MWF, EE/CSci 3115, 4 cr
 611395 -3 1010-1100 MWF, EE/CSci 3115, 4 cr
 305574 -4 1115-1205 MWF, EE/CSci 3111, 4 cr
- R3102 Introduction to Pascal Programming** (prereq non-computer science maj, Math 1111 or 1201 or equiv or #)
 402990 -1 0800-0850 MWF, EE/CSci 3111, 4 cr
 709105 -2 0905-0955 MWF, EE/CSci 3111, 4 cr
- R3113 Introduction to Programming in C** (prereq 3101 or 3102 or any programming exp, precalc or #)
 377178 -1 1010-1100 MWF, EE/CSci 3111, 4 cr
 177179 -2 1325-1415 MWF, EE/CSci 3230, 4 cr
- R3311 Discrete Structures of Computer Science** (§3400; prereq 1 qtr calc or #)
 *LECT 1220-1310 MWF, EE/CSci 3111
 377181 -1 REC 1220-1310 TTh, AmundH 875, 5 cr
 177182 -2 REC 1220-1310 TTh, Arch 55, 5 cr
- R3316 Introduction to the Science of Computer Programming** (§3106; prereq 1 qtr calc or #)
 *LECT 1325-1415 MWF, EE/CSci 3115
 777176 -1 REC 1325-1415 TTh, AkerH 225, 5 cr
 577177 -2 REC 1325-1415 TTh, Arch 20, 5 cr
- R3321 Algorithms and Data Structures I** (§3105, 3113; prereq 3311 or 3400 or 3106 or #)
 *LECT 1535-1625 MWF, EE/CSci 3210
 877184 -1 REC 1535-1625 TTh, EE/CSci 3115, 5 cr
 677185 -2 REC 1535-1625 TTh, EE/CSci 3111, 5 cr
- R5002 Computational Methods for Nonlinear Programming** (prereq 5001 or #)
 776173 -1 1115-1230 TTh, MechE 108, 4 cr
- 5102 Structure and Programming of Software Systems II** (prereq 3327, 5101 or #)
 477186 1325-1520 WF, LindH 217, 4 cr
- R5106 Structure of High Level Languages** (prereq 3322, 5102 or #)
 503614 1115-1205 MWF, EE/CSci 3115, 4 cr
- R5107 Computer Graphics I** (prereq 3322, 3327 or #)
 011295 0815-0930 TTh, EE/CSci 3115, 4 cr
- R5180 Software Engineering I** (prereq 5106)
 976172 -1 1430-1545 WF, MechE 212, 4 cr
- R5201 Computer Architecture** (prereq 3311, 3327)
 112342 1430-1545 WF, EE/CSci 3111, 4 cr
- R5211 Data Communications and Computer Networks** (prereq 5102 or #)
 103365 1245-1400 TTh, EE/CSci 3115, 4 cr
- R5280 Computer Aided Design I** (prereq experience with data structures)
 105947 -1 1615-1730 TTh, EE/CSci 3125, 4 cr
- R5301 Numerical Analysis** (prereq MATH 3321 or #...knowledge of Pascal or FORTRAN is assumed)
 107536 -1 1115-1230 TTh, MechE 212, 4 cr
- R5304 Computational Aspects of Matrix Theory** (prereq 5302 or #)
 576174 0945-1100 MWF, FordH 130, 4 cr
- R5307 Numerical Algorithms for Parallel Computers** (prereq CLA or upper div IT CSci maj or grad stu, 5301, 5302 or #)
 277187 1115-1230 MW, LindH 216, Saad, 4 cr
- R5314 Introduction to Sparse Matrix Techniques** (prereq 5304, programming experience equiv to 3105 or 3321)
 177188 0945-1100 WF, AmundH 124, Boley, 4 cr
- R5399 Problems in Numerical Analysis** (prereq #)
 977189 Fox, 1-4 cr
- R5400 Introduction to Automata Theory** (prereq 3311; 3321 or #)
 007067 -1 0945-1100 TTh, MechE 108, 4 cr
- R5504 Introduction to Compilers** (prereq 5106 or #)
 108248 -1 0945-1100 TTh, EE/CSci 3125, 4 cr
- R5511 Artificial Intelligence I** (prereq 3322 or #)
 205289 -1 0945-1100 WF, EE/CSci 3125, 4 cr
- R8101 Computer Operating Systems: Modeling and Analysis** (prereq 5502 or #)
 277190 1245-1400 MW, MechE 212, Riedl, 3 cr
- R8199 Seminar: Languages and Systems** (prereq #)
 711632 1-3 cr
- R8399 Seminar: Numerical Analysis** (prereq #)
 410880 -1 1415-1530 MW, LindH 229, 1-3 cr
 104765 -2 1-3 cr

- r8401 Algorithms-Techniques and Theory** (prereq 5121, 5400 or #)
376175 -1 1245-1400 TTh, MechE 212, 4 cr
- r8499 Seminar: Computational Theory and Logic** (prereq #)
176176 1-3 cr
- R8501 Computer Vision** (prereq 5512 or #) (A-F only)
506058 -1 1430-1545 TTh, EE/CScl 3125, 4 cr
- 8777 Thesis Credits: Masters**
376693 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
603068 1-36 cr
- r8899 Computer Science Colloquium** (prereq grad) (S-N only)
802131 -1 1430-1530 M, MechE 108, 1 cr

CONSERVATION BIOLOGY (CBio)

- 8777 Thesis Credits: Masters**
177126 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
977127 1-36 cr

CONTROL SCIENCE AND DYNAMICAL SYSTEMS (CSDy)

- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
607511 1-36 cr

COPTIC (Copt) Classical & Near Eastern Studies Liberal Arts

- 5300 Readings In Coptic** (prereq 5102 or equiv)
477365 1430-1600 Th, FolH 214, Sellow, 4 cr

CURRICULUM AND INSTRUCTIONAL SYSTEMS (CISy) Curriculum And Instruction Education

- r5003 Introduction to Computers and Their Uses** (S-N only)
712568 -1 1915-2005 M, PeikH 355, 1 cr
103163 -2 0905-0955 T, PeikH 355, 1 cr
- 5004 Introduction to Interactive Video Instruction** (A-F only)
503192 1915-2005 W, PeikH 335, 1 cr
- r5006 Introduction to Instructional Computer Programming** (prereq 5003 or #) (A-F only)
110579 1615-1900 W, PeikH 355, Johnston, 3 cr
- r5100 Curriculum and Instructional Systems Workshop: Foundations of Instructional Systems** (max 9 cr) (A-F only)
702431 1630-1915 M, PeikH 31, Hooper, 3 cr
- 5201 Systems Approach to Design of Instruction** (§SeEd 5201; prereq SeEd 5000 or CISy 5000 or #) (A-F only)
276072 1615-1900 Th, PeikH 335, Sales, 3 cr
- r5206 Microcomputer Uses in Elementary Classrooms** (§Elem 5140) (A-F only)
002435 1630-1915 Th, PeikH 355, Stochl, 3 cr
- r5208 Computer-Based Tools for Teachers** (prereq 5003 or 5206 or #) (S-N optional)
202134 1615-1900 M, PeikH 355, Johnston, 3 cr
- r5212 Computer-Based Instruction: Design and Development** (prereq 5205 or #) (A-F only)
976074 1615-1900 W, Aph 219, Hooper, 3 cr
- 5509 Directed Individual Study** (max 6 cr; prereq #) (A-F only)
712537 -1 Anderson, 1-6 cr
706947 -2 Hooper, 1-6 cr
776075 -3 Kimpston, 1-6 cr
407154 -4 Sales, 1-6 cr
- r5600 Introduction to Curriculum Systems** (A-F only)
705409 1630-1915 W, PeikH 315, Kimpston, 3 cr
- r8100 Curriculum and Instruction Core: Critical Examination of Curricular Contexts** (prereq PhD student or #) (A-F only)
107349 1535-1800 M, PeikH 225, Lange, 3 cr

- 8102 Curriculum and Instruction Core: Teaching** (prereq PhD student or #) (A-F only)
908406 1630-1915 Th, PeikH 165, Mackey, 3 cr
- 8411 Advanced Designs in Courseware: Computer** (prereq 5216 or 5218 or #)
576076 1615-1900 T, PeikH 335, Sales, 3 cr
- 8501 Problems: Curriculum and Instructional Systems** (prereq #)
106248 -1 Hooper, ar cr
104399 -2 Kimpston, ar cr
605015 -3 Sales, ar cr
- 8610 Curriculum Leadership** (prereq 5700, #) (A-F only)
009868 1630-1915 T, PeikH 27, Kimpston, 3 cr
- 8700 Curriculum and Instructional Systems Field Experience** (max 6 cr; prereq #)
012611 -1 Anderson, 3-6 cr
907336 -2 Hooper, 3-6 cr
008834 -3 Kimpston, 3-6 cr
801786 -4 Sales, 3-6 cr
- 8800 Problems: Secondary School Supervision** (prereq Δ)
109934 Anderson E., ar cr

DANCE (Dnce)

Theatre Arts Liberal Arts

- r1001 Fundamentals of Modern Dance I** (§1012)
301721 -1 1325-1500 MW, NorrisH M151, Maddux, 1 cr
709430 -2 0905-1035 TTh, NorrisH M151, Maddux, 1 cr
- 1002 Fundamentals of Modern Dance II** (§1013; prereq 1001 or #)
775136 1325-1500 WF, PeikG G65, 1 cr
- r1004 Fundamentals of Ballet I** (§1015)
203946 1325-1500 TTh, NorrisH 67, Stanchfield, 1 cr
- r1010 Beginning Modern Technique I** (6 cr max; prereq audition, Δ)
510143 0825-0955 MTThF, NorrisH M151, Cheng, 2 cr
- r1031 Ballroom Dance I**
011894 -1 1010-1100 MW, NorrisH M153, Lampe, 1 cr (men only)
203137 -2 1010-1100 MW, NorrisH M153, Lampe, 1 cr (women only)
- 1034 International Folk Dance I**
475132 1115-1205 TTh, NorrisH M151, Maddux, 1 cr
- r1040 Beginning Ballet Technique I** (3 cr max; prereq audition, #)
708150 1145-1315 TTh, NorrisH 67, Stanchfield, 1 cr
- r1070 Beginning Jazz I** (prereq 1003 or 1006, audition, #)
701926 1010-1140 MW, PeikG G65, Sealy, 1 cr
- 1077 Tap I**
575137 1220-1310 MW, PeikG G65, 1 cr
- r1101 Introduction to Dance**
106041 0800-0855 TTh, NorrisH 3, Barker, 4 cr
- r1110 Topics in Dance Theory** (max 3 cr; prereq 1003 or 1006)
510031 0825-0955 W, NorrisH 67, 1 cr
- 1111 The Articulate Body** (§3333; prereq dance maj or min, Δ) (A-F only)
175134 0800-0850 MWF, NorrisH 3, 4 cr
- r3010 Intermediate Modern Technique I** (6 cr max; prereq 1030, #)
103096 1325-1500 MTThF, NorrisH 67, 2 cr
- 3040 Intermediate Ballet Technique I** (max 3 cr; §3140; prereq 1060 or #)
275133 1145-1315 MWF, NorrisH 67, 2 cr
- r3070 Intermediate Jazz I** (max 3 cr; §3626; prereq 1090 or equiv, #)
307664 1010-1140 TTh, NorrisH 67, Sealy, 1 cr
- r3077 Intermediate Tap I** (prereq 1079 or equiv, #)
110798 0905-0955 MW, PeikG G65, Sealy, 1 cr
- r3311 Composition I** (prereq 1003 or equiv, #)
709198 -1 LECT 1010-1140 MF, NorrisH M151, Cheng, 2 cr
★LAB 1010-1140 W, NorrisH M151, Maddux

- 3330 Topics in Dance Theory** (max 3 cr; prereq 1030, #)
375138 1325-1500 W, NorrisH 67, 1 cr
- 3333 The Articulate Body** (§1111; prereq dance maj or min, Δ) (A-F only)
975135 0800-0850 MWF, NorrisH 3, 4 cr
- r3700 Dance Repertory Theatre and Reconstruction** (prereq audition) (A-F only)
806180 -1 1500-1700 MTWThF, NorrisH 67, Maddux, 1 cr
102653 -2 1500-1700 MTWThF, 1 cr (off-campus) (University Technological Center)
- r5010 Advanced Modern Technique I** (9 cr max; §5110; prereq 3030 or #)
405503 1325-1500 MTWThF, 3 cr (off-campus) (University Technological Center)
- r5070 Advanced Jazz I** (max 3 cr; prereq 3090 or equiv, #)
876875 0825-0955 TTh, PeikG G65, Sealy, 1 cr
- 5100 Dance Practicum**
210945 1-6 cr
- r5312 Advanced Composition IV** (prereq 3313 or equiv)
904517 -1 LECT 1010-1140 MF, NorrisH 67, 2 cr
★LAB 1010-1140 W, NorrisH 67, Cheng
- r5616 Teaching Dance**
905652 1010-1140 TTh, NorrisH 3, Cheng, 4 cr
- r5700 Workshop: Dance Performance** (max 12 cr; prereq 1101, #, concurrent registration in a technique class, audition)
505007 1500-1700 MTWThF, NorrisH M151, Sealy, 1-2 cr
- r5910 Topics in Dance** (max 12 cr; prereq #, Δ)
606214 1-5 cr

DANISH (Dan) Scandinavian Studies Liberal Arts

- r1101 Beginning Danish**
608318 0905-0955 MTWThF, FolH 218, 5 cr
- r1104 Intermediate Danish** (prereq 1103 or equiv)
711209 0800-0850 MTWThF, FolH 214, 5 cr
- 3670 Readings in Danish Literary Texts** (max 28 cr; prereq 1106 or equiv)
306305 1245-1400 TTh, FolH 142, Houe, 4 cr

DENTAL HYGIENE (DH) Dentistry

- 1001 Dental Anatomy** (A-F only)
★LECT 0805-1045 F, MoosT 5125, Anderson, 3 cr
711131 -1 LAB 1100-1240 F, MoosT 4160, Anderson
606441 -2 LAB 1325-1505 F, MoosT 4160, Anderson
- 1002 Head and Neck Anatomy** (A-F only)
704647 1010-1100 T, MoosT 5125, Conrad, 1 cr
- 1190 The Dental Hygiene Care Process** (A-F only)
★LECT 0800-0850 MW, MoosT 2580, Osborn, 6 cr
404707 -1 LAB 1010-1200 MW, MoosT 4160
★CLN 1315-1630 MW, MoosT 4160
- 1202 Introduction to Biomaterials** (A-F only)
★LECT 0930-1020 M, 0830-0920 Th, MoosT 5125, Hampel, 3 cr
708441 -1 LAB 1030-1240 M, MoosT 4160, Hampel
- 1230 Applied Nutrition in Dental Hygiene Care** (prereq 1093) (A-F only)
005934 1240-1330 Th, 0800-0850 F, MoosT 5125, Sander, 2 cr
- 3193 Dental Hygiene Clinic III** (prereq 3192) (A-F only)
★LECT 0815-0905 M, MoosT 5125, Stoltenberg, 7 cr
307115 -1 CLN 0930-1200 TWThF, 1315-1600 MWThF, MoosT 4160, Stoltenberg, others
- 3200 Periodontology II** (prereq 1094) (A-F only)
405436 0745-0920 T, MoosT 5125, Hinrichs, 2 cr
- 3277 Oral Radiology II** (A-F only)
301850 0745-0925 W, MoosT 5125, Kuba, 2 cr

3480 Independent Study (prereq #) (S-N only)
407509 Stoltenberg, ar cr

DENTISTRY (Dent) Dentistry

5001 Fixed Prosthodontics Technique Lectures (A-F only)
076101 1325-1415 M, MoosT 2690, 1 cr (Sept 9-Dec 2)

5004 Fixed Prosthodontics Laboratories (A-F only)
476104 1430-1700 MW, MoosT 4210A, 4210, 4222, 2 cr (Sept 4-Dec 4)

5005 Fixed Prosthodontics Laboratories (A-F only)
605791 2 cr

5009 Fixed Prosthodontics: Independent Study
102238 ar cr

5010 Fixed Prosthodontics Clinic (A-F only)
206278 0930-1215 MTWThF, 1315-1615
MTWThF, MoosT 9139, 9160, 9348, 3 cr

5015 Fixed Prosthodontics Clinic (A-F only)
205955 0845-1200 MTWThF, 1300-1600
MTWThF, MoosT 9139, 9160, 9346, ar cr

5036 Organization and Management of Dental Practice I (S-N only)
★LECT 0745-0930 MTWThF, MoosT 2530, 3 cr (Sept 4-16)
205230 -1 REC 0930-1130 TWThF, MoosT 2530, (Sept 5-6, 10-13, 17-20)

5054 Dental Auxiliary Utilization Clinic (DAU I, II) (prereq 5053) (S-N only)
608271 0900-1200 MTWThF, 1315-1600
MTWThF, MoosT 9139, 9327, 2 cr

5055 Health Ecology: Independent Study
007845 ar cr

5060 General Dentistry Clinic (Team II)
104166 2 cr

5070 Health Ecology Elective
407932 ar cr

5075 Special Topics in Dental Associateships
711419 2 cr

5080 Dental Auxiliary Utilization Clinic (DAU III)
709279 1 cr

5090 Business and Legal Aspects of Dental Practice (S-N only)
204059 0745-0930 MTWThF, (Sept 4-24)
0745-0845 MF (Sept 27-Dec 6) MoosT
3110, 5 cr

5092 Professional Problem Solving (A-F only)
102157 1325-1520 Th, MoosT 2620, 0 cr (Sept 12 only)

5097 Professional Problem Solving (prereq 5096) (A-F only)

5102 Human and Oral Genetics: Independent Study
910026 ar cr

5150 Operative Dentistry I (A-F only)
508960 2 cr

5151 Operative Dentistry I (prereq 5150) (A-F only)
106144 1325-1415 TTh, MoosT 2690, 2 cr (Sept 5-Dec 5)

5152 Operative Dentistry I (prereq 5151) (A-F only)
802534 1 cr

5154 Operative Dentistry Laboratory (†5154-5155; prereq 5153) (A-F only)
210248 1430-1700 TTh, MoosT 4210A, 4210, 4222, 4222E, 3 cr

5155 Operative Dentistry Laboratory (†5154-5155; prereq 5154) (A-F only)
512457 2 cr

5158 Operative Dentistry: Independent Study
012513 ar cr

5160 Operative Dentistry II (A-F only)
802985 0745-0845 W, MoosT 2520, 8384, 9170, 9380, 15254, 2 cr (Sept 25-Dec 4)

5161 Operative Clinic (A-F only)
101891 0930-1215 MTWThF, 1315-1615
MTWThF, MoosT 8150, 8327, 8348, 3 cr

5165 Clinical Operative Dentistry (†5165-5166-5167) (A-F only)
203588 0845-1200 MTWThF, 1300-1600
MTWThF, MoosT 8150, 8327, 8348, ar cr

5170 Seminar: Operative Dentistry
207382 1 cr

5171 Class III Direct Gold Restorations (prereq 5160, 5163)
708326 1 cr

5172 Esthetic Direct Anterior Restoratives (prereq 5160)
010146 1 cr

5173 Clerkship in Operative Dentistry (prereq 5160, 5165)
204207 2 cr

5175 Esthetic Dentistry Clinic (prereq 5172)
807569 1 cr

5202 Current Literature Seminars (S-N only)
909569 1000-1200 WF, HSUnitF 2120, 2130, 2165, PWB 5206, 5254, 5258, 5264, 5266, 6210, 2 cr

5212 Introduction to Clinics (S-N only)
604544 1 cr

5250 Oral Pathology: Independent Study
511373 ar cr

5251 Oral Pathology (A-F only)
406974 0745-0835 MW, MoosT 2530, 3 cr (Sept 25-Dec 4)

5310 Oral Surgery I (A-F only)
602079 0745-0835 F, MoosT 2530, 1 cr (Sept 27-Dec 6)

5316 Oral Surgery Clinic Rotation (A-F only)
906395 0845-1200 MTWThF, 1300-1600
MTWThF, MoosT 7407, 7411, 7412, 7413, 7415, 7416, 7417, 7430, 7434, 1 cr

5317 Anesthesia (A-F only)
509543 1325-1415 WF, MoosT 2520, 2 cr (Sept 4-Nov 8)

5320 Oral Surgery: Independent Study
305364 ar cr

5380 Orthodontics
106564 2 cr

5381 Head and Neck Anatomy Review
711274 1 cr

5385 Orthodontics: Independent Study
007809 ar cr

5401 Pediatric Dentistry I (A-F only)
703658 1 cr

5407 Minor Tooth Movement
307261 1 cr

5409 Clinical Pediatric Dentistry (A-F only)
002922 0845-1200 MTWThF, 1300-1600 MTWThF,
MoosT 6125, 6162, 0 cr

5412 Clinical Pediatric Dentistry (prereq 5411) (A-F only)
176106 0845-1200 MTWThF, 1300-1600 MTWThF,
MoosT 6125, 6162, 0 cr

5420 Pediatric Dentistry: Independent Study
310354 ar cr

5452 Periodontology II (A-F only)
308992 3 cr

5460 Periodontology: Independent Study
103995 ar cr

5483 Periodontology Technique (Lab) (S-N only)
811315 1000-1230 M, MoosT 4210A, 4210, 4222, 4222E, 0 cr

5466 Periodontology Clinic (A-F only)
476913 0930-1215 MTWThF, 1315-1615
MTWThF, MoosT 8127, 8327, 9139, 9327, 1 cr

5489 Periodontology Clinic (A-F only)
903657 0845-1200 MTWThF, 1300-1600
MTWThF, MoosT 8127, 8327, 9139, 9327, 1 cr

5553 Removable Prosthodontics: Independent Study
104158 ar cr

5580 Removable Prosthodontics III (A-F only)
207530 0930-1130 MW, 0745-0930 TWF, MoosT
2530, 1 cr (0930-1130 MW, Sept 4, 9, 16)
(0745-0930 TWF, Sept 17, 18, 20)

5582 Removable Prosthodontics Clinic (A-F only)
609193 0930-1215 MTWThF, 1315-1615
MTWThF, MoosT 9160, 9327, 9346, 3 cr

5565 Removable Prosthodontics Clinic (A-F only)
408448 0845-1200 MTWThF, 1300-1600
MTWThF, MoosT 9160, 9327, 9346, ar cr

5602 Biomaterials: Independent Study
101803 ar cr

5625 Endodontics (A-F only)
211447 0745-0835 TTh, MoosT 2530, 2 cr (Sept 24-Dec 5)

5626 Endodontic Clinic (S-N only)
801979 0845-1200 MTWThF, 1300-1600
MTWThF, MoosT 8127, 8150, 8348, 1 cr

5642 Hospital Dentistry (S-N only)
109960 0830-1200 MTWThF, 1300-1600
MTWThF, PWB 7302, ar cr

5648 Oral Anatomy I (†5648-5649) (A-F only)
★LECT 0800-0850 TTh, MoosT 2620 (Sept 5-26, Oct 3) 1325-1415 TTh, MoosT 2620 (Sept 5, 10, Oct 3); 0905-0955 Th, MoosT 2620 (Oct 10-Dec 5) 4 cr
376094 -1 LAB 0905-1100 TTh, MoosT 4160, 4170A, 4170 (Sept 5-Oct 3); 1430-1700 TTh, MoosT 4160, 4170A, 4170 (Sept 5, 11, Oct 3); 1010-1205 F, MoosT 4160, 4170A, 4170 (Oct 10-Dec 5)

5654 Oral Anatomy: Independent Study
810164 ar cr

5670 Introduction to Oral Biology (S-N only)
104815 0905-0955 T, MoosT 2620, 1 cr (Oct 1-Dec 3)

5677 Dental Research Training
607136 ar cr

5680 Oral Biology: Independent Study
112283 ar cr

5755 Occlusion: Independent Study
406005 2 cr

5775 Oral Radiology I (A-F only)
903304 3 cr

5776 Oral Radiology II (A-F only)
311424 0800-0850 TTh, MoosT 2690, 2 cr (Sept 5-Nov 22)

5778 Oral Radiology Clinic (A-F only)
707015 0930-1215 MTWThF, 1315-1615
MTWThF, MoosT 7221, 7223, 7225, 7226, 7227, 7234, 7235, 7238, 7240, 7241, 7245, ar cr

5785 Oral Radiology: Independent Study
511356 ar cr

5800 Initial Examination Clinic I (S-N only)
604317 0930-1215 MTWThF, 1315-1615
MTWThF, MoosT 7555, 0 cr

5804 Emergency Clinic (S-N only)
909037 0900-1200 MTWThF, 1300-1600
MTWThF, MoosT 7336, 1 cr

5807 Treatment Planning: Independent Study
403203 ar cr

5812 Physical Evaluation III (A-F only)
705801 0745-0845 TTh, MoosT 2620, 2 cr (Oct 1, 8-Dec 5)

5900 Dental Clinic
902766 ar cr

5926 The Use of Business Theory in Dental Practice (S-N only)
611817 1 cr

5930 Hennepin County Medical Center Clinical Oral and Maxillofacial Surgery (S-N only)
006954 0800-0930 MTF, 0930-1200 MTWThF, 1300-1600 MTWThF, 10 cr (Hennepin County Medical Center)

5935 Hennepin County Medical Center Clinical Hospital Dentistry I (S-N only)
503841 0800-0930 MTF, 0930-1200 MTWThF, 1300-1600 MTWThF, 10 cr (Hennepin County Medical Center)

5936 Hennepin County Medical Center Clinical Hospital Dentistry II (S-N only)
910379 0800-0930 MTF, 0930-1200 MTWThF, 1300-1600 MTWThF, 10 cr (Hennepin County Medical Center)

5937 Hennepin County Medical Center Clinical Hospital Dentistry III (S-N only)
909555 10 cr (Hennepin County Medical Center)

5945 Geriatric Hospital Dentistry
707869 0800-1200 F, 1300-1600 F, ar cr

- 5951 **Advanced General Dentistry Seminar II (S-N only)**
908910 0730-0830 M, MoosT 15254, ar cr
- 5956 **Advanced General Dentistry Clinical Administration II (S-N only)**
308507 ar cr
- 5961 **Advanced General Dentistry Clinic II (S-N only)**
704082 0815-1200 MTWThF, 1300-1600 MTWThF, MoosT 7336, 8223, ar cr
- 5965 **Advanced General Dentistry Clinic VI (S-N only)**
911242 ar cr
- 5971 **General Practice Seminar II**
802002 ar cr
- 5975 **General Practice Clinical Administration II**
810067 ar cr (Anoka Metro Regional Treatment Center)
- 5981 **General Practice Clinic II**
802288 0815-1200 MTWThF, 1300-1600 MTWThF, MoosT 7336, 8223, ar cr
- 5985 **General Practice Clinic VI**
309219 ar cr (Anoka Metro Regional Treatment Center)
- 5989 **Advanced Clinical Geriatric Dentistry**
408076 ar cr (Wildier Senior Health Center)
- 5990 **Field Experience: Administration in a Multidisciplinary Health Center**
702235 0830-1200 TTh, 1230-1630 TTh, 2 cr (Wildier Senior Health Center)
- 5992 **Oral Health Services for Older Adults I**
903318 1300-1500 T, MoosT 15254, 2 cr
- 5995 **Advanced Clinical Restorative Dentistry**
405369 ar cr
- 5997 **Operative Dentistry: Philosophy, Principles, Rationales and Techniques (prereq #) (A-F only)**
208953 ar cr
- 8129 **Topics and Problems in Dental Education (prereq #)**
603328 ar cr
- 8140 **Topics: Restorative Dentistry**
104068 1000-1200 TW, MoosT 8384, ar cr
- 8150 **Research: Restorative Dentistry**
006064 ar cr
- 8440 **TMJ and Craniofacial Pain; Advanced Theory and Principles (prereq #) (A-F only)**
506304 1700-2000 T, MoosT 5125, 3 cr
- 8441 **Seminars in TMJ and Craniofacial Pain (prereq #) (A-F only)**
604494 1200-1300 F, MoosT 15254, 1 cr
- 8442 **Advanced Clinical TMJ and Craniofacial Pain (prereq #) (A-F only)**
205874 1300-1600 MTWTh, MoosT 8374, 1-4 cr
- 8443 **Current Literature in TMJ and Craniofacial Pain (prereq #) (A-F only)**
403864 1100-1200 F, MoosT 6370, 1 cr
- 8777 **Thesis Credits: Masters**
602065 1-16 cr

DERMATOLOGY (Derm) Medical School

- 5162 **Preceptorship in Dermatology (prereq regis med)**
607539 1300-1400 W, 1400-1500 W, 1500-1845 W, DiehlH 220, PWB 4274, Kaye, Lynch, ar cr
- 5183 **Advanced Dermatology (prereq 5181 or 5182)**
707886 Lynch, Kaye, ar cr
- 5184 **Special Course in Dermatology**
608125 Gentry, ar cr
- 5185 **Research in Dermatology (prereq 5182)**
806924 Dahl, Kalish, others, ar cr
- 8225 **Clinical Dermatology**
307048 Lynch, Dahl, others, ar cr
- 8226 **Clinical Seminar**
505461 1300-1700 WF, PWB 4272, Lynch, Dahl, ar cr
- 8227 **Histology of the Skin**
112252 1500-1600 WF, PWB 4272, Kaye, Orkin, ar cr

- 8228 **Research: Dermatology and Related Basic Sciences**
305316 Dahl, Kalish, others, ar cr
- 8229 **Electron Microscopy in Dermatology**
810343 Zelickson, ar cr
- 8230 **Functional Biology of the Skin**
002029 Dahl, Lynch, ar cr
- 8231 **Clinics in Dermatology for Non-Dermatologists**
503113 Lynch, Gentry, ar cr
- 8232 **Seminar: Dermatologic Histopathology and Mycology**
312203 Kaye, ar cr
- 8777 **Thesis Credits: Masters**
206295 1-18 cr

DESIGN (Dsgn) Design, Housing, And Apparel Human Ecology

- n1501 **Introduction to Design**
703420 1145-1235 MWF, McNH 33, Blade, 3 cr
- n1523 **Design Process: Drawing I (prereq design, pre-design, housing, retail merch, pre-retail merch, or text maj or Δ)**
208841 0830-1025 MWF, McNH 258, 4 cr
- n1525 **Design Process: Two Dimensional Design (prereq design, pre-design, housing, retail merch, pre-retail merch, or text maj or Δ)**
507520 1040-1235 MWF, McNH 333, 4 cr
- n1528 **Design Process: Color (prereq 1501, 1523 or 1525, dsgn, pre-dsgn, hsg, ret merch, pre-ret merch, or text maj or Δ)**
306255 0830-1130 TTh, McNH 262, 4 cr
- n1531 **Surface Fabric Design I (prereq 1521 or 1528, 1523, 1525, des, pre-des, hsg, ret mer, pre-ret mer, or text maj or Δ)**
008574 0935-1235 MW, McNH:89, Abell, 4 cr
- n1554 **Interior Design I: Spatial Design Experiences (prereq 1501, 1523, 1528, proficiency in basic drafting tech: dsgn or pre-dsgn, housing, retail merch, pre-retail merch, or text maj, or Δ)**
602504 0935-1235 TTh, McNH 480, 4 cr
- n3523 **Design Process: Drawing II (prereq 1523, pass portfolio review, app des, cost des, hsg, int des, ret merch or text maj)**
778111 1145-1340 MWF, McNH 258, 4 cr
- n3525 **Design Process: Two Dimensional Design II (prereq 1525 or equiv, appl dsgn, costume dsgn, hsg, int dsgn, ret merch, or text maj, or Δ, pass portfolio review)**
709833 0830-1025 MWF, McNH 333, 4 cr
- n3528 **Design Process: Color II (prereq 1523, 1528, appl dsgn, cost dsgn, hsg, int dsgn, ret merch, or text maj, or Δ, pass portfolio review)**
576112 0830-1025 MWF, McNH 262, 4 cr
- n3541 **Costume Design II (prereq 1543, 1544, dsgn, pre-dsgn, hsg, ret merch, pre-ret merch, or text maj, or Δ)**
503970 0935-1235 TTh, McNH 205, 212, Amir-Fazli, 4 cr
- n3553 **Interior Design III: Intermediate Interior Design Problems (prereq 3550 or #)**
112387 1040-1235 MWF, McNH 475, Ginthner, 4 cr
- n3557 **Interior Design Resources and Materials (prereq 1555 or #, TexC 3621)**
502057 0935-1235 TTh, McNH 33, Ginthner, 3 cr
- n3558 **Interior Design Business Practices and Procedures (prereq pass portfolio review)**
010180 1600-1715 TTh, McNH 180, 3 cr
- 3578 **Internship in Interior Design (max 15 cr; prereq 3553, pass portfolio review)**
804008 Erickson, Ginthner, others, 8 cr
- 3584 **Field Experience in Design (max 8 cr; prereq 3571 or 13571, #, plan submitted and approved in advance by adviser and employer) (S-N only)**
001852 ar cr
- 3586 **Design Problems**
911533 1-3 cr
- 6512 **History of European Furniture and Interiors (prereq ArH 1002 or equiv)**
211142 0935-1025 MWF, McNH 33, Erickson, 4 cr

- n5541 **Costume Design III (prereq 3541, TexC 3604 or #)**
502415 0935-1130 MWF, McNH 205, 212, Amir-Fazli, 3 cr
- n5552 **Interior Design IV: Residential Design (prereq 3553, 3557, TexC 3621, Hsg 1801, or #...3554, TexC 3622 rec)**
709332 1355-1550 MWF, McNH 475, Erickson, 4 cr
- n5575 **Interior Design Research (prereq pass portfolio review, 3553 or #, Δ)**
312394 1250-1340 MW, McNH 180, Guerin, 2 cr
- 5584 **Readings in Design (no srs; prereq #)**
305302 1-3 cr
- 5585 **Problems in Design: Visual Communication (max 12 cr; prereq #, Δ)**
008879 2-4 cr
- 5586 **Problems in Design: Interiors (max 12 cr; prereq #, Δ)**
702168 2-4 cr
- 5588 **Problems in Design: Textiles (max 12 cr; prereq #, Δ, passed portfolio review)**
707953 3-4 cr
- 5589 **Problems in Design: Costume (max 12 cr; prereq appl dsgn, cost dsgn, hsg, int dsgn, ret merch, or text maj, or #)**
307358 1250-1340 W, McNH 205, Amir-Fazli, 3-4 cr
- 8578 **Seminar: Design Instruction (max 8 cr)**
103205 1145-1235 W, McNH 316, Bagley, 1 cr
- 8584 **Readings in Design (prereq #)**
906851 1-3 cr
- 8585 **Problems in Design (prereq #)**
705121 1-5 cr
- 8586 **Problems in Interior Design (prereq #)**
808429 1-5 cr
- 8587 **Problems in Design (prereq #)**
408000 1-5 cr
- 8588 **Directed Study in Design (prereq #) (A-F only)**
410474 1145-1235 T, McNH 262, Bagley, 1-5 cr

DESIGN, HOUSING, AND APPAREL (DHA) Human Ecology

- 1001 **Introduction to the Designed Environment**
609615 1250-1340 MWF, McNH 33, Yust, 3 cr
- 8777 **Thesis Credits: Masters**
102580 1-16 cr
- 8888 **Thesis Credits: Doctoral (max 18 cr per qtr)**
611655 1-36 cr

DUTCH (Dtch) German Liberal Arts

- n1101 **Beginning Dutch (\$110)**
507999 1600-1730 MWTh, FolH 234, Van der Sanden, 5 cr
- n1104 **Intermediate Dutch (prereq 1103 or #)**
912620 1750-2000 MW, FolH 234, Van der Sanden, 5 cr
- 3011 **Conversation and Composition (prereq 1106 or #)**
008235 1745-1900 TTh, JonesH 9, Van der Sanden, 4 cr
- 3012 **Conversation and Composition (prereq 3011)**
209939 1745-1900 TTh, JonesH 9, Van der Sanden, 4 cr
- n3510 **Topics in Dutch Culture (no knowledge of Dutch req)**
807393 1535-1730 T, FolH 234, 4 cr
- 3970 **Directed Studies (prereq 1105, #, Δ, □)**
105097 1-5 cr

EAST ASIAN STUDIES (EAS)

East Asian Studies Liberal Arts

- r1462 Introduction to East Asia: The Imperial Age** (SHist 1462, 3462)
★LECT 1325-1415 MWF, AndH 270, Marshall, Walther
176078 -1 REC 1220-1310 M, BlegH 260, 4 cr
076079 -2 REC 1430-1520 M, BlegH 245, 4 cr
376080 -3 REC 1220-1310 W, BlegH 260, 4 cr
176081 -4 REC 1430-1520 W, BlegH 105, 4 cr
076082 -5 REC 1220-1310 F, BlegH 220, 4 cr
876083 -6 REC 1430-1520 F, HHHCtr 60, 4 cr
- 3211 East Asia** (§Geog 3211)
276069 0905-0955 MWF, BlegH 215, Hsu, 4 cr
- 3301 Senior Project** (†3301-3302; prereq sr in EAS) (A-F only)
205065 1430-1810 T, FolH 138, 4 cr
- 3481 Modern Japanese Society** (§Soc 3481; prereq introductory sociology or #)
676070 1220-1310 MWF, BlegH 145, Broadbent, 4 cr
- 3808 Music of East Asia** (§Mus 3808)
476071 1010-1205 MW, FergH 149, Kagan, 4 cr
- r3941 The Japanese Cinema** (§Arth 3941) (A-F only)
176073 0905-0955 MW, 0905-1130 F, WBU 20, Copeland, Silberman, 4 cr (Auditorium)
- 3970 Directed Studies** (prereq #, Δ, □)
901939 1-15 cr
- 5961 Scope and Methods of East Asian Studies**
410538 1535-1715 MF, FolH 142, 4 cr
- 8777 Thesis Credits: Masters**
106508 1-18 cr
- ECONOMY, EVOLUTION AND BEHAVIOR (EEB)
Biological Sciences**
- r3001 Introduction to Ecology** (open to jrs and above but not to biol majs)
★LECT 1010-1150 TTh, Zoology 313
176968 -1 REC 1220-1310 T, Zoology 313, 4 cr
076969 -2 REC 1115-1205 W, Zoology 108, 4 cr
376970 -3 REC 1220-1310 Th, Zoology 313, 4 cr
176971 -4 REC 1010-1100 F, Zoology 108, 4 cr
- r3111 Introduction to Animal Behavior** (§AnSc 3111; prereq Biol 1008 or 1009 or #)
★LECT 0905-1045 TTh, Zoology 102
876973 -1 REC 1535-1625 T, Zoology 102, 4 cr
676974 -2 REC 1535-1625 Th, Zoology 102, 4 cr
- r5014 Ecology of Plant Communities** (prereq Biol 5041 or Biol 5048, 1 qtr statistics or #) (course fee)
★LECT 1325-1440 MW, Zoology 102, Cushing, (one weekend fieldtrip, Oct 5-6 or 12-13 or 19-20)
001558 -1 LAB 1325-1730 F, Zoology 101A, 5 cr
- r5044 Evolution** (prereq Biol 1108 or Biol 3011 or Biol 1103 or Biol 3012)
★LECT 1430-1600 TTh, Zoology 313, Regal
408627 -1 REC 1615-1700 Th, Zoology 313, 4 cr
- r5065 Theoretical Evolutionary Ecology** (prereq Math 1231, one 5000 level course in ecology, evolution or behavior or #)
706642 1010-1135 TTh, Zoology 10, Abrams, 3 cr
- r5122 Plant/Animal Interactions** (prereq Biol 1106 or Biol 3011, Biol 1103 or Biol 3012, 10 cr in biological sciences, or #)
★LECT 1010-1135 TTh, Zoology 108, Morrow
502589 -1 REC 1325-1415 TTh, Zoology 108, 4 cr
- r5129 Mammalogy** (§FW 5129; prereq Biol 1106 or Biol 3011 or #)
★LECT 0905-0955 MWF, Arch 40, Bimsey
104822 -1 LAB 0800-1100 T, Zoology 101D, 5 cr
902590 -2 LAB 1010-1310 W, Zoology 101D, 5 cr
- r5601 Limnology** (§Geo 5601; prereq Chem 1005 or #)
707631 1220-1310 MWF, PiliH 110, Shapiro, 4 cr
- 5970 Directed Studies** (prereq #, Δ)
801559 ar cr
- 5990 Directed Research** (prereq #, Δ)
910642 ar cr

- r8390 Graduate Seminar** (prereq #)
507632 ar cr
- 8391 Advanced Work In Ecology and Behavioral Biology** (prereq #)
502592 ar cr
- 8410 Community Ecology Seminar** (prereq #) (S-N only)
208628 1 cr
- 8777 Thesis Credits: Masters**
306644 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
004623 1-36 cr
- 8990 Graduate Research** (prereq #)
302593 ar cr

ECONOMICS (Econ) Liberal Arts

- r1101 Principles of Microeconomics** (§1002, 1005, 1104; prereq plane geometry and intern algebra at GC 0623 and GC 0631 level)
★LECT 1220-1310 MWF, WilleyH 125
311892 -1 REC 0800-0850 M, BlegH 230, 4 cr
408966 -2 REC 0905-0955 W, BlegH 420, 4 cr
310516 -3 REC 1115-1205 M, BlegH 110, 4 cr
803585 -4 REC 1325-1415 M, BlegH 220, 4 cr
109358 -5 REC 0800-0850 W, BlegH 230, 4 cr
508044 -6 REC 0905-0955 W, BlegH 440, 4 cr
205146 -7 REC 1115-1205 W, BlegH 110, 4 cr
306224 -8 REC 1325-1415 W, BlegH 220, 4 cr
★LECT 0945-1100 TTh, WilleyH 125
004818 -9 REC 0800-0850 M, BlegH 215, 4 cr
201811 -10 REC 0905-0955 M, BlegH 440, 4 cr
105849 -11 REC 1010-1100 M, BlegH 420, 4 cr
308510 -12 REC 1115-1205 M, BlegH 220, 4 cr
706964 -13 REC 1220-1310 M, BlegH 220, 4 cr
009370 -14 REC 0905-0955 W, BlegH 115, 4 cr
412192 -15 REC 1115-1205 W, BlegH 220, 4 cr
001771 -16 REC 1220-1310 W, BlegH 220, 4 cr
- r1101H Honors Course: Principles of Microeconomics** (§1002, 1005, 1104; prereq plane geom and intern alg at GC 0623, GC 0631 level...B avg rec)
★LECT 1115-1205 MWF, BlegH 145
112221 -80 REC 1115-1205 Th, BlegH 245, 5 cr
- r1102 Principles of Macroeconomics** (§1001, 1004, 1105; prereq 1101 or equiv, plane geom, intern alg at GC 0623, GC 0631 level)
★LECT 0905-0955 MWF, WilleyH 125, 1115-1205 T, WilleyH 175
805806 -1 REC 1010-1100 W, BlegH 420, 5 cr
703482 -2 REC 1115-1205 W, BlegH 105, 5 cr
307129 -3 REC 0800-0850 F, BlegH 215, 5 cr
007473 -4 REC 1010-1100 F, BlegH 420, 5 cr
507018 -5 REC 1115-1205 F, BlegH 105, 5 cr
★LECT 0945-1100 TTh, AndH 270, 1115-1205 T, WilleyH 175,
012558 -6 REC 0800-0850 F, BlegH 120, 5 cr
011393 -7 REC 0905-0955 F, BlegH 120, 5 cr
008218 -8 REC 1010-1100 F, BlegH 120, 5 cr
010292 -9 REC 1115-1205 F, BlegH 130, 5 cr
009143 -10 REC 1325-1415 F, BlegH 120, 5 cr
- r1104 Principles of Microeconomics** (§1002, 1005, 1101; prereq 1 qtr calc)
602115 1220-1310 MWF, BlegH 120, 4 cr
- r1105 Principles of Macroeconomics** (§1001, 1004, 1102; prereq 1104 or equiv, 1 qtr calc)
109951 1325-1415 MWF, BlegH 135, 4 cr
- r3101 Microeconomic Theory** (§3105; prereq 1101, 1102 or equiv, 1 qtr calc)
110386 -1 0800-0850 MWF, BlegH 110, 4 cr
707113 -2 0905-0955 MWF, BlegH 110, 4 cr
812416 -3 1010-1100 MWF, BlegH 215, 4 cr
512264 -4 1115-1205 MWF, BlegH 215, 4 cr
- r3101H Honors Course: Microeconomic Theory** (prereq 1101, 1102, or equiv, 1 qtr calc...B avg rec)
304943 1010-1100 MWF, BlegH 260, 5 cr
- r3102 Macroeconomic Theory** (prereq 3101 or equiv)
804834 -1 1010-1100 MWF, BlegH 145, 4 cr
205812 -2 1115-1205 MWF, BlegH 135, 4 cr
- r3103 Welfare Economics** (prereq 3101 or equiv)
404903 -1 0905-0955 MWF, BlegH 135, 4 cr
908518 -2 0945-1100 TTh, BlegH 135, 4 cr
- r3105 Managerial Economics** (§3101, BGS 3001; not open to Econ maj; prereq 1101, 1102 or equiv, 1 qtr calc)
★LECT 1115-1230 TTh, BlegH 235
905038 -1 REC 0905-0955 F, BlegH 115, 4 cr
202943 -2 REC 1010-1100 F, BlegH 205, 4 cr
- r3231 Principles of Econometrics** (§5231; prereq 1101, 1102 or equiv, 1 qtr calc, Stat 3011-3012 or equiv, familiarity with computers, MIS 1070 or equiv, ACSS short courses)
★LECT 0905-0955 MWF, BlegH 260
904839 -1 REC 0905-0955 Th, BlegH 125, 4 cr
- r3701 Money and Banking** (§5701, 5721; not open to Econ maj; prereq 1101, 1102 or equiv)
★LECT 0815-0930 TTh, WilleyH 125
901844 -1 REC 0800-0850 M, BlegH 205, 4 cr
105231 -2 REC 0905-0955 M, BlegH 205, 4 cr
305915 -3 REC 1220-1310 M, BlegH 225, 4 cr
207365 -4 REC 1010-1100 F, BlegH 435, 4 cr
503791 -5 REC 1115-1205 F, BlegH 110, 4 cr
- r3751 Financial Economics I** (prereq 3101 or 3105 or equiv, 1 qtr statistics, 1 qtr calculus)
204420 -1 0815-0930 TTh, BlegH 135, 4 cr
107665 -2 1115-1230 TTh, BlegH 440, 4 cr
- r3801 Elements of Public Finance** (§5821; not open to Econ maj; prereq 1101, 1102 or equiv)
203008 1010-1100 MWF, BlegH 255, 4 cr
- 3951 Major Project Seminar** (prereq 3101, 3102, 3103 or equiv)
605970 2 cr
- 3970 Directed Studies** (prereq #, Δ, □)
604057 ar cr
- r5107H Honors Course: Game Theory and Its Applications** (prereq 3101, 3102, 3103, or equiv, Math 1211-1221-1241 or equiv)
706091 -80 1430-1520 MWF, BlegH 225, 5 cr (undergrads only)
303100 -81 1430-1520 MWF, BlegH 225, 4 cr (grad stu only)
- r5151 Elements of Economic Analysis: Firm and Household** (prereq 3101 or equiv, 1 qtr calc, 1 qtr linear algebra, grad stu or #)
506884 1415-1530 TTh, BlegH 225, 3 cr
- 5161 Microeconomic Theory** (prereq 3103, Math 1211-1221-1241-3311 or equiv, #...5113 rec)
★LECT 0945-1100 TTh, BlegH 110, 5 cr
311505 -1 REC 1545-1700 Th, BlegH 110
★LECT 1115-1230 TTh, BlegH 105, 5 cr
805448 -2 REC 1545-1700 Th, BlegH 340
- 5164 Macroeconomic Theory** (prereq 3102, 3103, Math 1211-1221-1241-3311 or equiv, #...5113 rec)
★LECT 1415-1530 TTh, BlegH 440, 5 cr
108159 -1 REC 1545-1730 T, BlegH 150
- r5171 History of Economic Thought** (prereq 3101, 3102, 3103, or equiv)
676084 0800-0850 MWF, BlegH 135, 4 cr
- r5231 Introduction to Econometrics** (prereq 3101 or equiv, Stat 5121-5122 or Stat 5131-5132-5133; Math 1211-1221-1241 or equiv or #)
★LECT 0945-1100 TTh, BlegH 205
511101 -1 REC 0800-0850 F, BlegH 125, 4 cr
- 5261 Applied Econometrics** (no grad cr; prereq 3101, 3102, Stat 5122, 1 qtr linear algebra, #)
★LECT 1445-1800 MW, BlegH 145
909233 -1 REC 1445-1600 F, BlegH 145, 5 cr
- r5331 Economic Development** (§5301; prereq 3101, 3102 or equiv)
503662 1245-1400 TTh, BlegH 110, 4 cr
- r5401 International Economics** (§5429, 5431, 5432; not open to Econ maj; prereq 1101, 1102 or equiv)
112140 0905-0955 MWF, AndH 370, 4 cr
- r5431 International Trade** (§5401, 5429; prereq 3101, 3102, 3103 or equiv)
107424 1010-1100 MWF, BlegH 110, 4 cr
- r5431H Honors Course: International Trade** (§5401, 5429; prereq 3101, 3102, 3103 or equiv, 1 qtr calc...B avg rec)
476085 -80 1245-1400 MW, BlegH 130, 5 cr (undergrads only)
276086 -81 1245-1400 MW, BlegH 130, 4 cr (grad stu only)
- r5531 Labor Economics** (§3501; prereq 3101, 3102 or equiv)
908924 1245-1400 TTh, BlegH 440, 4 cr
- r5621 Urban Economics** (prereq 3101 or equiv)
176087 0945-1100 TTh, BlegH 120, Mohring, 4 cr
- r5631H Honors Course: Industrial Organization and Antitrust Policy** (prereq 3101, 3103 or equiv, 1 qtr calculus...B avg rec)
976088 -80 1245-1400 TTh, BlegH 155, Mohring, 5 cr (undergrads only)
776089 -81 1245-1400 TTh, BlegH 155, Mohring, 4 cr (grad stu only)

r5721 Money and Banking (§3701, 5701; prereq 3101, 3102 or equiv)
902010 0905-0955 MWF, BlegH 145, 4 cr

r5721H Honors Course: Money and Banking (prereq 3101, 3102 or equiv, 1 qtr calculus...B avg rec)
008655 -80 0815-0930 TTh, BlegH 105, 5 cr (undergrads only)
308675 -81 0815-0930 TTh, BlegH 105, 4 cr (grad stu only)

r5731 Macroeconomic Policy (prereq 3101, 3102 or equiv)
007666 1220-1310 MWF, BlegH 110, 4 cr

r5733 Intertemporal Economics and Money (prereq 3101, 3103, Math 1211-1221-1241 or equiv)
176090 1010-1100 MWF, BlegH 135, 4 cr

r5741 Business Cycles (prereq 3101, 3102, Stat 3011 or equiv)
978091 1115-1205 MWF, BlegH 420, 4 cr

r5821 Elements of Public Finance (§3801; prereq 3101, 3103 or equiv)
104516 1115-1230 TTh, BlegH 110, 4 cr

r5831 Cost-Benefit Analysis (prereq 3101, 3103 or equiv)
902654 0800-0850 MWF, BlegH 145, 4 cr

5970 Directed Studies (prereq #, Δ, CLA approval)
602051 ar cr

8101 Microeconomic Theory (prereq 3101 or 5151, Math 3142, Math 3211 or equiv)
★LECT 0945-1100 TTh, BlegH 110
303081 -1 REC 1545-1700 Th, BlegH 110, 4 cr
★LECT 1115-1230 TTh, BlegH 105
406439 -2 REC 1545-1700 Th, BlegH 340, 4 cr

8104 Macroeconomic Theory (prereq 3102, Math 3142, Math 3211 or equiv)
★LECT 1415-1530 TTh, BlegH 440, 4 cr
109974 -1 REC 1545-1730 T, BlegH 150

8111 Introduction to Mathematical Economics (prereq Math 3142, Math 3211, Econ 8101, Math 5612...Math 5243 rec)
110940 1245-1400 TTh, BlegH 330, 3 cr

8181 Advanced Topics in Microeconomics (prereq 8103)
901794 1530-1645 TTh, BlegH 420, 3 cr

8184 Advanced Topics in Macroeconomics
908583 1245-1400 TTh, BlegH 205, 3 cr

8191 Workshop in Mathematical Economics
608853 1535-1730 M, BlegH 350, ar cr

8201 Applied Econometrics (prereq 3101, 3102, Stat 5122, 1 qtr linear algebra)
★LECT 1445-1600 MW, BlegH 145
103480 -1 REC 1445-1600 F, BlegH 145, 4 cr

8211 Econometrics (prereq 5151, 5152, Stat 5133 or Stat 5122, Math 5243 or equiv)
412080 1245-1400 TTh, BlegH 260, 3 cr

8291 Workshop in Econometrics
607489 1530-1700 Th, BlegH 125, ar cr

8401 International Trade and Payments Theory (prereq 8102, 8104)
801593 0945-1100 TTh, BlegH 115, 3 cr

8491 Workshop in Trade and Development
308555 1530-1700 T, BlegH 125, ar cr

8501 Wages and Employment (prereq 8101, 8104)
606181 1615-1830 M, BlegH 245, 3 cr

8601 Industrial Organization and Government Regulation (prereq 8101)
506173 0945-1100 TTh, BlegH 225, 3 cr

8691 Workshop in Applied Microeconomics
903447 1530-1700 W, BlegH 255, ar cr

8701 Monetary Economics (prereq 8102, 8105)
612529 1415-1530 TTh, BlegH 205, 3 cr

8704 Financial Economics (prereq 8102, 8105)
510594 1245-1400 TTh, BlegH 350, Werner, 3 cr

8777 Thesis Credits: Masters
110064 1-16 cr

8791 Workshop in Macroeconomics
011331 1530-1700 F, BlegH 245, ar cr

8801 Public Finance (prereq 8102, 8105)
503256 1530-1645 TTh, BlegH 415, 3 cr

8861 Advanced Topics in Public Finance
111635 1430-1730 M, BlegH 105, 3 cr

8888 Thesis Credits: Doctoral (max 18 cr per qtr)
302917 1-36 cr

8990 Individual Research
611384 ar cr

EDUCATION (Educ) Education

8777 Thesis Credits: Masters
977130 1-18 cr (Vocational Education)

8888 Thesis Credits: Doctoral (max 18 cr per qtr)
607884 -1 1-36 cr (Higher Education)
602759 -2 1-36 cr (Curriculum and Instruction)
001642 -3 1-36 cr (Vocational Education)
110727 -4 1-36 cr (Recreation, Park, and Leisure Studies)
608707 -5 1-36 cr (Social and Philosophical Foundations of Education)

EDUCATIONAL ADMINISTRATION (EdAd) Educational Policy And Administration Education

8777 Thesis Credits: Masters
601921 1-16 cr

8888 Thesis Credits: Doctoral (max 18 cr per qtr)
204370 1-36 cr

EDUCATIONAL POLICY AND ADMINISTRATION (EdPA) Educational Policy And Administration Education

r5090 School and Society (§SPFE 3090, SPFE 5090; prereq sr or post BA in education) (A-F only)
104628 -1 1115-1230 MW, PeikH 28, King, 3 cr
602602 -2 1535-1650 TTh, PeikH 28, Bagley, 3 cr

5099 Directed Study (max 9 cr; §SPFE 5099; prereq #) (S-N optional)
011667 -1 ar cr

r5103 Supervision and Administration of Special Education (§EdAd 5103, PsyS 5160, EPsy 5660; prereq #) (S-N optional)
402603 1900-2100 M, PeikH 155, Weatherman, 3 cr (1 hr ar)

5127 Workshop: Policy Development for School Managers (§EdAd 5127) (S-N optional)
178095 1900-2100 Th, PeikH 25, Hendrix, 3 cr

5128 Workshop: Educational Administration (§EdAd 5128)
009627 1900-2100 W, PeikH 46, 3 cr

5131 Comparative Education (§SPFE 5131) (S-N optional)
607640 1630-1830 Th, PeikH 155, Cogan, 3 cr

5156 History of Ideas in American Education (§SPFE 5156) (S-N optional)
676103 1630-1830 W, JonesH 2, Bagley, 3 cr

5175 Introductions to Systems Theory in Social Science and Education (§SPFE 5175) (S-N optional)
202804 1830-1830 Th, PeikH 25, Harkins, 3 cr

5200 Design and Management of Education Services (§EdAd 5200) (S-N optional)
701568 1630-1830 T, EdHAn 64, Ammentorp, 3 cr

5201 Formal Organizations in Education (§EdAd 5201, EdAd 8201) (S-N optional)
708262 1630-1830 T, PeikH 46, Louis, 3 cr

5202 Politics of Education (§EdAd 5202, EdAd 8202, SPFE 5202, SPFE 8202) (S-N optional)
810651 1030-1230 S, PeikH 155, 3 cr

5204 Financing Elementary and Secondary Schools (§EdAd 5210, EdAd 8210) (S-N optional)
078096 0800-1000 S, PeikH 165, Mueller, 3 cr

5209 Education in Future Social Systems (§SPFE 5209, SPFE 5212) (S-N optional)
508635 1630-1830 M, PeikH 25, Harkins, 3 cr

5212 School Budgeting (§EdAd 5212, EdAd 8212)
876097 1630-1830 W, PeikH 46, Sederberg, 3 cr

5215 The Elementary School Principalship (§EdAd 5215, EdAd 8215) (S-N optional)
902606 1900-2100 T, PeikH 25, Alkire, 3 cr

5224 Legal Implications of Acts by School Boards, Administrators, and Teachers (§EdAd 5224, EdAd 8224) (A-F only)
611669 1630-1830 M, BlegH 225, 3 cr

5227 Public School Personnel Programs (§EdAd 5227, EdAd 8227) (S-N optional)
676098 1630-1830 W, PeikH 31, Alkire, 3 cr

5250 American Higher Education (§EdAd 5250, Educ 5250, HiEd 5250) (S-N optional)
809628 1630-1900 W, PeikH 33, 4 cr

5264 The Secondary School Principalship (§EdAd 5264, EdAd 8264)
407641 1900-2100 T, PeikH 46, Nickerson, 3 cr

5265 Administering the High School Program (§EdAd 5265, EdAd 8265)
176100 1900-2100 W, PeikH 25, Nickerson, 3 cr

r8220 Quantitative Foundations for Management Methods (§EdAd 8220)
205633 1630-1830 M, EdHAn 62, Hendrix, 3 cr

8228 Problems: Higher Education (§HiEd 8228, EdAd 8228; prereq #)
901570 ar cr

8229 Seminar: Higher Education (§EdAd 8229, HiEd 8229; prereq #)
476975 1-4 cr

8230 Seminar: Dissertation Research in Higher Education (§HiEd 8230) (S-N only)
204630 1630-1830 M, BUH 240, Ammentorp, Louis, 1 cr (alt M beginning 2nd wk of qtr)

8238 Seminar: Theory and Research (§EdAd 8238; prereq educ admin maj or #)
104631 1900-2100 W, PeikH 31, Mueller, 3 cr

8240 Seminar: Clinical Experiences in Educational Administration (§EdAd 8240) (S-N only)
009630 1630-1830 Th, PeikH 31, Sederberg, 1-9 cr

8241 Seminar: Internship in Educational Administration (§EdAd 8241) (S-N only)
105634 1630-1830 Th, PeikH 31, Sederberg, 0-9 cr

8255 Administration in Higher Education (§HiEd 8255, EdAd 8253; prereq 5201, 5250 or EdAd 5250 or HiEd 5250)
502608 1630-1900 Th, PeikH 27, 3 cr

8261 Problems: History and Philosophy of Education (§SPFE 8241; prereq #)
701571 ar cr

8268 Seminar: Social and Educational Futures (max 6 cr; §SPFE 8220; prereq 5209 or 5210 or 5211 or SPFE 5209 or 5210 or 5211 or #)
905635 1845-2045 M, PeikH 25, Harkins, 1-6 cr (addtl hrs ar)

8270 Problems: Elementary School Administration (§EdAd 8270; prereq #)
302609 ar cr

8271 Problems: Secondary School Administration (§EdAd 8271; prereq #)
501572 ar cr

8272 Problems: Educational Administration (§EdAd 8272)
210654 1-3 cr

8273 Field Study (§EdAd 8273; prereq #)
904632 0-10 cr

8340 Policy Systems in Education (§EdAd 8340; prereq 8220 or EdAd 8220)
303470 1630-1830 Th, EdHAn 62, Ammentorp, 3 cr

EDUCATIONAL PSYCHOLOGY (EPsy) Education

r1601 American Sign Language I
105575 -1 0905-1030 MWF, BUH 123, 5 cr
608593 -2 1115-1240 MWF, BUH 123, 5 cr
176509 -3 1220-1345 MWF, BUH 125, 5 cr

- r1603 American Sign Language III** (prereq 1602 or #)
476510 -1 0905-1030 MWF, BuH 125, 5 cr
276511 -2 1220-1430 TTh, BuH 123, 5 cr
- 1604 Workshop: Developing Educational and Human Service Programs** (\$PsyS 1304) (S-N only)
807863 ar cr
- r3601 American Sign Language IV** (prereq 1603)
177165 0750-1000 TTh, BuH 123, 5 cr
- 3606 Exceptional Students in Regular Classes** (\$5606, PsyS 3106, PsyS 5106) (A-F only)
304957 1640-1830 M, BuH 123, McEvoy, Rynders, 2 cr
- 5110 Intelligence** (\$PsyF 5147) (A-F only)
707242 1630-1830 Th, ChDev 216, Bart, 3 cr
- r5114 Psychology of Student Learning** (\$PsyF 5182) (A-F only)
708021 1630-1830 W, BuH 120, 3 cr
- 5115 Psychology of Adult Learning** (\$PsyF 5183) (A-F only)
707449 1615-1915 T, JonesH 10, Tennyson R., 4 cr
- 5116 Behavior Analysis in Education** (\$PsyF 5149) (A-F only)
403847 1640-2030 M, EIH N119, Deno, 4 cr
- 5135 Workshop in Human Relations** (\$PsyF 5305) (S-N only)
★LECT 1640-1930 M, BuH 120
104600 -1 REC 1945-2140 M, BuH 120, 6 cr
- r5139 Interpersonal and Personality Effects on Learning** (prereq sr or Post BA in Educ, one psy course) (A-F only)
877170 -1 0905-1105 MW, BlegH 150, Rest, 4 cr
677171 -2 1535-1735 MW, NichH 211, Rest, 4 cr
- 5150 Social Psychology of Education** (\$PsyF 5170) (A-F only)
102336 1615-1900 M, ChDev 218, Johnson D., 4 cr
- 5221 Basic Principles of Measurement** (\$PsyF 5121; prereq 5260 or 8260 or PsyF 5110 or 8110) (S-N optional)
407042 1115-1205 MWF, ChDev 216, Davison, 3 cr
- r5229 Classroom Assessment Methods** (prereq concurrent participation in practice tchg or similar field exp) (A-F only)
477172 1500-1700 T, NichH 211, Terwilliger, 2 cr
- r5240 Principles and Methods of Evaluation** (\$PsyF 5125) (S-N optional)
111876 1010-1125 TTh, BuH 123, 3 cr
- r5260 Introductory Statistical Methods** (\$PsyF 5110) (S-N optional)
512278 -1 1010-1205 MW, PIH 204, Merwin, 4 cr
204983 -2 1615-1800 MW, ChDev 216, Hummel, 4 cr
603720 -3 0800-0900 MWF, PIH 204, Merwin, 4 cr
- 5281 Introduction to Computer Operations: U of M Systems, SPSS** (\$PsyF 5333) (S-N only)
103155 1500-1555 MTWThF, EIH N647, 1 cr (Sept 30-Oct 11)
- r5401 Counseling Procedures** (\$PsyS 5110) (A-F only)
905134 -1 1615-1845 M, BuH 125, 3 cr
706575 -2 1315-1545 Th, BuH 125, Erickson, 3 cr
- r5430 Foundations of Career Development** (\$PsyS 5210) (A-F only)
077166 1615-1830 T, BuH 125, Hansen, 3 cr
- r5434 Counseling Adults in Transition** (A-F only)
702655 1615-1830 W, BuH 123, Romano, J., 3 cr
- 5600 Childhood Language Development: Classroom Implications** (\$PsyS 5100) (A-F only)
904436 1640-1930 T, BuH 120, Tumure, 3 cr
- 5601 Education of Exceptional Children** (\$PsyS 5101) (A-F only)
403833 1640-2030 M, ChDev 105, Knowlton, 4 cr
- 5606 Exceptional Students in Regular Classes** (\$3606, PsyS 3106, 5106) (A-F only)
311570 1640-1830 M, BuH 123, McEvoy, Rynders, 2 cr
- 5608 Parent and Professional Planning for Handicapped Students** (\$PsyS 5108) (A-F only)
502768 1640-1930 Th, PeikH 315, Wilderson, 3 cr
- r5612 Education of Learning-Disabled Children** (\$PsyS 5112) (A-F only)
703787 1640-1930 T, EIH N119, Espin, 3 cr
- 5622 Programs and Curricula for Learners with Severe Handicaps** (S-N optional)
306840 1610-1930 T, ChDev 218, Hupp, 4 cr
- 5625 Education of Handicapped Infants and Preschool Children** (\$PsyS 5125; prereq 5601 or 5620 or PsyS 5101 or PsyS 5120 or #) (A-F only)
204465 1640-2030 W, NichH 109, Rynders, McEvoy, 4 cr
- 5640 Psychosocial and Educational Aspects of Deafness** (\$PsyS 5140) (A-F only)
102958 1640-1930 W, EIH N119, Klanssek-Kyplo, 3 cr
- 5843 Language for Hearing Impaired Children** (\$PsyS 5143; prereq 5840 or PsyS 5140) (A-F only)
006386 1640-2030 T, WulH 130, Rose, 4 cr
- r5658 Educational Needs of Students with Emotional Disturbances or Behavioral Disorders** (A-F only)
710433 1640-1930 W, ChDev 105, Wood, 3 cr
- r5660 Supervision and Administration of Special Education** (\$PsyS 5160, EdAd 5103) (A-F only)
109506 1900-2100 M, PeikH, Weatherman, 3 cr (1 addtl hr ar)
- 5701 Practicum: Special Education** (prereq #) (S-N only)
204286 -1 Deno, ar cr
612501 -2 Espin, ar cr
409955 -3 Knowlton, ar cr
804168 -4 Rose, ar cr
812126 -5 Wood, ar cr
108069 -6 Bruininks, ar cr
809483 -7 Wilderson, ar cr
- 5703 Practicum Experience: Special Education** (prereq #) (A-F only)
103494 -1 Hupp, ar cr
176512 -2 Rynders, McEvoy, ar cr (special ed maj only)
- 5704 Workshop: Interventions and Practices in Educational and Human Service Programs** (S-N only)
010616 ar cr
- r5710 Contemporary Services for Persons with Developmental Disabilities** (A-F only)
509820 1640-1930 T, BuH 123, York, 3 cr
- 5900 Independent Study** (max 12 cr; prereq #) (A-F only)
206328 -1 ar cr (special ed maj only)
510207 -2 ar cr (counseling maj only)
306983 -3 ar cr (school psych maj only)
705541 -4 ar cr (psych foundations)
104306 -5 0915-1100 TTh, BuH 125, Weinsheimer, ar cr
- 8129 Research Problems: Learning and Cognition** (prereq #)
709797 Samuels, Bart, others, ar cr
- 8149 Research Problem: Personality** (max 9 cr; prereq #)
307941 Rest, ar cr
- 8150 Psychology of Conflict Resolution** (\$PsyF 8571; prereq 5150 or PsyF 5170 or equiv)
304344 1325-1625 M, EIH 225, Johnson D., 4 cr
- 8153 Social and Psychological Influences on Individual Behaviors** (\$PsyF 8574; prereq intro course in social psychology or #)
402343 1220-1505 T, BuH 125, Maruyama, 3 cr
- 8169 Research Problems: Social Psychology** (prereq #)
611302 Johnson D., Maruyama, ar cr
- 8239 Problems: Measurement** (max 9 cr)
302027 Davison, Terwilliger, others, 1-3 cr
- 8247 Internship: Evaluation** (max 12 cr; prereq #)
808656 0945-1100 F, 3 cr (hrs ar, BuH 210G)
- 8259 Problems: Evaluation** (prereq 5243 or 8245 or PsyF 5621 or 8525)
106279 ar cr
- r8260 Statistical Methods** (\$PsyF 8110; prereq 5260 or PsyF 5110 or Psy 3801 or equiv)
411236 -1 1615-1730 MW, Arch 5, Edwards, 3 cr
112591 -2 0905-0955 MWF, ChDev 216, Hummel, 3 cr
- 8262 Statistical Methods** (\$PsyF 8112; prereq 8261)
806275 0905-0955 MWF, JonesH 2, MacEachern, 3 cr
- 8263 Design and Analysis of Experiments** (\$PsyF 8113; prereq 8262 or PsyF 8112 or #)
305252 0800-0850 MWF, BuH 120, MacEachern, 3 cr
- 8279 Problems: Statistics for Students in Education and Psychology**
306448 MacEachern, Edwards, others, ar cr
- 8280 Statistical Computing Using SPSSX** (\$PsyF 8130; prereq 8261 or equiv)
112065 1115-1205 MWF, EIH N647, 3 cr
- r8402 Individual Counseling: Theory and Procedures** (\$PsyS 8302; prereq CSCP MA or PhD stu or #)
504150 0930-1100 MW, EIH N647, Romano, 3 cr
- r8410 Seminar: Counseling Ethics and Professional Development** (\$PsyS 8510; prereq CSCP PhD stu or #) (A-F only)
501734 1010-1205 WF, JonesH 2, Skovholt, T., 4 cr
- 8510 Internship: CSCP** (max 9 cr for MA and spec students, 18 cr for PhD students)
405484 -1 Skovholt, T., 0-6 cr
003410 -2 Skovholt, T., 0-6 cr
- 8513 Counseling Practicum: University Counseling Services** (8513-8514-8515†, max 9 cr, \$PsyS 8613; prereq #) (S-N only)
805224 1430-1625 Th, EddyH 202, Loeffler, Loper, 3 cr
- 8514 Counseling Practicum: University Counseling Services** (8513-8514-8515†, max 9 cr, \$PsyS 8614; prereq 8513) (S-N only)
609047 1430-1625 Th, EddyH 202, Loeffler, Loper, 3 cr
- 8515 Counseling Practicum: University Counseling Services** (8513-8514-8515†, max 9 cr, \$PsyS 8615; prereq 8514) (S-N only)
209942 1430-1625 Th, EddyH 202, Loeffler, Loper, 3 cr
- r8520 Counseling Practicum: Advanced** (max 9 cr; prereq #)
709654 -1 1010-1205 M, BuH 240, McCarthy, 3 cr
876519 -2 1430-1700 Th, PeikH 225, McCarthy, 3 cr
- 8521 Practice in Student Personnel Work** (max 9 cr; prereq 8404, 8504, 8420, 5451 or PsyS 8304, 8604, 8140, 5540 or #)
807867 1-3 cr
- 8603 Services for Persons with Developmental Disabilities: Research and Policy Analysis** (A-F only)
776514 1640-1930 W, BuH 125, Bruininks, 3 cr
- r8701 Advanced Practicum** (prereq #)
707838 ar cr
- 8702 Seminar: Special Education** (prereq #)
102062 1325-1620 M, MRRC 211, Tumure, 3 cr
- r8706 Behavioral Research with Handicapped Students** (max 4 cr; prereq 5601 or PsyS 5101 or Psy 5017 or #)
576515 1640-1930 Th, BuH 123, McConnell, ar cr
- 8777 Thesis Credits: Masters**
009854 1-16 cr
- r8817 School Psychological Interventions: Affective Domains** (prereq 8815, 8816) (A-F only)
676523 1325-1625 W, EIH N508, Christenson, 3 cr
- r8821 Seminar: School Psychology** (S-N only)
677168 Christenson, ar cr
- 8831 Practicum: School Psychological Services** (prereq #)
009028 1-5 cr
- 8832 Clinical Practice in School Psychology** (prereq 8810 or PsyS 8310)
006839 1-5 cr

- 8840 Internship: School Psychological Services** (prereq 8831 or PsyS 8610, #) (S-N only)
104054 Ysseldyke, 5-15 cr
- 8888. Thesis Credits: Doctoral** (max 18 cr per qtr)
711534 1-36 cr
- R8900 Research Problems**
106550 -1 ar cr (special ed maj only)
108453 -2 ar cr (counseling maj only)
311925 -3 Ysseldyke, ar cr (school psych maj only)
209181 -4 ar cr (psych foundations)
- R8910 Directed Study** (prereq #)
507372 -1 ar cr (special ed maj only)
103227 -2 ar cr (counseling maj only)
610957 -3 Ysseldyke, ar cr (school psych maj only)
406408 -4 ar cr (psych foundations)
076521 -5 1325-1450 M, BUH 123, McCarthy, 3 cr
477169 -6 Ysseldyke, 2 cr

ELECTRICAL ENGINEERING (EE)

Institute of Technology

- R1000 Introduction to Electrical Engineering** (prereq IT lower division or Δ) (S-N only)
306278 1535-1730 T, Phys 150, 1 cr
- R1400 Circuits Laboratory** (prereq 3009 or f, IT maj)
202358 -1 LAB 1535-1730 M, EE/CSci 3170, 1 cr
104099 -2 LAB 0800-0955 T, EE/CSci 3170, 1 cr
903271 -3 LAB 0800-0955 Th, EE/CSci 3170, 1 cr
009840 -4 LAB 1325-1520 Th, EE/CSci 3170, 1 cr
309785 -5 LAB 1535-1730 Th, EE/CSci 3170, 1 cr
307437 -6 LAB 1535-1730 F, EE/CSci 3170, 1 cr
- R3002 Electric Machinery and Power Distribution** (prereq non-EE IT stu, Math 3321 or equiv, Phys 1291 or equiv)
★LECT 1010-1100 MTWTF, EE/CSci 3210, 5 cr
802811 -1 LAB 1115-1310 M, EE/CSci 2270
907353 -2 LAB 1325-1520 T, EE/CSci 2270
711839 -3 LAB 0800-0955 W, EE/CSci 2270
106475 -4 LAB 1325-1520 Th, EE/CSci 2270
- R3003 Circuits and Electronics** (prereq non-EE IT stu, Phys 1291, Math 3321 or fMath 3321)
111997 0800-0850 MTWTF, Arch 5, 4 cr
- R3004 Circuits and Electronics Laboratory** (non EE majs; prereq IT student, 3003 or f)
611963 -1 LAB 1535-1730 M, EE/CSci 3170, 1 cr
611851 -2 LAB 1010-1205 T, EE/CSci 3170, 1 cr
107397 -3 LAB 1535-1730 T, EE/CSci 3170, 1 cr
106542 -4 LAB 1010-1205 W, EE/CSci 3170, 1 cr
911046 -5 LAB 1010-1205 Th, EE/CSci 3170, 1 cr
605225 -6 LAB 1220-1415 Th, ElectE 121, 1 cr
- R3009 Linear Circuits I** (prereq IT stu, Math 3321 or fMath 3321, Phys 1281 or fPhys 1281) (A-F only)
★LECT 1115-1205 MTThF, AmundH B75, 4 cr
906235 -1 REC 1325-1415 T, EE/CSci 3230
007988 -2 REC 1430-1520 T, AmundH 124
804915 -3 REC 1535-1625 T, AmundH 162
711100 -4 REC 1640-1730 T, EE/CSci 3111
105875 -5 REC 1325-1415 W, MechE 202
- R3010 Linear Circuits II** (prereq IT stu, at least C grades in 3009, Math 3321, Phys 1291 or fPhys 1291) (A-F only)
★LECT 1220-1310 TWThF, EE/CSci 3210, 4 cr
109408 -1 REC 1430-1520 T, EE/CSci 3111
409390 -2 REC 1535-1625 T, AmundH 104
911113 -3 REC 1640-1730 T, EE/CSci 3115
- R3011 Signal Analysis** (prereq 3010, upper division elec engr maj)
★LECT 0905-0955 MWThF, EE/CSci 3210, 4 cr
402357 -1 REC 1325-1415 M, Arch 60
009420 -2 REC 1430-1520 M, EE/CSci 3230
603863 -3 REC 1535-1625 M, EE/CSci 3230
505024 -4 REC 1640-1730 M, EE/CSci 2260
108802 -5 REC 1325-1415 T, Arch 40, (IT special program only)
- R3012 System Design** (prereq upper div EE maj, 3011, Math 3321) (A-F only)
★LECT 0905-0955 MTWTF, EE/CSci 3230, 4 cr

- 108663 -1 REC 1325-1415 W, Arch 60
806681 -2 REC 1430-1520 W, Arch 60
404660 -3 REC 1535-1625 W, EE/CSci 3115
702669 -4 REC 1640-1730 W, EE/CSci 2260
- R3060 Semiconductor Devices** (prereq 3010 or f, Phys 1291, upper division elec engr, computer sci or mech engr maj)
★LECT 1115-1205 MWThF, EE/CSci 3210, 4 cr
607024 -1 REC 1325-1415 W, AkerH 225
502267 -2 REC 1430-1520 W, EE/CSci 3115
609971 -3 REC 1535-1625 W, EE/CSci 3230
901858 -4 REC 1640-1730 W, EE/CSci 3111
808205 -5 REC 1325-1415 Th, AmundH 120
- R3062 Analog and Digital Electronics** (prereq 3061, 3351, upper division elec engr, computer sci or mech engr maj)
★LECT 1325-1415 MTWTF, Botany B6, 4 cr
111702 -1 REC 1430-1520 T, EE/CSci 3115
204661 -2 REC 1535-1625 T, AmundH 116
102670 -3 REC 1640-1730 T, EE/CSci 2260
011703 -4 REC 1430-1520 W, AmundH 104
- R3111 Electromagnetic Waves** (prereq 3110, upper division elec engr maj)
★LECT 1010-1100 MTWTF, EE/CSci 3230, 4 cr
207415 -1 REC 1430-1520 M, EE/CSci 3115
104421 -2 REC 1535-1625 M, EE/CSci 2260
010907 -3 REC 1640-1730 M, EE/CSci 3115
- R3351 Introduction to Logic Design** (prereq IT soph)
★LECT 1430-1520 MWF, EE/CSci 3210, 4 cr
604902 -1 LAB 1535-1730 M, EE/CSci 2178
404304 -2 LAB 1535-1730 M, EE/CSci 2178
007926 -3 LAB 1325-1520 T, EE/CSci 2178
506893 -4 LAB 1325-1520 T, EE/CSci 2178
109019 -5 LAB 0800-0955 Th, EE/CSci 2178
107335 -6 LAB 0800-0955 Th, EE/CSci 2178
503631 -7 LAB 1535-1730 Th, EE/CSci 2178
509848 -8 LAB 1535-1730 Th, EE/CSci 2178
502401 -9 LAB 1535-1730 F, EE/CSci 2178
308281 -10 LAB 1535-1730 F, EE/CSci 2178
Registration in one of the REC sections is also required.
006338 -1 REC 1535-1625 W, EE/CSci 2260
708942 -2 REC 1640-1730 W, EE/CSci 3115
610392 -3 REC 1325-1415 Th, AmundH 162
001947 -4 REC 1430-1520 Th, AmundH 124
- R3352 Introduction to Microprocessors** (prereq IT soph, CSci 3104) (A-F only)
★LECT 0800-0850 MWF, EE/CSci 3210, 4 cr
005836 -1 LAB 0800-0955 T, EE/CSci 3130
703112 -2 LAB 1010-1205 T, EE/CSci 3130
803344 -3 LAB 1325-1520 T, EE/CSci 3130
804042 -4 LAB 1325-1520 W, EE/CSci 3130
703157 -5 LAB 1535-1730 W, EE/CSci 3130
108816 -6 LAB 0905-1100 Th, EE/CSci 3130
412094 -7 LAB 1325-1520 Th, EE/CSci 3130
702073 -8 LAB 1325-1520 F, EE/CSci 3130
403363 -9 LAB 1535-1730 F, EE/CSci 3130
Registration in one of the REC sections is also required.
310550 -1 REC 1325-1415 M, LindH 217
411883 -2 REC 1430-1520 M, EE/CSci 3111
102071 -3 REC 1535-1625 M, EE/CSci 3111
503676 -4 REC 1640-1730 M, EE/CSci 3111
501961 -5 REC 1325-1415 T, EE/CSci 3210
- R3400 Junior Electrical Engineering Laboratory** (prereq EE maj, 1400, 3060 or f3060) (A-F only)
★LECT 1220-1310 M, EE/CSci 3210
511857 -1 LAB 1430-1730 M, EE/CSci 3166, 2 cr
204479 -2 LAB 1430-1730 M, EE/CSci 3146, 2 cr (IT special program only)
608397 -3 LAB 1800-2045 M, EE/CSci 3166, 2 cr
403380 -4 LAB 1800-2045 M, EE/CSci 3166, 2 cr
602339 -5 LAB 0800-1100 T, EE/CSci 3166, 2 cr
911502 -6 LAB 1115-1415 T, EE/CSci 3166, 2 cr
711923 -7 LAB 1115-1415 T, EE/CSci 3166, 2 cr
101820 -8 LAB 1430-1730 T, EE/CSci 3166, 2 cr
804400 -9 LAB 1430-1730 T, EE/CSci 3166, 2 cr
310922 -10 LAB 1430-1730 W, EE/CSci 3166, 2 cr
706513 -11 LAB 1430-1730 Th, EE/CSci 3146, 2 cr
308717 -12 LAB 1430-1730 F, EE/CSci 3146, 2 cr
- R3402 Junior Electrical Engineering Laboratory** (prereq 3401, 3062 or f) (A-F only)
★LECT 1220-1310 W, EE/CSci 3115
101924 -1 LAB 1430-1730 W, EE/CSci 3146, 2 cr
409860 -2 LAB 0800-1100 Th, EE/CSci 3146, 2 cr

- 804378 -3 LAB 0800-1100 Th, EE/CSci 3166, 2 cr
711257 -4 LAB 1115-1415 Th, EE/CSci 3166, 2 cr
511597 -5 LAB 1430-1730 Th, EE/CSci 3166, 2 cr
505119 -6 LAB 1800-2045 Th, EE/CSci 3146, 2 cr
- R3470 Summer Engineering Employment** (prereq completion of 2nd or 3rd yr work, declaration of intention before end of spr qtr, #)
909099 Champlin, 1-3 cr
- R3471 Summer Engineering Employment** (prereq 3470, #)
105494 1-3 cr
- R3476 Industrial Assignment I** (prereq regis in co-op program)
108203 2 cr
- R3477 Industrial Assignment II** (prereq 3476)
110977 2 cr
- R5003 Digital Signal Processing Laboratory** (prereq upper division EE maj, 5002 or #)
402472 -1 LAB 1430-1625 T, EE/CSci 2170, 1 cr
503032 -2 LAB 0800-0955 Th, EE/CSci 2170, 1 cr
102152 -3 LAB 1430-1625 Th, EE/CSci 2170, 1 cr
- R5055 Instrumentation and Control Electronics** (prereq upper division elec engr maj or grad IT maj, 3012 or f, 3062 or #)
609548 0800-0850 MTWTF, EE/CSci 3230, 4 cr
- R5056 Electronic Circuits Laboratory** (prereq 3401, 15055, IT stu or grad IT maj)
902458 -1 LAB 1325-1730 M, EE/CSci 3144, 1 cr (alt M)
108968 -2 LAB 1325-1730 W, EE/CSci 3144, 1 cr (alt W)
501765 -3 LAB 0800-1205 Th, EE/CSci 3144, 1 cr (alt Th)
104807 -4 LAB 1325-1730 F, EE/CSci 3144, 1 cr (alt F)
- R5151 Materials and Devices I** (prereq IT stu or grad IT maj, 3062, 3111, Phys 3501 or #)
102143 0905-0955 MTWTF, FordH 70, 4 cr
- R5202 Analog Communication** (prereq upper division elec engr maj or grad IT maj, 3012, Stat 3091 or #)
876312 1325-1415 MWF, FordH 55, 3 cr
- R5240 Analog Communications Laboratory** (prereq 15202)
476314 1 cr (EE/CSci 2164)
- R5300 Electromechanics** (prereq upper division EE maj or grad IT, 3011, 3110)
211187 1220-1310 MTWTF, EE/CSci 3230, 4 cr
- R5450 Senior Design Project** (prereq elec engr sr, 3012, 3062, 3110, 3351, 3352, 3402)
076597 1430-1730 T, EE/CSci 3230, 2 cr
- R5470 Directed Study** (prereq Δ)
309284 ar cr
- R5478 Industrial Assignment III** (prereq 3477, regis in co-op program) (A-F only)
310399 2 cr
- R5479 Industrial Assignment IV** (prereq 5478)
504469 2 cr
- R5490H Honors Project** (prereq Δ)
203493 1325-1625 Th, EE/CSci 3230, Kaveh, 3 cr
- R5511 Digital Filters and Signal Processing** (prereq grad IT maj or #)
601918 -1 1115-1205 MWF, MechE 212, 3 cr
- R5560 Biomedical Instrumentation** (prereq #)
903013 -1 LECT 1325-1415 MWF, MechE 108, 4 cr
★LAB (lab ar)
- R5571 VLSI Design I** (prereq grad standing in elec engr, computer science or physics or #)
712621 -1 1220-1310 MWF, MechE 108, 3 cr
- R5804 Introduction to Microwave Engineering** (prereq EE sr or grad IT maj, 3111 or equiv)
704776 -1 1115-1205 MWF, EE/CSci 3125, 3 cr
- R5625 Fourier Optics** (prereq 3011, 3111 or #)
507100 -1 1430-1625 MW, EE/CSci 3125, 4 cr
- R5650 Physical Methods in Solid State Materials I** (prereq EE sr or grad stu or adult special, 3111)
805658 -1 0905-0955 MWF, MechE 108, 3 cr

- r5666 Magnetic Properties of Materials and Applications** (prereq #)
409468 0945-1100 TTh, PllshH 110, 3 cr
- r5702 Stochastic Processes and Optimum Filtering** (prereq Stat 3091, grad standing or #)
702333 -1 1115-1230 TTh, EE/CSci 3125, 3 cr
- r5750 Topics in Linear Systems** (prereq grad stu, Math 5242 or #)
408269 1220-1310 MWF, EE/CSci 2260, 3 cr
- r5802 Electric Power System Analysis** (prereq #)
605659 1245-1400 TTh, LindH 229, 3 cr
- r5805 Electric Power Systems Engineering** (prereq #)
076308 1325-1415 MWF, EE/CSci 3111, 3 cr
- r5814 Switched Mode Power Electronics** (prereq 3061, 3402 or #, IT sr, IT adult special or grad IT maj)
603832 -1 0800-0850 MWF, MechE 102, 3 cr
- r5851 Applied Switching Theory** (prereq 3351, 3352 or #)
005853 -1 1010-1100 MWF, MechE 212, 3 cr
- 5854 Advanced Computer Networks** (prereq grad IT maj or EE adult special, CSci 5211 or #) (A-F only)
976317 3 cr (off-campus) (Rochester)
- r5952 Special Topics in Electrical Engineering** (prereq IT grad or adult special or #)
612336 -1 1245-1400 TTh, EE/CSci 3125, 1-3 cr
- r8090 Electronics Seminar** (prereq #) (S-N only)
205485 1535-1625 F, EE/CSci 2260, Polla, ar cr
- r8100 Advanced Engineering Electromagnetics** (prereq 5604, 5605, 5606, #)
176307 3 cr
- r8153 Properties of Semiconductors** (prereq #)
105334 0945-1100 TTh, EE/CSci 3115, 3 cr
- r8156 Ferromagnetism and Related Phenomena** (prereq 5652 or #)
176316 1245-1400 TTh, EE/CSci 2260, 3 cr
- 8190 Seminar: Quantum Electronics** (prereq #) (S-N only)
808527 ar cr
- r8192 Seminar: Magnetics** (prereq #) (S-N only)
311228 -1 1325-1415 F, EE/CSci 3125, ar cr
- r8257 Advanced Systems Theory I** (prereq grad student in IT program, #) (A-F only)
603362 0815-0930 TTh, EE/CSci 2260, 3 cr
- r8260 Topics in Nonlinear Systems** (prereq #)
276315 1245-1400 TTh, EE/CSci 3111, 3 cr
- r8290 Seminar: Control Theory** (prereq #) (S-N only)
611381 -1 1430-1520 F, MechE 108, Shamma, ar cr
- r8300 Advanced Power-System Topics** (prereq 5802 or #)
076311 0945-1100 TTh, EE/CSci 2260, 3 cr
- r8352 Fault Diagnosis and Reliable Design** (prereq #)
307194 -1 1325-1440 MW, EE/CSci 2260, 3 cr
776318 -2 3 cr (off-campus) (Rochester)
- 8390 Computer Systems Seminar** (prereq #) (S-N only)
409521 ar cr
- r8451 Advanced Topics in Electrical Engineering** (prereq #)
709511 -1 ar cr
- 8460 Plan B Project** (prereq #) (A-F only)
104936 4 cr
- r8490 Graduate Seminar** (S-N only)
409082 -1 1535-1705 Th, MechE 108, 1 cr
- 8777 Thesis Credits: Masters**
904078 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
608075 1-36 cr
- ★LECT 1115-1205 MWF, BuH 120, Samuels**
102085 -1 LAB 1220-1310 W, ChDev 216, 4 cr (IIIA only)
111344 -2 LAB 1220-1310 W, JonesH 2, 4 cr (IIIA only)
408501 -3 LAB 1220-1310 W, PeikH 48, 4 cr
- r3101 Introduction to Elementary School Teaching** (prereq 13100, elementary education maj) (A-F only)
★LECT 1325-1415 MWF, Arch 5
104264 -1 LAB 1220-1310 F, ChDev 218, 3 cr (IIIA only)
403718 -2 LAB 1220-1310 F, JonesH 2, 3 cr (IIIA only)
506450 -3 LAB 1220-1310 F, PeikH 48, 3 cr
- r3300 Children's Literature** (A-F only)
105012 -1 0905-0955 MWF, PeikH 46, 3 cr
603149 -2 1325-1440 TTh, PeikH 40, 3 cr (IIIA only)
105861 -3 1325-1440 TTh, PeikH 46, 3 cr (IIIA only)
- r3316 Teaching English in the Elementary School** (prereq 3100, 3101, Engl 3851) (A-F only)
004895 -1 0905-0955 MWF, PeikH 48, 3 cr ((fsec 1, 3331) (IIIA only)
106895 -2 0905-0955 MWF, PeikH 40, Dykstra, 3 cr ((fsec 2, 3331) (IIIA only)
- r3331 Teaching Reading in the Elementary School** (prereq 3100, 3101) (A-F only)
110946 -1 1010-1100 MWF, PeikH 48, 3 cr ((fsec 1, 3316) (IIIA only)
210587 -2 1010-1100 MWF, PeikH 40, 3 cr ((fsec 2, 3316) (IIIA only)
- r3346 Teaching Science in the Elementary School** (prereq 3100, 3101, 10 cr in natural science) (A-F only)
404030 1010-1205 MWF, PeikH 385, 3 cr ((fsec 1, 3361, 3391)
- r3361 Teaching Social Studies in the Elementary School** (prereq 3100, 3101) (A-F only)
406831 0905-0955 MWF, PeikH 385, 3 cr ((fsec 1, 3346, 3391)
- r3376 Nursery School-Kindergarten Curriculum I** (prereq 3100) (A-F only)
605421 1325-1520 TTh, PeikH 315, 3 cr
- 3379 Cognitive and Creative Learning in Early Childhood Education** (prereq CPsy 1301 or 5301) (A-F only)
112437 1515-1645 TTh, ChDev 105, 3 cr
- r3391 Teaching Mathematics in the Elementary School** (prereq 3100, 3101, Math 1005, 1006) (A-F only)
605337 0800-0850 MWF, PeikH 385, Bang, 3 cr ((fsec 1, 3346, 3361)
- 3600 Student Teaching in the Elementary School, Half Days** (prereq 12 cr methods; Δ) (S-N only)
512006 6 cr
- 3603 Student Teaching in the Kindergarten** (prereq 6 cr elem student tchg, Δ) (S-N only)
210315 6 cr
- 3804 Student Teaching in the Nursery School** (prereq approval of major adviser, director student teaching) (S-N only)
205258 1630-1815 W, ChDev 218, Galle, 3-6 cr
- 3605 Student Teaching in Elementary School: Half Days, Full Days** (prereq 15 cr methods, Δ) (S-N only)
502298 9 cr
- 3607 Student Teaching in Elementary School: Full Days** (prereq 18 cr methods, Δ) (S-N only)
609114 12 cr
- 3621 Junior Practicum in Elementary Education** (max 6 cr; prereq elementary education maj) (S-N only)
204191 1-2 cr
- 3630 Student Teaching in Elementary School Literature** (prereq 10 cr in elem student tchg, Δ) (S-N only)
705247 3 cr
- 3631 Student Teaching in Elementary School English** (prereq 10 cr in elem student tchg, Δ) (S-N only)
705376 3 cr
- 3633 Student Teaching in Elementary School Reading** (prereq 10 cr in elem student tchg, Δ) (S-N only)
212596 3 cr
- 3634 Student Teaching in Elementary School Science** (prereq 10 cr in elem student tchg, Δ) (S-N only)
108282 3 cr
- 3636 Student Teaching in Elementary School Social Studies** (prereq 10 cr in elem student tchg, Δ) (S-N only)
409986 3 cr
- 3639 Student Teaching in Elementary School Mathematics** (prereq 10 cr in elem student tchg, Δ) (S-N only)
209438 3 cr
- 3900 Directed Study** (max 6 cr; prereq elementary maj, Δ) (A-F only)
506027 1-3 cr
- r5107 Diagnosis and Treatment of Learning Difficulties** (A-F only)
107942 1630-1900 Th, PeikH 40, Park, 3 cr
- r5140 Microcomputer Uses in Elementary Classrooms** (§CISY 5206) (A-F only)
509784 1630-1915 Th, PeikH 355, Stochl, 3 cr
- r5145 Classroom Management** (§SeEd 5145; prereq teaching or administrative experience or #) (A-F only)
705961 1630-1900 T, PeikH 40, Hansen, 3 cr
- r5300 Literature for the Elementary School** (A-F only)
805529 1630-1900 T, PeikH 215, 3 cr
- r5315 Teaching Composition in the Elementary School** (prereq postbac, MED or grad student) (A-F only)
775296 1630-1900 W, PeikH 48, 3 cr
- r5316 Teaching and Supervision of English in the Elementary Schools** (prereq 3316 or elementary school teaching experience) (A-F only)
511826 1630-1900 M, PeikH 48, Dykstra, 3 cr
- 5319 Teaching Second Languages and Cultures in Elementary Schools** (A-F only)
009448 0900-1130 S, BuH 123, Jorstad, 3 cr
- 5320 Practicum: Teaching Second Languages and Cultures in Elementary Schools** (prereq 5319 or 1, #) (S-N only)
704129 Jorstad, 3 cr
- r5331 Teaching and Supervision of Reading in the Elementary School** (prereq 9 cr in education) (A-F only)
106418 1630-1900 M, PeikH 40, Manning, 3 cr
- r5350 Elementary School Science: Materials and Resources** (A-F only)
206149 1615-1915 M, PeikH 385, Johnson, 3 cr
- r5361 Teaching Social Studies in the Elementary School** (prereq 3101 or equiv) (A-F only)
007649 1630-1900 W, PeikH 165, Cogan, 3 cr
- r5376 Current Trends in Early Childhood Education** (prereq teaching experience in kindergarten or primary or #) (A-F only)
408398 1630-1900 M, PeikH 28, Hansen, 3 cr
- r5602 Practicum: Improvement of Teaching** (prereq MED student in elementary education) (S-N only)
007148 -1 Avery, 3 cr
505640 -2 Cogan, 3 cr
202618 -3 Dykstra, 3 cr
307650 -4 Finley, 3 cr
305641 -5 Hansen, 3 cr
102619 -6 Heller, 3 cr
601577 -7 Jackson, 3 cr
310662 -8 Johnson, 3 cr
408644 -9 Lawrenz, 3 cr
106659 -10 Manning, 3 cr
104636 -11 Monson, 3 cr
402620 -12 Orton, 3 cr
711677 -13 Post, 3 cr
709637 -14 Stochl, 3 cr
104712 -15 Taylor, 3 cr
375298 -16 3 cr
- 8331 Research Foundations for Reading Instruction** (prereq 5331, #)
175299 1630-1900 T, PeikH 155, Manning, 3 cr
- r8916 Problems: Teaching English** (prereq #)
001818 -1 Dykstra, ar cr
004837 -2 Monson, ar cr
- r8931 Problems: Teaching Reading** (prereq 5331 or SeEd 5344, #)
904789 -1 Manning, ar cr
202621 -2 Taylor, ar cr

ELEMENTARY EDUCATION (Elem) Curriculum And Instruction Education

- r3100 Psychological Foundations of Elementary Education** (prereq 5 cr introductory psychology) (A-F only)

- r8961 Problems: Teaching Social Studies** (prereq 5381 or SeEd 5155 or 8104, #)
475289 Cogan, ar cr
- r8976 Problems: Teaching Kindergarten** (prereq #)
308300 Hansen, 3 cr
- r8991 Problems: Improvement of Instruction** (prereq #)
010194 -1 Dykstra, ar cr
302769 -2 Finley, ar cr
011748 -3 Hansen, ar cr
809712 -4 Heller, ar cr
607721 -5 Jackson, ar cr
811749 -6 Johnson, ar cr
608713 -7 Lawrenz, ar cr
407722 -8 Manning, ar cr
605712 -9 Monson, ar cr
702770 -10 Orton, ar cr
410734 -11 Post, ar cr
208712 -12 Stochl, ar cr
006727 -13 Taylor, ar cr

ENDODONTICS (Endo) Dentistry

- 5300 Advanced Clinical Endodontics** (A-F only)
706124 ar cr
- 5304 Advanced Clinical Endodontics** (A-F only)
704437 ar cr
- 5310 Advanced Endodontic Emergency** (S-N only)
605435 1 cr
- 5314 Advanced Endodontic Emergency** (S-N only)
905215 1 cr
- 5330 Review of Cases** (S-N only)
002239 1 cr
- 5334 Review of Cases** (S-N only)
106211 1 cr
- 5400 Advanced Endodontics for Postgraduate Dental Fellows** (S-N only)
875127 1 cr
- 8001 Research in Endodontics**
606567 ar cr
- 8005 Research in Endodontics**
808852 ar cr
- 8310 Seminar: Endodontics** (A-F only)
710545 2 cr
- 8314 Seminar: Endodontics** (A-F only)
703207 2 cr
- 8320 Advanced Endodontic Lectures** (A-F only)
609517 1 cr

ENGLISH AS A SECOND LANGUAGE (ESL)

Linguistics Liberal Arts

- 0100 English as a Second Language** (prereq Δ)
0110 English as a Second Language (prereq Δ)
0120 English as a Second Language (prereq Δ)
0130 English as a Second Language (prereq Δ)
- 8777 Thesis Credits: Masters**
606083 1-16 cr

ENGLISH LANGUAGE AND LITERATURE (Engl) Liberal Arts

- r1005 Introduction to Literature**
001821 0800-0850 MWF, LindH 217, 4 cr
- r1005H Honors Course: Introduction to the Study of Literature**
105068 1430-1545 TTh, LindH 305, 4 cr
- r1013 Famous English and American Poems**
675355 1115-1205 MWF, MechE 18, Furia, 4 cr
- r1016 Introduction to American Literature**
575347 0945-1100 TTh, Arch 35, Bales, 4 cr
- r1017 Introduction to Modern Poetry**
710688 1010-1100 MWF, AkerH 319, Hancher, 4 cr
- r1241 Introduction to Shakespeare**
608268 0815-0930 TTh, FordH 155, Clayton, 4 cr

- r1591 Literature of American Minorities**
308670 -1 0800-0850 MWF, LindH 203, 4 cr
005786 -2 1115-1205 MWF, LindH 217, 4 cr
202909 -3 1430-1545 TTh, LindH 302, 4 cr
- r3008 Techniques of Literary Study** (prereq pre-Engl or Engl maj or min only)
804528 -1 0800-0850 MWF, LindH 215, 4 cr
475356 -2 1245-1400 TTh, LindH 302, Bales, 4 cr
- r3009 Modern Literary Theory** (prereq English maj or minor)
275357 -1 0815-0930 TTh, LindH 302, Anderson, 4 cr
175358 -2 0815-0930 TTh, LindH 302, Anderson, 4 cr (Engl maj/premaj only)
- r3117 The Restoration and 18th-Century**
204949 -1 1010-1100 MWF, LindH 302, Leyasmeyer, 4 cr
512085 -2 1010-1100 MWF, LindH 302, Leyasmeyer, 4 cr (Engl maj/premaj only)
- r3119 The Victorian Age**
877090 -1 0815-0930 TTh, VinH 20, Eifenbein, 4 cr
477091 -2 0815-0930 TTh, VinH 20, Eifenbein, 4 cr (Engl maj/premaj only)
- r3218 Medieval Literature in Translation**
975359 1245-1400 TTh, LindH 217, Wallace, 4 cr
- r3238 The European Renaissance in England**
275360 0815-0930 TTh, FordH 150, Haley, 4 cr
- r3241 Shakespeare** (§3243)
909510 -1 1220-1310 MWF, BuH 120, 4 cr
108856 -2 1220-1310 MWF, BuH 120, 4 cr (Engl maj/premaj only)
405663 -3 0815-0930 TTh, LindH 203, Wallace, 4 cr
501605 -4 0815-0930 TTh, LindH 203, Wallace, 4 cr (Engl maj/premaj only)
- r3242 Shakespeare** (§3243)
808480 -1 1220-1310 MWF, LindH 217, Leyasmeyer, 4 cr
204272 -2 1220-1310 MWF, LindH 217, Leyasmeyer, 4 cr (Engl maj/premaj only)
308867 -3 0815-0930 TTh, LindH 217, 4 cr
202683 -4 0815-0930 TTh, LindH 217, 4 cr (Engl maj/premaj only)
- r3242H Honors Course: Shakespeare**
203168 1010-1100 MWF, LindH 217, McNaron, 4 cr
- r3251 The King James Bible as Literature**
706687 1115-1230 TTh, LindH 302, Haley, 4 cr
- r3355 Modern British Literature, 1900-1925**
277092 1115-1230 TTh, Arch 35, Anderson, 4 cr
- r3411 Survey of American Literature to 1850**
106225 -1 1115-1230 TTh, MechE 18, Griffin, 4 cr
277559 -1 1115-1230 TTh, MechE 18, Griffin, 4 cr (concurrent registration in Comp 3011, sec 5 is required)
- r3455 American Short Story**
311245 0905-0955 MWF, Arch 5, Ross, 4 cr
- r3591 Introduction to Afro-American Literature** (§Afro 3591)
102684 0945-1100 TTh, BlegH 255, Wright J., 4 cr
- r3821 British and American Women Writers**
175366 1115-1230 MW, LindH 305, Rabinowitz, 4 cr
- r3651H Honors Course: Poetry** (prereq honors registration or Δ)
475387 0945-1100 TTh, MechE 18, Firchow, 4 cr
- r3671 The Novel**
075367 1430-1545 TTh, Arch 35, Weinsheimer, 4 cr
- r3851 The English Language** (§5851)
910480 0945-1100 TTh, AmundH B75, MacLeish, 4 cr
- r3910 Topics in English and North American Literature: Post-Modern British Drama**
709668 0945-1100 TTh, FolH 344, Clayton, 4 cr
- r3920 Topics in Anglophone Literature: Literary Paradigms of Colonialism**
675369 1115-1230 TTh, LindH 217, Sugnet, 4 cr
- r3960 Junior-Senior Seminar:** (prereq Engl maj jr or sr, Comp 3011 or Comp 3012 or Comp 3013, Δ)
303629 1245-1400 TTh, Arch 35, Damon, Eifenbein, 4 cr
- 3961 Senior Paper** (prereq Engl maj, sr, 3960 or I or 3960H or I or 3931-3932 or I or EngW 3960 or I, Δ) (S-N only)
708875 1 cr

- 3963H Honors Thesis** (prereq honors candidacy in Engl, consent of Engl honors adviser)
104354 4 cr
- 3970 Directed Studies** (prereq #, Δ, □)
303548 1-15 cr
- 3980 Directed Instruction** (prereq #, Δ, □)
109117 ar cr
- r5151 18th-Century English Novel** (prereq grad stu or Engl maj or Δ)
875371 1115-1230 TTh, FordH 120, Weinsheimer, 4 cr
- r5153 20th-Century English Novel** (prereq grad stu or Engl maj or Δ)
675372 0945-1100 TTh, LindH 203, Reed, 4 cr
- r5221 Chaucer: The Canterbury Tales** (prereq grad stu or Engl undergrad maj or Δ)
511213 1245-1440 TTh, JonesH 2, MacLeish, 5 cr
- r5432 American Poetry** (prereq grad stu or Engl maj or Δ)
475373 1325-1415 MWF, LindH 203, Furia, 4 cr
- r5451 19th-Century American Novel** (prereq grad stu or Engl maj or Δ)
505878 0905-0955 MWF, LindH 302, Roth, 4 cr
- r5481 Folklore** (prereq grad stu or Engl undergrad maj or Δ)
275374 1115-1230 TTh, LindH 229, Stekert, 4 cr
- r5593 The Afro-American Novel** (§Afro 5593; prereq grad stu or Engl maj or Δ)
175375 1220-1310 MWF, LindH 215, JanMohamed, 4 cr
- r5651 Techniques of Poetry** (prereq grad stu or Engl maj or Δ)
975376 1010-1100 MWF, LindH 203, Wright G.T., 4 cr
- r5711 Classics of Literary Criticism** (§3711, CICv 3711, CICv 5711; prereq grad stu or Engl maj or Δ)
705667 1325-1415 MWF, Jach 2135, Hancher, 4 cr
- r5851 Structure of Modern English** (§3851; prereq grad stu or Engl maj or Δ)
775377 0815-0930 TTh, LindH 215, Escure, 4 cr
- r5860 Studies in the English Language: World Englishes** (prereq 5851 or #, grad stu or Engl maj or Δ)
575378 1115-1230 TTh, LindH 203, Escure, 4 cr
- r5910 Topics in English and North American Literature** (prereq grad stu or Engl maj or Δ)
905866 -1 1325-1415 MWF, LindH 215, Hoy, 4 cr (Canadian Poetry: Gender and Genre)
104555 -2 0945-1100 TTh, FolH 344, Clayton, 4 cr (Post-Modern British Drama)
- r5940 Figures in English and North American Literature** (prereq grad stu or Engl undergrad maj or Δ)
004668 -1 1220-1310 MWF, LindH 302, Roth, 4 cr (19th-Century British and American Women Writers)
375379 -2 1220-1310 MWF, LindH 203, Wright G.T., 4 cr (Yeats)
- 5970 Directed Studies** (prereq #, Δ, CLA approval)
505217 1-4 cr
- r8012 Problems in Literary History**
775380 1325-1540 T, FordH 60, Messer-Davidow, 4 cr
- r8050 Studies in Special Subjects: Teaching Writing in the College Years: Theory and Practice**
103034 1010-1225 M, LindH 229, Anson, 4 cr
- r8117 Proseminar in Early American Literature**
375382 1430-1645 Th, LindH 217, Griffin, 4 cr
- r8480 Studies in Folklore: Folklore and Literature**
175383 1430-1645 T, LindH 218, Stekert, 4 cr
- r8670 Studies in Prose Fiction: Forster/Lawrance**
875385 1245-1500 T, LindH 203, Firchow, 4 cr
- r8710 Studies in Criticism: Theories and the Other**
675386 1430-1645 T, FordH 175, Mowitz, 4 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
701716 1-36 cr
- 8970 Independent Reading** (prereq #, Δ)
305932 1-15 cr

ENGLISH: CREATIVE & PROFESSIONAL WRITING (EngW)

English Language and Literature Liberal Arts

- n1101 Introduction to Creative Writing**
★LECT 1430-1545 Th, FordH 155
008283 -1 REC 1430-1625 T, SmithH 111, 4 cr
610571 -2 REC 1430-1625 T, BUH 120, 4 cr
506223 -3 REC 1430-1625 T, FordH 40, 4 cr
801867 -4 REC 1430-1625 T, LindH 229, 4 cr
203509 -5 REC 1430-1625 T, LindH 215, 4 cr
(MLK stu only)
- n1102 Introduction to Fiction Writing** (§Engl 1101; prereq writing practice or 1101)
302450 -1 1115-1230 TTh, LindH 216, 4 cr (Engl maj only)
806390 -2 1115-1230 TTh, LindH 216, 4 cr
- n3102 Intermediate Fiction Writing** (§Engl 3103; prereq 1101 or 1102)
408515 -1 1245-1400 TTh, LindH 215, 4 cr (Engl maj only)
312413 -2 1245-1400 TTh, LindH 215, 4 cr
- n3103 Intermediate Poetry Writing** (§Engl 3104; prereq 1101 or 1103)
676165 -1 1115-1230 TTh, LindH 215, 4 cr (Engl maj only)
676926 -2 1115-1230 TTh, LindH 215, 4 cr
- n3960 Writing Workshop for Majors** (prereq Comp 3xxx, Engl maj, Jr or sr, Δ)
503077 1400-1645 M, LindH 216, 4 cr
- n5101 Advanced Fiction Writing** (§Engl 5101; prereq Δ)
705216 1820-2050 M, LindH 203, Burns, 4 cr
- n5105 Advanced Poetry Writing** (§Engl 5104; prereq Δ)
912388 1615-1845 T, LindH 320, Browne, 4 cr
- n5110 Topics in Advanced Fiction Writing** (prereq Δ)
376161 -1 1615-1845 M, LindH 340, 4 cr
476166 -2 1615-1845 Th, LindH 325, Burns, 4 cr
(Collaboration Workshop)
- n5210 Topics in Advanced Nonfiction Writing: Creative Non-Fiction** (prereq Δ)
278167 1615-1845 Th, LindH 340, Sugnet, 4 cr
- n5310 Reading as Writers** (prereq Δ)
105222 -1 1615-1845 M, LindH 325, Sprengnether, 4 cr (Writing from Life: Varieties of Non-Fiction Prose)
212405 -2 1615-1845 T, LindH 340, 4 cr
176162 -3 1615-1845 W, LindH 315, Iossel, 4 cr
876164 -4 1615-1845 W, LindH 340, 4 cr
(Contemporary Dramatic Literature) (§Th 5950)
- 5970 Directed Study in Writing** (prereq #)
204028 1-4 cr
- n8110 Writing of Fiction** (§8420, Engl 8420; prereq Δ)
076163 1615-1845 W, LindH 325, Burns, 4 cr

ENTOMOLOGY (Ent) Agriculture

- n3005 Introductory Entomology** (prereq Biol 1009 or equiv)
★LECT 0935-1025 MWF, HodsonH 490, 5 cr
703940 -1 LAB 1040-1235 MWF, HodsonH 485
- n5010 Insect Morphology** (prereq 3005 or #)
★LECT 0845-1000 TTh, HodsonH 480, Holzenthal, 5 cr
375284 -1 LAB 1015-1130 TTh, HodsonH 480
- 5020 Insect Taxonomy** (prereq 3005 or equiv)
★LECT 1250-1340 MWF, HodsonH 485, 5 cr
011040 -1 LAB 1355-1500 MWF, HodsonH 485, Holzenthal
- 5040 Insect Ecology** (prereq Biol 5041 or EBB 5122 or #)
175285 0800-0920 WF, HodsonH 219A, Andow, 4 cr

- 5320 Ecology of Agriculture** (prereq one 3000 level course in agronomy, horticulture or animal science and one 3000 level course in entomology, plant pathology or soil science or #) (A-F only)
903951 1315-1430 TTh, HodsonH 480, Andow, 4 cr
- 5350 Insect Pathology** (prereq 5030)
075288 0830-0920 MWF, HodsonH 480, Kurtli, 3 cr
- 5900 Basic Entomology** (prereq #)
712036 ar cr
- 5910 Special Problems in Entomology** (prereq #)
112624 ar cr
- n8040 Advanced Insect Genetics** (prereq basic genetics course, 5030 or #) (A-F only)
677512 1355-1445 MWF, HodsonH 490, Fallon, 3 cr
- 8240 Colloquium in Insect Ecology** (prereq 5040 or #) (S-N only)
875287 Andow, 1-2 cr
- 8300 Graduate Seminar** (prereq #) (S-N only)
108954 1500-1600 Th, HodsonH 490, Ragsdale, 1 cr
- 8500 Research in Entomology** (prereq #)
704258 ar cr
- 8777 Thesis Credits: Masters**
908289 1-18 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
804218 1-36 cr

FAMILY PRACTICE AND COMMUNITY HEALTH (FPCH) Medical School

- 5500 Preceptorship in Clinical Practice** (prereq regis med)
706961 Seim, 9 cr
- 5501 Rural Physician Associate Program** (†5501; prereq completion of 8 academic quarters of medical school)
104796 Verby, 0-18 cr
- 5502 Physician as Counselor in Marriage and Family Problems** (prereq regis 5501)
703451 Mac Donald, 1 cr
- 5503 RPAP Research Paper** (†5503; prereq †5501 or Med 5592) (S-N only)
606522 Verby, 1 cr
- 5505 Problem - Focused Interactive Learning** (prereq medicine, pediatrics; surgery and neurology)
406067 Seim, 4.5 cr
- 5514 Introduction to Family Practice** (prereq previous clinical rotations)
612433 O'Neil, 4.5 cr
- 5515 Preceptorship in Gerontology Community Health** (prereq regis med)
912391 O'Neil, 9 cr
- 5516 Research in Human Sexuality** (prereq #)
610425 Coleman, others, ar cr
- 5520 Rural Rotation in Family Practice** (prereq regis med)
803747 Seim, 4.5-9 cr
- 5521 Clinical Practice Preceptorship: Kenai, Alaska** (prereq regis med) (S-N only)
008431 Hansen, 9 cr
- 5525 Management of Patients with Cardiovascular Problems by the Family Physician** (prereq regis med)
608321 Sharkey, 9 cr
- 5530 Clinical Problems in Family Practice** (prereq regis med)
011605 Daly, 9 cr
- 5535 Community Health in Family Practice** (prereq minimum of two 6-week rotations from the following: Med, Ped, Obst or Surg)
306126 Thorson, 4.5-9 cr
- 5537 Primary Care Sports Medicine** (prereq 3rd or 4th yr regis med stu) (S-N only)
902914 Johnson, 9 cr
- 5540 Ambulatory HMO Rotation/Family Practice** (prereq minimum of two 6-week rotations from the following: med, pediatrics, OB/Gyn or surg)
107830 Seim, others, 9 cr

- 5545 Family Practice in a Community Clinic** (prereq minimum of two 6-week rotations from the following: Med, Ped, Obst or Surg)
510403 Richardson, Raines, 9 cr
- 5550 Ambulatory Care Rotation/Family Practice** (prereq minimum of two 6-week rotations from the following: med, peds, OB/Gyn or surgery)
007151 Seim, others, 9 cr
- 5560 Alcohol and Drug Addiction Treatment Center** (prereq regis med)
804977 Briggs, 4.5 cr
- 5562 Medical Interviewing: Dealing with Problem Patients in a Holistic Approach** (†5562; prereq regis med)
309530 Verby, others, 2 cr
- 5563 Clinical Neuropsychopharmacology** (prereq FPCH resident or #)
911936 2 cr
- 5564 Family Practice Seminar** (prereq med stu) (A-F only)
977628 1-3 cr
- 5570 Practicum in Counseling Techniques** (prereq compl of 1st yr residency)
112039 1 cr
- 5580 Community Emergency Medicine**
911290 Seim, 9 cr
- 5585 Sexual Problems in Clinical Practice** (prereq med student, #)
803828 Coleman, others, ar cr
- 5595 Research in Family Practice: Independent Study**
604897 Seim, ar cr
- 5599 Undergraduate Independent Study**
911001 Ciriacy, ar cr
- 5843 Disease Prevention and Health Promotion - An Appraisal of Goals and Techniques in Family Practice** (prereq M.D.)
704020 2 cr
- 5903 Community Health Rotation** (prereq #)
502303 Ciriacy, ar cr
- 5955 Directed Study** (prereq #)
302223 Coleman, 1-16 cr
- 5960 Basic Research Methods Seminar and Practicum**
904422 Kelly, 4 cr
- 5962 Clinical Hypnosis Workshop** (prereq #)
106265 Houge, others, ar cr
- 5964 Health Care Delivery Systems** (prereq 1st yr family practice residency)
412466 ar cr (Smiley's Point Clinic)
- 5968 Computers in Theory and Practice**
404836 Gepner, ar cr
- 5969 Independent Study**
103387 ar cr
- 8201 Clinical Family Medicine**
110879 Ciriacy, others, ar cr
- 8202 Families in Loss, Grief: Recovery Resources**
011054 2 cr (Methodist Hosp)
- 8207 Seminar: Common Diseases Seen in Family Practice**
301752 Seim, 1 cr
- 8208 Family Medicine Conferences**
808897 Seim, 1 cr
- 8209 Family Medicine X-Ray Conference**
208418 Ciriacy, 1 cr
- 8212 Clinical Psychiatry Rounds** (prereq 1st yr resident in family practice)
802453 Kelly, 1 cr
- 8217 Seminar in Counseling** (prereq 5567, 8212 or #)
911385 2 cr
- n8223 Introduction to Gerontology, Geriatric Medicine** (prereq 2nd yr FPCH resident or #)
406814 2 cr
- 8225 Medical Sociology**
004461 Kelly, 3 cr
- 8226 Seminar: Medical Sociology**
303906 2 cr
- 8228 Seminar: Interdisciplinary Health** (prereq #)
407235 Kelly, 2 cr
- 8243 Family Medicine in Rural Area**
504472 Hunt, ar cr

- 8245 Analysis of Instruction, Educational Evaluation**
407543 Houge, ar cr
- 8250 Quantitative Strategies in Health Care Practice and Research II** (prereq 8204)
907840 Weckwerth, 2 cr
- 8253 Research Problems**
103379 O'Leary, ar cr

FAMILY SOCIAL SCIENCE (FSOs)

Human Ecology

- n1001 Dynamics of Family Relationships** (§1002)
705054 -1 1040-1220 MW, Vinh 1, 4 cr (Mpls)
504987 -2 0935-1115 TTh, McNH 197, Allen, 4 cr
- n3600 Family Issues Across the Lifespan** (prereq Psy 1001, Soc 1001) (A-F only)
402763 0915-1130 TTh, McNH 198, Maddock, 5 cr
- 5200 Family Relationships** (prereq Psy 1001, Soc 1001)
876133 1250-1520 TTh, McNH 33, 5 cr
- n5202 Social Psychology of Close Relationships** (prereq Psy 1001, introductory sociology or #)
103740 1210-1350 WF, McNH 198, 4 cr
- n5205 Introduction to Family Research Methods** (prereq 3260, 5200)
877041 1010-1150 MW, McNH 198, 4 cr
- 5218 Family Financial Management** (prereq 3260 or equiv)
676134 1330-1500 MW, McNH 197, Gage, 4 cr
- 5230 Independent Study in Family Social Science** (max 16 cr)
910298 1-5 cr
- 5231 Planning for Fieldwork**
407655 1000-1130 T, HckrH 209, Goodman, 2 cr
- n5249 Fieldwork: Directed Community Work Experience** (max 15 cr; prereq 5231, human relationships maj or #)
809905 1000-1130 T, McNH 146, Zimmerman, 5 cr
- 5280 Dynamics of Family Decision Making** (prereq 3260 or #)
108291 0820-1000 MW, McNH 375, Rettig, 4 cr
- 8216 Marital and Family Assessment** (A-F only)
276136 0830-1150 T, McNH 375, Olson, 4 cr
- 8222 Internship in Teaching College Level Family Courses II** (prereq 12 cr in FSoS)
477043 Detzner, 3-6 cr
- 8223 Internship in Teaching College Level Family Courses III** (prereq 12 cr in FSoS)
277044 Detzner, 3-6 cr
- 8230 Directed Study** (prereq #)
809453 1-5 cr
- n8251 Problems: Family Social Science** (prereq #)
677042 1250-1500 T, McNH 375, Rosenblatt, 3 cr
- 8255 Conceptual Frameworks in the Family** (prereq 5200 or equiv, #) (A-F only)
206023 0830-1150 Th, McNH 375, Boss, 4 cr
- 8261 Process Seminar for Family I** (prereq #)
502074 1330-1510 M, McNH 375, Zimmerman, 2 cr
- 8551 Internship in Marital and Family Therapy I** (prereq 8214, 8215, family therapy interns only) (A-F only)
506433 1430-1600 T, BerryHse, 7 cr
- 8777 Thesis Credits: Masters**
611462 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
302206 1-36 cr

FINANCE (BFin) Management

Non-SMgt students should refer to section 1, Registration instructions for Carlson School of Management Courses, before attempting to register for BFin courses.

- n3000 Finance Fundamentals** (§MBA 8040; prereq Acct 1025) (A-F only)
802419 -1 0945-1115 TTh, AndH 370, Rosko, 4 cr
007893 -2 0945-1115 TTh, AndH 370, Rosko, 4 cr
- n3100 Financial Management** (prereq 3000) (A-F only)
202389 0800-0930 MW, HHCtr 25, Chang, 4 cr
- n3300 Investment Management and Financial Markets** (§8300; prereq 3000)
603698 1500-1630 TTh, BlegH 240, Dym, 4 cr
- n3601 Bank Financial Management** (prereq 3000 or #) (A-F only)
706706 1730-2000 Th, BlegH 330, Runkle, 4 cr
- n8100 Cases in Financial Management** (prereq MBA 8040 or #, grad mgmt student or grad SMgt approval) (A-F only)
105480 -1 1730-2100 T, BlegH 330, Rosko, 4 cr
- n8150 Theory of Finance** (prereq MBA 8040 or #, grad mgmt/IR student or grad SMgt approval) (A-F only)
101938 1000-1145 MW, BlegH 125, Dothan, 4 cr
- n8200 Financial Markets and Interest Rates** (prereq MBA 8040 or #, grad mgmt student or grad SMgt approval)
804445 1000-1145 TTh, BlegH 250, Stutzer, 4 cr
- n8400 International Financial Management** (prereq 8150 or #, grad mgmt student or grad SMgt approval) (A-F only)
178929 1500-1645 TTh, BlegH 230, Hess, 4 cr
- n8602 Financial Management of Financial Institutions** (§8702; prereq 8150, 8200 or #, grad mgmt stu or grad SMgt approval...Econ 3103 or 3105 rec) (A-F only)
276931 1500-1645 MW, BlegH 440, Boyd, 4 cr
- n8803 Advanced Theory of Capital Markets** (prereq 8802, Econ 8102 or equiv, or #, PhD stu.) (A-F only)
876150 1115-1230 MW, Mgmt/Econ 731, Chang, 4 cr
- n8900 Research Workshop** (max 12 cr; prereq PhD stu or grad SMgt approval) (A-F only)
811119 1530-1700 T, HHCtr 30, Sjtutzer, 1-4 cr

FINNISH (Fin) Scandinavian Studies Liberal Arts

- n1101 Beginning Finnish**
412127 1325-1415 MTWThF, Kolth S136, 5 cr
- n1104 Intermediate Finnish** (prereq 1103 or equiv)
004198 1115-1205 MTWThF, FolH 426, 5 cr
- 3670 Readings: Finnish Texts** (max 28 cr; prereq 1106 or equiv)
104493 0945-1100 TTh; FolH 142, Vahamaki, 4 cr

FISHERIES AND WILDLIFE (FW)

Natural Resources

- 1001 Orientation in Fisheries and Wildlife** (S-N only)
807394 0910-1000 T, HodsonH 495, Smith, 1 cr
- 3052 Introduction to Fisheries and Wildlife** (A-F only)
902315 -1 1040-1130 MWF, ClaOff B45, Cuthbert, others, 3 cr
676960 -2 1040-1130 MWF, GmH 110, Cuthbert, others, 3 cr
- n3187 Techniques of Forest Wildlife Management** (given at Cloquet; prereq □) (A-F only)
401953 Jordan, 2 cr
- n5129 Mammalogy** (§EBB 5129; prereq Biol 1106 or 3011 or #)
★LECT 0905-0955 MWF, Arch 40, Birney, 5 cr (Mpls)
111269 -1 REC 0800-1100 T, Zoology 101D, Birney, (Mpls)
708097 -2 REC 1010-1310 W, Zoology 101D, Birney, (Mpls)
- 5393 Special Problems in Fisheries Biology** (prereq #)
810844 ar cr

- 5398 Special Problems in Wildlife Biology** (prereq #)
310208 -1 ar cr
309026 -2 ar cr
- 5603 Ecology and Management of Fish and Wildlife Habitats** (prereq 5601 or #) (A-F only)
★LECT 1315-1430 TTh, HodsonH 490, Jordan, 4 cr
210444 -1 LAB 1430-1600 T, HodsonH 485
- 5620 Geographical Information Systems (GIS) for Fisheries, Wildlife and Biological Conservation** (prereq Biol 5041)
★LECT 1315-1415 T, HodsonH 485, Cohen, 4 cr
077121 -1 LAB 1315-1615 Th, GmH 201F
- 5701 Senior Project** (†5701-5702; prereq FW senior or graduate student or #) (A-F only)
603216 1500-1550 W, HodsonH 490, Cooper, 1 cr
- 8364 Research in Fisheries Biology** (prereq fisheries grad)
702316 ar cr
- 8377 Research in Wildlife Biology** (prereq wildlife grad)
603152 ar cr
- 8452 Conservation Biology: Genetic and Demographic Issues** (prereq intro genetics course or #) (A-F only)
476961 1130-1300 TTh, HodsonH 490, Smith, 3 cr
- 8777 Thesis Credits: Masters**
011314 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
309141 1-36 cr

FLUID MECHANICS (FMe)

- 8777 Thesis Credits: Masters**
210802 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
403931 1-36 cr

FOOD SCIENCE AND NUTRITION (FScN)

Agriculture & Human Ecology

- n1020 Introductory Microbiology** (prereq 3rd qtr fr or #)
★LECT 1355-1445 MWF, ABLMS 125, Harlander
201856 -1 LAB 1355-1550 T, FScN 218, 4 cr
- 1102 Technology of Food Processing** (prereq high school chemistry, biology)
776156 1040-1235 TTh, ABLMS 125, Labuza, 4 cr
- 1612 Principles of Nutrition** (prereq high school chemistry and biology)
712523 1605-1745 TTh, PWB 2470, Kurzer, 4 cr (Mpls)
- n3102 Introduction to Food Science** (prereq Chem 1002 or Chem 1005)
★LECT 0830-0920 MWF, McNH 33, Warthesen
101647 -1 LAB 0830-1025 TTh, McNH 126, 4 cr
010731 -2 LAB 1250-1445 TTh, McNH 126, 4 cr
- 3472 Food Selection Principles** (prereq 4 cr in food sci)
209987 1145-1235 MTWTh, McNH 197, Asp, 4 cr
- 3662 Introduction to the Clinical Practice of Dietetics** (prereq 12 cr in food science, nutrition, regis in coordinated prog in dietetics)
005562 1040-1235 F, ABLMS 222, Hanson, Olson, 2 cr
- n5100 General Seminar** (prereq sr or #) (A-F only)
111196 -1 1250-1340 W, McNH 144, Vickers, 1 cr
410118 -2 1030-1200 M, JOAd 3127, 1 cr (CUP students only) (Mpls)
- 5111 Independent Study in Food Science and Nutrition** (prereq Δ)
007277 1-5 cr
- 5135 Food Engineering Unit Operations** (prereq 1102 or #, Math 1142, Phys 1042, 1046)
★LECT 1040-1235 MW, FScN 15
109476 -1 REC 1500-1655 T, FScN 15, 5 cr

- r5312 Instrumental Analysis of Foods** (prereq 3112, 5110)
★LECT 0830-0920 TTh, FScN 15, Reineccius, Davis
376158 -1 LAB 0935-1235 F, ABLMS 135, 3 cr
- 5314 Physicochemistry of Foods** (prereq 5110)
608710 0935-1025 MTWTh, FScN 15, Gordon, 4 cr
- r5360 Sensory Evaluation of Food Quality** (prereq 3102, Stat 3012 or Stat 5021)
★LECT 1355-1550 M, 1355-1445 W, McNH 144, Vickers
303775 -1 LAB 1250-1550 F, McNH 126, 4 cr
- 5530 Industrial Processing of Fruits and Vegetables** (prereq 3136, 5110, 5120, 5135)
207964 1040-1235 T, 1250-1655 Th, FScN 15, Brene, 4 cr
- r5540 Fats and Oils Chemistry and Technology** (prereq 5110)
★LECT 1250-1445 M, 1250-1340 W, ABLMS 222, Csallany
703935 -1 LAB 1355-1655 W, FScN 109, 4 cr
- 5620 Nutrition and Metabolism** (prereq 3612, Biol 5001, or #)
306725 0830-1025 MW, 0830-0920 F, ABLMS 125, Brady, 5 cr
- 5622 Macro-Nutrient Metabolism** (prereq 3612, Biol 5001, Phsl 3051)
109795 1630-1810 MW, ABLMS 125, Brady, 4 cr
- 5643 World Food Problems** (\$AgEc 5790, Agro 5200, Soc 5675, LACS 5280; prereq sr or grad student)
605810 1800-2100 W, ClaOff B35, Savaiano, Busta, others, 3 cr
- r5664 Field Experience in Clinical Nutrition** (prereq course in human nutrition, #)
★LECT 1040-1130 M, ABLMS 222, Hanson, Olson, (CUP students only)
310886 -1 LAB 1300-1700 WF, Hanson, Olson, 3 cr (off-campus) (CUP students only)
★LECT 1430-1545 Th, ABLMS 222, Hanson, Olson
609498 -2 LAB 0800-1650 T, Hanson, Olson, 3 cr (off-campus)
- 5665 Applied Clinical Nutrition I** (prereq Biol 5001, Phsl 3051 or 1002, LaMP 5177 or #)
803960 1600-1830 Th, ABLMS 125, Hanson, 3 cr
- 8101 Research Seminar** (prereq #) (S-N only)
810021 1 cr
- 8205 General Seminar** (prereq #) (S-N only)
704938 1605-1655 M, FScN 15, 1 cr
- 8311 Flavor Chemistry** (prereq 5312 or #)
176159 1815-2115 M, FScN 23, Reineccius, 3 cr
- 8323 Microbial Starter Cultures** (prereq 5123; BioC 5001 or #)
578160 0830-0920 MWF, ClaOff B36, McKay, 3 cr
- 8401 Independent Study: Food Science** (prereq Δ)
211416 1-5 cr
- 8621 Independent Study: Nutrition** (prereq #).
504407 1-9 cr
- 8777 Thesis Credits: Masters**
510210 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
301783 1-36 cr

FOREIGN STUDIES MANAGEMENT (FSMg)

Management

- 3480 Institute of European Studies Program in Vienna, Austria** (prereq □)
701831 1-54 cr
- 3490 Institute of European Studies Program at the University of Singapore** (prereq □)
105472 1-45 cr
- 3620 Council on International Educational Exchange Japanese Business and Society Program** (prereq □)
312640 1-24 cr
- 3680 Council on International Educational Exchange Business and Society Program in Seville, Spain** (prereq □)
110601 1-26 cr

- 3820 Denmark's International Business Studies Program in Copenhagen** (prereq □)
611428 1-36 cr

FOREIGN STUDY (FoSt) Liberal Arts

- 0010 Study Abroad** (prereq Δ) (S-N only)
903903 0 cr
- 0060 Study Abroad** (prereq Δ) (S-N only)
610991 0 cr
- 0090 Study Abroad** (prereq Δ) (S-N only)
610473 0 cr
- 0120 Study Abroad** (prereq Δ) (S-N only)
806194 0 cr
- 0150 Study Abroad** (prereq Δ) (S-N only)
103969 0 cr
- 3110 HECUA Scandinavian Urban Studies Term** (prereq Δ)
303596 1-24 cr
- 3120 HECUA South American Urban Semester** (prereq Δ)
109330 1-24 cr
- 3210 Kansas Program in Costa Rica** (prereq Δ)
504133 1-54 cr
- 3230 Kansas Program in Great Britain** (prereq Δ)
806096 1-54 cr
- 3400 IAS Program at Nanzan University, Japan** (prereq Δ)
102202 1-45 cr
- 3410 IES Program in Durham, England** (prereq Δ)
110056 1-45 cr
- 3420 IES Program in London** (prereq Δ)
106287 1-54 cr
- 3430 IES Program in Nantes, France** (prereq Δ)
602146 1-54 cr
- 3440 IES Program in Paris** (prereq Δ)
703269 1-54 cr
- 3450 IES Program in Madrid** (prereq Δ)
508330 1-54 cr
- 3460 IES Program in Vienna** (prereq Δ)
012169 1-54 cr
- 3470 IES Program in Freiburg, Germany** (prereq Δ)
109165 1-54 cr
- 3480 IES European Community Program in Germany** (prereq Δ)
510997 1-27 cr
- 3490 IAS Program at the University of Singapore** (prereq Δ)
104457 1-45 cr
- 3500 IES Program in Milan, Italy** (prereq Δ)
503239 1-54 cr
- 3510 IES London University and Fine Arts Program** (prereq Δ)
402553 1-54 cr
- 3520 IAS: Southeast Asia Program** (prereq Δ)
011765 1-24 cr
- r3540 IAS Program in Taipei, Taiwan** (prereq Δ)
911628 1-54 cr
- 3560 IES Program in Australia** (prereq Δ)
176932 1-54 cr
- 3570 IES Program in Salamanca, Spain** (prereq Δ)
976933 1-54 cr
- 3600 CIEE: Summer/Semester Program in the Soviet Union** (prereq Δ)
407784 1-27 cr
- 3610 CIEE Academic Year Program in Leningrad** (prereq Δ)
705782 1-54 cr
- 3620 CIEE Business and Society Program in Tokyo, Japan** (prereq Δ)
702901 1-36 cr
- 3630 CIEE Language and Culture Program in Rennes, Brittany, France** (prereq Δ)
801710 1-54 cr
- 3640 CIEE Critical Studies Program in Paris** (prereq Δ)
610795 1-54 cr

- 3650 CIEE Paris Internship and Study Program** (prereq Δ)
506593 1-24 cr
- 3660 CIEE Language Area Studies Program in Alicante, Spain** (prereq Δ)
908776 1-27 cr
- 3670 CIEE Language, Society and Liberal Arts Programs in Seville, Spain** (prereq Δ)
406795 1-54 cr
- 3680 CIEE Business and Society Program in Seville, Spain** (prereq Δ)
904775 1-27 cr
- 3700 CIEE Area Studies Program in Prague, Czechoslovakia** (prereq Δ)
776934 1-27 cr
- 3710 CIEE Area Studies Program in Budapest, Hungary** (prereq Δ)
576935 1-27 cr
- 3720 CIEE Area Studies Program in Warsaw, Poland** (prereq Δ)
376936 1-27 cr
- 3730 CIEE Tropical Biology Program in Costa Rica** (prereq Δ)
176937 1-10 cr
- 3740 CIEE Program at Murdoch University, Perth, Australia** (prereq Δ)
076938 1-54 cr
- 3810 Bologna Cooperative Studies Program, Italy** (prereq Δ)
502155 1-54 cr
- 3820 Denmark's International Study Program** (prereq Δ)
311309 1-54 cr
- 3830 Study at the University of Oslo, Norway** (prereq Δ)
312217 1-54 cr

FOREST PRODUCTS (ForP) Natural Resources

- 1001 Forest Products Orientation** (A-F only)
110145 1500-1600 T, NatResAd 100, Bell, 1 cr
- r1301 Wood as a Raw Material**
★LECT 1250-1340 MWF, KaufL 302, Bowyer
910091 -1 LAB 1250-1445 T, KaufL 65, Bowyer, 4 cr
609954 -2 LAB 1355-1550 Th, KaufL 65, Bowyer, 4 cr
- 3301 Industrial Internship** (prereq forest products student, registration in cooperative education program) (A-F only)
307003 Bowyer, Rouda, 2 cr
- 3325 Directed Study Experience** (prereq #)
001849 1-5 cr
- 3361 Introduction to Adhesives** (prereq BioC 1301, Phys 1042)
276914 0920-1030 TTh, KaufL 125, Sarkanen, 3 cr
- 5300 Wood-Fluid Relationships** (prereq 1301)
308247 1355-1445 MWF, KaufL 125, Erickson, 3 cr
- 5301 Mechanical Properties** (prereq 1301 or #)
212579 1500-1615 MW, KaufL 125, Nyandwi, 3 cr
- 5304 Wood Drying and Preservation Processes** (prereq 5300, 5303)
★LECT 0830-0945 MW, KaufL 125, Erickson
710805 -1 LAB 0830-1025 F, KaufL 30, 4 cr
- 5311 Pulp and Paper Process Engineering Calculations I** (recommended prereq ME 3301, CE 3400, ChEn 5001, CSci 3101 or AgET 3030)
★LECT 1040-1130 MWF, KaufL 125, Rouda
203090 -1 REC 1145-1235 M, KaufL 125, Rouda, 4 cr
- 5318 Pulp and Paper Process Dynamics and Control** (prereq 5305, 5310, 5311-5312, 5315, CE 3400, ME 3301, ME 5342 or #)
977211 1355-1445 MWF, KaufL 302, Wells, 3 cr
- 5359 Surface and Colloid Chemistry of Papermaking** (prereq 5361, Chem 3302, Chem 5520 or #)
176915 1315-1430 TTh, KaufL 302, Muvundamina, 3 cr

- 5401 Senior Topics** (prereq sr, #)
102451 ar cr
- 8300 Research Problems**
310385 ar cr
- 8301 Research Problems**
309558 ar cr
- 8302 Research Problems**
304876 ar cr

FOREST RESOURCES (FR) Natural Resources

- 1001 Forest Resources Orientation** (A-F only)
301749 1500-1600 W, GrnH 110, Splitt, Ek, 1 cr
- r1100 Dendrology** (prereq Biol 1103)
★LECT 1145-1235 MWF, GrnH 110; Mohn
405825 -1 LAB 1355-1655 M, GrnH 19, 4 cr
705202 -2 LAB 0935-1235 T, GrnH 19, 4 cr
- 1200 Introduction to Forest Resources**
003083 1355-1445 T, 1355-1535 Th, NatResAd
100, Vogt, 3 cr
- r1202 Farm and Small Woodlands Forestry**
(non-majors 3 cr, majors 2 cr, or 3 cr with paper;
prereq for maj 1100 or 1)
★LECT 1145-1235 TTh, GrnH 203,
Scholten
506920 -1 LAB 1355-1550 T, GrnH 19, 2-3 cr
- 3103 Meteorology and Climatology for Natural
Resource Managers** (prereq Phys 1001, 1005
or #)
903965 0830-0920 TTh, GrnH 110, Perry, 2 cr
- 3104 Forest Ecology** (prereq Itasca session or #)
306529 0935-1025 MWF, GrnH 110, Sucoff, 3 cr
- 3225 Directed Study Experience** (prereq #)
308572 -1 1-5 cr
602941 -2 1-5 cr
- r3300 Elements of Surveying** (given at Cloquet,
prereq Math 1008 or high school trigonometry,
Δ, □)
503855 Johnson G., 2. cr (Sept 3-7)
- r5101 Field Silviculture** (prereq 5100, Δ, given at
Cloquet)
907451 Alm, 4 cr
- 5104 Forest Ecology** (prereq one course in biology
or #)
★LECT 0935-1025 MWF, GrnH 110, Sucoff
103947 -1 REC 3 cr (field trips ar)
- r5115 Forest Hydrology, Field Applications** (prereq
5114, Δ, given at Cloquet)
110011 Brooks, 2 cr
- r5126 Silviculture: Soil-Site Relationships** (prereq
1122, 5100, Δ, given at Cloquet)
103843 Grigal, 2 cr
- r5220 Remote Sensing, Forest Resources
Inventory** (prereq 5200, 5212, Δ, given at
Cloquet)
105303 Ek, Bauer, 4 cr
- 5233 Principles of Outdoor Recreation Planning**
(prereq 5232 or #, Stat 3011, Stat 5021 or Soc
3801)
106323 0800-0930 TTh, GrnH 203, Anderson D.,
3 cr
- r5236 Forest Recreation Planning** (prereq 5232, Δ,
given at Cloquet)
501846 Anderson, 1 cr
- r5248 Harvesting and Engineering** (prereq CE 3100
or FR 3300, Δ, given at Cloquet)
208273 3 cr
- 5401 Senior Topics** (prereq forestry sr or #)
911452 ar cr
- 5703 Colloquium in Forest Biology: Forestry for
Sustainable Development** (prereq #)
106668 Brooks, Gregersen, others, 1 cr
- 8100 Research Problems: Silviculture**
004492 Alm, Scholten, ar cr
- 8101 Research Problems: Forest-Tree Physiology**
312105 Sucoff, ar cr
- 8102 Problems: Forest-Tree Genetics**
112106 Mohn, Furnier, ar cr
- 8103 Research Problems: Forest Hydrology**
207995 Brooks, Perry, ar cr

- 8107 Seminar: Forest Resources**
303288 1500-1550 MW, GrnH 203, Ek, Furnier,
1 cr
- 8200 Research Problems: Forest Management**
206961 Hoganson, Rose, others, ar cr
- 8201 Research Problems: Forest Economics**
502080 Ellefson, Gregersen, others, ar cr
- 8202 Research Problems: Forest Biometry**
104152 Ek, Burk, ar cr
- 8203 Research Problems: Forest Recreation**
403766 Anderson, Lime, ar cr
- 8204 Research Problems: Forest Policy**
711873 Ellefson, Baughman, others, ar cr
- 8205 Research Problems: Remote Sensing**
205325 Bauer, Martin, Queen, ar cr

FORESTRY (Fors)

- 8777 Thesis Credits: Masters**
811024 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
605869 1-36 cr

FRENCH (Fren) French And Italian Liberal Arts

- r1101 Beginning French** (Degree credit granted only
according to Entrance Standard)
412452 -1 0800-0850 MTWThF, Kolth S137, 5 cr
211884 -2 0800-0850 MTWThF, VinH 213, 5 cr
408868 -3 0800-0850 MTWThF, Aph 226, 5 cr
276198 -4 1010-1100 MTWThF, Kolth S134, 5 cr
103602 -5 1115-1205 MTWThF, AmundH 124,
5 cr
703773 -6 1115-1205 MWF, NichH 209A,
1115-1205 TTh, FolH 116, 5 cr
709993 -7 1115-1205 MTWThF, FordH 60, 5 cr
207303 -8 1220-1310 MTWThF, Arch 45, 5 cr
010163 -9 1220-1310 MTWThF, Arch 60, 5 cr
106516 -10 1325-1415 MTWThF, VinH 1, 5 cr
- r1102 Beginning French** (Degree credit granted only
according to Entrance Standard; prereq 1101 or
equiv)
102507 -1 0600-0850 MTWThF, BuH 125, 5 cr
210282 -2 0800-0850 MTWThF, JonesH 10, 5 cr
207818 -3 1115-1205 MTWThF, VinH 206, 5 cr
410569 -4 1220-1310 MTWThF, MRRC 211, 5 cr
- r1103 Beginning French** (prereq 1102 or Entrance
Standard proficiency test)
907952 -1 0800-0850 MTWThF, JonesH 11, 5 cr
508974 -2 0800-0850 MTWThF, ChDev 218, 5 cr
176199 -3 0800-0850 MTWThF, FolH 208, 5 cr
105964 -4 1115-1205 MTWThF, FordH 170, 5 cr
411849 -5 1220-1310 MTWThF, FordH 170, 5 cr
- r1104 Intermediate French** (prereq 1103 or three yrs
high school Fren)
408207 -1 0815-0930 MWF, MurH 311, 5 cr
902072 -2 0815-0930 MWF, CivMinE 213, 5 cr
302089 -3 0815-0930 MWF, NichH 122, 5 cr
106094 -4 0815-0930 MWF, FordH 130, 5 cr
710920 -5 0945-1100 MWF, EE/CSol 2260, 5 cr
105351 -6 1115-1230 MWF, AmundH 162, 5 cr
511034 -7 1115-1230 MWF, MechE 202, 5 cr
211917 -8 1115-1230 MWF, CivMinE 213, 5 cr
501930 -9 1220-1335 MWF, FolH 306, 5 cr
904873 -10 1245-1400 MWF, LindH 305, 5 cr
- r1105 Intermediate French** (prereq 1104)
003391 -1 0815-0930 MWF, AmundH 104, 5 cr
504195 -2 0815-0930 MWF, AmundH 124, 5 cr
209892 -3 0945-1100 MWF, AmundH 104, 5 cr
308796 -4 1145-1300 MWF, JonesH 10, 5 cr
612563 -5 1245-1400 MWF, VinH 209, 5 cr
- r1106 Intermediate French** (prereq 1105)
908826 -1 0815-0930 MWF, FolH 116, 5 cr
609095 -2 0945-1100 MWF, FolH 116, 5 cr
009160 -3 1140-1255 MWF, FolH 134, 5 cr
101843 -4 1245-1400 MWF, FordH 70, 5 cr
- r3015 French Composition and Conversation**
(prereq 1106)
009270 -1 0905-1100 MW, FordH 60, Waldauer,
4 cr
510918 -2 1010-1205 MW, FolH 142, 4 cr
112137 -3 1010-1205 TTh, FolH 246, Noakes,
4 cr

- r3016 Advanced French Composition and
Conversation** (prereq 3015 or #)
612532 -1 1010-1125 MW, FolH 134, Sivert, 4 cr
804817 -2 1315-1430 TTh, PeikH 234, Preckshot,
4 cr
- r3017 Stylistics Through Translation** (prereq 3016
or superior achievement in 3015 or #)
104135 1115-1230 TTh, PeikH 155, Brewer, 4 cr
- r3101 Introduction to French Literary Texts: Poetry**
(prereq 3015 or equiv)
106967 -1 1115-1230 MW, FolH 50, Robinson,,
4 cr
103690 -2 1315-1430 TTh, PeikH 155, Akehurst,
4 cr
- r3103 French Literary Texts: Novel** (prereq 3101 or
equiv)
105902 1345-1500 MW, JonesH 4, Sivert, 4 cr
- r3259 Topics in 18th-Century French Literature**
(prereq 3101, 3103)
876200 1220-1335 MW, JonesH 11, Waldauer,
4 cr
- r3299 Themes in French Literature** (prereq 3102,
3103)
104662 0945-1100 TTh, FolH 104, Preckshot, 4 cr
- r3511 French Civilization and Culture** (prereq 3015)
611512 1010-1125 MW, FolH 246, 4 cr
- 3800 CIEE Language/Culture Program in Brittany**
(prereq 1105)
502186 1-54 cr
- 3970 Directed Readings** (prereq undergrad student,
#, Δ, □)
707855 -1 1-5 cr
306109 -2 1-5 cr
- 3980 Directed Instruction** (prereq 3015, #, Δ, □)
902444 3-5 cr
- r5017 Composition et Stylistique** (prereq 3017 or #)
111594 1500-1615 MW, FolH 50, Paganini, 4 cr
- r5701 Structure of Modern French: Phonology,
Morphology, Syntax** (prereq 3014, 3015 or #)
676201 1500-1815 TTh, FolH 116, Barnes, 4 cr
- 5800 CIEE Contemporary Film Program in Paris**
(prereq 1105 or #)
211920 1-45 cr
- 5900 Topics in French Literature** (max 15 cr; prereq
3209 or above)
676196 -1 1430-1545 MW, FolH 138, Robinson,
4 cr
476197 -2 1325-1520 T, WaLib 301, Noakes, 4 cr
- r5999 Foreign Language Teaching: Theory and
Practice** (prereq grad or #)
409891 1430-1545 TTh, FolH 134, Wieland, 4 cr
- 8050 Seminar in Fiction** (max 15 cr)
876195 1640-1835 M, FolH 334, Zipes, 4 cr
- 8777 Thesis Credits: Masters**
009000 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
807510 1-36 cr
- 8970 Directed Readings**
802484 1-5 cr
- 8980 Directed Teaching** (prereq #, Δ)
608142 1-5 cr

GENERAL COLLEGE (GC)

General College restricts some sections to certain groups of students. Sections and courses marked BC (Base Curriculum) are reserved for GC students who are in their first two quarters of enrollment or have fewer than 24 credits (or credit-equivalents in courses such as developmental math). Credit equivalents for noncredit courses in GC are as follows: 0401, 0402, 0641, 0643—4-credit equivalent; 0611, 0615, 0616, 0617, 0618, 0621, 0623, 0625, 0631—5-credit equivalent. For further information, check at 25 Appleby Hall.

- r0401 Reading Comprehension** (§1401; prereq
Commanding English enrollment) (course fee)
107108 -1 0800-0955 TTh, NichH 209, 0 cr
(Commanding English students only)
703904 -2 1010-1205 TTh, NichH 209, 0 cr
(Commanding English students only)
903450 -3 0800-0955 TTh, Aph 223, 0 cr
(Commanding English students only)
206734 -4 1010-1205 TTh, Aph 223, 0 cr
(Commanding English students only)

- r0611 Mathematics Skills Review** (§0641, 0643, 1434; prereq GC math level B) (course fee) 304540 1220-1415 MTWTh, FolH 148, 0 cr
- r0615 Arithmetic Problem Solving** (§0611; prereq GC math level B) (course fee) (BC) 706429 -1 0800-0955 MTWTh, NichH 201, 0800-0955 F, ApH 319, 0 cr
301718 -2 1010-1205 MTWTh, NichH 201, 1010-1205 F, ApH 319, Koch, 0 cr -
675923 -3 1220-1415 MTWTh, NichH 201, 1220-1415 F, ApH 319, 0 cr
609288 -4 1430-1625 MTWTh, NichH 201, 1430-1625 F, ApH 319, 0 cr
- r0616 Algebraic Problem Solving I** (§0621; prereq GC math level C or 0615, 0643) (course fee) (BC) 212422 1010-1205 TThF, ApH 303, Garfield, 0 cr
- r0617 Algebraic Problem Solving II** (§0625; prereq GC math level D or 0616) (course fee) 703076 1010-1205 MW, NichH 207, 1010-1205 F, NichH 201, Beveridge, 0 cr
- r0618 Intermediate Algebraic Problem Solving** (§0631; prereq 0617) (course fee) 501992 1010-1205 TThF, NichH 207, Robertson, 0 cr
- r0621 Elementary Algebra** (§1435; prereq GC math level C or 0611 or 1434) (course fee) 377049 -1 0800-0955 MW, 0800-0850 F, FolH 148, 0 cr
777050 -2 1010-1205 MW, 1010-1100 F, FolH 148, 0 cr
577051 -3 1115-1205 MTWThF, NichH 213, 0 cr
377052 -4 1430-1625 MW, 1430-1520 F, FolH 148, 0 cr
177053 -5 0800-0955 TTh, 0905-0955 F, FolH 148, 0 cr
077054 -6 1010-1205 TTh, 1115-1205 F, FolH 148, 0 cr
877055 -7 1325-1520 TThF, NichH 213, Robertson, 0 cr
677056 -8 1430-1625 TTh, 1535-1625 F, FolH 148, 0 cr
- r0625 Intermediate Algebra, Part 1** (§1445; prereq GC math level D or 0621 with grade of C or better or 0617) (course fee)
★LECT 0905-0955 MWF, WullH 230, 0 cr
975927 -1 REC 0800-0850 TTh, ApH 117, 0 cr (microcomputer instruction)
★LECT 0905-0955 MWF, WullH 230, 0 cr
904596 -2 REC 0905-0955 TTh, ApH 117, 0 cr (microcomputer instruction)
★LECT 0905-0955 MWF, WullH 230, 0 cr
808611 -3 REC 1010-1100 TTh, ApH 117, 0 cr (microcomputer instruction)
111392 -4 LECT 1010-1100 MTWThF, NichH 213, 0 cr
507226 -5 LECT 1115-1205 MTWThF, NichH 216, 0 cr
206085 -6 LECT 1220-1415 MTWThF, NichH 207, 0 cr
★LECT 1220-1310 MWF, WullH 230, 0 cr
002547 -7 REC 1115-1205 TTh, ApH 117, 0 cr (microcomputer instruction)
★LECT 1220-1310 MWF, WullH 230, 0 cr
211643 -8 REC 1220-1310 TTh, ApH 117, 0 cr (microcomputer instruction)
★LECT 1220-1310 MWF, WullH 230, 0 cr
475857 -9 REC 1325-1415 TTh, ApH 117, 0 cr (microcomputer instruction)
511812 -10 LECT 1430-1520 MTWThF, NichH 207, 0 cr
004542 -11 LECT 1535-1625 MTWThF, NichH 207, 0 cr
- r0631 Intermediate Algebra, Part II** (§1446; prereq GC math level E or 0625 or 1445) (course fee) 412256 -1 0800-0850 MTWThF, NichH 216, 0 cr
004377 -2 0905-0955 MTWThF, NichH 216, 0 cr
504083 -3 0905-0955 MTWThF, NichH 213, 0 cr
110212 -4 1010-1100 MTWThF, NichH 216, 0 cr
208788 -5 1220-1310 MTWThF, NichH 213, 0 cr
412483 -6 1220-1415 MTWThF, NichH 216, 0 cr
807285 -7 1430-1520 MTWThF, NichH 216, 0 cr
775928 -8 1535-1625 MTWThF, NichH 216, 0 cr
910804 -9 1300-1505 TTh, Giese, 0 cr (MacPhail Ctr)
- r0641 Basic Mathematics I** (§1431; prereq □) (course fee) 306594 -1 1220-1310 MTWThF, ApH 303, 0 cr
802520 -2 1535-1625 MTWThF, ApH 303, Koch, 0 cr
509574 -3 0800-0955 TTh, 0905-0955 F, ApH 303, 0 cr
- r0643 Basic Mathematics: Programmed Study** (prereq GC math level B or C or 0611 or 0641, □) (course fee) 104541 -1 1220-1310 MTWThF, ApH 303, 0 cr
011619 -2 1535-1625 MTWThF, ApH 303, Koch, 0 cr
807586 -3 0800-0955 TTh, 0905-0955 F, ApH 303, 0 cr
- r1043 Learning Strategies: Reading and Study Improvement** (prereq approval of adviser or #, concurrent reg in an approved GC subject-matter course) (S-N only) 408787 Healy, 2 cr (ApH 3)
- r1045 Developing College Writing** (§1411) 012530 Healy, 3 cr (prereq 1421; instructor permission required) (ApH 3)
- r1051 Introduction to College Reading and Writing** 205907 -1 1220-1415 MWF, AkerH 215, 5 cr (Commanding English students only)
510739 -2 1220-1415 MWF, CivMinE 214, 5 cr (Commanding English students only)
106735 -3 1010-1205 MWF, NichH 209, 5 cr (Commanding English students only)
575929 -4 0800-0955 TTh, 0905-0955 F, NichH 209A, 5 cr
- r1086 Higher Education Survival Seminar** (max 6 cr, §1702) (S-N only) 775945 -1 0905-1100 M, PeikH 315, 2 cr
106113 -2 1115-1310 M, JonesH 2, 2 cr (TRIO students only)
575946 -3 1325-1415 MW, BuH 120, 2 cr
308961 -4 1010-1205 T, NichH 122, 2 cr
375947 -5 1220-1415 T, Phys 157, 2 cr (Commanding English students only)
905389 -6 1220-1415 T, NichH 209A, 2 cr (Commanding English students only)
311987 -7 1325-1520 T, NichH 209, 2 cr (TRIO students only)
175948 -8 1325-1520 T, Phys 143, 2 cr
- r1111 Science in Context: Weather and Climate** (BC) 010664 0905-0955 MTWThF, SciCB 125, Johnson A., 5 cr (Lab time assigned first 2 days of class)
- r1112 Ecological Evaluation of Environmental Problems** (BC) 010079 1430-1625 MWF, SciCB 125, Hatch, 5 cr
- r1131 Biological Science: Principles** ★LECT 1115-1205 MTWThF, SciCB 125, Hatch, 5 cr
705989 -1 LAB 0800-0955 MW, ApH 309
004153 -2 LAB 0905-1100 MW, ApH 309
103695 -3 LAB 1220-1415 MW, ApH 309
211934 -4 LAB 1325-1520 MW, ApH 309
610280 -5 LAB 1430-1625 MW, ApH 309
306417 -6 LAB 1535-1730 MW, ApH 309
704793 -7 LAB 0800-0955 TTh, ApH 309
110131 -8 LAB 0905-1100 TTh, ApH 309
102188 -9 LAB 1220-1415 TTh, ApH 309
906963 -10 LAB 1325-1520 TTh, ApH 309
703191 -11 LAB 1430-1625 TTh, ApH 309
805434 -12 LAB 1535-1730 TTh, ApH 309
- r1132 Biological Science: The Human Body** 604933 -1 0800-0850 MTWThF, SciCB 125, Dearden, 5 cr (BC)
611607 -2 1220-1310 MTWThF, SciCB 125, Dearden, 5 cr
- r1137 Biological Science Laboratory: The Human Body** (prereq 1132) 006226 -1 LAB 0800-0955 MW, ApH 311, 2 cr
603510 -2 LAB 1010-1205 MW, ApH 311, 2 cr
775931 -3 LAB 1220-1415 MW, ApH 311, 2 cr
- r1180 Investigations in Physical Science** (prereq 1 yr high school algebra or 0616 or 0621 or equiv) 075949 1220-1310 MWF, 1115-1310 TTh, ApH 322, Uthe, 5 cr
- r1161 Physical Science: Solar System Astronomy** 575932 -1 1220-1310 MTWThF, Phys 133, Polioff, 5 cr
477057 -2 1430-1520 MTWThF, Phys 131, 5 cr
- r1166 Physical Science: Principles of Chemistry** 307244 1010-1100 MTWThF, SciCB 125, Schwabacher, 5 cr
- r1167 Astronomy Lab** (prereq astronomy course or astronomy course, or equiv) 104510 1900-2300 Th, Phys 133, Polioff, 4 cr
- r1171 Physical Geology** (BC) 104376 1325-1415 MTWThF, SciCB 125, Uthe, 5 cr
- r1211 People and Problems** 903738 -1 0800-0955 MW, ApH 103, Thoen, 5 cr (addtl hr ar)
106007 -2 1115-1310 MW, ApH 103, Thoen, 5 cr (addtl hr ar)
375933 -3 0800-0955 TTh, 0800-0850 F, ApH 103, Johnson F., 5 cr
209956 -4 1115-1310 TTh, 1115-1205 F, ApH 103, Johnson F., 5 cr
- r1231 United States: Growth of National Power** (BC) ★LECT 1325-1520 MW, NichH 213, Buckley
106662 -1 REC 1220-1310 F, ApH 103, Buckley, 5 cr
004640 -2 REC 1325-1415 F, NichH 109, Buckley, 5 cr
002628 -3 REC 1430-1520 F, NichH 109, Buckley, 5 cr
- r1232 United States: Growth of American Technology** 175934 0905-1100 MW, 0905-0955 F, AmundH 240, Buckley, 5 cr
- r1233 United States: Government and Politics** 075935 -1 0800-0850 MTWThF, NichH 109, 5 cr
875936 -2 0905-1100 MW, 0905-0955 F, NichH 109, 5 cr
675937 -3 1325-1520 MW, 1325-1415 F, ApH 103, 5 cr
- r1235 United States: Law in Society** 809080 -1 0800-0955 MW, 0800-0850 F, NichH 207, Stanford, 5 cr (BC)
604804 -2 0800-0955 TTh, 0800-0850 F, WullH 230, Hower, 5 cr
005206 -3 1220-1415 TTh, 1325-1415 F, WullH 230, Hower, 5 cr (BC)
- r1281 Psychology in Modern Society** 307643 -1 0755-0900 MWThF, ApH 122, 128, Brothen, 5 cr
108508 -2 1000-1105 MWThF, ApH 122, 128, Brothen, 5 cr
407364 -3 1210-1315 MWThF, ApH 122, 128, Brothen, 5 cr
303789 -4 1340-1445 MWThF, ApH 122, 128, Brothen, 5 cr
- r1283 Psychology of Human Development** 002015 1010-1100 MTWTh, ApH 103, Latts, 5 cr (addtl hr ar)
- r1291 The World Today: Geography at Home and Abroad** (BC) 711680 0800-0850 MTWThF, NichH 213, Toure, 5 cr
- r1294 Economics in Contemporary Society** (§1295, 1296) (BC) 010261 -1 0905-0955 MTWThF, SmithH 231, 5 cr
904260 -2 1115-1205 MTWThF, SmithH 231, 5 cr
- r1311 Art: General Arte** (§3311) (BC) 108833 -1 1220-1310 MTWTh, ApH 302, Gates, 4 cr
103866 -2 1325-1415 MTWTh, ApH 302, Gates, 4 cr
106953 -3 0800-0955 MW, ApH 302, 4 cr
108184 -4 0800-0955 TTh, ApH 302, Byrne, 4 cr
703501 -5 1010-1205 TTh, ApH 302, Byrne, 4 cr
- r1331 Musical Heritage** 006663 1430-1625 TTh, ApH 302, Byrne, 4 cr
- r1371 Literature: Reading Short Stories** (BC) 607119 -1 1220-1415 MW, ApH 226, Adamson, 4 cr
308104 -2 1010-1205 TTh, Arch 45, Gidmark, 4 cr
703126 -3 1220-1415 TTh, ApH 226, Adamson, 4 cr
475938 -4 1430-1625 TTh, FolH 419, Gidmark, 4 cr
- r1374 The Movies: An Introductory Course** (BC) 912147 -1 1010-1205 MW, 1010-1100 F, ApH 302, Yahnke, 4 cr
306806 -2 1430-1625 MW, 1430-1520 F, ApH 302, Yahnke, 4 cr
- r1421 Writing Laboratory: Basic Writing** (§1412 prior to Fall 1981) (BC) 102093 -1 0800-0955 MWF, NichH 209, 4 cr
709170 -2 0800-0955 MWF, ApH 227, 4 cr (microcomputer instruction, uses IBM PC)
208211 -3 0800-0955 MWF, ApH 204, 4 cr (microcomputer instruction, uses IBM PC)
708908 -4 0905-1100 MWF, ApH 219, 4 cr (microcomputer instruction, uses Macintosh PC) (TRIO students only)

- 803909 -5 1010-1205 MWF, ApH 204, 4 cr
(microcomputer instruction, uses IBM PC)
- 111286 -6 1010-1205 MWF, ApH 227, 4 cr
(microcomputer instruction, uses IBM PC)
- 409969 -7 1115-1310 MWF, ApH 219, 4 cr
(microcomputer instruction, uses
Macintosh PC)
- 410832 -8 1220-1415 MWF, AmundH 116, 4 cr
711162 -9 1220-1415 MWF, NichH 209, 4 cr
906266 -10 1220-1415 MWF, NichH 209A, 4 cr
106217 -11 1220-1415 MWF, NichH 122, 4 cr
201727 -12 1220-1415 MWF, ApH 227, 4 cr
(microcomputer instruction, uses IBM PC)
- 212615 -13 1220-1415 MWF, ApH 204, 4 cr
(microcomputer instruction, uses IBM PC)
- 205406 -14 1220-1415 MWF, ApH 223, 4 cr
202148 -15 1220-1415 MWF, FordH 160, 4 cr
504102 -16 1325-1520 MWF, ApH 219, 4 cr
(microcomputer instruction, uses
Macintosh PC).
- 608156 -17 1430-1625 MWF, NichH 209, 4 cr
902220 -18 1430-1625 MWF, NichH 209A, 4 cr
711260 -19 1430-1625 MWF, ApH 227, 4 cr
(microcomputer instruction, uses IBM PC)
- 411866 -20 1430-1625 MWF, ApH 204, 4 cr
(microcomputer instruction, uses IBM PC)
- 111053 -21 1430-1625 MWF, ApH 223, 4 cr
808804 -22 1430-1625 MWF, ApH 226, 4 cr
275939 -23 0800-0955 TTh, ApH 204, 0800-0905
F, ApH 223, 4 cr (microcomputer
instruction, uses IBM PC)
- 675940 -24 1010-1205 TTh, ApH 204, 1010-1205
F, ApH 223, 4 cr (microcomputer
instruction, uses IBM PC)

r1422 Writing Laboratory: Communicating in Society (§1421)

- 405422 -1 0800-0955 MW, ApH 223, 4 cr
607315 -2 1010-1205 MW, ApH 223, 4 cr
408904 -3 1010-1205 TTh, ApH 227, 4 cr
(microcomputer instruction, uses IBM PC)
- 106380 -4 1010-1205 TTh, ApH 219, 4 cr
(microcomputer instruction, uses
Macintosh PC)
- 103303 -5 1220-1415 TTh, ApH 219, 4 cr
(microcomputer instruction, uses
Macintosh PC)
- 705359 -6 1220-1415 TTh, ApH 204, 4 cr
(microcomputer instruction, uses IBM PC)
- 309902 -7 1220-1415 TTh, ApH 223, 4 cr

r1454 Statistics (prereq GC math level D or
elementary algebra)

- 012107 -1 0800-0955 MW, 0800-0850 F, ApH
303, 5 cr
- 905280 -2 1325-1520 TTh, 1325-1415 F, ApH
303, Garfield, 5 cr

r1456 Functions and Problems of Logic (§1442)
(BC)

- 010843 -1 0905-0955 MTWTh, ApH 226, 4 cr
109327 -2 1010-1100 MTWTh, ApH 226, Zanolini,
4 cr
- 304506 -3 1115-1205 MTWTh, ApH 226, Zanolini,
4 cr
- 503645 -4 1430-1520 MTWTh, NichH 122,
Zanolini, 4 cr
- 802629 -5 0800-0955 TTh, NichH 122, 4 cr
311682 -6 1220-1415 TTh, NichH 122, Benson,
4 cr

r1461 Oral Communication: Speaking and Creative Thinking

- 704051 -1 0800-0955 MW, ApH 102, Benson,
4 cr
- 910916 -2 1010-1205 MW, ApH 102, 4 cr
(Commanding English students only)
- 506237 -3 1220-1415 MW, ApH 102, 4 cr
(Commanding English students only)
- 404996 -4 1430-1625 MW, ApH 102, 4 cr
(Commanding English students only)
- 601787 -5 0800-0955 TTh, ApH 102, 4 cr
004783 -6 1010-1205 TTh, ApH 102, 4 cr
(Commanding English students only)
- 204224 -7 1220-1415 TTh, ApH 102, 4 cr
303937 -8 1430-1625 TTh, ApH 102, 4 cr

r1481 Creativity: Art Laboratory: Experiences in the Media (max 9 cr)

- 505265 -1 0905-1100 MW, ApH 202, 3 cr
004203 -2 1115-1310 MW, ApH 202, 3 cr
210900 -3 1220-1415 TTh, ApH 202, 3 cr
602163 -4 1430-1625 TTh, ApH 202, 3 cr

r1511 Introduction to Business

- 608464 -1 1010-1205 MW, 1010-1100 F, WullIH
230, Peterson, 5 cr
- 406568 -2 0800-0955 TTh, 0905-0955 F, NichH
207, Kroll, 5 cr (BC)
- 475955 -3 1010-1205 TTh, 1115-1205 F, WullIH
230, Kroll, 5 cr (BC)

r1513 Small Business Operations

- 101834 1325-1520 MW, 1430-1520 F, ApH 303,
St. John, 5 cr

r1534 Practical Law

- 607525 -1 1220-1310 MTWThF, Arch 10, Kahn,
.5 cr
- 475941 -2 1535-1625 MTWThF, WullIH 230,
Kahn, 5 cr

r1537 Professional Selling

- 275942 1010-1205 TTh, NichH 209A, St. John,
.4 cr

r1571 Introduction to Microcomputer Applications
(prereq elementary algebra)

- 901584 -1 0800-0955 MW, ApH 319, 5 cr (addtl
hr ar)
- 109898 -2 1220-1415 MW, ApH 319, 5 cr (addtl
hr ar)
- 803361 -3 0800-0955 TTh, ApH 319, 5 cr (addtl
hr ar)

r1701 Psychology of Personal Effectiveness (BC)

- 804205 -1 1115-1205 MTWTh, NichH 109,
Wambach, 4 cr
- 207138 -2 1220-1310 MTWTh, NichH 109,
Wambach, 4 cr
- 312430 -3 1325-1520 MW, NichH 109, Latts, 4 cr
105978 -4 0905-1100 TTh, NichH 109, Wood,
4 cr
- 504391 -5 1325-1520 TTh, ApH 103, Wood, 4 cr
175943 -6 1325-1520 TTh, NichH 109, 4 cr

r1812 American Indian Literature

- 277058 -1 1115-1310 TTh, OwreH 2210, Miller,
4 cr
- 177059 -2 1325-1520 TTh, FolH 208, Miller, 4 cr
(BC)

r1816 African-American Literature

- 102630 -1 1010-1205 MW, ApH 303, Bellamy,
4 cr
- 975944 -2 0905-1100 TTh, JonesH 2, Bellamy,
4 cr

GENETICS (Gene)

- 8777 Thesis Credits: Masters**
906509 1-16 cr

- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
109352 1-36 cr

**GENETICS AND CELL BIOLOGY
(GCB)**

Biological Sciences

- 5035 Intermediate Cell Biology** (prereq Biol 5004 or
#)

- 006453 0950-1130 TTh, BorH 335, Brooker, 4 cr

- 5042 Quantitative Genetics** (prereq 5033...Stat
5301 rec) (S-N only)

- 306949 0950-1130 TTh, BioSci 70, Enfield, 4 cr

- 5114 General Physiology** (prereq Biol 3011, 5001,
Phys 1109 or 1295)

- 110985 1040-1130 MWF, ClaOf B25, Goldstein,
3 cr

- r5605 Cell Biology Laboratory** (prereq Biol 5004 or #
or #)

- 612434 1355-1625 MW, BioSci 245, Blumenfeld,
2 cr

- 5970 Directed Studies** (prereq #, Δ)

- 112431 ar cr

- 5990 Directed Research** (prereq #, Δ)

- 502334 ar cr

- 8132 Advanced Genetics II** (§5032; prereq 8131)

- 176168 1355-1500 MWF, BioSci 6, Hackett, 4 cr

- r8213 Advanced Molecular Biology I** (§BioC 8213,
MdBc 8213; prereq 8132 or BioC/MdBc 5753 or
#)

- 704955 0920-1100 MW, JOAd 5137, 4 cr (Mpls)

- 8900 Seminar** (S-N only)

- 805112 -1 1200-1310 Th, MoosT 2520, King, 1 cr
(Mpls)

- 810892 -2 1530-1700 Th, McNH 33, 1 cr

- 8910 Journal Clubs** (S-N only)

- 509123 -1 1200-1250 T, BioSci 260, 1 cr
508649 -2 1145-1235 W, BioSci 260, 1 cr

- 8913 Genetic Counseling Seminar II** (prereq
admission to genetic counseling emphasis
within genetics master's program or #)

- 905778 1010-1150 F, MoosT 16104, Leroy, 2 cr
(Mpls)

- 8950 Practicum: Teaching in Genetics** (S-N only)
307972 1 cr

- 8960 Practicum: Teaching in Cell and
Developmental Biology** (S-N only)
805272 1 cr

- 8970 Directed Studies** (prereq #)
804476 ar cr

- 8990 Research** (prereq #)
005254 ar cr

**GEO-ENGINEERING (GeoE)
Civil And Mineral Engineering
Institute of Technology**

- 5260 Drilling, Blasting, and Comminution** (prereq
CE 3300 or #, IT stu) (A-F only)
675243 1010-1205 TTh, CivMinE 213, Fairhurst,
4 cr

- 5660 Special Geo-Engineering Problems** (prereq
IT sr or #) (A-F only)
806880 0905-1100 TTh, CivMinE 205, ar cr

- 8380 Engineering Model Fitting** (prereq civil eng or
mineral eng or geo-eng grad stu or #) (A-F
only)
175240 1430-1625 TTh, CivMinE 214, Barnes,
4 cr

- 8601 Seminar: Geo-Engineering** (prereq #) (S-N
only)
101745 1115-1205 F, CivMinE 205, ar cr

- 8812 Geo-Engineering Research Problems** (prereq
#) (A-F only)
105441 1115-1310 TTh, CivMinE 214, Fairhurst,
ar cr

- 8777 Thesis Credits: Masters**
104782 1-16 cr

- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
707435 1-36 cr

**GEOGRAPHY (Geog)
Liberal Arts**

r1301 Human Geography

- ★LECT 0905-0955 MWF, AndH 210,
Schwartzberg
- 609937 -1 REC 0800-0850 MW, BlegH 445, 5 cr
808043 -2 REC 1010-1100 MW, BlegH 430, 5 cr
804459 -3 REC 1010-1100 MW, BlegH 445, 5 cr
204806 -4 REC 1115-1205 MW, BlegH 430, 5 cr
911080 -5 REC 0800-0850 TTh, BlegH 445, 5 cr
102997 -6 REC 0905-0955 TTh, BlegH 230, 5 cr
109893 -7 REC 0905-0955 TTh, BlegH 430, 5 cr
908552 -8 REC 1010-1100 TTh, BlegH 430, 5 cr
404349 -9 REC 1115-1205 TTh, BlegH 430, 5 cr

r1401 Physical Geography (§NSci 1501)

- ★LECT 0945-1100 TTh, WilleyH 175,
Brown, Skaggs
- 611378 -1 REC 1115-1205 TTh, BlegH 115, 5 cr
206247 -2 REC 1115-1205 TTh, AndH 310, 5 cr
111949 -3 REC 1220-1310 TTh, BlegH 215, 5 cr
102059 -4 REC 1220-1310 TTh, BlegH 445, 5 cr
810973 -5 REC 1325-1415 TTh, BlegH 445, 5 cr
704115 -6 REC 0800-0850 WF, BlegH 430, 5 cr
805174 -7 REC 0905-0955 WF, BlegH 430, 5 cr
401807 -8 REC 0905-0955 WF, BlegH 445, 5 cr
305218 -9 REC 0905-0955 WF, BlegH 420, 5 cr
801594 -10 REC 1010-1100 WF, BlegH 230, 5 cr
510675 -11 REC 1010-1100 WF, BlegH 210, 5 cr
608657 -12 REC 1010-1100 WF, BlegH 225, 5 cr

r1501 The Language of Maps (§3311)

- ★LECT 1115-1205 MWF, AndH 210,
Gersmehl
- 107139 -1 REC 0800-0850 MW, BlegH 210, 5 cr
103888 -2 REC 0905-0955 MW, BlegH 210, 5 cr
112199 -3 REC 1010-1100 MW, BlegH 245, 5 cr
505556 -4 REC 1220-1310 MW, BlegH 445, 5 cr
109089 -5 REC 0800-0850 TTh, BlegH 430, 5 cr
106290 -6 REC 0905-0955 TTh, BlegH 445, 5 cr
407011 -7 REC 1010-1100 TTh, BlegH 445, 5 cr
010504 -8 REC 1010-1100 TTh, BlegH 245, 5 cr
103616 -9 REC 1115-1205 TTh, BlegH 445, 5 cr
103647 -10 REC 1220-1310 TTh, BlegH 430,
5 cr

- 1973 Geography of the Twin Cities** (§3973)
106676 1115-1230 TTh, AndH 230, Martin, 4 cr

- r3101 Geography of United States and Canada**
110906 1010-1100 MWF, WilleyH 125, Hart, 4 cr

- 3121 **Latin America** (\$LAS 3121)
104838 1010-1100 MWF, AndH 210, Weil, 4 cr
- r3131 **Middle America** (\$LAS 3134)
807507 0905-0955 MWF, BlegH 155, Barrett, 4 cr
- 3211 **East Asia** (\$5211)
976205 0905-0955 MWF, BlegH 215, Hsu, 4 cr
- 3212 **South Asia** (\$5212)
711453 1115-1205 MWF, BlegH 415,
Schwartzberg, 4 cr
- r3221 **Australia, New Zealand, Oceania**
410815 1220-1310 MWF, BlegH 235, Barrett, 4 cr
- 3331 **Economic Geography**
776206 0905-0955 MWF, AndH 230, Scott, 4 cr
- 3351 **Food Production and Distribution**
976866 1220-1310 MWF, BlegH 415, Weil, 4 cr
- r3378 **Third World Underdevelopment and
Modernization** (\$LAS 3378)
476216 1010-1100 MWF, BlegH 415, Sheppard,
4 cr
- 3421 **Climatology** (prereq 1401 or 1425 or Soil 1262
or Phys 1071 or #)
302657 0800-0915 MF, BlegH 425, Skaggs, 4 cr
- 3431 **Introduction to Plant and Animal Geography**
(prereq non biology maj)
276217 1245-1400 TTh, BlegH 415, Squires, 4 cr
- r3511 **Introduction to Cartography** (prereq 5 cr in
geog or #)
★LECT 1115-1205 MWF, BlegH 425, Hsu
509655 -1 REC 1220-1415 M, BlegH 455, 5 cr
102658 -2 REC 1220-1415 T, BlegH 455, 5 cr
111697 -3 REC 1115-1310 Th, BlegH 455, 5 cr
- 3530 **Cartography Internship** (max 10 cr; prereq #)
(S-N only)
209312 1100-1500 W, BlegH 410, 2-5 cr
- 3940 **Directed Field Study** (prereq #) (A-F only)
612305 2-4 cr
- 3950 **Undergraduate Seminar: Senior Project**
(prereq 10 cr in geography or #) (A-F only)
176218 1325-1625 F, BlegH 430, Scott, 4 cr
- 3970 **Directed Readings** (prereq #, Δ, □)
802193 1-15 cr
- 3973 **Geography of the Twin Cities** (§1973)
309656 1115-1230 TTh, AndH 230, Martin, 4 cr
- 3990 **Directed Research** (prereq #, Δ, □)
909927 1-15 cr
- 5101 **Historical Geography of North America**
710142 0815-0930 TTh, BlegH 415, Lukermann F.,
4 cr
- 5211 **East Asia: Regional Analysis** (§3211)
976219 0905-0955 MWF, BlegH 215, Hsu, 4 cr
- 5212 **South Asia** (§3212)
808348 1115-1205 MWF, BlegH 415,
Schwartzberg, 4 cr
- 5371 **North American Cities** (prereq 1301 or 1501 or
1970 or 3371 or 3973 or 5001 or #)
276220 0800-1000 TTh, BlegH 330, Adams J.,
4 cr
- r5444 **Geography of Water Resources** (prereq 2
courses physical geog or #)
505854 1325-1520 MF, BlegH 445, Brown, 4 cr
- r5512 **Cartography: Topics: Concepts of Digital
Mapping** (prereq 3511 or #)
376225 0945-1100 TTh, BlegH 440, McMaster,
4 cr
- 5530 **Cartography Internship** (max 10 cr; prereq #)
(S-N only)
210086 2-5 cr
- 5601 **Introduction to Land Use Planning**
776867 1115-1230 TTh, HHHctr 25, Borchert,
Lukermann B., 4 cr
- 5605 **Geographical Perspectives on Urban
Planning I**
176221 1325-1520 MF, BlegH 415, Miller, 4 cr
- 5900 **Topics in Geography** (prereq sr or grad)
707161 1500-1700 Th, BlegH 445, Lukermann F.,
4 cr
- 8120 **Seminar: Historical Geography** (prereq #)
712439 1325-1600 Th, BlegH 430, Miller, 1-3 cr
- 8125 **Seminar: Public Land Records** (prereq #)
976222 1400-1630 W, BlegH 430, Squires, 1 cr

- 8300 **Geographical Writing** (prereq #) (S-N only)
776223 1325-1520 M, BlegH 430, Hart, 3 cr
- 8301 **Geographical Education** (prereq #)
510000 Gersmehl, 3 cr
- 8340 **Seminar: Land Use Planning** (prereq #)
205583 1600-1800 Th, BlegH 430, 3 cr
- 8401 **Seminar: Survey of Physical Geography**
(prereq #) (S-N only)
002859 1325-1530 T, BlegH 430, Brown, Skaggs,
3 cr
- 8510 **Seminar: Cartography** (prereq #)
576224 1400-1630 W, BlegH 460, Chu, 3 cr
- 8777 **Thesis Credits: Masters**
804994 1-16 cr
- 8888 **Thesis Credits: Doctoral** (max 18 cr per qtr)
910883 1-36 cr
- 8970 **Directed Readings**
602096 1-5 cr
- 8990 **Research Problems**
909930 ar cr

GEOLOGY AND GEOPHYSICS (Geo) Institute of Technology

- r1001 **The Dynamic Earth: An Introduction to
Geology**
804798 -1 1010-1100 MTWTF, SmithH 100, 4 cr
907188 -2 1115-1205 MTWTF, SmithH 100, 4 cr
011524 -3 1250-1445 TTh, HodsonH 495, 4 cr
(StP)
- r1012 **Life, the Earth, and Everything Else: An
Introduction to Comparative Planetology**
608996 1325-1520 TTh, SciCB 175, Alexander,
Murthy, 4 cr
- r1021 **Introduction to Geology Lab: Geology of
Minnesota** (prereq 1001 or # or #)
703689 -1 LAB 0800-0955 M, FordH 185, 1 cr
304246 -2 LAB 1220-1415 M, FordH 185, 1 cr
106458 -3 LAB 1325-1520 M, FordH 180, 1 cr
303324 -4 LAB 1430-1625 M, FordH 185, 1 cr
812027 -5 LAB 0800-0955 T, FordH 180, 1 cr
409387 -6 LAB 0800-0955 T, FordH 185, 1 cr
206378 -7 LAB 1115-1310 T, FordH 185, 1 cr
007358 -8 LAB 1115-1310 T, FordH 180, 1 cr
706821 -9 LAB 1325-1520 T, FordH 185, 1 cr
408093 -10 LAB 1535-1730 T, FordH 180, 1 cr
606312 -11 LAB 0800-0955 W, FordH 180, 1 cr
103172 -12 LAB 1325-1520 W, FordH 180, 1 cr
907191 -13 LAB 1325-1520 W, FordH 185, 1 cr
403346 -14 LAB 0800-0955 Th, FordH 185, 1 cr
004833 -15 LAB 0905-1100 Th, FordH 180, 1 cr
509980 -16 LAB 1010-1205 Th, FordH 185, 1 cr
608240 -17 LAB 1115-1310 Th, FordH 180, 1 cr
109957 -18 LAB 1220-1415 Th, FordH 185, 1 cr
609064 -19 LAB 1325-1520 Th, FordH 180, 1 cr
- r3112 **Earth History** (prereq 1111 or #)
★LECT 1325-1415 MWF, PillsH 110, Sloan
008476 -1 LAB 0905-1100 TTh, PillsH 105, 5 cr
309107 -2 LAB 1115-1310 TTh, PillsH 105, 5 cr
- 3890 **Problems in Geology and Geophysics**
(prereq #, Δ)
205194 1-6 cr
- 5100 **Advanced General Geology** (prereq 1001 or
1111, #) (S-N only)
175246 Stout, 1-2 cr
- 5151 **Introduction to Paleontology** (prereq 1002 or
1022 or 3112 or #)
308376 1430-1520 MWF, PillsH 121, Sloan, 5 cr
- r5261 **Glacial Geology** (5 cr with term paper or map
lab; prereq 1002 or 3112 or #)
101731 0905-0955 MWF, PillsH 110, Wright,
4-5 cr (Field trips: Sept 28, Oct 5-6, Oct
19-20)
- 5351 **Economic Geology: Metal Sulfide Deposits**
(5 cr with lab; prereq 3401 or 5404, 5201 or #)
275245 1430-1520 MWF, PillsH 110, Seyfried,
Berndt, 4-5 cr
- 5452 **Igneous and Metamorphic Petrology** (prereq
3102, Chem 5520 or 5521, Math 3211 or #)
★LECT 1115-1205 MWF, PillsH 207C,
Stout, 5 cr
404898 -1 LAB 1430-1625 MW, PillsH 125, Stout
- r5505 **Solid Earth Geophysics I** (prereq 1111, Phys
1295)
803733 1010-1100 MWF, PillsH 125, Karato,
Yuen, 4 cr

- r5515 **Principles of Geophysical Exploration**
(prereq 1291)
607167 0905-0955 MWF, PillsH 207C, Moskowitz,
Chandler, 4 cr
- 5541 **Geomagnetism** (prereq one qtr each of
geology, physics, mathematics)
276976 1115-1230 TTh, PillsH 207C, Banerjee,
3 cr
- r5601 **Limnology** (§EBB 5601; prereq Chem 1005 or
equiv)
601725 1220-1310 MWF, PillsH 110, Shapiro, 4 cr
- 5613 **Tracers in Hydrogeology** (prereq 5611, #)
975247 1615-1800 M, PillsH 121, Alexander,
Pfannkuch, 3 cr
- r5651 **Sedimentology** (prereq 3102, IT upper div geo,
geophys, geo-engr or mining engr maj or CLA Jr
or sr geophys maj or #)
★LECT 1115-1205 MWF, PillsH 110, Paola,
5 cr
612322 -1 LAB 1220-1415 MW, PillsH 125
176977 -2 LAB 1220-1415 TTh, PillsH 125
- 5980 **Seminar: Current Topics in Geology and
Geophysics** (prereq #)
611185 2 cr
- 5990 **Senior Thesis** (max 6 cr; prereq sr geology or
geophysics maj, #)
308488 2 cr
- 8098 **Seminar: Current Topics in Geology and
Geophysics: Strength of Rocks: Constraints
Provided by Laboratory Experiments** (prereq
#)
507548 Kohlstedt, 1-6 cr
- 8099 **Research in Geology and Geophysics**
(prereq #)
711310 1-6 cr
- 8571 **Geodynamics I** (prereq Math 3221 or #)
775248 Yuen, 3 cr
- 8617 **Transport Phenomena in Natural Porous
Media** (§5617; prereq CE 3400 or Chem 5520
or equiv or #)
005769 1535-1730 W, PillsH 121, Pfannkuch,
2-3 cr
- 8777 **Thesis Credits: Masters**
607363 1-16 cr
- 8888 **Thesis Credits: Doctoral** (max 18 cr per qtr)
109067 1-36 cr

GERMAN (Ger) German Liberal Arts

- r1101 **Beginning German** (§1000; CLA degree credit
granted only according to entrance standard)
102006 -1 0800-0850 MTWThF, AkerH 313, 5 cr
408157 -2 0800-0850 MTWThF, AmundH 156,
5 cr
511910 -3 0905-0955 MTWThF, AmundH 156,
5 cr
575428 -4 0905-0955 MTWThF, KohlH S133, 5 cr
703286 -5 1010-1100 MTWThF, AmundH 156,
5 cr
905957 -6 1010-1100 MTWThF, AkerH 313, 5 cr
503483 -7 1115-1205 MTWThF, AmundH 156,
5 cr
602972 -8 1220-1310 MTWThF, AmundH 156,
5 cr
303792 -9 1325-1415 MTWThF, AmundH 156,
5 cr
375429 -10 1325-1415 MTWThF, KohlH S133,
5 cr
- r1102 **Beginning German** (§1100; prereq 1101 or
1000; CLA degree credit granted only according
to entrance standard)
105527 -1 0800-0850 MTWThF, AkerH 215, 5 cr
903612 -2 1115-1205 MTWThF, AkerH 313, 5 cr
- r1103 **Beginning German** (§1110; prereq 1102 or 5 cr
of 1110; degree credit granted only according
to entrance standard)
108153 -1 0800-0850 MTWThF, FordH 170, 5 cr
702123 -2 1115-1205 MTWThF, AkerH 215, 5 cr
775430 -3 1115-1205 MTWThF, KohlH S133, 5 cr
712117 -4 1220-1310 MTWThF, Arch 20, 5 cr
903092 -5 1325-1415 MTWThF, SmithH 121,
5 cr

- n1104 Intermediate German** (prereq 1103 or 10 cr of 1110 or Entrance Standard proficiency test)
506111 -1 0800-0850 MTWThF, KolH S133, 5 cr
503211 -2 0905-0955 MTWThF, SmithH 111, 5 cr
505296 -3 0905-0955 MTWThF, Arch 30, 5 cr
110252 -4 1115-1205 MTWThF, AmundH 120, 5 cr
911712 -5 1220-1310 MTWThF, KolH S132, 5 cr
404089 -6 1325-1415 MTWThF, KolH S132, 5 cr
- n1105 Intermediate German** (prereq 1104 or placement)
509672 -1 0905-0955 MTWThF, AmundH 120, 5 cr
075434 -2 1220-1310 MTWThF, KolH S133, 5 cr
- n1106 Intermediate German** (prereq 1105 or placement)
505525 -1 0800-0850 MTWThF, AmundH 120, 5 cr
006808 -2 0905-0955 MTWThF, JonesH 4, 5 cr
306689 -3 1220-1310 MTWThF, AmundH 120, 5 cr
- n3011 Conversation and Composition** (prereq 1106, graduation proficiency test)
104922 -1 1010-1100 MTWTh, AmundH 120, 4 cr
710108 -2 1220-1415 M, FolH 114, 1220-1415 Th, FolH 134, 4 cr
902525 -3 1715-1900 TTh, FolH 344, 4 cr
- n3012 Conversation and Composition** (prereq 3011)
007439 1115-1205 MTWF, FolH 114, Duroche, 4 cr
- n3013 Conversation and Composition** (prereq 3012)
308149 1010-1100 MTWF, FolH 234, 4 cr
- n3014 Conversation and Composition** (prereq 3013 or #)
502995 1325-1415 MWF, FolH 218, 4 cr
- n3104 Reading and Analysis of Prose** (prereq 1106 or #)
702686 0800-0850 MWF, FolH 340, 4 cr
- n3104H Honors Course: Reading and Analysis of Prose** (prereq 1106, honors student or #)
909670 1430-1545 MW, BuH 125, McCormick, 4 cr
- n3341H Proseminar in German: The Artist and Society** (prereq #, non honors students may enroll with #)
875435 1220-1415 T, FolH 134, Taraba, 4 cr
- 3342 Major Project in German** (prereq Δ) (A-F only)
303856 2 cr
- 3342H Major Project in German** (prereq #) (A-F only)
801884 2 cr
- n3401 Medieval Literature** (prereq 3104, 3105)
275438 1220-1310 MWF, FolH 234, Wakefield, 4 cr
- n3502 Contemporary Germany: The German Democratic Republic** (prereq 1106)
906431 0905-0955 MWF, FolH 208, 4 cr
- n3511 German Civilization and Culture: Middle Ages to the Renaissance** (prereq 3104, 3105, one additional 3xxx German course)
475440 1430-1520 MW, 1430-1625 F, FolH 208, Weiss, 4 cr
- 3590 Directed Studies: German-Speaking Countries** (prereq 3501, #)
303890 5 cr
- n3604 Literature, History, and the German Film** (no knowledge of German req)
902007 1430-1845 T, 1430-1600 Th, FolH 38, McCormick, 4 cr
- 3970 Directed Studies** (prereq #, Δ, □)
612093 1-5 cr
- n5011 Advanced Composition and Conversation** (prereq 3013)
309818 1640-1920 M, FolH 426, Firchow, 4 cr
- n5771 Early New High German**
275441 1430-1625 W, FolH 142, Fullerton, 4 cr
- 5970 Directed Studies** (prereq #, Δ, CLA approval)
101860 1-5 cr
- n8101 Bibliography and Proseminar** (prereq 1st or 2nd yr grad stu)
208774 1430-1625 M, FolH 334, Duroche, 4 cr
- n8230 Lyric Poetry: The Age of Goethe** (max 12 cr; §8333, 8334, 8335)
175442 1430-1625 Th, FolH 344, Taraba, 4 cr

- n8328 German Drama from Naturalism to the Present**
975443 1430-1625 T, FolH 142, Schulte-Sasse, 4 cr
- n8741 Gothic and Methods of Comparative Germanic Linguistics** (prereq #)
575445 1640-1835 T, FolH 142, Liberman, 4 cr
- 8777 Thesis Credits: Masters**
105133 1-16 cr
- n8820 Advanced Theoretical Seminar: Theory of the Origins of the Fairy Tale in Germany and France** (max 12 cr; §CLit 8910, sec 1, Fren 8050, sec 1; prereq 8112 or 8113 or #)
709871 1640-1835 M, FolH 334, Zipes, 4 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
908860 1-36 cr
- 8990 Reading and Research** (prereq #)
812447 3-6 cr

GERMANIC PHILOLOGY (GPh)

- 8777 Thesis Credits: Masters**
105348 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
107083 1-36 cr

GREEK (Grk) Classical & Near Eastern Studies Liberal Arts

- 1101 Beginning Classical Greek** (§1020, 1101-1102)
904002 -1 0800-0850 MTWThF, PeikH 215, 5 cr
809158 -2 1115-1205 MTWThF, PeikH 215, 5 cr
- 1104 Greek Prose** (§3104; prereq 1103 or 2 yrs high school Greek or Δ)
807541 1010-1100 MTWThF, FolH 326, 5 cr
- 1111H Honors Course: Beginning Classical Greek** (prereq regis honors division or high ability as indicated by college entrance records)
475454 0905-0955 MTWThF, FolH 214, Belfiore, 5 cr
- 3051 Beginning Ancient Greek: Accelerated** (3051-3052†, §1101, 1102, 1103, 1104)
275455 0905-0955 MTWThF, FolH 214, Belfiore, 5 cr
- 3104 Greek Prose** (§1004; prereq 3052 or 3002, or equiv or #)
201582 1010-1100 MTWThF, FolH 326, 5 cr
- 3458 Advanced Undergraduate Greek: Orators** (prereq 3106 or 5 cr of 3120 or 3 yrs high school Greek or Δ)
175456 1010-1100 MWF, FolH 344, Belfiore, 5 cr
- 3960H Honors Tutorial** (prereq Δ)
806843 5 cr
- 3970 Directed Studies** (prereq #, Δ, □)
204188 1-5 cr
- 5121 Biblical and Patristic Greek** (prereq 3106 or 3120 or Δ) (A-F only)
975457 1245-1400 TTh, FolH 344, Sellow, 4 cr
- 5715 Introduction to Classical Philology** (§Lat 5715)
775458 1220-1310 MWF, FolH 344, Sheets, 4 cr
- 5970 Directed Studies** (prereq #, Δ, CLA approval)
711372 1-5 cr
- 5980 Directed Teaching** (prereq #, Δ, CLA approval)
708522 ar cr
- 5990 Directed Research** (prereq #, Δ, CLA approval)
604401 ar cr
- 8120 Greek Text Course** (prereq 3052 or Δ, non-maj)
575459 1010-1100 MWF, FolH 344, Belfiore, 4 cr
- 8777 Thesis Credits: Masters**
310211 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
102918 1-36 cr

HEALTH INFORMATICS (HInf) Laboratory Medicine and Pathology Medical School

- 5430 Health Informatics I: Computer Applications in Health Care** (prereq algebra or #)
111280 1115-1205 MTWTh, PWB 6224, Finkelstein, 4 cr
- 5434 Computer Methodology in the Delivery of Health Care II: Introduction to Medical Decision Making Techniques** (prereq 5432 or PubH 5452 or #)
212341 1115-1230 TTh, HSUnitF 2163, Connelly, Rich, 3 cr
- 5438 Seminar: Health Informatics** (S-N only)
202957 1530-1630 Th, PWB 5258, Ellis, 1 cr
- 5470 Topics in Health Informatics** (prereq #)
206829 ar cr
- 8405 Advanced Topics in Health Informatics I** (prereq 5432, 5435, 5452 or #)
106001 Finkelstein, 3 cr
- 8449 Advanced Readings in Health Informatics** (prereq 5432, PubH 5434, #)
506481 1-3 cr
- 8450 Research in Health Informatics** (prereq #)
307311 ar cr
- 8777 Thesis Credits: Masters**
708861 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
102434 1-36 cr

HEALTH SCIENCE UNITS (HSU) Health Sciences

- n5009 Multidisciplinary Perspectives on Aging** (§AdEd 5440, CPsy 5305, Educ 5440, PA 5414, PubH 5520, PubH 5737, SAHP 5009, Soc 5960, SW 5024)
206913 1640-1825 MW, MoosT 2690, 4 cr
- 5010 Public Health Approaches to AIDS** (prereq upper div or grad or professional stu)
006890 1640-1825 M, 1640-1730 W, MoosT 2520; Rothenberger, 3 cr
- n5018 Computer Applications in Health Services** (§CLS 5356, HInf 5430; prereq health sciences student or #)
504276 1115-1205 MTWTh, PWB 6224, Finkelstein, 4 cr
- 5210 Terminology of the Health Sciences** (§SAHP 5210)
405159 McKennell, 2 cr (for information go to HSUnitF 5-120 before first day of quarter)

HEBREW (Hebr) Classical & Near Eastern Studies Liberal Arts

- 1012 Beginning Hebrew for Students with Prior Exposure** (§1101-1102-1103, total 15 cr for students who complete the sequence)
909541 1220-1310 MTWThF, FolH 138, Shendar, 5 cr
- 1101 Beginning Hebrew** (prereq # if Hebr studied previously)
907045 1220-1310 MTWThF, FolH 334, Dworsky, 5 cr
- 3011 Intermediate Hebrew** (prereq 1103, qualified freshman or #)
503287 1115-1205 MTWThF, FolH 138, Shendar, 5 cr
- 3015 Advanced Modern Hebrew** (prereq 3013 or #)
107181 1115-1205 MWF, FolH 208, 4 cr
- 3980 Directed Instruction** (prereq #, Δ, □)
207284 1-5 cr
- 5970 Directed Readings** (prereq 3013, #, Δ, CLA approval)
110842 ar cr
- 5990H Honors Course: Research** (prereq 5970, #, Δ, CLA approval)
404013 ar cr

HINDI (Hndi)
South Asian & Middle Eastern
Studies
Liberal Arts

- 1101 Beginning Hindi**
 609386 0905-0955 MTWThF, FolH 114, Staneslow, 5 cr
- 5131 Intermediate Hindi** (§3031; prereq 1103 or 5103 or #)
 411124 1010-1100 MTWThF, FolH 114, Staneslow, 5 cr
- R5161 Advanced Hindi** (prereq 3033 or 5133 or #)
 304473 1115-1230 TTh, Klact 190, Junghare, 4 cr

HISTORY (Hist)
Liberal Arts

- R1011 Introduction to World History (A-F only)**
 ★LECT 1115-1230 TTh, WilleyH 125, Phillips, Farmer
- 007733 -1 REC 0800-0850 MW, BlegH 350, 5 cr
 805725 -2 REC 0905-0955 MW, BlegH 330, 5 cr
 102790 -3 REC 1220-1310 MW, BlegH 350, 5 cr
 601658 -4 REC 1325-1415 MW, HHCtr 20, 5 cr
 910740 -5 REC 1325-1415 MW, BlegH 245, 5 cr
 108721 -6 REC 0800-0850 TTh, Law 1, 5 cr
 401659 -7 REC 0905-0955 TTh, BlegH 150, 5 cr
 710741 -8 REC 1010-1100 TTh, RarigC 610, 5 cr
 008722 -9 REC 1010-1100 TTh, BlegH 350, 5 cr
 706737 -10 REC 1325-1415 TTh, BlegH 210, 5 cr
 004721 -11 REC 0800-0850 WF, HHCtr 20, 5 cr
 002791 -12 REC 0905-0955 WF, BlegH 245, 5 cr
 711761 -13 REC 1010-1100 WF, BlegH 350, 5 cr
 109724 -14 REC 1220-1310 WF, BlegH 330, 5 cr
 807734 -15 REC 1325-1415 WF, Law 1, 5 cr
 805726 -16 REC 1325-1415 WF, BlegH 255, 5 cr
- R1011H Honors: Introduction to World History (A-F only)**
 ★LECT 1115-1230 TTh, WilleyH 125, Phillips, Farmer
 607735 -80 REC 1325-1415 TTh, HHCtr 60, 5 cr
- R1021 Introduction to Western Civilization (§1021H) (A-F only)**
 ★LECT 0945-1100 TTh, AndH 210, Tracy
- 011913 -1 REC 0800-0850 MW, HHCtr 60, 5 cr
 011832 -2 REC 0905-0955 MW, HHCtr 60, 5 cr
 610442 -3 REC 1010-1100 MW, HHCtr 60, 5 cr
 106301 -4 REC 1115-1205 MW, HHCtr 60, 5 cr
 103650 -5 REC 1220-1310 MW, HHCtr 60, 5 cr
 107018 -6 REC 1220-1310 TTh, HHCtr 60, 5 cr
 909863 -7 REC 0800-0850 TTh, HHCtr 60, 5 cr
 902069 -8 REC 0800-0850 TTh, BlegH 350, 5 cr
 904999 -9 REC 1115-1205 TTh, BlegH 350, 5 cr
 703093 -10 REC 1220-1310 TTh, Law 1, 5 cr
 204384 -11 REC 1325-1415 TTh, RarigC 616, 5 cr
 510367 -12 REC 0800-0850 WF, BlegH 205, 5 cr
 405212 -13 REC 1010-1100 WF, BlegH 425, 5 cr
 011104 -14 REC 1010-1100 WF, BlegH 330, 5 cr
 811914 -15 REC 1115-1205 WF, BlegH 350, 5 cr
 609789 -16 REC 1220-1310 WF, BlegH 230, 5 cr
- R1021H Honors Course: Introduction to Western Civilization (§1021)**
 ★LECT 0945-1100 TTh, AndH 210, Tracy
 076941 -80 REC 1115-1205 TTh, SocSci 101, 5 cr
- R1305 Cultural Pluralism in American History**
 ★LECT 1010-1100 MWF, WilleyH 175, Howe
- 604480 -1 REC 0800-0850 M, BlegH 440, 4 cr
 711579 -2 REC 1115-1205 M, BlegH 350, 4 cr
 106377 -3 REC 1115-1205 M, BlegH 330, 4 cr
 908454 -4 REC 1220-1310 M, BlegH 330, 4 cr
 112454 -5 REC 0800-0850 T, HHCtr 20, 4 cr
 411155 -6 REC 0905-0955 T, HHCtr 20, 4 cr
 403539 -7 REC 0905-0955 T, BlegH 420, 4 cr
 701957 -8 REC 1220-1310 T, BlegH 245, 4 cr
 406117 -9 REC 0800-0850 W, BlegH 440, 4 cr
 604981 -10 REC 0905-0955 W, BlegH 425, 4 cr
 603605 -11 REC 1115-1205 W, BlegH 205, 4 cr
 102250 -12 REC 1115-1205 W, BlegH 240, 4 cr
 802064 -13 REC 0800-0850 Th, HHCtr 20, 4 cr
 509994 -14 REC 0800-0850 F, BlegH 230, 4 cr
 005867 -15 REC 0905-0955 F, BlegH 210, 4 cr
 910592 -16 REC 1115-1205 F, BlegH 205, 4 cr
 108582 -17 REC 1115-1205 F, HHCtr 60, 4 cr
 105570 -18 REC 1220-1310 F, HHCtr 60, 4 cr

- 3031 Medicine and Disease in History (§HMed 3001)**
 008672 0905-0955 MWF, Phys 131, Tang, 4 cr
- 3051 Ancient Civilization (§1051)**
 176260 1115-1230 TTh, BlegH 230, Kelly, 4 cr
- R3151 English History to the 17th Century (§1151)**
 ★LECT 1115-1205 MWF, BlegH 235, Lehmborg
- 507064 -1 REC 1010-1100 M, BlegH 205, 4 cr
 809029 -2 REC 1220-1310 W, BlegH 225, 4 cr
 702705 -3 REC 1220-1310 Th, BlegH 135, 4 cr
- 3273 Modern Scandinavia Since 1807 (§Scan 3273)**
 376306 0905-0955 MWF, BlegH 415, 4 cr
- 3281 Intellectual and Cultural History of Modern Europe**
 211335 1010-1100 MWF, BlegH 250, Thayer, 4 cr
- R3401 Survey of Latin American History: Colonial Period to 1800 (§1401, LAS 3401)**
 ★LECT 0945-1100 TTh, BlegH 5, Schwartz
- 801612 -1 REC 1115-1205 M, BlegH 240, 4 cr
 208676 -2 REC 0800-0850 T, BlegH 215, 4 cr
 106693 -3 REC 1115-1205 T, BlegH 245, 4 cr
 404674 -4 REC 1220-1310 T, BlegH 210, 4 cr
 802694 -5 REC 1010-1100 W, HHCtr 20, 4 cr
 511714 -6 REC 1115-1205 Th, BlegH 255, 4 cr
- R3428 History of Relations Between United States and Mexico, 1821 to Present (§Chic 3428)**
 876942 1220-1310 MWF, Scotth 4, Valdes, 4 cr
- R3441 The Spanish-Mexican Borderlands and the Chicano Experience to 1900 (§Chic 3441, LAS 3441)**
 601756 1010-1100 MWF, Scotth 4, Valdes, 4 cr
- 3451 Survey of Civilizations in Ancient Asia (§1451, 1451H)**
 076261 0815-0930 TTh, BlegH 220, Kopf, 4 cr
- R3462 Introduction to East Asia: The Imperial Age (§1462, EAS 1462)**
 ★LECT 1325-1415 MWF, AndH 270, Marshall, Waltner
- 476264 -1 REC 1220-1310 M, BlegH 260, 4 cr
 176266 -2 REC 1430-1520 M, BlegH 245, 4 cr
 976267 -3 REC 1220-1310 W, BlegH 260, 4 cr
 576269 -4 REC 1430-1520 W, BlegH 105, 4 cr
 776271 -5 REC 1220-1310 F, BlegH 220, 4 cr
 576272 -6 REC 1430-1520 F, HHCtr 60, 4 cr
- R3551 History of the Ancient Near East**
 676943 0945-1100 TTh, BlegH 105, Malandra, 4 cr
- 3616 France in the High Middle Ages**
 176274 1115-1230 TTh, AndH 210, Reyerson, 4 cr
- 3637 Russian History from Peter the Great to the Present (§5133)**
 808575 1010-1100 MWF, AndH 230, Stavrou, 4 cr
 ★LECT 1010-1100 MWF, AndH 230, Stavrou
- 277500 -1 REC 1220-1310 W, SocSci 101, Stavrou, 5 cr (prereq fluency in Russian, #)
- 3651 Henry VIII and the English Reformation**
 876276 0905-0955 MWF, BlegH 225, Lehmborg, 4 cr
- 3700 Topics in European History: Southeastern Europe: Europe's Third World?**
 276945 1115-1205 MWF, BlegH 155, Kaser, 4 cr
- 3707 Social History of Modern Europe**
 476278 0945-1100 TTh, BlegH 415, Rudolph, 4 cr
- 3714 Medieval Spain, 400-1500**
 106368 0945-1100 TTh, BlegH 220, Phillips W., 4 cr
 ★LECT 0945-1100 TTh, BlegH 220, Phillips W.
- 777498 -1 REC 1325-1415 M, BlegH 330, Phillips W., 5 cr (prereq fluency in Spanish, #)
- 3721 Europe in the Era of World War I**
 876309 1115-1205 MWF, AndH 270, Munholland, 4 cr
- 3747 Habsburg Austria from 1526 to World War I**
 010695 1245-1400 TTh, BlegH 220, Wright, 4 cr
- 3861 European Americans: From Immigrants to Ethnics**
 276279 1115-1230 TTh, BlegH 125, 4 cr
- R3882 History of American Foreign Relations**
 476281 1115-1205 MWF, AndH 230, Brauer, 4 cr

- R3951H Honors Course: History** (prereq honors candidacy in history, #)
 601613 0900-1100 Th, HHCtr 25, Samaha, 4 cr
- R3955 Introduction to Historical Research** (prereq Δ, to be taken prior to 3961)
 803165 -1 1325-1520 M, SocSci 101, Brauer, 4 cr
 411477 -2 1315-1500 T, SocSci 101, Vecoli, 4 cr
 176946 -3 1325-1520 W, HHCtr 60, Thayer, 4 cr
- 3961 Major Paper** (prereq Δ)
 609405 1325-1415 T, 1325-1415 Th, SocSci 710, 5 cr
- 3970 Directed Studies** (prereq #, Δ, □)
 306546 1-15 cr
- 3990 Directed Research** (prereq #, Δ, □)
 904968 1-15 cr
- R3991 Undergraduate Seminar in History: The Hero in Medieval History** (3991-3992†; prereq jr or sr in history, Δ) (A-F only)
 976947 1325-1520 W, SocSci 101, Bachrach, 4 cr
- 5063 History of Greece 400-200 B.C.**
 177084 0945-1100 TTh, SocSci 1383, Kelly, 4 cr
- 5100 Selected Topics in Medieval Europe: Narrative and History: The Late Medieval Tale** (§Fren 5900, sec 2, MeSt 5610, sec 2; prereq #)
 776285 1325-1520 T, WaLib 301, Hanawalt, 4 cr
- 5134 Russia Before the Mongol Conquest**
 776948 1115-1205 MWF, SocSci 101, Noonan, 4 cr
- 5200 Topics in European History**
 976950 -1 1115-1230 MW, BlegH 115, Berce, 4 cr (Revolution and Revolt in Early Modern Europe)
 576949 -2 0945-1100 TTh, BlegH 210, Praetorius, 4 cr (Concept of Socialism in Germany)
- 5231 Modern France from 1848 to DeGaulle**
 176310 0905-0955 MWF, BlegH 255, Munholland, 4 cr
- 5284 Diplomatic History of Europe, 1848-1900**
 076289 1115-1230 TTh, AndH 330, Kieft, 4 cr
- 5294 Social History of Russia and Eastern Europe**
 407297 1115-1230 TTh, BlegH 415, Rudolph, 4 cr
- 5334 American Legal History**
 176291 1115-1205 MWF, BlegH 255, Murphy, 4 cr
- 5349 Social Welfare in America** (§SW 5349)
 077085 1115-1230 TTh, BlegH 10, Chambers, 4 cr
- 5473 Family, School, and Work in Modern Japanese History**
 304229 1115-1205 MWF, BlegH 245, Marshall, 4 cr
- 5571 Proseminar: Roman History**
 (5571-5572-5573; prereq #)
 776951 1600-1800 T, SocSci 1383, Evans J., 4 cr
- 5611 Proseminar: Medieval History** (prereq 1 yr of medieval history, reading knowledge of Fren or Ger, #)
 676294 1535-1720 T, Law 3, Bachrach, 4 cr
- 5620 Selected Topics in Medieval History: Southern French Notaries: Latin Hands** (§MeSt 5610, sec 1; prereq 1 yr of mediev hist or equiv, reading knowl of approp lang, #) (A-F only)
 976296 1325-1520 W, WaLib 301, Reyerson, 4 cr
- R5640 Topics in Early Modern Europe (A-F only)**
 576952 1325-1520 M, HHCtr 60, Berce, 4 cr
- R5720 Introductory Proseminar in Contemporary Europe: Southeastern Europe: Europe's Third World?** (prereq #)
 376953 1325-1520 Th, Law 3, Kaser, 4 cr
- 5730 Proseminar in Middle East History: The Arab World, Turkey and Iran: 1915-Present** (max 12 cr; §MidE 5525) (A-F only)
 176954 0915-1100 W, BlegH 205, Farah, 4 cr
- 5761 Proseminar: Russian History**
 (5761-5762-5763†; prereq reading knowledge of Russ, Ger or Fren, #)
 076955 1325-1520 M, BlegH 210, Stavrou, 4 cr
- 5793 Readings in European Economic History, 1750-The Present** (prereq #) (A-F only)
 976303 1325-1520 W, HHCtr 30, Good, 4 cr

- 5831 Proseminar: American Political and Constitutional History** (5831-5832; prereq #) 207690 1520-1705 W, BlegH 245, Murphy, 4 cr
- 5901 Proseminar: Latin American History** (prereq reading knowledge of Spanish, #) 476300 1325-1520 Th, Law 1, Schwartz, 4 cr
- 5960 Proseminar: Research in Quantitative History** (prereq 5011 or 5012 or 5797, #) 776304 1515-1700 T, BlegH 330, Ruggles, 4 cr
- 5970 Directed Studies** (prereq #, Δ, CLA approval) 203574 -1 1-15 cr
303839 -2 1-15 cr
- 5990 Directed Research** (prereq #, Δ, CLA approval) 406344 1-15 cr
- 8015 Scope and Methods of Historical Studies** (prereq #) 876259 -1 1325-1520 M, BlegH 255, Green, 4 cr
876956 -2 1325-1520 T, BlegH 255, 4 cr
876957 -3 1325-1710 Th, AndH 230, 4 cr
- 8484 Research in Late Imperial China: Yuan, Ming and Qing** (prereq reading knowledge of Chinese, #) 476958 1400-1600 F, BlegH 260, Farmer, 3 cr
- 8777 Thesis Credits: Masters** 112042 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr) 106881 1-36 cr
- r8941 Women in Science: Historical Perspectives** (HSci 8941) (A-F only) 277495 1300-1530 F, FordH 349, Kohlstedt, 4 cr
- 8944 African History** (prereq #) 576305 1325-1520 Th, SocSci 1383, Isaacman, 3 cr
- 8970 Directed Studies** (prereq #) 910088 -1 1-15 cr
909300 -2 1-15 cr
- 8990 Directed Research** (prereq #) 703806 1-15 cr

HISTORY OF MEDICINE (HMed) Medical School

- r3001 Doctors and Disease in History** (SHist 3031, primarily for CLA students) 909619 0905-0955 MWF, Phys 131, Tang, 4 cr
- 5400 Early History of Medicine** 275326 1430-1520 MWF, PWB 5224, Wilson, 4 cr
- 8230 Readings: History of Science** 206507 Wilson, 3 cr
- 8630 Directed Study** (prereq #) 608965 Wilson, 3-15 cr
- 8777 Thesis Credits: Masters** 511535 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr) 704079 1-36 cr

HISTORY OF SCIENCE AND TECHNOLOGY (HSci) Institute of Technology

- r1711 Technology and Western Civilization: Ancient and Medieval** (\$3711) ★LECT 1325-1415 MWF, EE/CSci 3210, Layton
404495 -1 REC 1430-1520 T, Phys 157, 4 cr
111201 -2 REC 1010-1100 W, LindH 229, 4 cr
902380 -3 REC 1220-1310 W, FordH 115, 4 cr
203140 -4 REC 1115-1205 Th, MRRC 211, 4 cr
106962 -5 REC 1325-1415 Th, Arch 45, 4 cr
002502 -6 REC 1115-1205 F, MoosT 2580, 4 cr
- r1811 Introduction to History of Science: Ancient** (\$3811) ★LECT 0905-0955 MWF, Arch 50, Shapiro
604141 -1 REC 1115-1205 M, Arch 25, 4 cr
510255 -2 REC 0905-0955 T, Phys 143, 4 cr
405274 -3 REC 1325-1415 W, SciCB 325, 4 cr
906476 -4 REC 0905-0955 Th, MRRC 211, 4 cr
607184 -5 REC 1220-1310 Th, Arch 5, 4 cr
410927 -6 REC 1010-1100 F, FordH 349, 4 cr

- r3711 Technology and Western Civilization: Ancient and Medieval** (\$1711) ★LECT 1325-1415 MWF, EE/CSci 3210, Layton
709802 -1 REC 1430-1520 T, Phys 157, 4 cr
912021 -2 REC 1010-1100 W, LindH 229, 4 cr
505122 -3 REC 1220-1310 W, FordH 115, 4 cr
409843 -4 REC 1115-1205 Th, MRRC 211, 4 cr
102403 -5 REC 1325-1415 Th, Arch 45, 4 cr
904291 -6 REC 1115-1205 F, MoosT 2580, 4 cr
- r3811 Introduction to History of Science: Ancient** (\$1811) ★LECT 0905-0955 MWF, Arch 50, Shapiro
905943 -1 REC 1115-1205 M, Arch 25, 4 cr
710822 -2 REC 0905-0955 T, Phys 143, 4 cr
411429 -3 REC 1325-1415 W, SciCB 325, 4 cr
708505 -4 REC 0905-0955 Th, MRRC 211, 4 cr
110557 -5 REC 1220-1310 Th, Arch 5, 4 cr
804199 -6 REC 1010-1100 F, FordH 349, 4 cr
- 5242 The Darwinian Revolution** (prereq Biol 1009 or 1101 or #) 977614 1115-1230 TTh, Zoology 102, 4 cr
- 5681 Engineering in History** 102675 1010-1100 MWF, FordH 115, Layton, 4 cr
- 5924 History of 19th Century Physics** (\$Phys 5924; prereq general physics or #) 876214 1045-1200 TTh, Phys 236A, Stuewer, 4 cr
- 5970 Directed Studies** (prereq #, Δ, CLA approval) 905246 -1 1-15 cr
711159 -2 1-15 cr
- 5990 Directed Research** (prereq #, Δ, CLA approval) 204952 1-15 cr
- r8121 Foundations for Research in Ancient Science** (prereq grad major or minor in HSci or #) (A-F only) 076213 1535-1705 M, LindH 303, Shapiro, 4 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr) 911824 1-36 cr
- 8930 Seminar: History of Technology** (prereq #) 504763 Layton, 4 cr
- r8941 Women in Science: Historical Perspectives** (A-F only) 976916 1300-1530 F, FordH 349, Kohlstedt, 4 cr
- 8970 Directed Study** (max 15 cr; prereq #) 605239 1-5 cr
- 8990 Directed Research** (max 15 cr; prereq #) 704275 1-5 cr

HOME ECONOMICS (HE) Human Ecology

- r1191 Career Planning Strategies** (S-N only) 610151 0935-1130 Th, McNH 146, Exline, 2 cr
- 5003 Field Experience** (max 15 cr; prereq #) 709492 1355-1530 W, McNH 363, Yust, 1-5 cr
- 5130 Independent Study in Home Economics** (max 16 cr; prereq #) 602101 1-5 cr

HOME ECONOMICS EDUCATION (HEEd) Vocational And Technical Education Education

- 5026 Extension Administration** (\$AgEd 5026; prereq #) (A-F only) 107388 1500-1745 Th, VoTech R380, 3 cr
- 5027 Practicum: Placement for Extension Experiences** (max 9 cr; SHEEd 3605, AgEd 5027) (S-N optional) 712134 2-9 cr
- r5300 Home Economics Curriculum** (A-F only) 611025 1605-1850 T, VoTech R380, Thomas, 3 cr
- r5320 Adult Education in Home Economics** (A-F only) 201887 1605-1850 M, VoTech R380, 3 cr
- r5406 Special Topics in Parent and Family Education** (S-N optional) 675212 1605-1850 Th, VoTech R370, 3 cr

- 5500 Proseminar: Home Economics Education** (A-F only) 911841 1605-1800 W, VoTech R370, Plihal, 2 cr
- 5511 Home Economics Instruction in Secondary Schools** (prereq 5510) (A-F only) 404710 1215-1445 MW, VoTech R370, McClelland, 5 cr
- 5512 Clinical Seminar: The School Setting** (\$Ind 5512; prereq post BA student or #) (S-N only) 712263 1605-1800 T, VoTech R370, 4 cr (addtl hrs ar)
- r5900 Readings: Home Economics Education** (max 12 cr; prereq #) (A-F only) 203221 1-3 cr
- r5920 Directed Studies** (prereq #) (S-N optional) 306627 1-8 cr
- 8530 Seminar: Home Economics Education** (max 3 cr) 604608 1900-2100 Th, VoTech R380, Thomas, 1 cr
- 8777 Thesis Credits: Masters** 705278 1-16 cr
- 8900 Problems: Home Economics Education** (prereq 8300, #) 408532 1-9 cr

HONORS COLLOQUIA (HCoI) Honors Program Liberal Arts

- r1001 Honors Colloquium: Introduction to the Arts and Sciences** (prereq fr, regis honors div) (S-N only) 378189 -1 0800-0955 M, JohH 125, 2 cr
776190 -2 1325-1520 M, JohH 125, 2 cr
502771 -3 0800-0955 T, JohH 125, 2 cr
111750 -4 1325-1520 T, JohH 125, 2 cr
576191 -5 0800-0955 W, JohH 125, 2 cr
207723 -6 1325-1520 W, JohH 125, 2 cr
405713 -7 0800-0955 Th, JohH 125, 2 cr
302772 -8 1010-1205 Th, JohH 125, 2 cr
376192 -9 1325-1520 Th, JohH 125, 2 cr
205714 -10 0800-0955 F, JohH 125, 2 cr
- r1010 Socrates, the Saints, and Sir Thomas More: An Investigation of Martyrdom** (prereq fr, soph, regis honors div) 209150 1430-1625 T, APH 226, David Sick, 2 cr
- r1020 Institutionalized Art and Culture Consciousness** (prereq fr, soph, regis honors div) 012396 1325-1520 M, PeikH 315, DonnaLee Kulhawy, 2 cr
- r1030 Women, Literature, and Social Change in China** (prereq fr, soph, regis honors div) 904498 1325-1520 W, LindH 315, Sally Lieberman, 2 cr
- r1040 Honors Colloquium** (prereq fr, soph, regis honors div) 176193 2 cr
- r1050 Introduction to Clinical Psychopharmacology** (prereq fr, soph, regis honors div) 105396 1010-1205 T, HSUnitF 2110, 2140, F.S. Abuzzahab, 3 cr
- r1060 Honors Colloquium** (prereq fr, soph, regis honors div) 076194 2-4 cr
- 1970 Honors Colloquium: Directed Studies** (prereq fr, soph, regis honors div, #, Δ) 606875 1-4 cr

HONORS SEMINAR (HSem) Honors Program Liberal Arts

- r3010 The German Americans in Minnesota** (prereq jr or sr, reg honors div) 105821 1430-1625 Th, BlegH 350, Gerhard Weiss, Evelyn Firchow, 4 cr
- r3020 Brain and Cognition** (prereq jr or sr, reg honors div) 910432 1500-1630 MW, ChDev 108, Patricia Bauer, Charles Nelson, 4 cr

- r3030 Law, Ideology, and Social Science in 20th-Century American Criminal Justice** (prereq jr or sr, reg honors div)
109375 0905-1100 T, HHHCr 25, Joel Samaha, 4 cr
- r3040 The Crumbling of Communism** (prereq jr or sr, reg honors div)
111683 1010-1205 M, SocSci 1383, John Turner, 4 cr
- r3050 Language, Gender, and Society** (prereq jr or sr, reg honors div)
476202 1245-1400 TTh, FolH 38, Amy Sheldon, 4 cr
- r3060 Honors Seminar** (prereq jr, sr, reg honors div)
276203 4 cr
- 3970 Honors Seminar: Directed Studies** (prereq jr, sr, reg honors div, #, Δ)
176204 1-5 cr

HORTICULTURAL SCIENCE (Hort) Agriculture

- 1010 Home Horticulture** (no cr for hort emphasis sequence)
376354 1430-1625 MW, 1430-1520 F, MechE 202, Mullin, 4 cr
- r1021 Woody Plant Materials**
★LECT 1355-1445 TTh, AlderH 415, Mullin
507419 -1 LAB 1145-1340 TTh, AlderH 423, Mullin, 5 cr
712229 -2 LAB 1500-1655 TTh, AlderH 423, Mullin, 5 cr
- 3097 Horticulture Practicum** (prereq upper division horticulture emphasis or sequence, Δ)
205051 2-4 cr
- 5026 Landscape Management** (prereq 1100, 1036, 1021)
407512 1040-1235 TTh, AlderH 415, Hard, 4 cr
- r5033 Small Fruit Production** (prereq 1100...PIPh 3131 rec) (A-F only)
676358 1500-1615 TTh, AlderH 415, Hoover, 3 cr (field trip, 0800-1500 Sat, Oct 5)
- 5041 Environmental Physiology of Horticultural Plants** (prereq 15 cr in plant sciences, PIPh 5184)
605631 0935-1025 TTh, AlderH 152, Markhart, 3 cr
- 5042 Turfgrass Science** (prereq 3072, PIPa 1001, PIPh 3131)
★LECT 1355-1550 T, HrG 174, White
108539 -1 LAB 1355-1740 Th, HrG 174, White, 5 cr
- 5046 Nursery Management I** (5046-5047-5048†; prereq 1021, 1036, 1100) (A-F only)
★LECT 0830-1025 TTh, AlderH 415, Swanson
809404 -1 LAB 1250-1655 T, HrG 172, Swanson, 4 cr
- r5055 Commercial Glasshouse Systems, Practices and Problems** (prereq 1036, 3016, PIPh 3131 or #) (A-F only)
★LECT 1355-1445 MWF, AlderH 415, Strefeler
877038 -1 LAB 1500-1655 MW, HrG 172, 5 cr
- 5091 Directed Studies** (prereq 8 cr upper division hort course, Δ)
412032 2-6 cr
- 8000 Supervised Teaching Experience in Horticulture** (§Soil 8000, Agro 8000; prereq #) (S-N only)
506724 1355-1540 M, BorH 409, Hoover, 2 cr
- 8007 Extension Horticulture Practicum** (max 6 cr; prereq 12 grad cr)
912357 1-5 cr
- 8023 Evolution of Crop Plants** (prereq 13 grad cr)
610313 1355-1550 M, 1355-1445 WF, AlderH 394, Ascher, 4 cr
- 8042 Horticultural Seminar** (S-N only)
012009 1605-1655 W, AlderH 415, 1 cr

- 8051 Advanced Problems in Horticultural Crop Breeding** (prereq #)
102160 3-9 cr
- 8052 Advanced Problems in Physiology of Horticultural Crops** (prereq #)
802243 3-9 cr
- 8080 Discussions in Potato Research**
308863 Lauer, 1 cr
- 8061 Discussions in Plant Reproductive Biology** (prereq #)
111862 Smith, 1 cr
- 8062 Discussions in Plant Hardiness** (prereq #)
105116 1250-1340 F, AlderH 415, Li, 1 cr
- 8083 Discussions in Plant Breeding** (prereq #)
107794 1040-1130 W, AlderH 415, Luby, 1 cr
- 8066 Discussions in Horticultural Research** (prereq #) (S-N only)
911225 1605-1655 Th, AlderH 394, Smith, 1 cr
- 8777 Thesis Credits: Masters**
308216 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
909088 1-36 cr

HOUSING (Hsg) Design, Housing, and Apparel Human Ecology

- r1801 Residential Technology** (prereq Phys 1001 or 1041, soph or #)
203431 0830-1025 MW, McNH 180, Yust, 4 cr
- 3870 Professional Seminar in Housing** (prereq 3863) (S-N only)
212128 1250-1340 M, McNH 316, Franklin, 1 cr
- 3880 Internship in Housing** (max 15 cr; prereq 3870, completion of one-half of professional sequence, #) (S-N only)
004508 1145-1235 M, McNH 368, Franklin, 5-15 cr
- 3888 Directed Study in Housing** (max 4 cr; prereq #)
401824 1-4 cr
- r5863 Housing Policy** (§PA 5811; prereq grad stu or adult special or 3863)
912262 1115-1230 MW, HHHCr 30, Goetz, 3 cr
- r5868 Housing Problems of the Family** (prereq 1801, 3863 or Dsgn 1555, or #)
910110 1145-1445 TTh, McNH 316, Franklin, 5 cr
- r5869 Housing Research: Interpretation and Evaluation** (prereq at least one course in statistics)
101929 0935-1130 TTh, McNH 316, Morris, 4 cr
- 5888 Directed Study in Housing** (max 4 cr; prereq #)
709542 1-4 cr
- 8880 Directed Study in Housing** (max 8 cr; prereq #) (A-F only)
408255 1-4 cr

HUMANITIES (Hum) Liberal Arts

- r1001 Humanities in the Modern World I** (§Rhet 1301)
406036 -1 0945-1100 MW, FordH 155, Thomas, 4 cr
910222 -2 0945-1100 TTh, AndH 230, Wright, 4 cr
- r1004 Humanities in the Modern World IV** (§Rhet 3381)
401595 1115-1230 TTh, FordH 155, Kiger, 4 cr
- r1301 Discourse and Society**
912343 -1 1010-1100 MWF, FordH 40, 4 cr
105530 -2 0815-0930 TTh, FordH 40, 4 cr
- r1302 Text and Context**
275407 1010-1100 MWF, FordH 120, Crawford, 4 cr
- r1303 Knowledge, Persuasion, Power**
975409 1115-1205 MWF, FordH 175, 4 cr
- r3456 Sexualities: From Perversity to Diversity** (prereq 1301 or 1302 or 1303 or any WoSt courses)
175411 0815-0930 TTh, FordH 120, Messer-Davidow, 4 cr

- r3458 The Body and the Politics of Representation**
575414 1245-1400 TTh, FordH 285, Leppert, 4 cr
- r3626 Humanisms, Scientific and Secular** (§RelS 3626; prereq 1003 or 1004)
975412 1245-1400 MW, FordH 349, Tapp, 4 cr
- r3701 Comedy: Text and Theory**
175416 0905-0955 MWF, FordH 55, Crawford, 4 cr
- r3910 Topics in the Humanities: Guptas to the 13th Century** (prereq jr, sr or #)
806678 1430-1545 TTh, FordH 285, Kiger, 4 cr
- 3970 Directed Studies** (prereq #, Δ)
805854 ar-cr
- r5910 Topics in the Humanities: Semiotics of Culture** (§AmSt 5920, sec 1, CSDS 5910, sec 2)
408658 1430-1545 TTh, FordH 150, Fiske, 4 cr
- 5970 Directed Studies** (prereq jr or sr or grad student, #, Δ)
605001 ar-cr

INDUSTRIAL EDUCATION (Ind) Vocational And Technical Education

- r1000 Technical Drawing** (A-F only)
475213 0830-1130 MW, VoTech 110, Gagel, 3 cr
- r1120 Communication Technology** (A-F only)
275214 1630-1930 MW, VoTech 110, Nilsen, 3 cr
- 1300 Introduction to Industrial Education Teaching** (A-F only)
210878 1355-1550 M, VoTech R280, Bjorkquist, 2 cr
- r1832 Manufacturing** (prereq 1630) (A-F only)
702557 0830-1130 TTh, VoTech 120, 3 cr
- 3200 Technical Development: Advanced** (max 33 cr; prereq 1000, 1001, #) (A-F only)
175215 Miletich, 1-9 cr
- 3900 Independent Study** (prereq #) (A-F only)
575218 3 cr
- 3901 Independent Study** (prereq #) (A-F only)
603474 3 cr
- r5000 Occupational Experience** (prereq #) (A-F only)
975216 Miletich, 1-5 cr
- 5200 Technical Development: Specialized** (max 24 cr; prereq #) (A-F only)
775217 Miletich, 1-9 cr
- 5300 Industrial Surveys** (A-F only)
301542 1605-1850 W, VoTech R280, Bjorkquist, 3 cr
- 5330 Industrial Course Construction** (prereq educ or grad stu) (A-F only)
806440 1605-1850 T, VoTech R280, Moss, 3 cr
- 5900 Field-Based Projects in Industrial Education** (max 12 cr; prereq 5305, 5325, MEd student)
111501 1-6 cr
- 5901 Independent Study** (prereq Δ) (A-F only)
706348 1-6 cr
- 8700 Seminar: Industrial Education**
007487 1250-1340 T, VoTech R280, Pucel, 0 cr
- 8777 Thesis Credits: Masters**
512183 1-16 cr
- 8900 Research Problems** (prereq approval of candidacy)
609873 3-9 cr
- 8901 Research Problems** (prereq approval of candidacy)
603622 3-9 cr
- INDUSTRIAL ENGINEERING/OPERATIONS RESEARCH (IEOR)
Mechanical Engineering
Institute of Technology**
- r3000 Introduction to Industrial Engineering Analysis** (prereq IT stu)
★LECT 0800-0850 MWF, Arch 50, Barnett
504603 -1 REC 0800-0850 Th, Arch 50, 4 cr

- R5010 Introduction to Work Analysis** (prereq 3000, IT or grad)
★LECT 1010-1100 MWF, MechE 102, Barnett, 4 cr
406098 -1 LAB 1430-1520 M, MechE 212
- R5030 Quality Control and Reliability** (prereq IT or grad stu, Math 1241, ME 3900...IEOR 3000 rec) 909877 -1 1325-1415 MWThF, MechE 102, Dooley, 4 cr
- R5040 Introduction to Operations Research** (prereq IT or grad stu, Math 1241...IEOR 3000 rac) 009093 0905-0955 MWThF, MechE 221, Starr, 4 cr
- R5040H Introduction to Operations Research** (\$5040; prereq Math 1231, ME upper div honors stu...3000 rec) 909426 0905-0955 MWThF, MechE 221, Starr, 4 cr
- R5050 Engineering Economic Analysis** (prereq 3000 or #, IT or grad) 101888 0905-0955 MWThF, FordH 115, Arora, 4 cr
- R5070 Introduction to Human Factors Engineering** (prereq IT or grad or public health stu or #)
★LECT 1115-1205 MWF, MechE 221, Kvalseth
109313 -1 LAB 1430-1520 W, MechE 221, 4 cr
- R5180 Applied Industrial Engineering** (prereq 3000, 5010, 5020, 5030, 5040, Δ) 603037 3-5 cr
- R5181 Applied Industrial Engineering** (prereq 3000, 5010, 5020, 5030, 5040, submission of approved departmental permission form) 202277 3-5 cr
- 5198H Industrial Engineering Upper Division Honor Thesis I** (prereq upper div ME honors stu I EOR option) 603801 4 cr
- 5199H Industrial Engineering Upper Division Honor Thesis II** (prereq upper div ME/IEOR option honors stu) 311472 4 cr
- R5254 Design Morphology with Applications** (prereq completion of sequences ME 3201/3 or 5, ME 3303 or 5342, upper div mech engr maj)
★LECT 1325-1415 T, Arch 55, 4 cr
411978 -1 LAB 1430-1730 T, 1325-1730 Th, Arch 55
- R5351 Analysis of Production Processes** (prereq 5020, IT stu or grad...backgrd in all indus engr areas rec-3000, 5010, 5030, 5040) 705300 1010-1155 TTh, LindH 305, 4 cr
- R5446 Topics in Industrial Engineering** (prereq IT upper div or grad stu...5010, 5020, 5030, 5040 rec) 576336 0800-0850 MWThF, MechE 202, 4 cr
- 8110 Advanced Industrial Engineering** (prereq #) 109822 3 cr
- R8111 Advanced Industrial Engineering** (prereq 8110) 505203 3 cr
- 8310 Production Engineering Problems** (prereq #) 112003 3-5 cr
- 8312 Production Engineering Problems** (prereq 8311) 705846 3-5 cr
- 8410 Industrial Engineering Research** (prereq #) 803599 3-5 cr
- 8411 Industrial Engineering Research** (prereq 8410) 005237 3-5 cr
- 8773 Graduate Seminar (S-N only)** 111022 1525-1625 W, MechE 108, 1 cr
- 8774 Graduate Seminar (S-N only)** 507940 1525-1625 W, MechE 108, 1 cr
- 8775 Graduate Seminar (S-N only)** 003553 1525-1625 W, MechE 108, 1 cr
- 8777 Thesis Credits: Masters** 203932 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr) 110436 1-36 cr

INDUSTRIAL RELATIONS (IR) Management

Non-SMgt students should refer to section 1, Registration instructions for Carlson School of Management Courses, before attempting to register for IR courses.

- R3002 Personnel and Industrial Relations** (\$8002; prereq Econ 1101, 1102, Psy 1001) 106175 -1 0800-0945 TTh, BlegH 435, 4 cr
410037 -2 1030-1230 TTh, BlegH 420, 4 cr
712375 -3 1300-1445 TTh, BlegH 130, 4 cr
- R5002 Systems of Conflict and Dispute Resolution** 308491 1730-2100 M, BlegH 260, Azevedo, 4 cr
- R5990 Independent Study in Personnel and Industrial Relations** (prereq SMgt or grad SMgt approval) 311388 1-8 cr
- R8000 Graduate Topics in Industrial Relations** (prereq 8002, IR MA student or SMgt approval)
★LECT 1300-1445 MW, HHHctr 15
406733 -1 LAB 1300-1445 F, HHHctr 15
★LECT 0800-0945 MW, HHHctr 15
909572 -2 LAB 0800-0945 F, HHHctr 15
- R8002 An Introduction to Industrial Relations** (\$3002; prereq Econ 1001, 1002, Psy 1001, IR MA student or Δ) 703871 1000-1145 TTh, HHHctr 60, 4 cr
- R8003 Staffing, Training and Development** (prereq 8002 or #, IR MA student or Δ) 009689 1000-1145 MW, HHHctr 15, 4 cr
- R8004 Organization Theory and Analysis** (prereq 8002 or #, IR MA student or Δ) 111482 0800-0945 TTh, HHHctr 15, 4 cr
- R8005 Employee Compensation and Reward** (prereq 8002 or #, IR MA student or Δ) 311438 1300-1445 TTh, HHHctr 15, 4 cr
- R8012 Industrial Relations Systems** (prereq completion of the core sequence in IR or #, IR MA student or Δ) 809547 1730-2100 W, BlegH 350, 4 cr
- R8013 Organization and Staffing** (prereq 8003 or #, IR MA student or Δ) 676327 1730-2100 T, BlegH 260, 4 cr
- R8024 Organization Analysis and Environmental Systems** (prereq 8004 or #, IR MA student or Δ) 076325 1730-2100 M, BlegH 340, 4 cr
- R8032 Comparative and International Labor Movements** (prereq 8002 or #, IR MA student or Δ) 105687 1600-1745 TTh, BlegH 255, 4 cr
- R8038 Human Resource Planning** (prereq 8006 or #, IR MA student or Δ) 601627 1730-2100 T, Mgmt/Econ 521, 4 cr
- R8037 The Labor Movement in the United States** (prereq 8007 or #, IR MA student or Δ) 676330 1730-2100 Th, BlegH 340, 4 cr
- 8777 Thesis Credits: Masters** 812402 1-16 cr
- R8801 Seminar: Industrial Relations Research Methodology** (prereq IR MA student or Δ) 276329 1500-1645 MW, BlegH 260, Ahlburg, 4 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr) 007084 1-36 cr
- R8990 Independent Study in Industrial Relations** (prereq #) 604351 ar cr
- R1010 Fundamentals of Information Development and Use** (\$MSci 1010; prereq 30 cr, Math 1111 or #) (A-F only)
★LECT 0800-0915 MW, BlegH 10
609291 -1 LAB 0800-0900 F, BlegH 90, 4 cr
003651 -2 LAB 0915-1015 F, BlegH 90, 4 cr
★LECT 0930-1045 MW, BlegH 10
806891 -3 LAB 0800-0900 Th, BlegH 90, 4 cr
011541 -4 LAB 0915-1015 Th, BlegH 90, 4 cr
★LECT 1100-1215 MW, BlegH 10
604866 -5 LAB 1030-1130 Th, BlegH 90, 4 cr
904386 -6 LAB 1145-1245 Th, BlegH 90, 4 cr
- R3030 Information Systems and Information Management** (\$MIS 3300, MSci 3030; prereq IDSc 1020) (A-F only)
★LECT 0800-0915 MW, BlegH 130
303095 -1 LAB 1500-1600 Th, HHHctr 35, 4 cr
305798 -2 LAB 1615-1715 Th, HHHctr 35, 4 cr
★LECT 0930-1045 MW, BlegH 130
107299 -3 LAB 1230-1330 W, HHHctr 35, 4 cr
507159 -4 LAB 1345-1445 W, HHHctr 35, 4 cr
★LECT 1100-1215 MW, BlegH 130
111319 -5 LAB 1500-1600 W, HHHctr 35, 4 cr
906686 -6 LAB 1615-1715 W, HHHctr 35, 4 cr
- R8102 MIS: Management of the Information Services Function** (\$MIS 8304; prereq MBA 8025 or #) (A-F only) 910219 1500-1645 MW, BlegH 340, 4 cr
- R8502 Organization Theory and Research in the Information and Decision Sciences** (prereq 8501, PhD stu or #) (A-F only) 509719 1000-1145 TTh, Law 1, 4 cr
- R8503 Cognitive Science Research and Theory in the Information and Decision Sciences** (prereq 8501, PhD stu or #) (A-F only) 507727 1500-1645 TTh, HHHctr 60, 4 cr
- R8899 Seminar in MIS Topics** (\$MIS 8850, may be repeated for credit; prereq PhD stu or #) (A-F only) 305719 1415-1600 MW, BlegH 230, 4 cr
- 8990 Readings in Information and Decision Sciences** (\$DSci 8990, MIS 8990; prereq PhD stu, #) (A-F only) 008297 ar cr
- 8995 Graduate Research in Information and Decision Sciences** (\$DSci 8995, MIS 8995; prereq PhD stu, #) (A-F only) 603653 ar cr

INSURANCE (Ins) Management

Non-SMgt students should refer to section 1, Registration instructions for Carlson School of Management Courses, before attempting to register for Ins courses.

- R5100 Risk Management and Insurance** (\$3100, 8100) (A-F only) 606228 0915-1015 MWF, BlegH 220, 4 cr
- 8990 Readings in Risk Management and Insurance** (prereq consent of advisor, #, grad SMgt approval) 306045 ar cr
- 8995 Graduate Research in Risk Management and Insurance** (prereq grad SMgt approval) 303131 ar cr
- INTERDEPARTMENTAL STUDY (ID) Liberal Arts**
- 3170 HECUA Off-Campus Study Program: Metro Urban Studies Term** (prereq #) 175139 1-24 cr
- 3180 HECUA Off-Campus Study Program: City Arts** (prereq #) 208001 1-24 cr
- R3925 Life/Career Planning** (prereq sr or #) 477060 0905-1100 F, Aph 103, Kline, 2 cr
- 3970 Directed Studies** (prereq consult with Office for Special Learning Opportunities, JohH 220, □) 302349 1-15 cr

INFORMATION AND DECISION SCIENCES (IDSc) Management

Non-SMgt students should refer to section 1, Registration instructions for Carlson School of Management Courses, before attempting to register for 3000- and 5000-level IDSc courses.

INTERDISCIPLINARY MEDICINE

(InMd)

Medical School

- 5000 Independent Study, Student Status**
607069 0 cr
- 5001 Directed Study I** (prereq regis med, Medical School Student Affairs Office approval)
901780 0 cr
- 5002 Directed Study II** (prereq regis med, Medical School Student Affairs Office approval)
209780 0 cr
- 5003 Research** (prereq regis med, Medical School Student Affairs/Curriculum Office approval)
102359 0 cr
- 5004 Directed Study III** (prereq regis med, Medical School Student Affairs/Curriculum Office approval)
803926 0 cr
- 5201 Pathophysiology I** (prereq regis med, Medical School Curriculum Affairs Office Approval) (S-N only)
403041 0905-1100 MWF, 0800-0955 TTh, 1220-1310 Th, MoosT 2650, Soltis, 13 cr (Sept 3-Nov 23)
- 5500 Clinical Medicine IV/Ambulatory Medicine** (prereq regis med) (S-N only)
803974 0830-1600 W, PWB 8335, 9 cr
- 5501 Emergency Room Externship** (prereq regis med, Med 5500)
105138 9 cr
- 5552 Indian Health Service Elective** (prereq regis med)
304554 ar cr
- 5555 Elective Away for Credit** (prereq #)
602325 ar cr
- 5560 Elective Away at the National Institutes of Health**
503340 ar cr

INTERNATIONAL RELATIONS

(IntR)

Liberal Arts

- r3101 Theoretical Approaches to International Relations** (prereq international relations maj or #) (A-F only)
★LECT 0905-0955 MW, BlegH 5, Leibel 803988 -1 REC 0905-0955 Th, HHCtr 20, 4 cr
103835 -2 REC 1010-1100 Th, HHCtr 20, 4 cr
376337 -3 REC 0800-0850 F, BlegH 335, 4 cr
806261 -4 REC 0905-0955 F, BlegH 340, 4 cr
212453 -5 REC 0905-0955 F, BlegH 335, 4 cr
076339 -6 REC 1325-1415 F, BlegH 335, 4 cr
- r3101H Honors Course: Theoretical Approaches to International Relations** (prereq honors international relations maj or #) (A-F only)
★LECT 0905-0955 MW, BlegH 5, Leibel 907272 -80 REC 0800-0955 F, BlegH 435, 5 cr
- r3900 Topics in International Relations: International Human Rights Law**
708651 1430-1700 M, Law 35, Frey, 4 cr
- 3960 Field Studies/Internship In International Studies** (max 8 cr for international relations maj; prereq Δ)
107951 1-8 cr
- 3970 Directed Studies** (prereq #, Δ, □)
111255 1-15 cr
- r3981 Major Project Seminar** (prereq non-honors IntR maj, sr, or #) (A-F only)
202781 1245-1400 TTh, BlegH 225, 4 cr
- 3990H Honors Course: Supervised Research Paper** (†3990H; prereq sr honors candidate in international relations, Δ)
708181 1-5 cr
- r5701 Theories of International Development** (prereq international relations maj or #)
810293 1430-1545 TTh, BlegH 210, Hinnebusch, 4 cr

ITALIAN (Ital)

French And Italian

Liberal Arts

- r1101 Beginning Italian**
110428 -1 0800-0850 MTWThF, Phys 157, 5 cr
702381 -2 0800-0850 MTWThF, KolH S136, 5 cr
976186 -3 0800-0850 MTWThF, FolH 240, 5 cr
412547 -4 0905-0955 MTWThF, KolH S136, 5 cr
109321 -5 1010-1100 MTWThF, AmundH 158, 5 cr
403945 -6 1115-1205 MTWThF, AmundH 158, 5 cr
511177 -7 1115-1205 MTWThF, KolH S136, 5 cr
908857 -8 1220-1310 MTWThF, KolH S136, 5 cr
- r1104 Intermediate Italian** (prereq 1103)
309950 -1 0945-1100 MWF, CivMinE 213, 5 cr
907126 -2 1015-1130 MWF, JonesH 10, 5 cr
503371 -3 1115-1230 MWF, PeikH 155, 5 cr
802937 -4 1145-1300 MWF, PeikH 315, 5 cr
211612 -5 1220-1335 MWF, JonesH 4, 5 cr
- r1106 Intermediate Italian** (prereq 1105)
276962 1220-1335 MWF, FolH 214, 5 cr
- r3015 Intermediate Italian Conversation and Composition** (prereq 1106)
776187 0905-1100 MW, NichH 209A, Martinez, 4 cr
- r3303 Italian Drama** (prereq 3015)
576188 1325-1440 MW, FolH 134, Martinez, 4 cr
- 3970 Directed Readings** (prereq undergrad, #, Δ, □)
107343 1-5 cr
- 8777 Thesis Credits: Masters**
303064 1-16 cr
- 8970 Directed Readings**
608285 1-5 cr

JAPANESE (Jpn)

East Asian Studies

Liberal Arts

- r1011 Beginning Japanese**
★LECT 0905-0955 TTh, SmithH 331
805059 -1 REC 0800-0850 MTWThF, SmithH 111, 5 cr
304067 -2 REC 0800-0850 MTWThF, SmithH 121, 5 cr
607282 -3 REC 1010-1100 MTWThF, SmithH 121, 5 cr
★LECT 1115-1205 TTh, SmithH 331
203722 -4 REC 0905-0955 MTWThF, SmithH 121, 5 cr
702638 -5 REC 1010-1100 MTWThF, LindH 216, 5 cr
806941 -6 REC 1220-1310 MTWThF, SmithH 121, 5 cr
- r3021 Intermediate Japanese** (prereq 1013)
★LECT 0800-0850 TTh, FolH 134, Jacobsen
804946 -1 REC 0800-0850 MWF, FolH 134, 5 cr
106850 -2 REC 0800-0850 MWF, FolH 426, 5 cr
★LECT 0905-0955 TTh, FolH 134
301928 -3 REC 0905-0955 MWF, FolH 344, 5 cr
611686 -4 REC 0905-0955 MWF, FolH 134, 5 cr
- 3031 Third Year Japanese** (prereq 3023)
801934 0945-1100 TTh, FolH 116, Monnet, 5 cr
- 3051 Advanced Japanese Conversation and Composition** (§5051; prereq 3023 or #)
403377 1220-1310 MWF, FolH 426, Sztatrowski, 4 cr
- 3090H Honors Course: Tutorial** (prereq Δ)
407073 1-4 cr
- 3163 Traditional Japanese Literature In English Translation**
775718 1430-1520 MWF, FolH 214, Copeland, 4 cr
- 3451 Introduction to Japanese Linguistics** (prereq 3023 or #)
406666 1325-1440 TTh, FolH 246, Jacobsen, 4 cr
- 3970 Directed Studies** (prereq #, Δ, □)
405940 1-15 cr
- 5051 Advanced Japanese Conversation and Composition** (§3051; prereq 3023 or #)
612112 1220-1310 MWF, FolH 426, Sztatrowski, 4 cr

5460 Topics In Japanese Literature (prereq 3033)
575719 1430-1545 TTh, FolH 240, Monnet, 4 cr

5970 Directed Studies In Japanese (prereq #, Δ, CLA approval)
909054 1-15 cr

8777 Thesis Credits: Masters
111823 1-16 cr

8888 Thesis Credits: Doctoral (max 18 cr per qtr)
612479 1-36 cr

JEWISH STUDIES (JwSt)

Classical & Near Eastern Studies

Liberal Arts

5970 Directed Readings (max 12 cr; prereq #, Δ, CLA approval)
009031 1-12 cr

JOURNALISM AND MASS

COMMUNICATION (Jour)

Liberal Arts

- r1001 Introduction to Mass Communication** (A-F only)
003293 0905-0955 MW, 0905-1100 F, MurH 105, Babcock, 4 cr
- r3003 Producing Mass Media Messages** (§1003; prereq formal pre-jour prog filed, 1001, fr comp or exemption, Δ) (A-F only)
★LECT 1115-1205 TTh, MurH 105, Ward, 4 cr
174752 -1 LAB 1325-1415 T, MurH 435
074753 -2 LAB 1430-1520 T, MurH 435
874754 -3 LAB 1325-1415 W, MurH 435
674755 -4 LAB 1430-1520 W, MurH 435
474756 -5 LAB 0800-0850 Th, MurH 435
274757 -6 LAB 0905-0955 Th, MurH 435
174758 -7 LAB 1010-1100 Th, MurH 435
974759 -8 LAB 1220-1310 Th, MurH 435
274760 -9 LAB 1010-1100 F, MurH 435
275276 -10 LAB 1115-1205 F, MurH 435
175277 -11 LAB 1220-1310 F, MurH 435
- r3003H Honors Course: Producing Mass Media Messages** (§1003H; prereq formal pre-jour prog filed, 1001, fr comp or exemp, honors div reg, #, Δ) (A-F only)
★LECT 1115-1205 TTh, MurH 105, Ward, 4 cr
475275 -80 LAB 1220-1310 T, MurH 435
- r3004 Information for Mass Communication** (§1004; prereq jour maj or min status, 3003, Δ) (A-F only)
974762 1325-1415 MWF, MurH 105, Hansen, 4 cr
- r3007 The Media In American History and Law: Case Studies** (prereq jour maj or min status, 3004, or †3004, Δ) (A-F only)
903321 1220-1310 MWF, MurH 105, 4 cr
- r3008 Mass Communication Processes and Structure** (prereq jour maj or min status, 3004 or †3004, Δ) (A-F only)
176694 1115-1205 MWF, MurH 105, Chang, 4 cr
- r3101 Reporting** (prereq jour maj status, 3004, grad students must pass 30 wpm, Δ) (A-F only)
907403 -1 1500-1800 MW, MurH 212, 4 cr
411480 -2 0905-1205 TTh, MurH 212, 4 cr
- r3121 Public Affairs Reporting** (prereq jour maj status, 3004, 3101, grad students must pass 30 wpm, Δ) (A-F only)
704504 1115-1310 MW, MurH 435, Babcock, 4 cr
- r3155 Publications Editing** (prereq jour maj status, 3004, 3101, Δ) (A-F only)
★LECT 0800-1200 M, 0800-1100 W, MurH 315, Johnson, 4 cr
109263 -1 LAB 0800-1100 F, MurH 315, (not all lab hrs required)
- r3173 Magazine Writing** (prereq jour maj status, 3004, 3101, Δ) (A-F only)
002595 1010-1100 MWF, MurH 212, Roberts, 4 cr
- r3201 Principles of Advertising** (prereq jour maj or min status, 3004, Δ) (A-F only)
710156 1245-1400 TTh, MurH 105, Soley, 4 cr
- r3241 Advertising Copywriting** (prereq jour maj status, 3004, 3201, Δ) (A-F only)
708164 0945-1100 MW, MurH 311, 4 cr
- r3301 Basic Photographic Communication** (prereq jour maj status, 3004, Δ) (A-F only)
975278 0905-1205 MW, MurH 20, 4 cr

- r3451 Television and Radio News** (prereq jour maj status, 3004, 3101, Δ) (A-F only)
★LECT 0905-1100 MF, MurH 207, Fang, 4 cr
907546 -1 LAB 1030-1230 T, 0800-1205 W, MurH 207, 302
- r3776 Mass Communication Law** (prereq jour maj or min status, 3004, Δ) (A-F only)
609985 1415-1530 TTh, MurH 105, Busterna, 4 cr
- r3970 Projects in Journalism** (max 8 cr; prereq jour maj or min status, #, Δ, □) (A-F only)
612613 1-4 cr
- r5261 Advertising: Media Analysis** (prereq jour maj status, 3004, 3201 or #, Δ) (A-F only)
704888 1415-1530 TTh, MurH 311, Tims, 4 cr
- r5274 Advertising in Society** (prereq jour maj or min, 3004, sr, Δ) (A-F only)
611137 0945-1100 TTh, MurH 308, Busterna, 4 cr
- r5303 Projects in Photographic Communication** (prereq jour maj status, 3004, 5302 or #, Δ) (A-F only)
602227 1315-1600 TTh, MurH 20, Schwartz, 4 cr
- r5316 Theories of Visual Communication** (only officially admitted maj or min in SJMC prog may apply this course toward maj or min) (A-F only)
775279 0945-1100 TTh, MurH 105, Griffin, 4 cr
- r5501 Communication and Public Opinion I** (prereq jour maj or min status, Δ) (A-F only)
175280 1430-1520 MWF, MurH 105, Chang, 4 cr
- r5611 Development of American Broadcasting** (only officially admitted maj or min in SJMC prog may apply this course toward maj or min) (A-F only)
508148 1325-1415 MWF, MurH 308, Fang, 4 cr
- r5725 The Management of Media Organizations** (prereq jour maj or min status, 3004, Δ) (A-F only)
001561 1600-1730 TTh, MurH 311, 4 cr
- r5731H Honors Course: Communications Problems and Issues** (prereq jour maj or min status, 3004, sr, #, Δ, honors div registration) (A-F only)
975281 0945-1100 MW, MurH 435, Hansen, 4 cr
- r5777 Contemporary Problems in Freedom of Speech and Press** (prereq jour maj or min status, 3004, Δ) (A-F only)
211271 0945-1145 TTh, MurH 311, Gillmor, 4 cr
- r5801 International Communication** (prereq jour maj or min, 3004, Δ) (A-F only)
201923 1430-1520 MWF, MurH 308, Lee, 4 cr
- r5970 Advanced Projects in Journalism** (max 8 cr; prereq jour maj or min status, 3004, #, B avg, Δ, □) (A-F only)
003732 1-4 cr
- r5970H Honors Course: Advanced Projects in Journalism** (prereq jour maj or min status, 3004, #, B avg, Δ, □, honors div registration) (A-F only)
305268 1-4 cr
- r8010 Studies in Mass Communication** (A-F only)
008770 0800-0955 WF, MurH 308, Tichenor, 4 cr
- r8501 Seminar: The Process of Quantitative Mass Communication Research** (prereq 12 cr in soc sci, stat course or I) (A-F only)
604768 1325-1520 TTh, MurH 30, Wackman, 4 cr
- r8650 Seminar: Mass Communication Theory** (prereq proseminars, #, Δ) (A-F only)
775282 1010-1205 MW, MurH 30, Lee, 4 cr
- r8660 Seminar: History of Mass Communication** (prereq 5601, #, Δ) (A-F only)
801562 1220-1520 W, MurH 30, Roberts, 4 cr
- r8670 Communication Agencies as Social Institutions** (prereq 5721 or equiv or #, Δ) (A-F only)
310645 1010-1310 F, MurH 30, Johnson, 4 cr
- 8777 Thesis Credits: Masters**
104216 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
701781 1-36 cr
- r8970 Advanced Projects in Mass Communication** (max 8 cr; prereq grad maj or min in mass comm, #, Δ) (A-F only)
010986 1-4 cr

KINESIOLOGY (Kin) School of Physical Education and Recreation Education Also see (PE)

- r1871 Introduction to Kinesiology** (§PE 1871) (A-F only)
074767 1010-1205 TTh, CookeH 214, Wade, 3 cr
- r1990 Directed Study** (§PE 1990; prereq Δ) (A-F only)
874768 Serfass, 1-6 cr
- r3132 Motor Development** (§PE 3132) (A-F only)
674769 1115-1205 MWF, CookeH 215, Burton, Taylor, 3 cr
- r3143 Organization and Management of Sport** (§PE 3143; prereq 2 cr coaching course; PEL) (A-F only)
074770 1010-1100 MWF, CookeH 215, Krotee, 3 cr
- r3327 Teaching Physical Education in the Elementary School** (§PE 3327; prereq elementary education maj) (A-F only)
474773 -1 1325-1415 MWF, NorrisH M153A, M153, 3, Lampe, 3 cr
274774 -2 1430-1520 MWF, NorrisH M153A, M153, 3, Lampe, 3 cr
- r3371 Soccer Coaching** (§PE 3371; prereq PE 1072 or #; PEL) (A-F only)
575168 0905-0955 MW, CookeH 215, Krotee, 2 cr
- r3385 Exercise Physiology** (§PE 3385; prereq CBN 1027 or equiv) (A-F only)
★LECT 1220-1310 MWF, CookeH 214, 215, Serfass, 4 cr
974776 -1 LAB 1010-1205 Th, MoosT 3110
- r3624 Student Teaching: Coaching** (§PE 3624; prereq Δ; PEL) (S-N only)
774777 1830-2000 W, CookeH 215, La Mott, 3 cr (addtl hrs ar)
- r3625 Supervised Practical Experience** (§PE 3625; max 12 cr; prereq Δ) (S-N only)
574778 1615-1800 T, CookeH 214, Schulz, Serfass, 1-12 cr (addtl hrs ar)
- r3900 Directed Study** (§PE 3900; max 12 cr; prereq Δ) (A-F only)
374779 1-12 cr
- 5100 Teaching Physical Education for the Handicapped** (§PE 5100; prereq #; PEL) (A-F only)
774780 1815-2015 W, CookeH 214, Burton, 3 cr (1 hr ar)
- r5120 Advanced Biomechanics/Kinesiology** (§PE 5120; prereq biomechanics, 3111, or #; PEL) (A-F only)
574781 1615-1815 TTh, NorrisH3, Greer, 4 cr
- r5121 Contributions of Basic Science to Kinesiology** (§PE 5121) (A-F only)
375169 1615-1815 W, NorrisH 3, Hancock, 3 cr
- r5122 Applied Physiology** (§PE 5122; prereq 3386 or equiv or #; PEL) (A-F only)
374782 1815-2015 M, CookeH 215, Serfass, 3 cr
- r5132 Motor Development** (§CPsy 5322, PE 5131, PE 5132; prereq 3132 or #) (A-F only)
174783 1615-1815 T, CookeH 206, Wade, 3 cr
- r5136 Psychology of Coaching** (§PE 5136; PEL) (A-F only)
775170 1615-1815 W, CookeH 400, Wiese, 3 cr
- r5151 Curriculum** (§PE 5151; prereq educ sr or grad stu, 3322, 3323 or #; PEL) (A-F only)
575171 1615-1815 M, CookeH 214, 3 cr
- 5389 Practical Experience in Graded Exercise Testing, Prescription, and Direction** (§PE 5389; max 6 cr; prereq 5388 or #) (A-F only)
874785 Serfass, 3-6 cr
- 5581 Clinical Experience I: Physical Education** (prereq admission to post BA phys ed licensure prog or #, 5521, 5522; PEL) (S-N only)
776920 Spletzer, 6 cr
- r5720 Topics in Kinesiology** (§PE 5720; max 12 cr; prereq #) (A-F only)
674786 1615-1815 W, CookeH 215, Wiese, 3 cr
- 5980 Research Methodology** (§PE 5980; prereq educ or grad stu) (A-F only)
474787 1615-1845 Th, CookeH 206, Kane, 3 cr

- 5981 Problems** (§PE 5981; prereq MEd candidate, #) (A-F only)
175196 -21 Burton, ar cr
375172 -22 Greer, ar cr
175173 -23 Hancock, ar cr
075174 -24 Kane, ar cr
875175 -25 Krotee, ar cr
475177 -26 Serfass, ar cr
275178 -28 Wade, ar cr
175179 -29 Wiese, ar cr
- 5983 Readings: Kinesiology** (§PE 5983; max 9 cr; prereq educ or grad stu) (A-F only)
775198 -21 Burton, ar cr
475180 -22 Greer, ar cr
275181 -23 Hancock, ar cr
175182 -24 Kane, ar cr
775184 -25 Krotee, ar cr
575185 -26 Serfass, ar cr
375186 -28 Wade, ar cr
175187 -29 Wiese, ar cr
- 8777 Thesis Credits: Masters** (§PE 8777)
274791 1-16 cr
- 8888 Thesis Credits: Doctoral** (§PE 8888; max 18 cr per qtr)
174792 1-36 cr
- 8980 Graduate Research Seminar** (§PE 8980; max 2 cr; prereq #) (S-N only)
974793 1430-1625 M, CookeH 110, 215, 400, Wade, 1 cr
- 8981 Research Problems** (§PE 8981; prereq 8980 or #) (S-N only)
575199 -21 Burton, ar cr
075188 -22 Greer, ar cr
875189 -23 Hancock, ar cr
175190 -24 Kane, ar cr
075191 -25 Krotee, ar cr
675193 -26 Serfass, ar cr
475194 -28 Wade, ar cr
275195 -29 Wiese, ar cr

LABORATORY MEDICINE AND PATHOLOGY (LaMP) Laboratory Medicine and Pathology Medical School

- 5102 Organ System Pathology** (prereq registered 2nd yr med student)
★LECT 0800-0850 M, 1325-1415 T, MoosT 2650, Perrone, others, (Sept 3-Dec 20)
403587 -1 LAB 1430-1625 T, MoosT 3317, 3337, 3343, 3349, 2-7 cr (Sept 3-Dec 20)
003388 -2 LAB 1430-1625 Th, MoosT 3317, 3337, 3343, 3349, 2-7 cr (Sept 3-Dec 20)
- 5113 Surgical Pathology: University Hospitals** (prereq 3rd or 4th yr medical student)
605189 Shover, ar cr
- 5114 Surgical Pathology: Hennepin County Medical Center** (prereq 3rd or 4th yr medical student)
201744 Anderson, ar cr
- 5115 Surgical Pathology: Veterans Administration Hospital** (prereq 3rd or 4th yr medical student)
507033 Limes, ar cr
- 5118 Endocrine Pathology: St. Paul Ramsey Hospital** (prereq 3rd or 4th yr medical student)
805546 Lakatua, ar cr
- 5119 Forensic Pathology: Medical Examiner's Office, Hennepin County Medical Center** (prereq 3rd or 4th yr medical student)
108394 Peterson, ar cr
- 5125 Chronobiology** (prereq 3rd or 4th yr medical student, #)
610117 Halberg, ar cr
- 5141 Problems in Experimental Pathology** (prereq 3rd or 4th yr medical student, #)
004069 ar cr
- 5150 Anatomic Pathology in a Hospital Setting: University Hospitals** (prereq 3rd or 4th yr medical student)
105519 Burke, ar cr
- 5151 Anatomic Pathology in a Hospital Setting: Hennepin County Medical Center** (prereq 3rd or 4th yr medical student)
601773 Anderson, Strom, ar cr

- 5152 Anatomic Pathology in a Hospital Setting: Veterans Administration Hospital** (prereq 3rd or 4th yr medical student)
903254 Posalaky, L., ar cr
- 5153 Anatomic Pathology in a Hospital Setting: St. Paul-Ramsey Medical Center** (prereq 3rd or 4th yr medical student)
809208 Posalaky, ar cr
- 5158 Cardiac Pathology: Miller Hospital** (prereq 3rd or 4th yr medical student, #)
402228 Edwards, Titus, ar cr
- 5172 Pathology for Allied Health Students** (prereq regis A.H. program, anat, physiol, #)
807085 1010-1205 TTh, Moost 2530, Bradley, 4 cr
- 5180 Anatomic and Clinical Pathology in a Hospital Setting** (prereq 3rd or 4th yr medical student) (S-N only)
605841 Jones, 4-9 cr
- 5181 Laboratory and Clinical Hematology** (prereq #)
408336 Brunning, ar cr
- 5182 Laboratory Studies of Genetic Disorders** (prereq #)
111084 Eaton J., ar cr
- 5184 Immunohematology in Blood Banking** (prereq #)
312153 McCullough, ar cr
- 5185 Laboratory Problems in Blood Coagulation** (prereq #)
007554 Edson, ar cr
- 5186 Laboratory Medicine in a Community Hospital** (prereq 4th yr medical student, #)
111411 Bandt, ar cr
- 5187 Clinical Pathology Externship: Mt. Sinai Hospital** (prereq #)
111960 Horwitz, ar cr
- 5188 Clinical Pathology Externship: Methodist Hospital** (prereq #)
205843 Segal, ar cr
- 5189 Applied Clinical Pathology: St. Paul Ramsey Hospital** (prereq 4th yr medical student)
104846 Haus, ar cr
- 5192 Laboratory Medicine for Primary Care: Virginia** (prereq 4th yr medical student, #)
811301 Kinabe, ar cr
- 5193 Clinical Pathology Externship: Hibbing Hospital** (prereq #)
704292 Eilers, ar cr
- 5194 Computer Applications in Medicine** (prereq #)
609324 Ellis, ar cr
- 5195 Computer Applications in Medical Research** (prereq #)
008428 Ellis, ar cr
- 5210 Surgical Pathology for Post-M.D.s** (prereq regis med fellow special, #)
103535 1-10 cr
- 5211 Autopsies for Post-M.D.s** (prereq regis med fellow special, #)
110453 1-10 cr
- 5213 Laboratory Medicine for Post-M.D.s** (prereq regis med fellow special, #)
011412 1-10 cr

LANDSCAPE ARCHITECTURE (LA)

Arch & Landscape Arch

- r1021 History of Environmental Development: Architecture** (§Arch 1021)
906011 1115-1310 TTh, NichH 45, Satkowski, 4 cr (Mpls)
- r1031 Introduction to Landscape Architecture**
911905 1700-1845 MW, Arch 45, 4 cr (Mpls)
- 3067 Landscape Construction: Structural Systems** (prereq 3087 or #) (A-F only)
403752-0800-1000 M, 0830-1235 F, AlderH 405, Neckar, 4 cr
- 3081 Basic Design** (prereq LA student) (A-F only)
904453 1400-1730 MWF, NorH 315, Moriarty, 8 cr
- 3091 Intermediate Design** (prereq 3083) (A-F only)
306059 1400-1730 MWF, AlderH 405, Sykes, Clemence, 6 cr

- 3094 Independent Study in Graphics** (prereq landscape architecture student, #) (A-F only)
110848 1-4 cr
- 3095 Independent Study in Planting Design** (prereq landscape architecture student, #) (A-F only)
411303 1-4 cr
- 3096 Independent Study in History or Theory** (prereq landscape architecture student, #) (A-F only)
105253 1-4 cr
- 3097 Independent Study in Computer Aided Design** (prereq landscape architecture, #) (A-F only)
707418 1-4 cr
- 3098 Independent Study in Design** (prereq landscape architecture student, #) (A-F only)
504410 1-4 cr
- 3099 Independent Study in Technology** (prereq landscape architecture student, #) (A-F only)
607279 1-4 cr
- 3200 Landscape Architecture Practicum** (prereq landscape architecture student, #) (S-N only)
407283 1-6 cr
- 5103 Urban Landscape Design I** (prereq 3093) (A-F only)
210721 1400-1730 MWF, NorH 305, 8 cr
- 5131 Directed Studies in Landscape Architecture History and Theory** (prereq third yr landscape architecture student, Δ) (A-F only)
107827 1-6 cr
- 5132 Directed Studies in Landscape Architecture Design** (prereq third yr landscape architecture student, Δ) (A-F only)
902248 1-6 cr
- 5133 Directed Studies in Landscape Architecture Technology** (prereq third yr landscape architecture student, Δ) (A-F only)
408482 1-6 cr
- 5134 Directed Studies in Emerging Areas for Landscape Architecture** (prereq third yr landscape architecture student, Δ) (A-F only)
103924 1-6 cr
- 5140 Interdisciplinary Studies in Landscape Architecture** (max 18 cr; prereq #) (A-F only)
412287 Sand, 2-6 cr
- 5285 History of Landscape Architecture: Individual Influences** (prereq third yr LA student) (A-F only)
877039 1000-1200 MW, BioSci 70, Neckar, 4 cr
- 8281 Research Issues in Landscape Architecture** (prereq MLA student or #) (A-F only)
406411 1200-1400 W, NorH 207, Pitt, 2 cr
- 8284 Landscape Architecture Colloquium** (prereq 8283 or #) (S-N only)
102765 Pitt, 1 cr
- 8500 Landscape Architecture Research Project** (prereq 8283 or #) (A-F only)
606858 1-6 cr
- 8600 Landscape Architecture Education** (prereq M.L.A. candidate or #) (A-F only)
309821 1-4 cr
- 8777 Thesis Credits: Masters**
905277 1-16 cr

LARGE ANIMAL CLINICAL SCIENCES (LACS)

See (CAPS)

LATIN (Lat) Classical & Near Eastern Studies Liberal Arts

- r1101 Beginning Latin** (1101-1102t)
508117 -1 0800-0850 MTWThF, Phys 236A, 5 cr
111232 -2 0905-0955 MTWThF, Arch 20, 5 cr
308975 -3 1010-1100 MTWThF, Arch 20, 5 cr
412239 -4 1010-1100 MTWThF, JonesH 4, 5 cr
802498 -5 1115-1205 MTWThF, Arch 20, 5 cr
107870 -6 1325-1415 MTWThF, Phys 236A, 5 cr
- 1104 Latin Prose** (§3104; prereq 1103 or 3 yrs high school Latin or Δ)
501975 -1 0800-0850 MTWThF, FolH 234, Sonkowsky, 5 cr
109859 -2 1325-1415 MTWThF, FolH 334, 5 cr

- 1111H Honors Course: Beginning Latin** (prereq regis in honors division or high ability as indicated by college entrance records)
475485 0905-0955 MTWThF, FolH 234, Erickson, 5 cr
- 3051 Accelerated Beginning Latin** (3051-3052t, §1101, 1102, 1103, 1104)
275486 0905-0955 MTWThF, FolH 234, Erickson, 5 cr
- 3104 Latin Prose** (§1104; prereq 3052 or 3002 or equiv or #)
009790 -1 0800-0850 MTWThF, FolH 234, Sonkowsky, 5 cr
104239 -2 1325-1415 MTWThF, FolH 334, 5 cr
- 3440 Advanced Undergraduate Latin: Later Latin Authors** (prereq 3106 or 4 yrs high school Latin or Δ)
111806 1220-1400 TTh, FolH 116, Nicholson, 5 cr
- 3951 Major Project** (prereq Greek-Latin or Latin maj, three 3xxx courses in Latin or #) (A-F only)
704762 5 cr
- 3980H Honors Tutorial** (prereq Δ)
107559 5 cr
- 3970 Directed Studies** (prereq #, Δ, □)
105021 1-5 cr
- 5715 Introduction to Classical Philology** (§Grk 5715)
675484 1220-1310 MWF, FolH 344, Sheets, 4 cr
- 5970 Directed Studies** (prereq #, Δ, CLA approval)
807359 1-5 cr
- 5980 Directed Instruction** (prereq #, Δ, CLA approval)
705104 ar cr
- 5990 Directed Research** (prereq #, Δ, CLA approval)
406103 ar cr
- 8120 Latin Text Course** (prereq 3052 or Δ, non-maj)
405839 1220-1400 TTh, FolH 116, Nicholson, 4 cr
- 8777 Thesis Credits: Masters**
506013 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
210881 1-36 cr
- 8910 Seminar: Senecan Drama** (S-N only)
875483 1325-1520 M, FolH 142, Sonkowsky, 4 cr

LATIN AMERICAN STUDIES (LAS)

Liberal Arts

- 3070 Agriculture and Economic Growth in Developing Countries** (§AgEc 3070; prereq AgEc 1101, AgEc 1102, or Econ 1101, Econ 1102)
002788 1015-1140 TTh, ClaOff B30, 4 cr
- 3121 Latin America** (§Geog 3121)
308720 1010-1100 MWF, AndH 210, Weil, 4 cr
- 3131 Introduction to Latin American Studies**
510871 1115-1230 TTh, BlegH 145, 4 cr
- r3134 Middle America** (§Geog 3131)
906736 0905-0955 MWF, BlegH 155, Barrett, 4 cr
- r3251 Spanish-American Literature: Aspects of Prose and Fiction** (§Span 3251)
802789 1010-1100 MWF, FolH 104, Vidal, 4 cr
- r3401 Survey of Latin American History: Colonial Period to 1800** (§Hist 3401)
*LECT 0945-1100 TTh, BlegH 5, Schwartz
201663 -1 REC 1115-1205 M, BlegH 240, 4 cr
010745 -2 REC 0800-0850 T, BlegH 215, 4 cr
706740 -3 REC 1115-1205 T, BlegH 245, 4 cr
608724 -4 REC 1220-1310 T, BlegH 210, 4 cr
506741 -5 REC 1010-1100 W, HHHCtr 20, 4 cr
404724 -6 REC 1115-1205 Th, BlegH 255, 4 cr
- r3441 The Spanish-Mexican Border-Lands and the Chicano Experience to 1900** (§Chic 3441, Hi 3441)
801657 1010-1100 MWF, ScottH 4, Valdes, 4 cr
- r3502 Luso-Brazilian Civilization II** (§Span 3502)
977063 1115-1205 MWF, FolH 218, Sullivan, 5 cr
- r5527 National Literary Consciousness and Free Trade** (§Span 5527; prereq three 3XXX or 5XXX Spanish or Portuguese lit courses or Δ)
777064 1515-1800 W, FolH 240, Vidal, 4 cr

5970 Directed Studies (prereq #, Δ, CLA approval)
709282 -1 ar cr
510076 -2 ar cr

LAW SCHOOL (Law)

Contact Law School for Information

LEARNING AND ACADEMIC SKILLS (LASK)

Liberal Arts

r1001 **Becoming a Master Student** (not for CLA degree credit)
712148 -1 0800-0850 MWF, EddyH 102, 2 cr
604947 -2 0905-0955 MWF, EddyH 102, 2 cr
608111 -3 1010-1100 MWF, EddyH 102, 2 cr
311343 -4 1115-1205 MWF, EddyH 102, 2 cr
011863 -5 1220-1310 MWF, Kolth S135, 3 cr (ESL only)
606469 -6 1220-1310 MWF, EddyH 102, 2 cr
203106 -7 1325-1415 MWF, EddyH 102, 2 cr

1301 **Career Planning for Disabled Students**
312556 1325-1520 Th, NichH 209A, Aase, 2 cr

LINGUISTICS (Ling)

Linguistics

Liberal Arts

r1005 **Language and Society**
608092 0945-1100 TTh, BuH 120, 4 cr

r3001 **Introduction to Linguistics** (§3005, 5001)
★LECT 1010-1100 MTW, Phys 170
412290 -1 REC 1010-1100 Th, AkerH 215, 5 cr
108310 -2 REC 1010-1100 Th, FolH 234, 5 cr
205308 -3 REC 1010-1100 F, FolH 419, 5 cr
008946 -4 REC 1010-1100 F, FolH 214, 5 cr

r3001H **Introduction to Linguistics** (§3001, 5001, 3005; prereq honors regis or #)
★LECT 1010-1100 MTW, FolH 208, Gundel
805384 -80 REC 1010-1100 F, FolH 208, 5 cr

3051H **Honors Course: Linguistics** (prereq candidacy for honors in linguistics or #)
503158 4 cr

3111 **Writing Systems and Decipherment**
276959 1430-1520 MWF, LindH 303, Sanders, 4 cr

r3301 **Phonetics** (§3301, 5003; prereq 3001 or f or #)
608349 1115-1205 MTWThF, PeikH 225, Stemberger, 5 cr

3970 **Directed Studies** (prereq linguistics maj, #, Δ, □)
810486 1-5 cr

3971 **Senior Project** (prereq #) (S-N only)
905828 1 cr

r5001 **Introduction to Linguistics** (§3001, 3005; prereq grad standing or #)
★LECT 1010-1100 MTW, FolH 208, Gundel
004105 -1 REC 1010-1100 Th, FolH 208, 5 cr

r5003 **Applied Phonetics** (§3301, 5301; prereq 5001 or f or #)
402410 1430-1520 MTWThF, Arch 20, Cohen, 5 cr

5011 **Mathematical Linguistics** (prereq linguistics maj or #)
408465 1115-1230 TTh, FolH 142, Hutchinson, 4 cr

r5301 **Phonetics** (§3301, 5003; prereq 3001 or 5001 or f or #)
310919 1115-1205 MTWThF, PeikH 225, Stemberger, 5 cr

5304 **Advanced Phonology** (prereq 5201, 5303 or #)
407669 0945-1100 TTh, FolH 426, Houlihan, 4 cr

5802 **Phonological Change and Reconstruction** (prereq 3601 or 5801, 5202 or #)
608769 1430-1520 MWF, JonesH 11, Miranda, 4 cr

5701 **Contrastive Linguistics** (prereq 5002 or 5201, 5302, 5003 or #)
208967 1430-1520 MWF, SmithH 121, Stenson, 4 cr

5711 **Field Methods in Linguistics** (prereq 5202, 5303 or #)
704311 1115-1230 MW, KiaCt 101, Sanders, 4 cr

r5721 **English as a Second Language: Methods** (prereq 3001 or 5001 or #)
009952 0815-0930 TTh, FolH 344, Tarone, 4 cr

5910 **Seminar in Linguistics: Language and Gender** (prereq #)
376208 1545-1700 TTh, FolH 312, Sheldon, 4 cr

5970 **Directed Studies** (prereq linguistics or ESL maj, #, Δ, CLA approval)
009272 1-5 cr

8210 **Seminar in Syntax: Reference** (prereq 5206, 5211 or #)
105656 1535-1650 MW, KiaCt 101, Gundel, 4 cr

8777 **Thesis Credits: Masters**
112552 1-16 cr

8888 **Thesis Credits: Doctoral** (max 18 cr per qtr)
810360 1-36 cr

8900 **Independent Study** (prereq Ling maj, #)
208094 1-5 cr

LOGISTICS MANAGEMENT (LM)

Management

Non-SMgt students should refer to section 1, Registration instructions for Carlson School of Management Courses, before attempting to register for LM courses.

r3000 **Introduction to Logistics Management** (§Tran 3064, 8264; prereq Econ 1101 or equiv) (A-F only)
609078 0945-1115 TTh, BlegH 340, Harper, 4 cr

r5030 **Principles of Transportation** (§3010, 8010, Tran 3054, Tran 8154; prereq Econ 1101 or equiv) (A-F only)
704650 1315-1445 TTh, BlegH 340, Harper, 4 cr

8990 **Readings in Logistics Management** (prereq consent of advisor, #, grad SMgt approval) (A-F only)
506206 ar cr

8995 **Graduate Research in Logistics Management** (prereq grad SMgt approval) (A-F only)
105956 ar cr

MANAGEMENT (Mgmt)

Management

Non-SMgt students should refer to section 1, Registration instructions for Carlson School of Management Courses, before attempting to register for Mgmt courses.

r3001 **Fundamentals of Management** (§8001) (A-F only)
105147 -1 0800-0930 MW, BlegH 120, 4 cr
004797 -2 0800-0930 MW, BlegH 120, 4 cr
011846 -3 0945-1115 MW, BlegH 120, 4 cr
708049 -4 0945-1115 MW, BlegH 120, 4 cr
212629 -5 0945-1115 TTh, BlegH 155, 4 cr
110588 -6 0945-1115 TTh, BlegH 155, 4 cr
704521 -7 1315-1445 TTh, BlegH 120, 4 cr
612630 -8 1315-1445 TTh, BlegH 120, 4 cr

r3004 **Business Policy: Strategy Formulation and Implementation** (prereq sr, completion of business core courses or equiv of final core course) (A-F only)
010678 -1 0915-1115 MW, BlegH 335, 5 cr
408661 -2 1300-1500 TTh, BlegH 335, Bromiley, 5 cr
901598 -3 1515-1715 TTh, BlegH 335, Bromiley, 5 cr

r3008 **Entrepreneurship and the Smaller Enterprise** (prereq completion of the business core courses or #)
307440 0800-0930 MW, BlegH 125, Rao, 4 cr

r3019H **Topics in Management** (prereq 3001 or 3002 or #) (A-F only)
176873 1300-1600 M, Law 3, 4 cr

r5101 **Advanced Topics** (prereq sr or grad, #, SMgt approval)
106077 0800-0930 MW, HHCTr 30, 4 cr

r8006 **Psychology in Management** (§3002; prereq grad mgmt student or grad SMgt approval)
907529 1730-2100 W, BlegH 425, Earley, 4 cr

r8040 **International Business** (SBGS 3004, Mktg 8040; prereq grad mgmt stu or grad SMgt approval, 3001 or 8001 or MBA 8010)
776352 1730-2100 W, BlegH 340, 4 cr

r8101 **Seminar in Strategic Management** (prereq PhD student or grad SMgt approval)
376872 0900-1200 W, Law 3, Bromiley, 4 cr

r8102 **History of Management Thought** (§8011; prereq PhD student or grad SMgt approval)
276346 0900-1200 M, Law 3, Willis, 4 cr

r8303 **Organizational Research Seminar** (prereq PhD stu, #)
602664 0900-1200 T, Law 3, Cummings, 4 cr

r8990 **Readings in Management Theory and Administration** (prereq 2nd yr grad stu, requisite intro courses, consent of advisor, #, grad SMgt approval)
208242 ar cr

r8995 **Research in Management Theory and Administration** (prereq 2nd yr grad stu, requisite intro courses, consent of advisor, #, grad SMgt approval)
605130 ar cr

r3000 **Principles of Marketing** (§8000; prereq Econ 1101 or equiv) (A-F only)
307213 -1 0800-0900 MWF, BlegH 250, 4 cr
002466 -2 0800-0930 TTh, BlegH 440, 4 cr

r3010 **Buyer Behavior and Marketing Analysis** (prereq 3000, OMS 1020, or equiv)
001804 1315-1445 TTh, BlegH 240, John D., 4 cr

r3020 **Marketing Operations Management** (prereq 3010)
508165 1315-1445 TTh, BlegH 420, Rao, 4 cr

r3065 **Retail Management** (§8065; prereq 3010)
703837 0915-1015 MWF, BlegH 240, Werner, 4 cr

r8051 **Marketing Research** (§8095; prereq either MBA core courses, or MBA 8045, f, grad mgmt student or grad SMgt approval)
606844 1530-1715 TTh, BlegH 455, Childers, 4 cr

r8055 **Introduction to Consumer Behavior** (§8098; prereq either MBA core courses, or MBA 8045, grad mgmt student or grad SMgt approval)
009658 1300-1445 TTh, BlegH 230, Loken, 4 cr

r8072 **International Marketing** (prereq grad mgmt stu or grad SMgt approval, MBA core courses or MBA 8045, or Δ)
701764 1300-1445 MW, BlegH 335, Hansen, 4 cr

r8090 **Marketing Topics** (prereq either MBA core courses or MBA 8045, or Δ, grad mgmt student or grad SMgt approval)
106055 -1 Walker, 4 cr (Mgmt/Econ 1275)(PhD students only)
877069 -2 1500-1645 MW, BlegH 335, Cardozo, 4 cr

r8800 **Seminar: Marketing Theory** (prereq either MBA core courses or MBA 8045, or Δ, grad mgmt stu or grad SMgt approval)
807670 1700-1900 M, Mgmt/Econ 1275, Rao, 4 cr (PhD students only)

r8990 **Readings in Marketing** (prereq MBA core courses or MBA 8045, Δ, consent of advisor, #, grad SMgt approval)
801819 ar cr

r8995 **Graduate Research in Marketing** (prereq MBA core courses or MBA 8045, Δ, consent of advisor, #, grad SMgt approval)
004511 ar cr

MARATHI (Mar)

South Asian & Middle Eastern Studies

Liberal Arts

5970 **Directed Readings**
011751 Junghare, ar cr

MARKETING (Mktg)

Management

Non-SMgt students should refer to section 1, Registration instructions for Carlson School of Management Courses, before attempting to register for Mktg courses.

**MASTER OF BUSINESS
ADMINISTRATION (MBA)
Management**

- r8005 Computer Access and Programming for Business Analysis** (prereq MBA students only) (S-N only)
711226 -1 1300-1455 T, BlegH 90, 1 cr (1st 5 weeks)
204837 -2 1505-1700 T, BlegH 90, 1 cr (1st 5 weeks)
005657 -3 1000-1155 W, BlegH 90, 1 cr (1st 5 weeks)
302528 -4 1205-1400 W, BlegH 90, 1 cr (1st 5 weeks)
- r8010 Management and Organizational Behavior** (prereq MBA students only) (A-F only)
509073 -1 0800-0945 MW, BlegH 435, Saavedra, 4 cr
110890 -2 1000-1145 MW, BlegH 435, Saavedra, 4 cr
101719 -3 0800-0945 TTh, BlegH 425, 4 cr
- r8020 Business Statistics: Data Sources, Presentation, and Analysis** (prereq MBA stu) (A-F only)
208080 -1 1000-1145 TTh, BlegH 425, 4 cr
605354 -2 1300-1445 TTh, BlegH 425, 4 cr
- r8025 Decision Sciences and Information Systems** (prereq MBA students only) (A-F only)
111854 -1 1300-1445 MW, BlegH 435, 4 cr
507307 -2 1500-1645 MW, BlegH 435, 4 cr
- r8030 Financial Accounting** (prereq MBA students only) (A-F only)
112154 -1 1000-1145 TTh, BlegH 435, 4 cr
811945 -2 1300-1445 TTh, BlegH 435, 4 cr
- r8055 Business, Government, and Macroeconomics** (prereq MBA student only) (A-F only)
207186 -1 1300-1445 MW, BlegH 425, Erickson, 4 cr
503161 -2 1500-1645 MW, BlegH 425, Erickson, 4 cr
009885 -3 1500-1645 TTh, BlegH 435, Bowie, 4 cr

**MATERIALS SCIENCE (Mats)
Chemical Engineering & Materials
Institute of Technology**

- 3090 Industrial Employment**
609100 1-2 cr
- r3400 Mechanical Properties of Materials** (prereq 2nd yr IT student)
★LECT 1325-1415 MWF, AmundH B75, Franciosi
610327 -1 LAB 1430-1730 M, AmundH 410, 4 cr
502382 -2 LAB 1430-1730 W, AmundH 410, 4 cr
007327 -3 LAB 1430-1730 F, AmundH 410, 4 cr
- r5011 Introduction to the Science of Materials** (prereq upper division chem engr or mat sci maj, Chem 5533 or #)
★LECT 1010-1100 MWF, AmundH B75, Martins
103244 -1 REC 0905-0955 TTh, AmundH 104, 4 cr
203204 -2 REC 0905-0955 TTh, AmundH 162, 4 cr
712070 -3 REC 1010-1100 TTh, AmundH 240, 4 cr
009935 -4 REC 1010-1100 TTh, AmundH 104, 4 cr
301766 -5 REC 1220-1310 TTh, AmundH 104, 4 cr
111005 -6 REC 1430-1520 TTh, AmundH 162, 4 cr
- r5112 Ceramics** (prereq upper division IT, 5011, 5101, 5102 or #)
704213 0905-1100 TTh, LindH 229, Francis, 4 cr
- r5200 Optical and Electron Microscopy of Solids** (prereq upper division IT, 3400 or #)
★LECT 1220-1310 MW, AmundH 104, Sivertsen
302416 -1 LAB 1325-1730 T, AmundH 410, 4 cr
608481 -2 LAB 1325-1730 Th, AmundH 410, 4 cr
- r5450 Corrosion and Electrochemistry of Corrosion** (prereq upper division IT, 5101 or #)
807815 -1 LECT 0905-0955 MWF, AmundH 162, White, 4 cr (lab ar)
★LAB

- r5460 Oxidation of Metals** (prereq upper division IT, 5102 or #)
675307 1115-1205 MTWF, AmundH 116, Shores, 4 cr
- r5481 Special Problems in Physical Metallurgy and Materials Science** (prereq sr)
402083 ar cr
- r5482 Special Problems in Physical Metallurgy and Materials Science** (prereq sr)
210461 ar cr
- r5483 Special Problems in Physical Metallurgy and Materials Science** (prereq sr)
902640 ar cr
- r5610 Polymer Chemistry** (prereq upper division IT, 5011, Chem 3301 or ChEn 3331, or #) (A-F only)
075305 -1 1010-1100 MWF, MechE 108, Bates, 3 cr
- r8110 Fundamentals of Materials Science**
511017 -1 1220-1310 MWF, EE/CSci 3125, Weaver, 3 cr
- r8213 Electronic Properties of Materials** (prereq #)
510966 1325-1415 MWF, AmundH 120, Chelikowsky, 3 cr
- r8401 Transformations in Alloys and Origins of Microstructure** (prereq #)
110291 1325-1415 MWF, AmundH 162, Sivertsen, 3 cr
- r8480 Oxidation of Metals** (prereq 5102 or #)
875306 1115-1205 MTWF, AmundH 116, Shores, 4 cr
- 8470 Seminar: Materials Science and Engineering** (S-N only)
604298 1325-1625 TTh, AmundH B75, ar cr
- r8480 Selected Topics in Materials Science and Engineering**
012298 ar cr
- 8481 Selected Topics in Materials Science and Engineering** (prereq 8480)
902413 ar cr
- 8777 Thesis Credits: Masters**
708357 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
911239 1-36 cr

**MATHEMATICS (Math)
Institute of Technology**

For Math 1008, 1111, and 1201, course fees are assessed instead of tuition. (See Section 2 for fees for these courses.) Credits for these courses will not count in the tuition plateau but will count towards assessment of the student services fee.

- r1005 Introduction to Elementary Mathematics** (prereq pre-elem educ stu, 1111 or equiv)
★LECT 1010-1100 MWF, VinH 314
877010 -1 REC 1010-1100 T, VinH 314, 4 cr
★LECT 1010-1100 MWF, VinH 20
677011 -2 REC 1010-1100 Th, VinH 314, 4 cr
★LECT 1325-1415 MWF, VinH 20
477012 -3 REC 1325-1415 T, VinH 20, 4 cr
- r1006 Introduction to Elementary Mathematics** (for pre-elementary educ student; prereq 1005)
★LECT 0905-0955 MWF, VinH 207
777372 0905-0955 T, VinH 207, 4 cr
- r1008 Trigonometry** (§1201; prereq plane geometry, 2 yrs hs algebra or #1111, grade of C or better in GC 0631)
106122 -1 0800-0850 MTWF, MechE 18, 4 cr
507162 -2 1220-1310 MTWF, MechE 221, 4 cr
610232 -3 1430-1520 MWThF, VinH 311, 4 cr
- r1111 College Algebra and Analytic Geometry** (§1201; prereq plane geom, 2 yrs hs alg or plane geom, grade of C or better in GC 0631)
★LECT 0830-0920 MWF, HodsonH 495, (SIP)
110128 -1 REC 0830-0920 TTh, AgEng 105, 5 cr (SIP)
707810 -2 REC 0830-0920 TTh, AgEng 108, 5 cr (SIP)
208371 -3 REC 0935-1025 TTh, AgEng 105, 5 cr (SIP)
★LECT 0935-1025 MWF, AgEng 108, (SIP)
304103 -4 REC 0830-0920 TTh, ABLMS 125, 5 cr (SIP)
- 108307 -5 REC 0935-1025 TTh, ABLMS 125, 5 cr (SIP)
907062 -6 REC 0935-1025 TTh, AgEng 108, 5 cr (SIP)
★LECT 0800-0850 MWF, VinH 16
411446 -7 REC 0800-0850 TTh, VinH 301, 5 cr
612272 -8 REC 0800-0850 TTh, FordH 115, 5 cr
509817 -9 REC 0905-0955 TTh, VinH 313, 5 cr
202313 -10 REC 0905-0955 TTh, VinH 209, 5 cr
★LECT 0800-0850 MWF, NichH 211
211190 -11 REC 0800-0850 TTh, PillsH 110, 5 cr
806342 -12 REC 0800-0850 TTh, LindH 305, 5 cr
009434 -13 REC 0905-0955 TTh, LindH 305, 5 cr
706060 -14 REC 0905-0955 TTh, CivMinE 213, 5 cr
★LECT 1010-1100 MWF, BlegH 5
606374 -15 REC 0905-0955 TTh, BlegH 235, 5 cr
605838 -16 REC 0905-0955 TTh, BlegH 215, 5 cr
009966 -17 REC 1010-1100 TTh, AndH 350, 5 cr
112168 -18 REC 1010-1100 TTh, BlegH 150, 5 cr
★LECT 1010-1100 MWF, AndH 350
610098 -19 REC 1010-1100 TTh, CivMinE 212, 5 cr
807202 -20 REC 1010-1100 TTh, VinH 209, 5 cr
610814 -21 REC 1115-1205 TTh, CivMinE 212, 5 cr
511440 -22 REC 1115-1205 TTh, JonesH 10, 5 cr
★LECT 1115-1205 MWF, JachH 2135
701862 -23 REC 1115-1205 TTh, AkerH 319, 5 cr
804347 -24 REC 1115-1205 TTh, PillsH 110, 5 cr
811606 -25 REC 1220-1310 TTh, FordH 160, 5 cr
205373 -26 REC 1220-1310 TTh, PillsH 110, 5 cr
★LECT 1220-1310 MWF, JachH 2135
804302 -27 REC 1220-1310 TTh, Phys 131, 5 cr
906140 -28 REC 1220-1310 TTh, JonesH 4, 5 cr
812206 -29 REC 1325-1415 TTh, Phys 131, 5 cr
511387 -30 REC 1325-1415 TTh, SmithH 100, 5 cr
★LECT 1325-1415 MWF, SciCB 175
604463 -31 REC 1325-1415 TTh, PillsH 110, 5 cr
607413 -32 REC 1325-1415 TTh, VinH 314, 5 cr
102376 -33 REC 1430-1520 TTh, VinH 213, 5 cr
209794 -34 REC 1430-1520 TTh, VinH 314, 5 cr
★LECT 1430-1520 MWF, Phys 170
405260 -35 REC 1325-1415 TTh, Arch 5, 5 cr
612160 -36 REC 1325-1415 TTh, Arch 25, 5 cr
505041 -37 REC 1430-1520 TTh, VinH 2, 5 cr
805501 -38 REC 1430-1520 TTh, Arch 5, 5 cr
- r1131 Finite Mathematics** (prereq 3 1/2 yrs high school math or grade of C or better in 1111 or 1181, pre-bus or soc and behav sci students)
★LECT 1220-1310 MWF, VinH 16
311293 -1 REC 1220-1310 TTh, AndH 370, 5 cr
106394 -2 REC 1220-1310 TTh, AndH 310, 5 cr
102966 -3 REC 1325-1415 TTh, AndH 370, 5 cr
909121 -4 REC 1325-1415 TTh, AndH 310, 5 cr
- r1142 Short Calculus** (§1211, 1411H; prereq 3 1/2 yrs hs math or grade of C or better in 1111 or 1181 or 1201)
★LECT 1115-1205 MWF, FordH 155
306501 -1 REC 1010-1100 TTh, MechE 202, 5 cr
403492 -2 REC 1010-1100 TTh, VinH 313, 5 cr
907059 -3 REC 1115-1205 TTh, MechE 202, 5 cr
809094 -4 REC 1115-1205 TTh, EE/CSci 3230, 5 cr
★LECT 1325-1415 MWF, Phys 131
109481 -5 REC 1325-1415 TTh, FordH 55, 5 cr
103308 -6 REC 1325-1415 TTh, SmithH 231, 5 cr
004010 -7 REC 1430-1520 TTh, FordH 55, 5 cr
403038 -8 REC 1430-1520 TTh, SmithH 231, 5 cr
- r1171 Precalculus and Introduction to Higher-Level Mathematical Patterns** (§1008, 1111, 1201; prereq plane geom, (2 yrs hs alg or C or better in GC 0631), Δ)
★LECT 1220-1310 MWF, Phys 143
805773 -1 REC 1220-1310 TTh, Phys 143, 5 cr (Emerging Scholars)
★LAB 0905-1100 TTh, AkerH 319, (Emerging Scholars)
576434 -2 REC 1010-1100 TTh, KoltH S133, 5 cr (Emerging Scholars)
★LAB 1220-1415 TTh, VinH 2, (Emerging Scholars)

r1201 Pre-Calculus (§1008, 1111; prereq 4 yrs high school math including trigonometry)
 ★LECT 0905-0955 MWF, VinH 16
 103521 -1 REC 0800-0850 TTh, MurH 105, 5 cr
 510952 -2 REC 0800-0850 TTh, VinH 364, 5 cr
 004413 -3 REC 0905-0955 TTh, BlegH 245, 5 cr
 003987 -4 REC 0905-0955 TTh, Moost 2580, 5 cr
 ★LECT 1010-1100 MWF, VinH 16
 305834 -5 REC 1010-1100 TTh, BlegH 235, 5 cr
 711582 -6 REC 1010-1100 TTh, VinH 301, 5 cr
 608206 -7 REC 1115-1205 TTh, MurH 308, 5 cr
 208130 -8 REC 1115-1205 TTh, VinH 313, 5 cr
 ★LECT 1220-1310 MWF, SmithH 231
 211982 -9 REC 1220-1310 TTh, SmithH 331, 5 cr
 210458 -10 REC 1220-1310 TTh, LindH 305, 5 cr
 608819 -11 REC 1325-1415 TTh, SmithH 331, 5 cr
 704423 -12 REC 1325-1415 TTh, LindH 305, 5 cr
 ★LECT 0800-0850 MWF, MechE 108
 002290 -13 REC 0800-0850 TTh, MechE 108, 5 cr

r1211 Calculus I (§1142, 1411H; prereq 4 yrs hs math incl trig or grade of C or better in [1201 or 1191] or [1008, 1111])
 ★LECT 0800-0850 MWF, AkerH 209
 807010 -1 REC 0800-0850 TTh, VinH 311, 5 cr
 406554 -2 REC 0800-0850 TTh, VinH 2, 5 cr
 903741 -3 REC 0905-0955 TTh, FolH 248, 5 cr
 401743 -4 REC 0905-0955 TTh, VinH 6, 5 cr
 ★LECT 0905-0955 MWF, SciCB 175
 604124 -5 REC 0800-0850 TTh, VinH 211, 5 cr
 902282 -6 REC 0800-0850 TTh, VinH 16, 5 cr
 311276 -7 REC 0905-0955 TTh, VinH 311, 5 cr
 202182 -8 REC 0905-0955 TTh, Zoology 313, 5 cr
 ★LECT 0905-0955 MWF, NichH 211
 305011 -9 REC 0905-0955 TTh, PeikH 315, 5 cr
 409874 -10 REC 0905-0955 TTh, AkerH 317, 5 cr
 312573 -11 REC 1010-1100 TTh, JonesH 10, 5 cr
 910009 -12 REC 1010-1100 TTh, OwreH 2230, 5 cr
 ★LECT 1010-1100 MWF, SmithH 331
 608559 -13 REC 0905-0955 TTh, Arch 50, 5 cr
 506268 -14 REC 0905-0955 TTh, VinH 1, 5 cr
 102031 -15 REC 1010-1100 TTh, JonesH 11, 5 cr
 707550 -16 REC 1010-1100 TTh, VinH 1, 5 cr
 ★LECT 1010-1100 MWF, NichH 211
 902962 -17 REC 1010-1100 TTh, SmithH 331, 5 cr
 911323 -18 REC 1010-1100 TTh, EIH N119, 5 cr (Emerging Scholars)
 ★LAB 1325-1520 TTh, AkerH 317, (Emerging Scholars)
 506321 -19 REC 1115-1205 TTh, VinH 213, 5 cr
 410491 -20 REC 1115-1205 TTh, VinH 211, 5 cr
 ★LECT 1115-1205 MWF, VinH 16
 907241 -21 REC 1010-1100 TTh, SmithH 111, 5 cr
 506836 -22 REC 1010-1100 TTh, KoltH S135, 5 cr
 810990 -23 REC 1115-1205 TTh, VinH 209, 5 cr
 611011 -24 REC 1115-1205 TTh, Moost 2580, 5 cr
 ★LECT 1115-1205 MWF, EE/CSci 3230
 105236 -25 REC 1115-1205 TTh, SciCB 325, 5 cr
 403329 -26 REC 1115-1205 TTh, VinH 314, 5 cr
 810381 -27 REC 1220-1310 TTh, Phys 170, 5 cr
 408952 -28 REC 1220-1310 TTh, VinH 314, 5 cr
 ★LECT 1220-1310 MWF, Arch 35
 712313 -29 REC 1115-1205 TTh, FordH 349, 5 cr
 710559 -30 REC 1115-1205 TTh, VinH 301, 5 cr
 905103 -31 REC 1220-1310 TTh, FordH 349, 5 cr
 205924 -32 REC 1220-1310 TTh, VinH 301, 5 cr
 ★LECT 1325-1415 MWF, Arch 25
 602082 -33 REC 1220-1310 TTh, VinH 364, 5 cr
 603121 -34 REC 1220-1310 TTh, VinH 313, 5 cr
 104886 -35 REC 1325-1415 TTh, VinH 364, 5 cr
 907174 -36 REC 1325-1415 TTh, VinH 313, 5 cr
 ★LECT 1430-1520 MWF, FordH 155
 304358 -37 REC 1325-1415 TTh, VinH 16, 5 cr
 209505 -38 REC 1325-1415 TTh, VinH 301, 5 cr
 607198 -39 REC 1430-1520 TTh, VinH 20, 5 cr
 203154 -40 REC 1430-1520 TTh, VinH 301, 5 cr

r1221 Calculus II (§1421H; prereq grade of C or better in 1211)
 ★LECT 0800-0850 MWF, Arch 35
 711517 -1 REC 0800-0850 TTh, VinH 314, 5 cr
 206071 -2 REC 0800-0850 TTh, Arch 35, 5 cr
 210055 -3 REC 0905-0955 TTh, VinH 314, 5 cr

702221 -4 REC 0905-0955 TTh, Arch 40, 5 cr
 ★LECT 1115-1205 MWF, SciCB 325
 402956 -5 REC 1010-1100 TTh, Botany B6, 5 cr
 310192 -6 REC 1010-1100 TTh, EE/CSci 3111, 5 cr
 212601 -7 REC 1115-1205 TTh, Arch 50, 5 cr
 308121 -8 REC 1115-1205 TTh, EE/CSci 3111, 5 cr
 ★LECT 1220-1310 MWF, Phys 131
 608254 -9 REC 1220-1310 TTh, VinH 313, 5 cr
 804204 -10 REC 1220-1310 TTh, VinH 211, 5 cr
 101910 -11 REC 1325-1415 TTh, VinH 6, 5 cr
 512569 -12 REC 1325-1415 TTh, VinH 211, 5 cr
 ★LECT 1325-1415 MWF, VinH 16
 076437 -13 REC 1220-1310 TTh, SmithH 231, 5 cr
 876438 -14 REC 1220-1310 TTh, NichH 209, 5 cr
 676439 -15 REC 1325-1415 TTh, FolH 214, 5 cr
 076440 -16 REC 1325-1415 TTh, SciCB 325, 5 cr

r1241 Linear and Nonlinear Multivariable Analysis I (§3142, 3212, 3221, 3511H; prereq grade of C or better in 1221 or equiv)
 ★LECT 0905-0955 MWF, AkerH 209
 110686 -1 REC 0900-0850 TTh, VinH 311, 5 cr
 406683 -2 REC 0800-0850 TTh, VinH 113, 5 cr
 108688 -3 REC 0905-0955 TTh, PeikH 155, 5 cr
 206684 -4 REC 0905-0955 TTh, VinH 2, 5 cr
 ★LECT 1010-1100 MWF, MechE 18
 209665 -5 REC 1010-1100 TTh, FordH 130, 5 cr
 205664 -6 REC 1010-1100 TTh, MechE 102, 5 cr
 602678 -7 REC 1115-1205 TTh, VinH 113, 5 cr
 301606 -8 REC 1115-1205 TTh, Jach 2135, 5 cr
 ★LECT 1220-1310 MWF, Arch 25
 402679 -9 REC 1220-1310 TTh, CivMinE 212, 5 cr
 101607 -10 REC 1220-1310 TTh, VinH 213, 5 cr
 910687 -11 REC 1325-1415 TTh, VinH 213, 5 cr
 106685 -12 REC 1325-1415 TTh, CivMinE 212, 5 cr
 ★LECT 1430-1520 MWF, MechE 102
 602681 -13 REC 1430-1520 TTh, MechE 102, 5 cr

r1411H Integrated Honors Calculus (§1211-1221-1231, 1321-1331, 1511H-1531H, 1611-1621; prereq selection for IT Honors curriculum or consent of IT Honors office) (A-F only)
 ★LECT 1010-1100 MWF, PillsH 110
 105995 -80 REC 1010-1100 TTh, VinH 364, 5 cr
 708933 -81 REC 1010-1100 TTh, VinH 311, 5 cr
 703059 -82 REC 1115-1205 TTh, 0905-0955 Th, VinH 364, 5 cr
 009451 -83 REC 1115-1205 TTh, VinH 311, 0905-0955 Th, JonesH 10, 5 cr

r1421H Integrated Honors Calculus II (§1211-1221-1231, 1321-1331, 1511H-1521H-1531H, 1611-1621; prereq 1411H) (A-F only)
 ★LECT 1010-1100 MWF, AmundH 162, (IT honors)
 005660 -80 REC 1010-1100 TTh, VinH 213, 5 cr (IT honors)

r3213 Vector and Linear Analysis II (§3066, 3142, 3221, 3511; prereq grade of C or better in 3212 or equiv)
 ★LECT 1220-1310 MWF, Arch 55
 107240 -1 REC 1115-1205 TTh, VinH 2, 5 cr
 108573 -2 REC 1220-1310 TTh, VinH 207, 5 cr
 607881 -3 REC 1220-1310 TTh, Moost 2580, 5 cr

r3311 Linear and Nonlinear Multivariable Analysis II (§3211, 3521H; prereq grade of C or better in 1241 or equiv)
 ★LECT 0800-0850 MWF, Phys 131
 107674 -1 REC 0800-0850 TTh, EIH N119, 5 cr
 805661 -2 REC 0800-0850 TTh, VinH 6, 5 cr
 702872 -3 REC 0905-0955 TTh, VinH 301, 5 cr
 101602 -4 REC 0905-0955 TTh, EIH N119, 5 cr
 ★LECT 1010-1100 MWF, BuH 120
 708665 -5 REC 0905-0955 TTh, VinH 211, 5 cr
 904863 -6 REC 0905-0955 TTh, VinH 113, 5 cr
 502673 -7 REC 1010-1100 TTh, VinH 211, 5 cr
 606682 -8 REC 1010-1100 TTh, VinH 113, 5 cr
 ★LECT 1115-1205 MWF, SmithH 331
 302674 -9 REC 1010-1100 TTh, VinH 207, 5 cr
 611705 -10 REC 1010-1100 TTh, VinH 6, 5 cr
 409664 -11 REC 1115-1205 TTh, VinH 207, 5 cr
 907675 -12 REC 1115-1205 TTh, VinH 6, 5 cr
 ★LECT 1220-1310 MWF, Arch 5
 901603 -13 REC 1220-1310 TTh, VinH 113, 5 cr
 410684 -14 REC 1220-1310 TTh, VinH 6, 5 cr
 701604 -15 REC 1325-1415 TTh, VinH 113, 5 cr
 210685 -16 REC 1325-1415 TTh, VinH 311, 5 cr

r3321 Differential Equations and General Vector Spaces (§3066, 3212, 3213, 3221, 3531H; prereq grade of C or better in 1241)
 ★LECT 1010-1100 MWF, Arch 5
 502785 -1 REC 1010-1100 TTh, FordH 170, 5 cr
 711758 -2 REC 1010-1100 TTh, FordH 70, 5 cr
 709721 -3 REC 1115-1205 TTh, SmithH 121, 5 cr
 507730 -4 REC 1115-1205 TTh, EE/CSci 3115, 5 cr
 ★LECT 1220-1310 MWF, FordH 55
 176405 -5 REC 1220-1310 TTh, VinH 209, 5 cr
 076406 -6 REC 1220-1310 TTh, VinH 206, 5 cr
 876407 -7 REC 1325-1415 TTh, VinH 209, 5 cr
 476409 -8 REC 1325-1415 TTh, VinH 207, 5 cr

r3331 Infinite Sequences and Series: Vector Integral Calculus (§1231, 3212, 3541H; prereq grade of C or better in 3311, 3321)
 ★LECT 1115-1205 MWF, FordH 55
 676411 -1 REC 1010-1100 TTh, PeikH 315, 5 cr
 476412 -2 REC 1010-1100 TTh, Arch 55, 5 cr
 176414 -3 REC 1115-1205 TTh, PeikH 315, 5 cr
 976415 -4 REC 1115-1205 TTh, Arch 55, 5 cr

r3511H Honors: Linear Analysis I (§1241, 3212, 3221; prereq [1221, Δ] or [C or better in 1421H], C or better required to continue in sequence)
 ★LECT 1010-1100 MWF, VinH 2, (IT honors)
 607296 -80 REC 1010-1100 TTh, BlegH 230, 5 cr (IT honors)

r3521H Honors: Linear Analysis II (§3311, 3211; prereq 3511H, C or better required to continue in sequence)
 ★LECT 0905-0955 MWF, FordH 120
 011782 -80 REC 0905-0955 TTh, VinH 213, 5 cr
 409745 -81 REC 0905-0955 TTh, ChDev 218, 5 cr
 207754 -82 REC 1010-1100 TTh, SciCB 375, 5 cr
 811783 -83 REC 1010-1100 TTh, ChDev 218, 5 cr

r3531H Honors: Linear Analysis III (§3321, 3212, 3221; prereq 3521H, C or better req'd to continue in sequence)
 ★LECT 1010-1100 MWF, VinH 207
 276444 -80 REC 1010-1100 TTh, VinH 2, 5 cr

r3541H Honors: Complex Analysis and Related Topics (§3331, 5568; prereq C or better in 3531H)
 ★LECT 1325-1415 MWF, Zoology 313
 776447 -80 REC 1220-1310 TTh, Arch 40, 5 cr
 576448 -81 REC 1220-1310 TTh, Moost 2530, 5 cr
 376449 -82 REC 1325-1415 TTh, FolH 138, 5 cr
 776450 -83 REC 1325-1415 TTh, OwreH 2210, 5 cr

r5005 The Diversity of Mathematics (no cr for non-elem educ students; prereq 1005-1006 or equiv plus 10 addnl cr of univ level math courses; does not carry grad cr for math majors)
 002323 1430-1520 MWF, VinH 207, 4 cr

r5056 Theory of Interest (prereq 1241 or 1231 or 3511H or equiv)
 205003 1600-1715 MW, VinH 313, 4 cr

r5057 Actuarial Mathematics I (prereq [5056, 5681] or [5056, 5679] or [5056, Stat 5131]; does not carry grad credit for math majors) (A-F only)
 305722 1115-1205 MWF, VinH 6, 4 cr

r5061 Fundamental Topics in Analysis (not intended for math majors or minors; prereq 13531H or 3211 or equiv) (A-F only)
 111277 1600-1715 MW, VinH 213, 4 cr

r5151 Elementary Set Theory (prereq 3311 or 3211 or equiv or #)
 304862 1010-1100 MWF, VinH 113, 4 cr

r5162 Mathematical Logic (prereq 3511H or 3311 or 3211 or equiv or Phil 3202 or #)
 109884 1430-1520 MWF, VinH 211, 4 cr

r5242 Linear Algebra with Applications (§5232-5233, 5264, 5284; prereq 3321 or 3511H or 3213 or 3142 or 3221 or equiv)
 710240 -1 0905-0955 MWF, VinH 113, 4 cr
 904405 -2 0905-0955 MWF, VinH 206, 4 cr
 704356 -3 1115-1205 MWF, VinH 313, 4 cr
 206491 -4 1115-1205 MWF, MechE 102, 4 cr
 112129 -5 1325-1415 MWF, VinH 211, 4 cr

r5245 Introduction to Modern Algebra I (§5282; prereq 3321 or 3511H or equiv or #)
 277013 0905-0955 MWF, VinH 6, 4 cr

r5282 Fundamental Structures of Algebra (§5245; prereq one soph sequence or #...some previous abstract math rec)
806468 -1 0905-0955 MWF, VinH 209, 4 cr
108078 -2 1325-1415 MWF, VinH 213, 4 cr

r5331 Geometry I (§3161; prereq 3311)
177014 1115-1205 MWF, VinH 209, 4 cr

r5341 Introduction to Topology (prereq one sophomore sequence or #...some previous abstract mathematics rec)
009384 1115-1205 MWF, VinH 211, 4 cr

r5375 Differential Geometry (prereq 3331 or 3531H)
376418 1430-1520 MWF, VinH 314, 4 cr

r5447 Mathematical Thermodynamics (prereq 5607 or 5613 or [5567, 5568] or 5601 or #)
977371 1325-1415 MWF, Phys 143, Serrin, Man, 4 cr

r5457 Methods of Applied Mathematics (prereq 3331 or 3213 or 3531H or equiv or #)
011992 -1 1325-1415 MWF, VinH 113, 4 cr

r5473 Analysis of Numerical Methods (prereq 3331 or 3531H or 3213 or [3211, 3142] or equiv, some computer skills) (A-F only)
811346 1115-1205 MWF, VinH 301, 4 cr

r5477 Applied Numerical Analysis of Partial Differential Equations (prereq 5567 or 5571 or equiv)
109523 0905-0955 MWF, VinH 313, 4 cr

r5512 Differential Equations with Applications I (prereq 3331 or 3521H or 3213 or [3211, 3066] or [3211, 3221] or equiv or #)
110095 -1 1010-1100 MWF, VinH 313, 4 cr
707676 -2 1430-1520 MWF, VinH 364, 4 cr

r5521 Introduction to Ordinary Differential Equations (prereq one sophomore sequence or #...some previous abstract math rec) (A-F only)
103771 1010-1100 MWF, MurH 308, 4 cr

r5567 Fourier Series and Boundary Value Problems (§5571; prereq 3331 or 3521H or 3213 or [3211, 3066] or [3211, 3221] or equiv or #)
212176 1325-1415 MWF, VinH 6, 4 cr

r5571 Elementary Partial Differential Equations (prereq 5613 or [5608 or equiv])
107903 -1 0905-0955 MWF, VinH 311, 4 cr
005500 -2 0905-0955 MWF, VinH 2, 4 cr

r5606 Advanced Calculus: A Rigorous Approach (prereq 3331 or 3213 or 3541H)
111479 -1 1115-1205 MWF, VinH 113, 4 cr
207513 -2 1220-1310 MWF, VinH 113, 4 cr
576420 -3 1325-1415 MWF, VinH 207, 4 cr

r5608 Advanced Calculus: A Rigorous Approach (prereq 5607)
911029 1220-1310 MWF, VinH 2, 4 cr

r5812 Introduction to Analysis (prereq one sophomore sequence or #)
909975 -1 1220-1310 MWF, VinH 6, 4 cr
206037 -2 1220-1310 MWF, VinH 211, 4 cr
610604 -3 1325-1415 MWF, VinH 2, 4 cr

r5679 Probability (§5681, Stat 5131; prereq 3521H or 3211 or 3311 or equiv)
808270 1430-1520 MWF, VinH 2, 4 cr

r5681 Probability and Stochastic Processes (§5679; prereq 3531H or 3331 or 3213)
912536 1010-1100 MWF, VinH 311, 4 cr

r5701 Enumerative Combinatorics (prereq 3331 or 3211 or 3521H or equiv, 3rd-yr standing...linear algebra is helpful)
611932 1220-1310 MWF, VinH 311, 4 cr

5900 Tutorial Course in Advanced Mathematics (prereq #)
306904 ar cr

r8166 Recursion Theory (prereq 5162-5163-5164 or #)
376421 1430-1520 MWF, VinH 301, 3 cr

r8200 General Algebra (prereq 5284 or #)
876441 0905-0955 MWF, VinH 301, 3 cr

r8203 Algebraic Geometry (prereq 8202, #)
176422 1115-1205 MWF, VinH 213, 3 cr

r8250 Topics in Group Theory (prereq #)
977015 0905-0955 MWF, VinH 213, 1-3 cr

r8263 Topics in Algebraic Geometry (prereq #)
201680 1115-1205 MWF, VinH 364, 1-3 cr

r8266 Topics in Number Theory (prereq #)
076423 1010-1100 MWF, VinH 209, 1-3 cr

r8270 Lie Groups, Algebras (prereq 8202 or #)
002211 1430-1520 MWF, VinH 313, 3 cr

r8300 Manifolds/Topology (prereq 5282-5283, 5341 or #)
502110 1115-1205 MWF, VinH 311, 3 cr

r8306 Algebraic Topology (prereq 5342 or #)
876424 1115-1205 MWF, VinH 207, 3 cr

r8342 Topological Dynamics (prereq 5341 or #)
676425 1220-1310 MWF, VinH 207, 3 cr

r8365 Riemannian Geometry (prereq 5377 or #)
476426 1010-1100 MWF, VinH 206, 3 cr

r8406 Advanced Methods of Applied Mathematics (prereq 5459 or #)
411821 1430-1520 MWF, VinH 6, 3 cr

r8445 Numerical Analysis of Ordinary and Partial Differential Equations (prereq 5567, 5571 or equiv, 5513 or equiv) (A-F only)
709959 1535-1625 MWF, VinH 301, 1-3 cr

r8450 Topics in Numerical Analysis (prereq #)
610764 1535-1625 MWF, MurH 130, 1-3 cr

r8460 Problems in Theoretical Physics (prereq #)
276427 1325-1415 MWF, VinH 206, 3 cr

r8470 Topics in the Mathematical Theory of Continuum Mechanics (prereq 5573 or #)
176428 1115-1205 MWF, VinH 314, 3 cr

r8480 Selected Topics of Celestial Mechanics (prereq #)
976429 0905-0955 MWF, VinH 364, 3 cr

r8500 Theory of Ordinary Differential Equations (prereq 5614, 5521 or #)
410524 1430-1520 MWF, VinH 206, McGehee, 3 cr

r8550 Theory of Partial Differential Equations (prereq 5614, 5521 or #)
908051 1325-1415 MWF, VinH 301, 3 cr

r8560 Calculus of Variations, Minimal Surfaces (prereq 5614, 5521 or #)
276430 1325-1415 MWF, VinH 314, 3 cr

r8570 Infinite Dimensional Dynamical Systems (prereq 5614 or equiv, 5521 or #)
608741 0840-0955 MW, Arch 15, Sell, 3 cr

r8590 Topics in Partial Differential Equations (prereq 8609, 8552 or #)
510563 1010-1100 MWF, VinH 211, Krylov, 1-3 cr

r8600 Real Analysis (prereq 5614 or 8702 or #)
602969 -1 1220-1310 MWF, VinH 364, 3 cr
103253 -2 1325-1415 MWF, VinH 311, 3 cr

r8620 Theory of Singular Integrals (prereq 8602 or equiv or #)
176431 1325-1415 MWF, VinH 313, 3 cr

r8640 Topics in Real Analysis (prereq 8602 or #)
106760 0905-0955 MWF, VinH 314, 1-3 cr

r8656 Measure Theory and Probability (prereq 5614 or #)
007943 1010-1100 MWF, VinH 6, 3 cr

r8668 Introduction to Combinatorial Theory (prereq #)
908809 1325-1415 MWF, VinH 364, 3 cr

r8672 Topics in Combinatorial Theory (prereq #)
004136 1535-1625 MWF, VinH 314, 1-3 cr

r8690 Topics in the Theory of Probability (prereq 8652 or #)
408028 1430-1520 MWF, VinH 113, 1-3 cr

r8700 Complex Analysis (prereq 5614 or 5573 or #)
608190 1430-1520 MWF, VinH 213, 3 cr

8777 Thesis Credits: Masters
102135 1-16 cr

r8800 Functional Analysis (prereq 8602 or #)
908891 1220-1310 MWF, VinH 313, 3 cr

8888 Thesis Credits: Doctoral (max 18 cr per qtr)
410510 1-36 cr

r8990 Reading and Research
002158 ar cr

r8991 Reading and Research (prereq 8990)
405291 ar cr

MATHEMATICS EDUCATION (MthE) Curriculum And Instruction Education

r5081 Teaching Secondary School Arithmetic (prereq math educ maj or min, Math 5081 or # or #) (A-F only)
010406 1445-1600 MW, Peikh 375, 2 cr

r5083 Teaching Geometry (prereq math educ maj or min, Math 5083 or # or #) (A-F only)
708925 1045-1200 TTh, Peikh 375, House, 2 cr

r5101 Workshop: Elementary School Mathematics (max 12 cr; prereq #, non math educ majs) (A-F only)
902959 -1 0900-1200 S, Peikh 375, Jackson, 3 cr
575221 -2-3 cr (Morris Campus)

r5311 Teaching and Supervision of Mathematics in the Elementary School (prereq Elem 3391 or #) (A-F only)
002094 1630-1915 M, Peikh 375, Post, 3 cr

r5312 Teaching and Supervision of Mathematics in the Secondary School (prereq mathematics teaching experience or #) (A-F only)
607556 1630-1915 M, Peikh 375, Post, 3 cr

r5366 Computer Assisted Mathematics Instruction (prereq 5312 or SeEd 3365, 3366 or CIsy 5006, one yr calculus or #) (A-F only)
375222 1630-1915 T, Peikh 355, House, 3 cr

5680 Practicum in Mathematics Education (max 9 cr; prereq #) (A-F only)
105195 -1 House, 3-9 cr
610568 -2 Jackson, 3-9 cr
009062 -3 Orton, 3-9 cr
606830 -4 Post, 3-9 cr
105410 -5 Stochl, 3-9 cr
175223 -6 House, Jackson, 3 cr (Morris Campus)

5980 Directed Studies (max 9 cr; prereq #) (A-F only)
806955 -1 House, 3-9 cr
804963 -2 Jackson, 3-9 cr
605080 -3 Orton, 3-9 cr
505184 -4 Post, 3-9 cr
806535 -5 Stochl, 3-9 cr

8590 Seminar: Mathematics Education (max 8 cr; prereq #)
805076 1630-1800 W, Peikh 375, Post, Stochl, 2 cr

8680 Internship: Mathematics Education
108971 -1 House, ar cr
208161 -2 Jackson, ar cr
801870 -3 Orton, ar cr
512572 -4 Post, ar cr
003049 -5 Stochl, ar cr

8980 Problems: Mathematics Education (prereq 8500 or 8570)
606360 -1 House, ar cr
411494 -2 Jackson, ar cr
808849 -3 Orton, ar cr
504181 -4 Post, ar cr
803958 -5 Stochl, ar cr

MECHANICAL ENGINEERING (ME) Mechanical Engineering Institute of Technology

r1025 Engineering Graphics (prereq #Math 1211 or equiv, IT stu)
608528 -1 LECT 1010-1100 MTWThF, Arch 10, 4 cr
508988 -2 LECT 1325-1415 MTWThF, Arch 10, 4 cr
★LAB 1535-1730 MW, 1430-1625 TTh, ElectE 118, (open hrs, MechE 314)

r3020 Mechanical Engineering Computation (prereq IT stu, Math 3321, CSci 3101)
908437 0905-0955 MWTThF, MechE 202, 4 cr

r3201 Mechanical Engineering Systems Analysis (§AEM 3401; prereq AEM 3036, mech engr or aerospace engr maj)
★LECT 1010-1100 MWF, OwreH 2210
707807 -1 REC 1220-1415 M, FordH 150, 4 cr
107996 -2 REC 1325-1520 T, MechE 18, 4 cr
607492 -3 REC 1430-1625 W, Arch 45, 4 cr
203199 -4 REC 1430-1625 Th, FordH 115, 4 cr

- r3205 Engineering Systems Design** (prereq AEM 3016, upper division mech engr maj)
★LECT 1220-1310 MWF, Arch 40
907806 -1 REC 1430-1625 M, AkerH 225, 4 cr
910074 -2 REC 1430-1625 W, AkerH 225, 4 cr
309415 -3 REC 1430-1625 Th, AkerH 225, 4 cr
- r3301 Thermodynamics** (prereq IT or ForP stu, Chem 1014 or Phys 1281, Math 3321 or equiv)
711937 -1 0800-0850 MTWThF, Arch 40, 4 cr
003519 -2 0800-0850 MTWThF, Arch 55, 4 cr
307051 -3 1010-1100 MTWThF, Arch 40, 4 cr
502463 -4 1430-1520 MTWThF, Arch 10, 4 cr
- r3301H Thermodynamics** (§3301; prereq Chem 1014 or Phys 1281, Math 3221 or equiv, IT upper div honors stu)
105284 0800-0850 MTWThF, Arch 40, 4 cr
- r3303 Applied Thermodynamics** (§3305; prereq 3301 or equiv, upper division mech engr or aerospace engr maj)
911211 -1 0905-0955 MTWThF, Arch 55, 4 cr
009482 -2 1115-1205 MTWThF, Arch 40, 4 cr
- r3701 Basic Measurements Laboratory I** (prereq 3301 or fl, upper division mech engr maj)
207270 -1 LECT 1220-1310 T, Arch 50, Pui, 2 cr
★LAB (open lab ar, MechE 370-388)
- r3701H Basic Measurement Laboratory I** §3701; prereq ME upper div honors stu)
803084 -80 LECT 1220-1310 T, Arch 50, Pui, 2 cr
★LAB (open lab ar, MechE 370-388)
- r3702 Basic Measurements Laboratory II** (prereq 3701, upper division mech engr maj)
801836 -1 LECT 1220-1310 Th, Arch 50, 2 cr
★LAB (open lab ar, MechE 370-388)
- r3741 Industrial Assignment** (prereq regis in intern program)
607928 Marple, 2 cr
- r3742 Industrial Assignment** (prereq 3741)
105107 Marple, 2 cr
- r3743 Industrial Assignment** (prereq 3742)
107360 Marple, 2 cr
- r3900 Introduction to Engineering Statistics** (prereq IT stu, Math 1241 or equiv)
902153 1010-1100 MWThF, MechE 221, Arora, 4 cr
- r5190 Advanced Engineering Problems** (prereq submission of approved departmental permission form)
809449 2-4 cr
- 5198H Mechanical Engineering Upper Division Honor Thesis I** (prereq upper div ME honors stu)
301797 4 cr
- 5199H Mechanical Engineering Upper Division Honor Thesis II** (prereq upper div ME honors stu)
110002 4 cr
- r5220 Computer-Aided Design** (prereq IT or grad stu, 3rd yr ME courses, FORTRAN Programming, 3020 or #)
402164 -1 LECT 0905-0955 MWThF, MechE 212, 4 cr
★LAB (lab ar)
- r5226 Finite Element Methods in Mechanical Engineering I** (prereq Math 3321, AEM 3016, FORTRAN programming, IT upper div or grad stu)
110980 1445-1600 TTh, Arch 25, 4 cr
- r5230 Acoustics and Vibration Laboratory** (prereq 3701, 3702, 3201, ME upper div) (A-F only)
★LECT 1325-1415 M, MechE 221
505959 -1 LAB 1430-1730 M, MechE 357, 2 cr
608108 -2 LAB 1430-1730 T, MechE 357, 2 cr
510305 -3 LAB 1430-1730 W, MechE 357, 2 cr
304392 -4 LAB 1430-1730 F, MechE 357, 2 cr
- r5233 Programmable Automation** (prereq ME upper div stu, 3702)
★LECT 1325-1415 M, MechE 202
806227 -1 LAB 0905-1205 T, ElectE 304, 2 cr
811105 -2 LAB 1430-1730 T, ElectE 304, 2 cr
208872 -3 LAB 1430-1730 W, ElectE 304, 2 cr
712652 -4 LAB 0905-1205 Th, ElectE 304, 2 cr
710612 -5 LAB 1430-1730 F, ElectE 304, 2 cr
- r5254 Design Morphology with Applications** (prereq completion of sequences 3201/3203/3205, 3303/5342 or #, upper div mech engr maj)
★LECT 1325-1415 T, Arch 55
808941 -1 LAB 1430-1730 T, 1325-1730 Th, AkerH 209, 4 cr
505329 -2 LAB 1430-1730 T, 1325-1730 Th, MechE 321, 4 cr
112521 -3 LAB 1430-1730 T, FordH 130, 1325-1730 Th, FordH 349, 4 cr
112218 -4 LAB 1430-1730 T, AkerH 225, 1325-1730 Th, MechE 202, 4 cr
105172 -5 LAB 1430-1730 T, NichH 209A, 1325-1730 Th, NichH 209, 4 cr
906106 -6 LAB 1430-1730 T, 1325-1730 Th, Botany B6, 4 cr
307812 -7 LAB 1430-1730 T, 1325-1730 Th, JonesH 4, 4 cr
876374 -8 LAB 1430-1730 T, JonesH 11, 1325-1730 Th, MechE 18, 4 cr
476376 -9 LAB 1430-1730 T, 1325-1730 Th, MechE 221, 4 cr
- r5255 Engineering Design Project** (prereq 5254, upper division mech engr maj)
★LECT 1325-1415 T, Arch 55, 4 cr
401905 -1 LAB 1430-1730 T, 1325-1730 Th, Arch 40
- r5260 Engineering Materials and Processing** (prereq Chem 1014, Phys 1291, AEM 3016, Mats 3400, CSci 3101 or a similar course in an engr computer lang (FORTRAN), upper div mech engr maj, safety glasses required)
★LECT 1325-1415 MWF, MechE 18
512491 -1 REC 1430-1520 M, MechE 221, 1535-1730 M, MechE 50, 4 cr
805241 -2 REC 0800-0850 T, MechE 202, 0900-1100 T, MechE 50, 4 cr
205518 -3 REC 1430-1520 T, LindH 320, 1535-1730 T, MechE 50, 4 cr
612367 -4 REC 1430-1520 W, MechE 18, 1535-1730 W, MechE 50, 4 cr
010034 -5 REC 1430-1520 Th, Arch 45, 1535-1730 Th, MechE 50, 4 cr
- r5270 Materials-Design Requirements** (prereq 5260, IT stu or grad)
305767 1115-1310 MW, AmundH 240, 4 cr
- r5275 Computer Controlled Experimentation** (prereq 5283 or equiv)
107173 -1 1640-1730 MWThF, MechE 212, Stelson, 4 cr
- r5283 Industrial Instrumentation and Automatic Control** (prereq 3201 or equiv, IT stu or grad)
806907 1430-1625 TTh, Arch 50, 4 cr
- r5285 Control Systems Laboratory** (prereq 5283 or equiv, IT or grad IT maj)
111711 1325-1415 TTh, AmundH 116, 2 cr
- r5330 Heat Transfer Laboratory** (prereq 5342, ME upper div) (A-F only)
★LECT 1325-1415 M, AkerH 225, (formerly 5703-4-5, lab sections H-1 and H-2)
404299 -1 LAB 1430-1730 M, MechE 260, 2 cr
902461 -2 LAB 1430-1730 T, MechE 260, 2 cr
710819 -3 LAB 1430-1730 Th, MechE 260, 2 cr
211013 -4 LAB 1430-1730 F, MechE 260, 2 cr
- r5342 Heat Transfer** (prereq IT upper div or grad or ForP stu, 3301, CE 3400 or AEM 3200)
509476 -1 0800-0850 MTWThF, Arch 10, 4 cr
007506 -2 1115-1205 MTWThF, Arch 10, 4 cr
- r5343 Introduction to Thermal Design** (prereq 5342, 5254 or equiv, upper division IT stu or grad)
910690 1535-1730 MTh, LindH 215, 4 cr
- r5351 Computational Heat Transfer** (prereq 5342, IT stu or grad)
208189 1325-1505 WF, MechE 321, 4 cr
- r5430 Internal Combustion Engine Performance Laboratory** (prereq CE 3400 or AEM 3200, 3701, 3702, 5460, ME upper div stu) (A-F only)
★LECT 1220-1310 T, MechE 321, (formerly 5703-4-5, lab sections P-1 and P-2)
807135 -1 LAB 1535-1730 W, MechE 460, 2 cr
903240 -2 LAB 1745-1940 W, MechE 460, 2 cr
703417 -3 LAB 1300-1500 Th, MechE 460, 2 cr
310452 -4 LAB 1535-1730 Th, MechE 460, 2 cr
- r5432 Steam Power Laboratory** (prereq CE 3400 or AEM 3200, 3303, 3701, 3702, ME upper div stu) (A-F only)
★LECT 1535-1625 M, Arch 20, (formerly 5703-4-5, lab sections P-5 and P-6)
710304 -1 LAB 1640-1835 M, MechE 460, 2 cr
401788 -2 LAB 1850-2045 M, MechE 460, 2 cr
- r5433 Compressor, Combuster, and Turbine Laboratory** (prereq CE 3400 or AEM 3200, 3303, 3701, 3702, ME upper div stu) (A-F only)
★LECT 1430-1520 T, MechE 202, (formerly 5703-4-5, lab sections P-3 and P-4)
309043 -1 LAB 1535-1730 T, MechE 460, 2 cr
405243 -2 LAB 1745-1940 T, MechE 460, 2 cr
- r5442 Vapor Cycle Power Systems** (prereq 3303, IT stu or grad)
906462 0800-0850 MTWThF, MechE 221, Kittelson, 4-5 cr
- r5446 An Introduction to Combustion** (prereq 5342 or equiv, IT stu or grad)
105320 1115-1205 MWThF, MechE 321, Blackshear, 4 cr
- r5460 Internal Combustion Engines** (prereq 3301, IT stu or grad)
411110 0905-0955 MTWThF, MechE 321, 4 cr
- r5462 Gas Turbines** (prereq 3301, IT stu or grad)
412497 1010-1100 MTWThF, MechE 321, Murphy, 4 cr
- r5603 Thermal Environmental Engineering** (prereq 3303, 5342 or equiv, IT stu or grad)
905084 1325-1415 MWThF, AkerH 211, Kuehn, 4 cr
- r5609 Air Pollution** (prereq 3303 or #, IT stu or grad)
707967 -1 0800-0955 TTh, MechE 102, 4 cr
- r5613 Principles of Particle Technology** (prereq 3303, IT stu or grad)
305400 0800-0955 MW, AkerH 211, 4 cr
- r5630 Thermal Environmental Engineering Senior Laboratory** (prereq 3701, 3702, 15603; formerly 5703-4-5, Lab sections E-1, E-2) (A-F only)
★LECT 1115-1205 T, AkerH 211
708830 -1 LAB 1115-1310 W, MechE 362, 2 cr
303193 -2 LAB 1115-1310 Th, MechE 362, 2 cr
204255 -3 LAB 1115-1310 F, MechE 362, 2 cr
- r5741 Industrial Assignment and Design Project** (5741-5742); prereq 3742)
609274 Marple, 4 cr
- r5742 Industrial Assignment and Design Project** (5741-5742); prereq 5741)
506464 Marple, 4 cr
- r8330 Conduction** (prereq 5342)
510417 -1 0905-0955 MWF, MechE 102, 3 cr
- r8360 Introduction to Plasma Technology** (prereq 5342 or #)
276377 1010-1100 MWF, MechE 202, 3 cr
- r8443 Applied Thermodynamics I** (prereq 3303 or equiv)
804672 1010-1100 MWThF, MechE 460, Fletcher, 3 cr
- 8770 Mechanical Engineering Research** (prereq Δ)
104295 ar cr
- 8771 Mechanical Engineering Research** (prereq 8770, Δ)
810553 ar cr
- r8773 Graduate Seminar** (S-N only)
607072 -1 1525-1625 W, MechE 108, 1 cr
- r8774 Graduate Seminar** (prereq 8773) (S-N only)
004931 -1 1525-1625 W, MechE 108, 1 cr
- r8775 Graduate Seminar** (prereq 8774) (S-N only)
802226 -1 1525-1625 W, MechE 108, 1 cr
- 8777 Thesis Credits: Masters**
412113 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
103065 1-36 cr

MEDICAL TECHNOLOGY (MedT) Medical School

- 1010 Orientation** (prereq freshman) (S-N only)
10748*1220-1310 Th, MoosT 3317, Karni, 1 cr
- 5010 Introduction to Clinical Laboratory Science** (prereq regis as a student in the prof medical technology program) (S-N only)
704017 0800-1645 MTWThF, HSUnitF 3150, Swinehart, 2 cr (Sept 16-20 only)
- 5011 Introduction to Urinalysis** (A-F only)
003729 0905-0955 M, MoosT 3317, 0905-1310 W, MoosT 3349, Brunzel, 1 cr

- 5077 Hematology I: Basic Techniques** (A-F only)
 *LECT 1010-1100 M, MoosT 2530,
 Lofsness
 506528 -1 LAB 0905-1205 TTh, MoosT 3349,
 Lofsness, 3 cr
- 5082 Applied Clinical Chemistry** (prereq 5113)
 (S-N only)
 709203 0700-1600 MTWThF, UHosp, Hanson,
 4 cr
- 5084 Applied Clinical Virology** (prereq 5100, 5102)
 (S-N only)
 907868 0730-1600 MTWThF, UHosp, Dirksen,
 1 cr
- 5085 Applied Clinical Hematology** (prereq 5077,
 5078, 5765 or CLS 5765) (S-N only)
 403265 0715-1600 MTWThF, UHosp, Lofsness,
 Swinehart, 4 cr
- 5086 Applied Clinical Immunohematology** (prereq
 5064, 5065) (S-N only)
 109926 0730-1600 MTWThF, UHosp, Christie,
 4 cr
- 5088 Applied Diagnostic Microbiology** (prereq
 5100, 5102) (S-N only)
 104130 0730-1600 MTWThF, UHosp, Wells, 4 cr
- 5090 Special Laboratory Methods** (prereq #)
 609646 2 cr
- 5092 Honors Program: Laboratory Methods**
 (prereq #)
 902296 Kami, 5 cr
- 5100 Virology/Mycology/Parasitology for Medical
 Technologists** (prereq MicB 5235) (A-F only)
 007232 1325-1415 MWTh, MoosT 3317, Wells,
 3 cr
- 5102 Principles of Diagnostic Microbiology**
 (prereq MicB 5233) (A-F only)
 *LECT Wells, Jechorek
 975328 -1 LAB 5 cr
- 5120 Seminar**
 306384 Kami, 1-3 cr
- 5125 Practicum: Teaching** (max 3 cr)
 810049 ar cr
- 5130 Practicum in Laboratory Administration**
 (prereq #)
 202991 3 cr
- 5135 Advanced Clinical Microbiology** (prereq #)
 *LECT Wells
 205647 -1 LAB Wells, 5 cr
- 5138 Seminar: Clinical Microbiology**
 910981 1115-1205 F, PWB 15194, Wells, Ferrier,
 ar cr
- 5140 Techniques for Teaching** (prereq Δ)
 706107 1325-1615 Th, PWB 15194, Kami, 3 cr
- 5145 Development of Medical Technology**
 805515 3 cr
- 5155 Advanced Clinical Hematology** (prereq #)
 003116 5 cr
- 5165 Advanced Clinical Immunohematology**
 (prereq #)
 903819 5 cr
- 5175 Advanced Clinical Chemistry** (prereq #)
 204319 5 cr
- 5179 Chemistry Seminar** (prereq #)
 802954 1 cr

MEDICINAL CHEMISTRY (MedC) Medicinal Chemistry and Pharmacognosy Pharmacy

- 5495 Vistas in Medicinal Chemistry Research**
 808382 1600-1730 M, HSUnitF 7193, Abul-Hajj,
 1 cr
- 5600 General Principles of Medicinal Chemistry**
 (prereq Phcl 1009, BioC 5001) (A-F only)
 511406 1430-1520 MWThF, HSUnitF 9177,
 Portoghese, others, 4 cr
- 8100 Medicinal Chemistry Seminar**
 007831 1535-1730 T, MoosT 2520, Rimmel, ar cr
- 8116 Steroid Drugs** (prereq #) (A-F only)
 675310 Abul-Hajj, 2 cr

- 8300 Pharmaceutical Cell Systems** (§Phcg 8300;
 prereq #) (A-F only)
 275309 4 cr
- 8777 Thesis Credits: Masters**
 109781 1-16 cr
- 8800 Laboratory Techniques** (prereq Chem 3303 or
 #)
 806082 ar cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
 310435 1-36 cr
- 8900 Research in Medicinal Chemistry** (prereq
 Chem 3303 or #)
 109044 ar cr

MEDICINAL CHEMISTRY, UNDERGRADUATE (MChm) Pharmacy

- 5330 Therapeutic Agents II** (§Phcl 5101; prereq
 5320, 5440 or #) (A-F only)
 702641 0905-0955 MW, MoosT 2620, Johnson R.,
 2 cr
- 5360 Pharmaceutical Immunology and
 Biotechnology** (prereq VPB 3103) (A-F only)
 301587 0800-0955 TTh, JacH 2135, Shier, 4 cr
- 5430 Biochemistry of Medicinals I** (prereq Chem
 3303 or Chem 3304 or #) (A-F only)
 110669 1325-1415 MWF, MoosT 2650, Vince,
 3 cr
- 5495 Vistas in Medicinal Chemistry Research**
 (S-N only)
 502642 1600-1730 M, HSUnitF 7193, Abul-Hajj,
 1 cr
- 5710H Medicinal Chemistry Seminar** (prereq #) (A-F
 only)
 006520 1 cr
- 5712H Steroid Drugs** (prereq #) (A-F only)
 976432 2 cr
- 5880 Pharmaceutical Immunology** (prereq VPB
 3103) (A-F only)
 101588 0800-0955 TTh, JacH 2135, Shier, 2 cr
 (1st 5 weeks)
- 5881 Pharmaceutical Biotechnology** (prereq VPB
 3103) (A-F only)
 108999 0800-0955 TTh, JacH 2135, Shier, 2 cr
 (2nd 5 weeks)
- 5970 Directed Studies** (prereq #)
 410670 1-5 cr
- 5999 Special Problems** (prereq #)
 908650 ar cr

MEDICINE (Med) Medical School

- 5500 Medicine Externship I** (prereq regis med
 student)
 104452 Parenti, 9 cr
- 5501 Externship in Medicine** (prereq regis med
 student, 5500)
 212212 Parenti, 9 cr
- 5505 Infectious Disease Research at the
 University Hospital**
 005089 Jordan, ar cr
- 5508 Preceptorships in Internal Medicine** (prereq
 regis med)
 711081 Hostetter, ar cr
- 5509 Research in Rheumatology**
 806244 Messner, 9 cr
- 5511 Research in Gastroenterology**
 412063 Levitt, 9 cr
- 5512 Research in Hematology**
 005450 Jacob, 1-18 cr
- 5518 Research in Endocrinology** (prereq regis med
 student)
 904274 Oppenheimer, ar cr
- 5521 Infectious Diseases, Clinical Aspects at the
 University Hospitals**
 111151 Jordan, 9 cr
- 5522 Medical Gastroenterology**
 603040 Olson, 9 cr

- 5523 Endocrinology, Metabolism, Clinical
 Pharmacology**
 205972 Oppenheimer, 9 cr
- 5525 Cardiovascular Medicine**
 212016 Bache, 9 cr
- 5526 Medical Oncology Outpatient/Consultation**
 (prereq 5500)
 310578 Luikart, ar cr
- 5527 Contemporary Problems in Investigative
 Cardiology**
 312055 Bache, 9 cr
- 5528 Clinical Hematology**
 505945 Howe, 9 cr
- 5531 Clinical Rheumatology**
 211254 Messner, 4.5-9 cr
- 5532 Pulmonary Disease**
 708388 Bitterman, 9 cr
- 5533 Clinical Allergy at University Hospitals**
 008459 Blumenthal, 4.5-9 cr
- 5548 Clinical Genetics**
 109442 King, 9 cr
- 5554 Fluid Electrolyte, Acid-Base Metabolism**
 403248 Ma, 9 cr
- 5556 Renal Consultation** (prereq 5500)
 702218 Hostetter, 4.5-9 cr
- 5557 Research in Nephrology** (prereq 5500 at Univ
 Hosp)
 712585 Hostetter, ar cr
- 5562 Clinical Nephrology** (prereq 5500)
 606505 Rao, 9 cr
- 5570 Clinical Medicine on the General Clinical
 Research Center**
 906848 Bantle, 9 cr
- 5571 Clinical Toxicology and Emergency
 Medicine** (prereq regis med student)
 204868 Saxena, ar cr
- 5590 Preceptorships in Internal Medicine**
 109800 Howe, 4.5-9 cr
- 5591 Internal Medicine for the Ambulatory
 Outpatient** (prereq 5502, regis med stu)
 307292 Howe, 9 cr
- 5592 Rural Physician Associate Program in
 Internal Medicine**
 611350 Howe, ar cr
- 5593 Preceptorships in Internal Medicine in an
 HMO Setting**
 201968 Howe, ar cr
- 5596 Occupational Health**
 609968 Mandel, 4.5 cr
- 5597 Research in Occupational Health**
 712490 Mandel, 9 cr
- 8201 Clinical Medicine**
 706138 Ferris, ar cr
- 8202 Clinical Conference**
 809435 Ferris, 1 cr
- 8203 Clinical Radiology Conference**
 903769 Ferris, 1 cr
- 8204 Pathology Conference**
 709041 Ferris, 1 cr
- 8205 Electrocardiographic Conference**
 103026 Tuna, 1 cr
- 8206 Nephrology Seminar**
 402259 Hostetter, 3 cr
- 8209 Tumor Clinical Conference**
 504312 Kennedy, 1 cr
- 8210 Infectious Disease Seminar**
 309205 Jordan, ar cr
- 8211 Diseases of the Cardiovascular System**
 105561 Cohn, ar cr
- 8212 Diseases of the Chest**
 002256 Bitterman, ar cr
- 8213 Diseases of the Kidney**
 108534 Hostetter, ar cr
- 8214 Diseases of Diabetes, Endocrinology,
 Metabolism**
 010311 Oppenheimer, ar cr
- 8215 Diseases of Hematology**
 807149 Jacob, ar cr

8216 Diseases of Gastroenterology
303212 Bloomer, ar cr

8217 Diseases of Oncology
910348 Mandel, ar cr

8220 Research in Medicine
104273 Ferris, ar cr

8221 Topics in Medicine
003570 Ferris, ar cr

8223 Topics in Related Basic Science
807829 Ferris, ar cr

MEDIEVAL STUDIES (MeSt)

Liberal Arts

R3610 Topics in Medieval Studies

111831 -1 LECT 0905-0955 MWF, BlegH 225,
Lehmberg, 4 cr

877072 -2 LECT 0905-0955 MWF, AndH 310,
Steyaert, 4 cr

★LECT 1115-1205 MWF, BlegH 235,
Lehmberg

477074 -1 REC 1010-1100 M, BlegH 205, 4 cr

277075 -2 REC 1220-1310 W, BlegH 225, 4 cr

177076 -3 REC 1220-1310 Th, BlegH 135, 4 cr

977080 -4 LECT 1220-1310 MWF, FolH 234,
Wakefield, 4 cr

777081 -5 LECT 0945-1100 TTh, BlegH 220,
Phillips, 4 cr

577082 -6 LECT 1430-1520 MW, 1430-1625 F,
FolH 208, Weiss, 4 cr

377083 -7 LECT 1245-1400 TTh, LindH 217,
Wallace, 4 cr

R5610 Topics in Medieval Studies (prereq 1 yr work in some area of Middle Ages, reading knowledge of appropriate language)

810665 -1 1325-1625 W, WaLib 301, Reyerson,
4 cr

977077 -2 1325-1520 T, WaLib 301, Hanawalt,
Noakes, 4 cr

777078 -3 1430-1520 MWF, PWB 5224, Wilson,
4 cr

577079 -4 1245-1440 TTh, JonesH 2, MacLeish,
4 cr

METALLURGICAL ENGINEERING

(MetE)

Civil And Mineral Engineering

Institute of Technology

5100 Chemical Metallurgy I (prereq Chem 1031,
1032, 5534 or #)
303761 0905-0955 MTWF, MRRC 211, Hepworth,
4 cr

5500 Metallurgical Engineering Design I (prereq #)
510045 Smith, 4 cr

5801 Mineral Processing II (prereq #)
★LECT 0800-0850 MWF, MRRC 211,
Iwasaki, 4 cr
107836 -1 LAB 1325-1625 Th, MRRC 211, Smith

5900 Metallurgical Heat Transfer and Fluid Flow
(prereq #)
612210 1115-1205 MTWF, MRRC 211, Voller,
4 cr

**5940 Special Problems in Extractive Metallurgical
Engineering** (prereq sr)
507002 Hepworth, 1-6 cr

8000 Applied Process Metallurgy I (prereq #)
909958 1640-1730 MWF, MRRC 212, Reid, 3 cr

**8921 Research in Extractive Metallurgical
Engineering** (prereq #) (A-F only)
306921 1615-1800 F, MRRC 211, Smith, ar cr

MICROBIAL ENGINEERING

(MicE)

5990 Teaching Practicum (A-F only)
402780 0-1 cr

8777 Thesis Credits: Masters
303355 1-16 cr

8990 Biotechnology Seminar (A-F only)
309589 1700-1800 T, GorL 239, 1 cr

MICROBIOLOGY (MicB)

Medical School

R5105 Biology of Microorganisms (§3103, Biol 5013,
VPB 3103; prereq 5 cr biological sciences, Biol
5001 or #)

★LECT 1010-1205 T, 1010-1100 Th,
MoosT 2520, Dunny, 5 cr

810472 -1 LAB 1325-1520 TTh, MoosT 2252

5201 Microbiology for Dental Students

★LECT 0900-0945 MTWThF, MoosT 2690,
Reilly, 7 cr (Sept 4-Nov 13)

904842 -1 LAB 1000-1200 TTh, MoosT 2252,
(Sept 24-Nov 19)

R5235 Microorganisms and Disease (not open to
microbiology majors; prereq 10 cr chemistry, 5 cr
biological sciences or #)

304196 1115-1205 MWF, MoosT 2850, Johnson,
4 cr

5321 Physiology of Bacteria (prereq 3103 or 5105
or Biol 5013 or VPB 3013, Biol 5001, 3 cr
genetics, 10 cr organic chem)

504648 0815-0930 TTh, MoosT 2520, Rogers,
3 cr

R5322 Microbial Diversity and Physiology

Laboratory (prereq 5322 or 5321 or equiv)
(A-F only)

302843 1220-1520 TTh, MoosT 2252, Dworkin,
Rogers, 3 cr

5900 Topics in Microbiology (S-N only)

305381 1535-1625 W, PWB 5254, 5258, Fontana,
1 cr

5970 Directed Studies (prereq #, Δ)

402455 Rogers, ar cr

5990 Directed Research (prereq #, Δ)

303842 Rogers, ar cr

5992 Practicum: Teaching (prereq microbiology
grad stu or #) (A-F only)

111059 1 cr

R8110 Structure, Function and Metabolism of

Bacteria (prereq beginning microbiology,
biochemistry, organic chemistry, general
biology or #)

909040 1010-1125 MW, HSUnitF 2120, Dworkin,
Rogers, 3 cr

R8217 Frontiers of Immunology II: Molecular

Immunology (§Path 8217; prereq Biol 5001 or
equiv)

775329 1010-1100 MWF, MoosT 2520,
Jemmerson, Orr, 3 cr

8777 Thesis Credits: Masters

203929 1-16 cr

8888 Thesis Credits: Doctoral (max 18 cr per qtr)

712182 1-36 cr

R8910 Seminar (prereq #)

006260 1200-1300 W, PWB 11157, 1 cr

8911 Colloquium in Microbiology (prereq #)

608433 1 cr

8990 Research in Microbiology (prereq microbiol
grad stu or #)

010874 ar cr

MIDDLE EASTERN STUDIES

(MidE)

South Asian & Middle Eastern

Studies

Liberal Arts

3036 The Religion of Islam (§5036, RelS 3036, RelS
5036)

575798 1115-1230 TTh, FolH 306, Barker, 4 cr

3601 Fiction: Iran and Soviet Central Asia (§SCAS
3601)

175800 1010-1100 MWF, FolH 138, Bashiri, 4 cr

5036 The Religion of Islam (§3036, RelS 3036, RelS
5036)

375799 1115-1230 TTh, FolH 306, Barker, 4 cr

5525 The Middle East in World Affairs: The Arab

World, Turkey and Iran, 1915 to the Present

775797 0915-1100 W, BlegH 205, Farah, 4 cr

5601 Fiction: Iran and Soviet Central Asia (§SCAS
5601)

975801 1010-1100 MWF, FolH 138, Bashiri, 4 cr

5970 Directed Studies (prereq #, Δ, CLA approval)
107187 ar cr

5990 Directed Research (prereq #, Δ, CLA
approval)
304668 ar cr

MILITARY SCIENCE (Mil)

0100 Leadership Laboratory (prereq fr or soph)
(A-F only)

108095 0645-0745 Th, Armory 116, King, 0 cr

0300 Advanced Leadership Laboratory (prereq
enrolled as a military science advanced course
cadet or #) (A-F only)

106905 0645-0800 Th, Armory 100, Hamilton, 0 cr

1001 Leadership Laboratory (prereq fr or soph)
(A-F only)

008882 0645-0745 Th, Armory 116, King, 1 cr

1010 The U.S. Army in Society (A-F only)

402469 -1 0800-0850 MW, Armory 116A, King,
2 cr

706382 -2 1430-1520 MW, Armory 116, King,
2 cr

1013 World Military History (§Hist 1953) (A-F only)

175092 -1 1010-1100 TTh, Armory 116, Mullins,
2 cr

075093 -2 1325-1415 TTh, Armory 116, Mullins,
2 cr

1201 Leadership Laboratory (prereq fr or soph)

(A-F only)

002273 0645-0745 Th, Armory 116A, Mullins, 1 cr

3130 Military Science III Leadership Laboratory

(max 3 cr; prereq military science III stu or #)

(A-F only)

707077 0645-0800 Th, Armory 100, Hamilton, 1 cr

R3131 Leadership Assessment and Training

(prereq Military Science III student or #) (A-F
only)

211383 -1 1430-1545 MW, Armory 116A,
Hamilton, 3 cr

108962 -2 0945-1100 TTh, Armory 116A,
Hamilton, 3 cr

3140 Military Science IV Leadership Laboratory

(max 3 cr; prereq military science IV stu or #)

(A-F only)

512247 0645-0800 Th, Armory 100, Dekanich,
1 cr

R3141 Military Management, Ethics, and

Professionalism (prereq Military Science IV
student or #) (A-F only)

102457 -1 0815-0930 TTh, Armory 116A,
Dekanich, 3 cr

812081 -2 1430-1545 TTh, Armory 116A,
Dekanich, 3 cr

3970 Directed Studies (prereq #, Δ) (A-F only)

008123 1-3 cr

MINING ENGINEERING (MinE)

Civil And Mineral Engineering

Institute of Technology

8470 Research Problems (prereq #) (A-F only)

810181 Barnes, ar cr

8601 Seminar: Mineral Engineering (prereq #)

(S-N only)

603104 1430-1520 F, MRRC 212, Hepworth, 1 cr

8777 Thesis Credits: Masters

210136 1-16 cr

8888 Thesis Credits: Doctoral (max 18 cr per qtr)

801920 1-36 cr

MORTUARY SCIENCE (Mort)

Medical School

R3001 Orientation in Funeral Services (A-F only)

004072 1430-1520 MWF, JOAd 2125, Mathews,
3 cr

R3040 Funeral Service Psychology (prereq

introductory course in general psychology) (A-F
only)

203865 1325-1415 MWF, JOAd 2125, Burger, 3 cr

- r3050 Restorative Art** (prereq regis mortuary science) (A-F only)
★LECT 0800-1000 Th, Jach 2153, Burger
703661 -1 LAB 0905-1205 M, Jach 2153B, Burger, 4 cr
811864 -2 LAB 0905-1205 W, Jach 2153B, Burger, 4 cr
406506 -3 LAB 0905-1205 F, Jach 2153B, Burger, 4 cr
- r3060 Embalming** (prereq biology, human anatomy, regis in mortuary science or #) (A-F only)
★LECT 0800-0900 MWF, 1000-1200 Th, Jach 2153, Stroud, 8 cr
★REC 0900-1200 F, Jach 2153, Stroud
612448 -1 LAB 0900-1200 W, Jach 2153A, Stroud
★REC 0900-1200 M, Jach 2153, Stroud
212002 -2 LAB 0900-1200 F, Jach 2153A, Stroud
★REC 0900-1200 W, Jach 2153, Stroud
603331 -3 LAB 0900-1200 M, Jach 2153A, Stroud
- r3062 Gross Human Anatomy** (prereq biology, human anatomy, regis in mortuary science) (A-F only)
★LECT 0800-0900 T, Jach 5147, Lee, 2 cr
305929 -1 LAB 0900-1200 T, Jach 5147, Lee
- r3070 Funeral Service Management** (prereq regis mortuary science) (A-F only)
908986 1115-1205 MW, JOAd 2125, Mathews, 2 cr
- r3071 Funeral Service Practice** (prereq regis mortuary science) (A-F only)
★LECT 1010-1205 TTh, JOAd 2125, Mathews
705815 -1 LAB 0800-0955 M, JOAd 2125, Mathews, 4 cr
112395 -2 LAB 0800-0955 W, JOAd 2125, Mathews, 4 cr
110493 -3 LAB 0800-0955 F, JOAd 2125, Mathews, 4 cr
- r3072 Funeral Service Computer Applications** (prereq regis mortuary science) (A-F only)
401564 0800-0955 T, JOAd 2125, Mathews, 2 cr
- r3074 Funeral Service Small Business** (prereq regis mortuary science) (A-F only)
010647 1010-1205 F, JOAd 2125, Grayson, 2 cr
- 3080 Funeral Service Practicum** (prereq have completed all requirements for graduation with the exception of 3080, Δ) (S-N only)
709847 Stroud, Kroshus, others, 15 cr
- r3090 Independent Study** (prereq regis in mortuary science)
611879 Burger, Kroshus, others, 1-3 cr
- r3270 Funeral Service Seminar** (prereq regis mortuary science) (S-N only)
807152 1325-1520 Th, JOAd 2125, Kroshus, 1 cr
- r3273 Funeral Service Counseling** (prereq regis mortuary science, #) (A-F only)
101700 1220-1310 MW, JOAd 2125, 2 cr

MUSEUM STUDIES (MSI)

- 8016 Internship** (prereq 8010, prereq permission of Director of Graduate Studies in Museum Studies)
075370 1-6 cr

MUSIC (Mus)

Music Liberal Arts

- r1001 Fundamentals of Music** (prereq nonmus maj)
★LECT 0800-0855 MWF, FergH 225, 4 cr
608447 -1 REC 0905-0955 F, FergH 105
802128 -2 REC 1010-1100 F, FergH 107
911371 -3 REC 1010-1100 F, FergH 105
110378 -4 REC 1115-1205 F, FergH 107
404206 -5 REC 1115-1205 F, FergH 105
806065 -6 REC 1220-1310 F, FergH 105
411463 -7 REC 1325-1415 F, FergH 105
★LECT 1430-1520 MWF, FergH 225, 4 cr
002208 -8 REC 0800-0850 F, FergH 105
176980 -9 REC 0905-0955 F, FergH 105
976981 -10 REC 1010-1100 F, FergH 107
776982 -11 REC 1010-1100 F, FergH 105
576983 -12 REC 1115-1205 F, FergH 107
376984 -13 REC 1115-1205 F, FergH 105
176985 -14 REC 1220-1310 F, FergH 105
076986 -15 REC 1325-1415 F, FergH 105

- r1003 Introduction to Music Theory** (prereq mus maj or #) (A-F only)
905716 0800-0850 TTh, FergH 225, 2 cr
- r1004 Introduction to Ear-Training** (prereq mus maj or #) (A-F only)
602776 -1 0905-0955 MTWTh, FergH 123, 2 cr
501653 -2 0905-0955 MTWTh, FergH 149, 2 cr
110736 -3 0905-0955 MTWTh, FergH 203, 2 cr
908714 -4 0905-0955 MTWTh, FergH 205, 2 cr
006730 -5 0905-0955 MTWTh, FergH 267, 2 cr
- r1151 Piano: Class Lessons** (prereq mus maj, #) (A-F only)
511163 -1 1115-1205 MW, FergH 265, 2 cr
411009 -2 1220-1310 MW, FergH 259, 2 cr
409244 -3 1010-1100 TTh, FergH 265, 2 cr
202490 -4 1115-1205 TTh, FergH 265, 2 cr
707063 -5 1220-1310 TTh, FergH 259, 2 cr
408837 -6 1325-1415 TTh, FergH 259, 2 cr
- r1160 Voice: Class Lessons**
908390 -1 1010-1100 MW, FergH 90, 2 cr
007974 -2 1115-1205 MW, FergH 90, 2 cr
109036 -3 1430-1520 MW, FergH 90, 2 cr
203249 -4 1010-1100 TTh, FergH 90, 2 cr
304845 -5 1115-1205 TTh, FergH 90, 2 cr
- r1161 Diction for Singers I** (prereq pre-mus or mus maj or minor)
112638 1010-1205 M, FergH 123, Herzberg, 1 cr
- r1164 Diction for Singers IV** (prereq pre-mus or mus maj or min)
810598 1010-1205 F, FergH 90, Weller, 1 cr
- 1180 Accompanying** (max 3 cr; prereq 12 cr in MusA 1201 or MusA 1301 or #) (A-F only)
605886 1325-1415 T, FergH 240, 1 cr
- 1340 Jazz Ensemble** (max 6 cr; prereq audition, #) (A-F only)
105312 -1 1640-1835 MW, FergH 95, McCurdy, 1 cr (Jazz I)
805143 -2 1535-1625 MWF, FergH 95, 1 cr (Jazz II)
- r1351 Jazz Class Piano** (prereq 1153 or #)
904579 1010-1100 MW, FergH 265, Hamilton, 2 cr
- r1440 Ensemble** (prereq #)
704034 -1 1 cr (Guitar)
501944 -2 Miller, 1 cr (Harp)
506335 -3 1 cr (Piano)
307826 -4 1 cr (Strings)
203638 -5 1325-1415 TTh, FergH 81, Ware, 1 cr
075157 -6 1900-2030 TTh, FergH 95, McCurdy, 1 cr (Jazz Combo)
577065 -7 1 cr (Trombone Ensemble)
- 1480 Marching Band** (prereq #)
306191 1535-1730 TWTTh, NMA 4, Kopetz, 1 cr
- 1513 Ear-Training and Sight-Singing II** (prereq 1512, 1153) (A-F only)
675145 -1 0800-0850 MF, FergH 123, 1 cr
475146 -2 0800-0850 MF, FergH 203, 1 cr
275147 -3 0800-0850 MF, FergH 205, 1 cr
175148 -4 0800-0850 MF, FergH 267, 1 cr
- r1521 Keyboard Harmony** (prereq keyboard maj, #) (A-F only)
904016 -1 1010-1100 TTh, FergH 259, Shockley, 2 cr
209245 -2 1115-1205 TTh, FergH 259, Shockley, 2 cr
- 1533 Theory III: Harmony and Voice Leading** (prereq 1532, 1153 or 1523, 11513) (A-F only)
★LECT 0905-0955 MW, FergH 225, 3 cr
275150 -1 REC 0800-0850 TTh, FergH 123
175151 -2 REC 0800-0850 TTh, FergH 149
975152 -3 REC 0800-0850 TTh, FergH 203
775153 -4 REC 0800-0850 TTh, FergH 205
- 3021 Introduction to Music** (§1021; prereq non mus maj)
875158 1220-1310 MTWThF, FergH 225, 5 cr
- 3220 Chamber Winds** (prereq #) (A-F only)
904551 1800-2200 M, FergH 85, 1 cr
- r3331 Jazz Improvisation I** (prereq #)
608500 0800-0850 MWF, FergH 95, 2 cr
- 3410 Concert Band** (prereq #)
807801 -1 1325-1520 TTh, FergH 95, Kopetz, 1 cr (Concert Band)
110445 -2 1325-1520 MWF, FergH 95, Benciscutto, 1 cr (Symphonic Wind Ensemble)

- 3420 Orchestra** (prereq #)
210296 1535-1730 MTTh, FergH 85, Sidlin, 1 cr
- 3430 University Chorus** (prereq #)
907160 -1 1535-1625 MTTh, FergH 225, 1 cr (Women's Chorus)
709007 -2 1535-1625 MTTh, FergH 90, 1 cr (Men's Chorus)
911919 -3 1220-1310 MWF, FergH 90, 1 cr (Concert Choir)
- r3440 Ensemble** (prereq #)
408823 -1 1 cr (Guitar)
207432 -2 Miller, 1 cr (Harp)
206250 -3 1 cr (Piano)
510384 -4 1 cr (Strings)
709458 -5 1325-1415 TTh, FergH 81, Ware, 1 cr
675159 -6 1900-2030 TTh, FergH 95, McCurdy, 1 cr (Jazz Combo)
377066 -7 1 cr (Trombone Ensemble)
- r3551 Composition** (†3551-3552-3553; prereq 3532, #) (A-F only)
706303 1010-1205 F, FergH 203, Lubet, 2 cr
- 3604 History of Western Music** (prereq 1153 or 1523, 1532 or #) (A-F only)
★LECT 0905-1100 TTh, FergH 225, Grayson
104717 -1 REC 0905-0955 F, FergH 225, 5 cr
- 3806 Music of East Asia**
075160 1010-1205 MW, FergH 149, Kagan, 4 cr
- 3970 Directed Studies** (prereq #, Δ, □)
711422 -1 1-15 cr
706205 -2 1-15 cr
- 3980 Directed Teaching** (prereq #, Δ, □)
302254 1-4 cr
- 3995 Major Project** (prereq sr, #, Δ) (A-F only)
304179 2 cr
- 5220 Chamber Winds** (prereq #) (A-F only)
112647 1800-2200 M, FergH 85, Kopetz, 1 cr
- r5321 Suzuki Violin Pedagogy** (prereq undergrad or grad string maj with violin as principle performing instrument or #)
403461 1230-1400 W, MacPhC 311, Bjork, 2 cr (off-campus)
- r5324 Advanced Suzuki Violin Pedagogy** (prereq 5323 or equiv, audition)
710125 1300-1430 M, MacPhC 311, Bjork, 2 cr (off-campus)
- r5331 Jazz Improvisation IV** (prereq 3331, 3332, 3333 or audition) (A-F only)
105245 0800-0955 T, FergH 95, McCurdy, 2 cr
- 5340 Jazz Ensemble** (max 6 cr; prereq audition, #) (A-F only)
303128 -1 1640-1835 MW, FergH 95, McCurdy, 1 cr (Jazz I)
502124 -2 1535-1625 MWF, FergH 95, 1 cr (Jazz II)
- r5351 Piano Pedagogy** (prereq 12 cr in MusA 1201 or MusA 1301 or #) (A-F only)
304053 1010-1205 W, FergH 259, Shockley, 2 cr
- 5354 Piano Pedagogy Practicum** (prereq 15351) (A-F only)
705670 Shockley, 1 cr
- 5360 Woodwind Ensemble** (prereq audition)
905845 Anderson, 1 cr
- r5370 Vocal Performance Laboratory** (prereq upper div voice maj or #) (A-F only)
106533 1220-1415 TTh, FergH 90, Ware, 2 cr
- 5380 Brass Choir** (prereq #)
906820 -1 1325-1415 MWF, FergH 85, Baldwin, 1 cr (Brass Ensemble)
706866 -2 1325-1520 TTh, FergH 85, Baldwin, 1 cr (Brass Choir)
- 5387 Instrumental Conducting** (prereq #)
112499 1115-1310 TTh, FergH 203, 4 cr
- 5410 Band** (prereq #)
108274 -1 1325-1520 TTh, FergH 95, Kopetz, 1 cr (Concert Band)
103446 -2 1325-1520 MWF, FergH 95, Benciscutto, 1 cr (Symphonic Wind Ensemble)
- 5420 Orchestra** (prereq #)
204062 1535-1730 MTTh, FergH 85, Sidlin, 1 cr

- 5430 University Chorus** (prereq #)
103639 -1 1535-1625 MTTh, FergH 225, 1 cr
(Women's Chorus)
702249 -2 1535-1625 MTTh, FergH 90, 1 cr
(Men's Chorus)
110484 -3 1220-1310 MWF, FergH 90, 1 cr
(Concert Choir)
- r5440 Ensemble** (prereq #)
112459 -1 1 cr (Guitar)
609470 -2 Miller, 1 cr (Harp)
408983 -3 1 cr (Piano)
909944 -4 1 cr (Strings)
310693 -5 1325-1415 TTh, FergH 81, Ware, 1 cr
875161 -6 1900-2030 TTh, FergH 95, McCurdy,
1 cr (Jazz Combo)
177067 -7 1 cr (Trombone Ensemble)
- 5470 Opera Workshop and Ensemble** (prereq
ability to sing arias satisfactorily, # by audition)
009904 1535-1730 MTTh, ScottH 108, Sutton,
1 cr
- 5480 Opera Theatre** (prereq advanced ability to sing
arias satisfactorily, by audition, #)
112302 1535-1730 MTTh, ScottH 108, Sutton,
2 cr
- 5490 Chamber Singers** (prereq audition)
509297 1325-1415 MW, 1325-1520 F, FergH 90,
Lancaster, 1 cr
- r5521 Advanced Keyboard Harmony** (prereq 3532,
sr or grad) (A-F only)
675162 1325-1415 MW, FergH 259, Billmeyer,
2 cr
- 5531 Form and Structure of Tonal Music** (prereq
3531, 3511, or 1508, 1518, or placement exam)
(A-F only)
575154 1010-1205 T, 1010-1100 Th, FergH 149,
3 cr
- r5541 Advanced Counterpoint** (prereq #) (A-F only)
403413 1430-1520 TTh, FergH 123, 2 cr
- r5550 Composition** (prereq 3532 or equiv, 3553 or
grad, #) (A-F only)
112597 -1 Argento, 2 cr
609341 -2 Fetter, 2 cr
807122 -3 Lubet, 2 cr
907790 -4 Ultan, 2 cr
- r5561 Orchestration** (prereq 3532) (A-F only)
108797 1325-1415 MW, FergH 149, Argento, 2 cr
- r5571 Introduction to Schenkerian Analysis** (prereq
5531) (A-F only)
604873 1220-1415 TTh, FergH 105, Damschroder,
4 cr
- r5601 History of Opera** (prereq 9 cr in history of
music, art, theatre or European history from
1600 or #)
104869 1430-1520 MTW, FergH 149, Argento,
3 cr
- r5646 19th-Century European Music** (prereq 3606
or equiv, 12 cr undergrad music hist, 5532 or
equiv, # for undergrads) (A-F only)
202800 0905-1100 MW, FergH 105, Hapokoski,
4 cr
- 5666 Stravinsky** (prereq 12 cr in music history, 5532)
(A-F only)
876987 0905-1100 TTh, FergH 105, Jackson, 4 cr
- r5708 The Black Composer: Contributions to
Western Music and Culture** (§Afro 5201;
prereq upper division or grad student) (A-F
only)
103440 1640-1835 TTh, FergH 203, Southall, 4 cr
- 5744 Piano Literature** (prereq 12 cr of MusA 1201 or
MusA 1301 or #) (A-F only)
475163 1535-1830 T, FergH 149, McNab, 2 cr
- r5791 Electronic Music: History, Literature,
Principles** (A-F only)
909278 1010-1205 TTh, FergH 205, Ultan, 4 cr
- r5810 Asian Music: Performance** (prereq #)
005271 Kagan, 2 cr
- r5811 Traditional Indian Music: The Sacred and the
Profane**
275164 1325-1520 MW, FergH 105, Kagan, 4 cr
- 5841 Resources for Music Research** (prereq 3606
or #) (A-F only)
203610 1010-1205 F, FergH 70, 2 cr
- 5970 Directed Studies** (prereq #, Δ, CLA approval)
(A-F only)
308457 1-5 cr

- r8221 Advanced Piano Literature** (prereq 5744 or #)
(A-F only)
175165 1535-1830 M, FergH 149, McNab, 3 cr
- 8537 Score Study (Choral)** (prereq grad student, #)
702154 0905-1100 MWF, FergH 115, Lancaster,
4 cr
- r8550 Composition** (max 18 cr; prereq compl of
undergrad maj sequence in music theory and
composition, #)
906834 -1 Argento, 3 cr
911192 -2 3 cr
011927 -3 Lubet, 3 cr
509963 -4 Ultan, 3 cr
- r8570 Seminar in Composition** (max 12 cr; prereq
grad, #)
701980 1220-1415 MW, FergH 123, Ultan, 4 cr
- 8777 Thesis Credits: Masters**
501782 1-16 cr
- 8844 Seminar: Advanced Research in Historical
Musicology** (prereq undergrad degree in
music)
676988 0905-1100 MW, FergH 70, Jackson, 4 cr
- 8863 Seminar: Theories and Concepts in
Post-Tonal Music** (prereq completion of a 3-yr
U.G. theory program or equiv) (A-F only)
302891 0905-1100 TTh, FergH 115, 4 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
904369 1-38 cr
- r8950 Topics in Music** (A-F only)
375155 1325-1520 MW, FergH 105, Kagan, 4 cr
- 8990 Special Problems** (prereq Δ)
210864 2-12 cr

MUSIC APPLIED (MusA)

Music Liberal Arts

See section 2, Course Fees, for MusA course
fees. These fees are in addition to tuition and are
assessed at registration.

- 1101 Piano, Elective** (prereq audition, Δ)
709928 2 cr
- 1102 Harpsichord, Elective** (prereq audition, Δ)
603829 2 cr
- 1103 Organ, Elective** (prereq audition, Δ)
708895 2 cr
- 1104 Voice, Elective** (prereq audition, Δ)
407557 2 cr
- 1105 Violin, Elective** (prereq audition, Δ)
102224 2 cr
- 1106 Viola, Elective** (prereq audition, Δ)
003827 2 cr
- 1107 Cello, Elective** (prereq audition, Δ)
107545 2 cr
- 1108 Double Bass, Elective** (prereq audition, Δ)
108234 2 cr
- 1109 Flute, Elective** (prereq audition, Δ)
109805 2 cr
- 1111 Oboe, Elective** (prereq audition, Δ)
403668 2 cr
- 1112 Clarinet, Elective** (prereq audition, Δ)
604107 2 cr
- 1113 Saxophone, Elective** (prereq audition, Δ)
204045 2 cr
- 1114 Bassoon, Elective** (prereq audition, Δ)
312282 2 cr
- 1115 French Horn, Elective** (prereq audition, Δ)
104880 2 cr
- 1116 Trumpet, Elective** (prereq audition, Δ)
806129 2 cr
- 1117 Trombone, Elective** (prereq audition, Δ)
808057 2 cr
- 1118 Baritone, Elective** (prereq audition, Δ)
904100 2 cr
- 1119 Tuba, Elective** (prereq audition, Δ)
204403 2 cr
- 1121 Percussion, Elective** (prereq audition, Δ)
509929 2 cr
- 1122 Harp, Elective** (prereq audition, Δ)
403170 2 cr
- 1123 Guitar, Elective** (prereq audition, Δ)
812397 2 cr
- 1201 Piano, Principal** (prereq audition, Δ)
111417 2-4 cr
- 1202 Harpsichord, Principal** (prereq audition, Δ)
005335 2-4 cr
- 1203 Organ, Principal** (prereq audition, Δ)
112356 2-4 cr
- 1204 Voice, Principal** (prereq audition, Δ)
312010 1430-1520 TTh, FergH 180, 2-4 cr (addtl
hrs ar)
- 1205 Violin, Principal** (prereq audition, Δ)
112101 1430-1520 W, FergH 85, 2-4 cr (addtl hrs
ar)
- 1206 Viola, Principal** (prereq audition, Δ)
604334 1430-1520 W, FergH 85, 2-4 cr (addtl hrs
ar)
- 1207 Cello, Principal** (prereq audition, Δ)
004251 1430-1520 W, FergH 85, 2-4 cr (addtl hrs
ar)
- 1208 Double Bass, Principal** (prereq audition, Δ)
412211 1430-1520 W, FergH 85, 2-4 cr (addtl hrs
ar)
- 1209 Flute, Principal** (prereq audition, Δ)
208905 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs
ar)
- 1211 Oboe, Principal** (prereq audition, Δ)
802999 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs
ar)
- 1212 Clarinet, Principal** (prereq audition, Δ)
312136 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs
ar)
- 1213 Saxophone, Principal** (prereq audition, Δ)
809175 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs
ar)
- 1214 Bassoon, Principal** (prereq audition, Δ)
903826 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs
ar)
- 1215 French Horn, Principal** (prereq audition, Δ)
511079 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs
ar)
- 1216 Trumpet, Principal** (prereq audition, Δ)
306174 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs
ar)
- 1217 Trombone, Principal** (prereq audition, Δ)
708169 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs
ar)
- 1218 Baritone, Principal** (prereq audition, Δ)
510949 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs
ar)
- 1219 Tube, Principal** (prereq audition, Δ)
102118 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs
ar)
- 1221 Percussion, Principal** (prereq audition, Δ)
502978 2-4 cr
- 1222 Harp, Principal** (prereq audition, Δ)
107035 2-4 cr
- 1223 Guitar, Principal** (prereq audition, Δ)
405971 2-4 cr
- 1301 Piano, Major** (prereq audition, Δ)
301962 2-4 cr
- 1302 Harpsichord, Major** (prereq audition, Δ)
312427 2-4 cr
- 1303 Organ, Major** (prereq audition, Δ)
206135 2-4 cr
- 1304 Voice, Major** (prereq audition, Δ)
712280 1430-1520 TTh, FergH 180, 2-4 cr (addtl
hrs ar)
- 1305 Violin, Major** (prereq audition, Δ)
901827 1430-1520 W, FergH 85, 2-4 cr (addtl hrs
ar)
- 1306 Viola, Major** (prereq audition, Δ)
211139 1430-1520 W, FergH 85, 2-4 cr (addtl hrs
ar)
- 1307 Cello, Major** (prereq audition, Δ)
710982 1430-1520 W, FergH 85, 2-4 cr (addtl hrs
ar)
- 1308 Double Bass, Major** (prereq audition, Δ)
304988 1430-1520 W, FergH 85, 2-4 cr (addtl hrs
ar)

- 1309 **Flute, Major** (prereq audition, Δ)
007120 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs ar)
- 1311 **Oboe, Major** (prereq audition, Δ)
110431 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs ar)
- 1312 **Clarinet, Major** (prereq audition, Δ)
607430 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs ar)
- 1313 **Saxophone, Major** (prereq audition, Δ)
608416 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs ar)
- 1314 **Bassoon, Major** (prereq audition, Δ)
506271 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs ar)
- 1315 **French Horn, Major** (prereq audition, Δ)
905053 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs ar)
- 1316 **Trumpet, Major** (prereq audition, Δ)
811962 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs ar)
- 1317 **Trombone, Major** (prereq audition, Δ)
805482 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs ar)
- 1318 **Baritone, Major** (prereq audition, Δ)
601899 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs ar)
- 1319 **Tuba, Major** (prereq audition, Δ)
306336 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs ar)
- 1321 **Percussion, Major** (prereq audition, Δ)
704339 2-4 cr
- 1322 **Harp, Major** (prereq audition, Δ)
002001 2-4 cr
- 1323 **Guitar, Major** (prereq audition, Δ)
604155 2-4 cr
- 1401 **Piano, Secondary Required** (max 12 cr; prereq mus maj, Δ)
208970 2-4 cr
- 1402 **Harpichord, Secondary Required** (max 12 cr; prereq mus maj, Δ)
011975 2-4 cr
- 1403 **Organ, Secondary Required** (max 12 cr; prereq mus maj, Δ)
409342 2-4 cr
- 1404 **Voice, Secondary Required** (max 12 cr; prereq mus maj, Δ)
509056 2-4 cr
- 1405 **Violin, Secondary Required** (max 12 cr; prereq mus maj, Δ)
806423 2-4 cr
- 1406 **Viola, Secondary Required** (max 12 cr; prereq mus maj, Δ)
611168 2-4 cr
- 1407 **Cello, Secondary Required** (max 12 cr; prereq mus maj, Δ)
006145 2-4 cr
- 1408 **Double Bass, Secondary Required** (max 12 cr; prereq mus maj, Δ)
711338 2-4 cr
- 1409 **Flute, Secondary Required** (max 12 cr; prereq mus maj, Δ)
602275 2-4 cr
- 1411 **Oboe, Secondary Required** (max 12 cr; prereq mus maj, Δ)
403234 2-4 cr
- 1412 **Clarinet, Secondary Required** (max 12 cr; prereq mus maj, Δ)
301881 2-4 cr
- 1413 **Saxophone, Secondary Required** (max 12 cr; prereq mus maj, Δ)
210847 2-4 cr
- 1414 **Bassoon, Secondary Required** (max 12 cr; prereq mus maj, Δ)
210167 2-4 cr
- 1415 **French Horn, Secondary Required** (max 12 cr; prereq mus maj, Δ)
510188 2-4 cr
- 1416 **Trumpet, Secondary Required** (max 12 cr; prereq mus maj, Δ)
112364 2-4 cr
- 1417 **Trombone, Secondary Required** (max 12 cr; prereq mus maj, Δ)
107965 2-4 cr
- 1418 **Baritone, Secondary Required** (max 12 cr; prereq mus maj, Δ)
809922 2-4 cr
- 1419 **Tuba, Secondary Required** (max 12 cr; prereq mus maj, Δ)
103897 2-4 cr
- 1421 **Percussion, Secondary Required** (max 12 cr; prereq mus maj, Δ)
105830 2-4 cr
- 1422 **Harp, Secondary Required** (max 12 cr; prereq mus maj, Δ)
104328 2-4 cr
- 1423 **Guitar, Secondary Required** (max 12 cr; prereq mus maj, Δ)
701828 2-4 cr
- 1501 **Piano, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
308443 2-4 cr
- 1502 **Harpichord, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
207172 2-4 cr
- 1503 **Organ, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
109559 2-4 cr
- 1504 **Voice, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
005965 2-4 cr
- 1505 **Violin, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
105267 2-4 cr
- 1506 **Viola, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
004847 2-4 cr
- 1507 **Cello, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
108551 2-4 cr
- 1508 **Double Bass, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
706186 2-4 cr
- 1509 **Flute, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
903223 2-4 cr
- 1511 **Oboe, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
411012 2-4 cr
- 1512 **Clarinet, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
702025 2-4 cr
- 1513 **Saxophone, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
111434 2-4 cr
- 1514 **Bassoon, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
110381 2-4 cr
- 1515 **French Horn, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
111191 2-4 cr
- 1518 **Trumpet, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
509851 2-4 cr
- 1517 **Trombone, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
408997 2-4 cr
- 1518 **Baritone, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
703899 2-4 cr
- 1519 **Tuba, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
511891 2-4 cr
- 1521 **Percussion, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
901956 2-4 cr
- 1522 **Harp, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
003441 2-4 cr
- 1523 **Guitar, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
803327 2-4 cr
- 1601 **Piano, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
503547 2-4 cr
- 1602 **Harpichord, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
207379 2-4 cr
- 1603 **Organ, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
908499 2-4 cr
- 1604 **Voice, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
907076 1430-1520 TTh, FergH 180, 2-4 cr (addtl hrs ar)
- 1605 **Violin, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
106547 1430-1520 W, FergH 85, 2-4 cr (addtl hrs ar)
- 1606 **Viola, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
712358 1430-1520 W, FergH 85, 2-4 cr (addtl hrs ar)
- 1607 **Cello, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
606472 1430-1520 W, FergH 85, 2-4 cr (addtl hrs ar)
- 1608 **Double Bass, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
407946 1430-1520 W, FergH 85, 2-4 cr (addtl hrs ar)
- 1609 **Flute, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
902492 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs ar)
- 1611 **Oboe, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
905022 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs ar)
- 1612 **Clarinet, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
403024 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs ar)
- 1613 **Saxophone, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
004167 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs ar)
- 1614 **Bassoon, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
808818 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs ar)
- 1615 **French Horn, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
407896 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs ar)
- 1616 **Trumpet, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
403153 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs ar)
- 1617 **Trombone, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
312007 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs ar)
- 1618 **Baritone, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
409437 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs ar)
- 1619 **Tuba, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
107982 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs ar)
- 1621 **Percussion, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
101767 2-4 cr
- 1622 **Harp, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
502091 2-4 cr
- 1623 **Guitar, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
203848 2-4 cr
- 1701 **Piano, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
604270 2-4 cr
- 1702 **Harpichord, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
702011 2-4 cr

- 1703 Organ, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
104256 2-4 cr
- 1704 Voice, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
112132 1430-1520 TTh, FergH 180, 2-4 cr (addtl hrs ar)
- 1705 Violin, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
508098 1430-1520 W, FergH 85, 2-4 cr (addtl hrs ar)
- 1706 Viola, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
905974 1430-1520 W, FergH 85, 2-4 cr (addtl hrs ar)
- 1707 Cello, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
408479 1430-1520 W, FergH 85, 2-4 cr (addtl hrs ar)
- 1708 Double Bass, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
410457 1535-1625 W, FergH 85, 2-4 cr (addtl hrs ar)
- 1709 Flute, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
503001 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs ar)
- 1711 Oboe, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
104127 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs ar)
- 1712 Clarinet, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
102952 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs ar)
- 1713 Saxophone, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
207351 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs ar)
- 1714 Bassoon, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
705040 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs ar)
- 1715 French Horn, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
309835 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs ar)
- 1718 Trumpet, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
704342 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs ar)
- 1717 Trombone, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
203896 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs ar)
- 1718 Baritone, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
303758 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs ar)
- 1719 Tuba, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
103415 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs ar)
- 1721 Percussion, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
703272 2-4 cr
- 1722 Harp, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
912522 2-4 cr
- 1723 Guitar, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
906543 2-4 cr
- 1901 Piano** (prereq audition) (A-F only)
007411 2-4 cr
- 1902 Harpsichord** (prereq audition) (A-F only)
008932 2-4 cr
- 1903 Organ** (prereq audition) (A-F only)
101770 2-4 cr
- 1904 Voice** (prereq audition) (A-F only)
209259 2-4 cr
- 1905 Violin** (prereq audition) (A-F only)
905537 2-4 cr
- 1906 Viola** (prereq audition) (A-F only)
603166 2-4 cr
- 1907 Cello** (prereq audition) (A-F only)
812268 2-4 cr
- 1908 Double Bass** (prereq audition) (A-F only)
005125 2-4 cr
- 1909 Flute** (prereq audition) (A-F only)
902489 2-4 cr
- 1911 Oboe** (prereq audition) (A-F only)
911872 2-4 cr
- 1912 Clarinet** (prereq audition) (A-F only)
903416 2-4 cr
- 1913 Saxophone** (prereq audition) (A-F only)
405078 2-4 cr
- 1914 Bassoon** (prereq audition) (A-F only)
812030 2-4 cr
- 1915 French Horn** (prereq audition) (A-F only)
710416 2-4 cr
- 1916 Trumpet** (prereq audition) (A-F only)
808477 2-4 cr
- 1917 Trombone** (prereq audition) (A-F only)
105933 2-4 cr
- 1918 Baritone** (prereq audition) (A-F only)
810908 2-4 cr
- 1919 Tuba** (prereq audition) (A-F only)
505802 2-4 cr
- 1921 Percussion** (prereq audition) (A-F only)
306496 2-4 cr
- 1922 Harp** (prereq audition) (A-F only)
503595 2-4 cr
- 1923 Guitar** (prereq audition) (A-F only)
710402 2-4 cr
- 3101 Piano, Elective** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
506190 2 cr
- 3102 Harpsichord, Elective** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
505539 2 cr
- 3103 Organ, Elective** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
711940 2 cr
- 3104 Voice, Elective** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
011202 2 cr
- 3105 Violin, Elective** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
303968 2 cr
- 3106 Viola, Elective** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
205938 2 cr
- 3107 Cello, Elective** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
110355 2 cr
- 3108 Double Bass, Elective** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
511485 2 cr
- 3109 Flute, Elective** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
003665 2 cr
- 3111 Oboe, Elective** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
702199 2 cr
- 3112 Clarinet, Elective** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
909538 2 cr
- 3113 Saxophone, Elective** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
101879 2 cr
- 3114 Bassoon, Elective** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
506495 2 cr
- 3115 French Horn, Elective** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
706916 2 cr
- 3116 Trumpet, Elective** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
203560 2 cr
- 3117 Trombone, Elective** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
003181 2 cr
- 3118 Baritone, Elective** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
309396 2 cr
- 3119 Tuba, Elective** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
112350 2 cr
- 3121 Percussion, Elective** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
604346 2 cr
- 3122 Harp, Elective** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
106242 2 cr
- 3123 Guitar, Elective** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
009188 2 cr
- 3201 Piano, Principal** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
405338 2-4 cr
- 3202 Harpsichord, Principal** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
407249 2-4 cr
- 3203 Organ, Principal** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
804896 2-4 cr
- 3204 Voice, Principal** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
010566 1430-1520 TTh, FergH 180, 2-4 cr (addtl hrs ar)
- 3205 Violin, Principal** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
609162 1430-1520 W, FergH 85, 2-4 cr (addtl hrs ar)
- 3206 Viola, Principal** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
706897 1430-1520 W, FergH 85, 2-4 cr (addtl hrs ar)
- 3207 Cello, Principal** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
409079 1430-1520 W, FergH 85, 2-4 cr (addtl hrs ar)
- 3208 Double Bass, Principal** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
210007 1430-1520 W, FergH 85, 2-4 cr (addtl hrs ar)
- 3209 Flute, Principal** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
105018 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs ar)
- 3211 Oboe, Principal** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
803957 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs ar)
- 3212 Clarinet, Principal** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
103429 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs ar)
- 3213 Saxophone, Principal** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
710951 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs ar)
- 3214 Bassoon, Principal** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
902170 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs ar)
- 3215 French Horn, Principal** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
101932 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs ar)
- 3216 Trumpet, Principal** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
705233 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs ar)
- 3217 Trombone, Principal** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
302965 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs ar)
- 3218 Baritone, Principal** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
505055 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs ar)
- 3219 Tuba, Principal** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
403122 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs ar)
- 3221 Percussion, Principal** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
109920 2-4 cr

- 3322 **Harp, Principal** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
107990 2-4 cr
- 3323 **Guitar, Principal** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
312444 2-4 cr
- 3301 **Piano, Major** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
503578 2-4 cr
- 3302 **Harpichord, Major** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
612577 2-4 cr
- 3303 **Organ, Major** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
104149 2-4 cr
- 3304 **Voice, Major** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
003830 1430-1520 TTh, FergH 180, 2-4 cr (addtl hrs ar)
- 3305 **Violin, Major** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
909894 1430-1520 W, FergH 85, 2-4 cr (addtl hrs ar)
- 3306 **Viola, Major** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
711355 1430-1520 W, FergH 85, 2-4 cr (addtl hrs ar)
- 3307 **Cello, Major** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
408384 1430-1520 W, FergH 85, 2-4 cr (addtl hrs ar)
- 3308 **Double Bass, Major** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
006176 1430-1520 W, FergH 85, 2-4 cr (addtl hrs ar)
- 3309 **Flute, Major** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
412306 1220-1310 Th, FergH 225, 2-4 cr (addtl hrs ar)
- 3311 **Oboe, Major** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
111487 1220-1310 Th, FergH 225, 2-4 cr (addtl hrs ar)
- 3312 **Clarinet, Major** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
707192 1220-1310 Th, FergH 225, 2-4 cr (addtl hrs ar)
- 3313 **Saxophone, Major** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
004802 1220-1310 Th, FergH 225, 2-4 cr (addtl hrs ar)
- 3314 **Bassoon, Major** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
911130 1220-1310 Th, FergH 225, 2-4 cr (addtl hrs ar)
- 3315 **French Horn, Major** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
202117 1220-1310 Th, FergH 225, 2-4 cr (addtl hrs ar)
- 3316 **Trumpet, Major** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
703014 1220-1310 Th, FergH 225, 2-4 cr (addtl hrs ar)
- 3317 **Trombone, Major** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
212517 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs ar)
- 3318 **Baritone, Major** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
511566 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs ar)
- 3319 **Tuba, Major** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
806373 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs ar)
- 3321 **Percussion, Major** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
103566 2-4 cr
- 3322 **Harp, Major** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
405985 2-4 cr
- 3323 **Guitar, Major** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
201890 2-4 cr
- 3401 **Piano, Secondary Required** (max 12 cr; prereq mus maj, Δ)
108064 2-4 cr
- 3402 **Harpichord, Secondary Required** (max 12 cr; prereq mus maj, Δ)
103334 2-4 cr
- 3403 **Organ, Secondary Required** (max 12 cr; prereq mus maj, Δ)
403475 2-4 cr
- 3404 **Voice, Secondary Required** (max 12 cr; prereq mus maj, Δ)
201971 2-4 cr
- 3405 **Violin, Secondary Required** (max 12 cr; prereq mus maj, Δ)
303209 2-4 cr
- 3406 **Viola, Secondary Required** (max 12 cr; prereq mus maj, Δ)
305865 2-4 cr
- 3407 **Cello, Secondary Required** (max 12 cr; prereq mus maj, Δ)
509025 2-4 cr
- 3408 **Double Bass, Secondary Required** (max 12 cr; prereq mus maj, Δ)
104984 2-4 cr
- 3409 **Flute, Secondary Required** (max 12 cr; prereq mus maj, Δ)
903545 2-4 cr
- 3411 **Oboe, Secondary Required** (max 12 cr; prereq mus maj, Δ)
310080 2-4 cr
- 3412 **Clarinet, Secondary Required** (max 12 cr; prereq mus maj, Δ)
502964 2-4 cr
- 3413 **Saxophone, Secondary Required** (max 12 cr; prereq mus maj, Δ)
101963 2-4 cr
- 3414 **Bassoon, Secondary Required** (max 12 cr; prereq mus maj, Δ)
711971 2-4 cr
- 3415 **French Horn, Secondary Required** (max 12 cr; prereq mus maj, Δ)
811136 2-4 cr
- 3416 **Trumpet, Secondary Required** (max 12 cr; prereq mus maj, Δ)
410314 2-4 cr
- 3417 **Trombone, Secondary Required** (max 12 cr; prereq mus maj, Δ)
403542 2-4 cr
- 3418 **Baritone, Secondary Required** (max 12 cr; prereq mus maj, Δ)
312086 2-4 cr
- 3419 **Tuba, Secondary Required** (max 12 cr; prereq mus maj, Δ)
507212 2-4 cr
- 3421 **Percussion, Secondary Required** (max 12 cr; prereq mus maj, Δ)
808060 2-4 cr
- 3422 **Harp, Secondary Required** (max 12 cr; prereq mus maj, Δ)
004469 2-4 cr
- 3423 **Guitar, Secondary Required** (max 12 cr; prereq mus maj, Δ)
805451 2-4 cr
- 3501 **Piano, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
307857 2-4 cr
- 3502 **Harpichord, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
503953 2-4 cr
- 3503 **Organ, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
404481 2-4 cr
- 3504 **Voice, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
105556 2-4 cr
- 3505 **Violin, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
803313 2-4 cr
- 3506 **Viola, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
303534 2-4 cr
- 3507 **Cello, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
904114 2-4 cr
- 3508 **Double Bass, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
108444 2-4 cr
- 3509 **Flute, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
705958 2-4 cr
- 3511 **Oboe, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
810584 2-4 cr
- 3512 **Clarinet, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
601871 2-4 cr
- 3513 **Saxophone, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
703675 2-4 cr
- 3514 **Bassoon, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
612241 2-4 cr
- 3515 **French Horn, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
811850 2-4 cr
- 3516 **Trumpet, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
402200 2-4 cr
- 3517 **Trombone, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
303565 2-4 cr
- 3518 **Baritone, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
309849 2-4 cr
- 3519 **Tuba, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
403394 2-4 cr
- 3521 **Percussion, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
006405 2-4 cr
- 3522 **Harp, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
101728 2-4 cr
- 3523 **Guitar, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
911127 2-4 cr
- 3601 **Piano, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
007957 2-4 cr
- 3602 **Harpichord, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
508327 2-4 cr
- 3603 **Organ, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
811198 2-4 cr
- 3604 **Voice, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
104412 1430-1520 TTh, FergH 180, 2-4 cr
- 3605 **Violin, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
410989 2-4 cr
- 3606 **Viola, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
012589 2-4 cr
- 3607 **Cello, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
803537 2-4 cr
- 3608 **Double Bass, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
604138 2-4 cr
- 3609 **Flute, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
708892 1220-1310 Th, FergH 95, 2-4 cr
- 3611 **Oboe, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
302156 1220-1310 Th, FergH 95, 2-4 cr
- 3612 **Clarinet, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
508408 1220-1310 Th, FergH 95, 2-4 cr
- 3613 **Saxophone, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
109982 1220-1310 Th, FergH 95, 2-4 cr

- 3614 **Bassoon, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
208984 1220-1310 Th, FergH 95, 2-4 cr
- 3615 **French Horn, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
010471 1220-1310 Th, FergH 95, 2-4 cr
- 3616 **Trumpet, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
609436 1220-1310 Th, FergH 95, 2-4 cr
- 3617 **Trombone, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
909247 1220-1310 Th, FergH 95, 2-4 cr
- 3618 **Baritone, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
906056 1220-1310 Th, FergH 95, 2-4 cr
- 3619 **Tuba, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
010552 1220-1310 Th, FergH 95, 2-4 cr
- 3621 **Percussion, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
509333 2-4 cr
- 3622 **Harp, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
405968 2-4 cr
- 3623 **Guitar, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
011071 2-4 cr
- 3701 **Piano, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
609131 2-4 cr
- 3702 **Harpichord, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
503273 2-4 cr
- 3703 **Organ, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
309604 2-4 cr
- 3704 **Voice, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
606536 1430-1520 TTh, FergH 180, 2-4 cr
- 3705 **Violin, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
209231 2-4 cr
- 3706 **Viola, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
605113 2-4 cr
- 3707 **Cello, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
703384 2-4 cr
- 3708 **Double Bass, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
106332 2-4 cr
- 3709 **Flute, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
110162 1220-1310 Th, FergH 95, 2-4 cr
- 3711 **Oboe, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
201839 1220-1310 Th, FergH 95, 2-4 cr
- 3712 **Clarinet, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
806857 1220-1310 Th, FergH 95, 2-4 cr
- 3713 **Saxophone, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
305512 1220-1310 Th, FergH 95, 2-4 cr
- 3714 **Bassoon, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
203994 1220-1310 Th, FergH 95, 2-4 cr
- 3715 **French Horn, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
407414 1220-1310 Th, FergH 95, 2-4 cr
- 3716 **Trumpet, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
406389 1220-1310 Th, FergH 95, 2-4 cr
- 3717 **Trombone, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
704812 1220-1310 Th, FergH 95, 2-4 cr
- 3718 **Baritone, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
010275 1220-1310 Th, FergH 95, 2-4 cr
- 3719 **Tuba, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
503859 1220-1310 Th, FergH 95, 2-4 cr
- 3721 **Percussion, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
103292 2-4 cr
- 3722 **Harp, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
005304 2-4 cr
- 3723 **Guitar, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
812580 2-4 cr
- 3601 **Piano, Minor** (prereq audition, Δ)
704826 2-4 cr
- 3802 **Harpichord, Minor** (prereq audition, Δ)
203834 2-4 cr
- 3803 **Organ, Minor** (prereq audition, Δ)
011359 2-4 cr
- 3804 **Voice, Minor** (prereq audition, Δ)
905859 2-4 cr
- 3805 **Violin, Minor** (prereq audition, Δ)
303887 2-4 cr
- 3806 **Viola, Minor** (prereq audition, Δ)
108449 2-4 cr
- 3807 **Cello, Minor** (prereq audition, Δ)
311486 2-4 cr
- 3808 **Double Bass, Minor** (prereq audition, Δ)
211044 2-4 cr
- 3809 **Flute, Minor** (prereq audition, Δ)
608836 1220-1310 T, FergH 95, 2-4 cr
- 3811 **Oboe, Minor** (prereq audition, Δ)
809399 1220-1310 T, FergH 95, 2-4 cr
- 3812 **Clarinet, Minor** (prereq audition, Δ)
806552 1220-1310 T, FergH 95, 2-4 cr
- 3813 **Saxophone, Minor** (prereq audition, Δ)
202974 1220-1310 T, FergH 95, 2-4 cr
- 3814 **Bassoon, Minor** (prereq audition, Δ)
111143 1220-1310 T, FergH 95, 2-4 cr
- 3815 **French Horn, Minor** (prereq audition, Δ)
803845 1220-1310 T, FergH 95, 2-4 cr
- 3816 **Trumpet, Minor** (prereq audition, Δ)
206121 1220-1310 T, FergH 95, 2-4 cr
- 3817 **Trombone, Minor** (prereq audition, Δ)
710030 1220-1310 T, FergH 95, 2-4 cr
- 3818 **Baritone, Minor** (prereq audition, Δ)
803893 1220-1310 T, FergH 95, 2-4 cr
- 3819 **Tuba, Minor** (prereq audition, Δ)
003567 1220-1310 T, FergH 95, 2-4 cr
- 3821 **Percussion, Minor** (prereq audition, Δ)
404965 2-4 cr
- 3822 **Harp, Minor** (prereq audition, Δ)
104161 2-4 cr
- 3823 **Guitar, Minor** (prereq audition, Δ)
203476 2-4 cr
- 5101 **Piano** (prereq audition, Δ)
204921 2 cr
- 5102 **Harpichord** (prereq audition, Δ)
607962 2 cr
- 5103 **Organ** (prereq audition, Δ)
902329 2 cr
- 5104 **Voice** (prereq audition, Δ)
510336 2 cr
- 5105 **Violin** (prereq audition, Δ)
612286 2 cr
- 5106 **Viola** (prereq audition, Δ)
811153 2 cr
- 5107 **Cello** (prereq audition, Δ)
801982 2 cr
- 5108 **Double Bass** (prereq audition, Δ)
606116 2 cr
- 5109 **Flute** (prereq audition, Δ)
105343 2 cr
- 5111 **Oboe** (prereq audition, Δ)
211870 2 cr
- 5112 **Clarinet** (prereq audition, Δ)
004282 2 cr
- 5113 **Saxophone** (prereq audition, Δ)
704518 2 cr
- 5114 **Bassoon** (prereq audition, Δ)
003598 2 cr
- 5115 **French Horn** (prereq audition, Δ)
703028 2 cr
- 5116 **Trumpet** (prereq audition, Δ)
105939 2 cr
- 5117 **Trombone** (prereq audition, Δ)
609081 2 cr
- 5118 **Baritone Horn** (prereq audition, Δ)
804266 2 cr
- 5119 **Tuba** (prereq audition, Δ)
510580 2 cr
- 5121 **Percussion** (prereq audition, Δ)
301931 2 cr
- 5122 **Harp** (prereq audition, Δ)
307258 2 cr
- 5123 **Guitar** (prereq audition, Δ)
706043 2 cr
- 8201 **Piano, Principal** (prereq audition, Δ)
511051 2-4 cr
- 8202 **Harpichord, Principal** (prereq audition, Δ)
904825 2-4 cr
- 8203 **Organ, Principal** (prereq audition, Δ)
906378 2-4 cr
- 8204 **Voice, Principal** (prereq audition, Δ)
312296 1430-1520 TTh, FergH 180, 2-4 cr (addtl hrs ar)
- 8205 **Violin, Principal** (prereq audition, Δ)
803232 1430-1520 W, FergH 85, 2-4 cr (addtl hrs ar)
- 8206 **Viola, Principal** (prereq audition, Δ)
001916 1430-1520 W, FergH 85, 2-4 cr (addtl hrs ar)
- 8207 **Cello, Principal** (prereq audition, Δ)
704261 1430-1520 W, FergH 85, 2-4 cr (addtl hrs ar)
- 8208 **Double Bass, Principal** (prereq audition, Δ)
909202 1430-1520 W, FergH 85, 2-4 cr (addtl hrs ar)
- 8209 **Flute, Principal** (prereq audition, Δ)
409518 2-4 cr
- 8211 **Oboe, Principal** (prereq audition, Δ)
803697 2-4 cr
- 8212 **Clarinet, Principal** (prereq audition, Δ)
901973 2-4 cr
- 8213 **Saxophone, Principal** (prereq audition, Δ)
809256 2-4 cr
- 8214 **Bassoon, Principal** (prereq audition, Δ)
704065 2-4 cr
- 8215 **French Horn, Principal** (prereq audition, Δ)
407817 2-4 cr
- 8216 **Trumpet, Principal** (prereq audition, Δ)
807216 2-4 cr
- 8217 **Trombone, Principal** (prereq audition, Δ)
004914 2-4 cr
- 8218 **Baritone, Principal** (prereq audition, Δ)
304439 2-4 cr
- 8219 **Tuba, Principal** (prereq audition, Δ)
911306 2-4 cr
- 8221 **Percussion, Principal** (prereq audition, Δ)
008820 2-4 cr
- 8222 **Harp, Principal** (prereq audition, Δ)
508893 2-4 cr
- 8223 **Guitar, Principal** (prereq audition, Δ)
506318 2-4 cr
- 8301 **Piano, Major** (prereq audition, Δ)
103978 2-4 cr
- 8302 **Harpichord, Major** (prereq audition, Δ)
409471 2-4 cr
- 8303 **Organ, Major** (prereq audition, Δ)
002175 2-4 cr
- 8304 **Voice, Major** (prereq audition, Δ)
007280 1430-1520 TTh, FergH 180, 2-4 cr (addtl hrs ar)
- 8305 **Violin, Major** (prereq audition, Δ)
512541 1430-1520 W, FergH 85, 2-4 cr (addtl hrs ar)
- 8306 **Viola, Major** (prereq audition, Δ)
101986 1430-1520 W, FergH 85, 2-4 cr (addtl hrs ar)

- 8307 **Cello, Major** (prereq audition, Δ)
408496 1430-1520 W, FergH 85, 2-4 cr (addtl hrs ar)
- 8308 **Double Bass, Major** (prereq audition, Δ)
407333 1430-1520 W, FergH 85, 2-4 cr (addtl hrs ar)
- 8309 **Flute, Major** (prereq audition, Δ)
501829 2-4 cr
- 8311 **Oboe, Major** (prereq audition, Δ)
411270 2-4 cr
- 8312 **Clarinet, Major** (prereq audition, Δ)
604883 2-4 cr
- 8313 **Saxophone, Major** (prereq audition, Δ)
408322 2-4 cr
- 8314 **Bassoon, Major** (prereq audition, Δ)
111070 2-4 cr
- 8315 **French Horn, Major** (prereq audition, Δ)
306031 2-4 cr
- 8316 **Trumpet, Major** (prereq audition, Δ)
404951 2-4 cr
- 8317 **Trombone, Major** (prereq audition, Δ)
403251 2-4 cr
- 8318 **Baritone, Major** (prereq audition, Δ)
103129 2-4 cr
- 8319 **Tuba, Major** (prereq audition, Δ)
205129 2-4 cr
- 8321 **Percussion, Major** (prereq audition, Δ)
709296 2-4 cr
- 8322 **Harp, Major** (prereq audition, Δ)
207897 2-4 cr
- 8323 **Guitar, Major** (prereq audition, Δ)
105513 2-4 cr
- 8401 **Piano, Secondary Required** (max 12 cr; prereq mus maj, Δ)
507081 2-4 cr
- 8402 **Harpichord, Secondary Required** (max 12 cr; prereq mus maj, Δ)
508800 2-4 cr
- 8403 **Organ, Secondary Required** (max 12 cr; prereq mus maj, Δ)
511261 2-4 cr
- 8404 **Voice, Secondary Required** (max 12 cr; prereq mus maj, Δ)
112096 2-4 cr
- 8405 **Violin, Secondary Required** (max 12 cr; prereq mus maj, Δ)
407025 2-4 cr
- 8406 **Viola, Secondary Required** (max 12 cr; prereq mus maj, Δ)
610196 2-4 cr
- 8407 **Cello, Secondary Required** (max 12 cr; prereq mus maj, Δ)
105908 2-4 cr
- 8408 **Double Bass, Secondary Required** (max 12 cr; prereq mus maj, Δ)
305056 2-4 cr
- 8409 **Flute, Secondary Required** (max 12 cr; prereq mus maj, Δ)
209908 2-4 cr
- 8411 **Oboe, Secondary Required** (max 12 cr; prereq mus maj, Δ)
104474 2-4 cr
- 8412 **Clarinet, Secondary Required** (max 12 cr; prereq mus maj, Δ)
010924 2-4 cr
- 8413 **Saxophone, Secondary Required** (max 12 cr; prereq mus maj, Δ)
811072 2-4 cr
- 8414 **Bassoon, Secondary Required** (max 12 cr; prereq mus maj, Δ)
104919 2-4 cr
- 8415 **French Horn, Secondary Required** (max 12 cr; prereq mus maj, Δ)
809130 2-4 cr
- 8418 **Trumpet, Secondary Required** (max 12 cr; prereq mus maj, Δ)
611204 2-4 cr
- 8417 **Trombone, Secondary Required** (max 12 cr; prereq mus maj, Δ)
207253 2-4 cr
- 8418 **Baritone, Secondary Required** (max 12 cr; prereq mus maj, Δ)
209407 2-4 cr
- 8419 **Tuba, Secondary Required** (max 12 cr; prereq mus maj, Δ)
305185 2-4 cr
- 8421 **Percussion, Secondary Required** (max 12 cr; prereq mus maj, Δ)
102023 2-4 cr
- 8422 **Harp, Secondary Required** (max 12 cr; prereq mus maj, Δ)
407008 2-4 cr
- 8423 **Guitar, Secondary Required** (max 12 cr; prereq mus maj, Δ)
603250 2-4 cr
- 8501 **Piano, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
910284 2-4 cr
- 8502 **Harpichord, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
705314 2-4 cr
- 8503 **Organ, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
904971 2-4 cr
- 8504 **Voice, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
110266 2-4 cr
- 8505 **Violin, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
903917 2-4 cr
- 8506 **Viola, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
712442 2-4 cr
- 8507 **Cello, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
303260 2-4 cr
- 8508 **Double Bass, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
102412 2-4 cr
- 8509 **Flute, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
509042 2-4 cr
- 8511 **Oboe, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
211996 2-4 cr
- 8512 **Clarinet, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
708553 2-4 cr
- 8513 **Saxophone, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
605564 2-4 cr
- 8514 **Bassoon, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
903979 2-4 cr
- 8515 **French Horn, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
111188 2-4 cr
- 8516 **Trumpet, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
210539 2-4 cr
- 8517 **Trombone, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
002421 2-4 cr
- 8518 **Baritone, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
302058 2-4 cr
- 8519 **Tuba, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
209035 2-4 cr
- 8521 **Percussion, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
408062 2-4 cr
- 8522 **Harp, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
612076 2-4 cr
- 8523 **Guitar, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
904338 2-4 cr
- 8601 **Piano, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
306918 2-4 cr
- 8602 **Harpichord, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
012320 2-4 cr
- 8603 **Organ, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
311231 2-4 cr
- 8604 **Voice, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
403010 1430-1520 TTh, FergH 180, 2-4 cr
- 8605 **Violin, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
207561 2-4 cr
- 8606 **Viola, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
305493 2-4 cr
- 8607 **Cello, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
303341 2-4 cr
- 8608 **Double Bass, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
611008 2-4 cr
- 8609 **Flute, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
101812 2-4 cr
- 8611 **Oboe, Principle Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
104340 2-4 cr
- 8612 **Clarinet, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
805045 2-4 cr
- 8613 **Saxophone, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
804428 2-4 cr
- 8614 **Bassoon, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
808981 2-4 cr
- 8615 **French Horn, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
804820 2-4 cr
- 8616 **Trumpet, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
207074 2-4 cr
- 8617 **Trombone, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
806387 2-4 cr
- 8618 **Baritone, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
305347 2-4 cr
- 8619 **Tuba, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
611493 2-4 cr
- 8621 **Percussion, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
111109 2-4 cr
- 8622 **Harp, Principle Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
402116 2-4 cr
- 8623 **Guitar, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
208306 2-4 cr
- 8701 **Piano, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
906414 2-4 cr
- 8702 **Harpichord, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
308460 2-4 cr
- 8703 **Organ, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
407431 2-4 cr
- 8704 **Voices, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
807376 1415-1500 TTh, FergH 180, 2-4 cr
- 8705 **Violin, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
602230 2-4 cr
- 8706 **Viola, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
707905 2-4 cr
- 8707 **Cello, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
506061 2-4 cr

- 8708 Double Bass, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
605967 2-4 cr
- 8709 Flute, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
805966 2-4 cr
- 8711 Oboe, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
705328 2-4 cr
- 8712 Clarinet, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
704454 2-4 cr
- 8713 Saxophone, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
103230 2-4 cr
- 8714 Bassoon, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
008798 2-4 cr
- 8715 French Horn, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
803330 2-4 cr
- 8718 Trumpet, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
301833 2-4 cr
- 8717 Trombone, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
305543 2-4 cr
- 8718 Baritone, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
406862 2-4 cr
- 8719 Tuba, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
406456 2-4 cr
- 8721 Percussion, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
305820 2-4 cr
- 8722 Harp, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
309382 2-4 cr
- 8723 Guitar, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
410829 2-4 cr

MUSIC EDUCATION (MuEd) Education

- 1201 Introduction to Music Education** (A-F only)
010454 1115-1205 M, FergH 107, Borg, 1 cr
- 1801 Introduction to Music Therapy** (A-F only)
905067 1010-1100 F, FergH 151, Furman, 1 cr
- R3011 Teaching Music in the Elementary School** (prereq Mus 1001, elementary educ maj) (A-F only)
701974 -1 0905-0955 MWF, FergH 107, Borg, 4 cr
507078 -2 1220-1310 MWF, FergH 107, 4 cr
- 3301 Teaching Vocal and General Music, K-4** (prereq music education maj or #) (A-F only)
511888 1010-1100 MTWTh, FergH 107, Borg, 4 cr
- 3322 Techniques of Classroom Instruments** (prereq Mus 1001 or music or music education maj) (A-F only)
603376 1430-1625 MWF, FergH 107, 4 cr
- R3500 String Techniques I** (prereq music education maj or #) (A-F only)
009353 1115-1205 MWF, FergH 81, Massman, 3 cr
- 3503 Woodwind Techniques** (prereq music education maj or #) (A-F only)
102961 0905-0955 MTWTh, FergH 85, Schultz, 4 cr
- 3504 Brass Techniques** (§1525; prereq music education maj or #) (A-F only)
301735 0905-0955 MTWTh, FergH 81, Haack, 4 cr
- 3505 Percussion Techniques** (prereq music education maj) (A-F only)
408238 0800-0850 MTWTh, FergH 7A, Dahlgren, 4 cr
- 3515 Instrumental Laboratory I** (prereq music education maj or #) (A-F only)
105858 1010-1100 MTWTh, FergH 85, Schultz, 4 cr

- 3650 Student Teaching in Music** (prereq #) (A-F only)
306966 -1 1430-1625 M, FergH 157, Schultz, 3-12 cr
412800 -2 1615-1800 W, FergH 157, Borg, 3-12 cr
- 3800 Observation in Music Therapy** (§3803; prereq educ stu) (A-F only)
810245 1115-1310 M, FergH 151, Furman, 2 cr
- 3805 Music Therapy Techniques II** (3805-3806; prereq 3804) (A-F only)
608917 1115-1310 T, 1115-1205 Th, FergH 151, Furman, 3 cr
- R3850 Field Experiences: Music Therapy** (max 10 cr; prereq 3800, 3804) (S-N only)
109903 -1 1220-1310 Th, FergH 151, Furman, 1-2 cr
411575 -2 1220-1310 Th, FergH 144, Furman, 1-2 cr
708284 -3 1325-1415 Th, FergH 151, Furman, 1-2 cr
309401 -4 1325-1415 Th, FergH 144, Furman, 1-2 cr
- 3851 Internship: Music Therapy** (3851-3852; prereq #) (S-N only)
405095 Furman, 6 cr
- 3852 Internship: Music Therapy** (3851-3852; prereq #) (S-N only)
801772 Furman, 6 cr
- 5111 Research in Music Education: Bibliography** (A-F only)
075224 1630-1830 M, FergH 157, Schultz, 3 cr
- 5214 Psychological Foundations** (prereq #) (A-F only)
875225 1630-1830 Th, FergH 151, Furman, 3 cr
- 5970 Independent Study** (prereq educ or grad stu) (A-F only)
906316 1-4 cr
- 8281 Music Education Seminar: Philosophical Issues** (prereq MA in music or music educ or #)
103317 1615-1830 T, FergH 157, Haack, 3 cr
- 8990 Research Problems** (prereq knowledge of elementary statistics)
601742 1-12 cr

NATURAL RESOURCES AND ENVIRONMENTAL STUDIES (NRES)

Agriculture & Nat Res

- R1001 Orientation to Natural Resources and Environmental Studies** (S-N only)
902556 -1500-1550 M, GrnH 110, Cooper, Ek, 1 cr
077586 -2 1605-1655 M, GreenH 110, 1 cr
- 3001 Colloquium in Natural Resources and Environmental Studies** (max 4 cr) (A-F only)
102787 1500-1600 T, GrnH 110, 1 cr
- 3050 Experience and Training in a Field Setting** (prereq jr or sr, #) (A-F only)
109604 Underwood, Splitt, 1-4 cr
- R3099 Problem Solving in Natural Resources and Environmental Studies I** (3099-3100; prereq sr or #) (A-F only)
311648 1500-1615 TTh, Soils S415, Adams, Cooper, others, 2 cr
- 3225 Directed Study Experience** (prereq fr or soph)
376340 1-5 cr
- 5225 Directed Study Experience** (prereq jr or sr or grad stu)
176341 1-5 cr

NAVAL SCIENCE (Nav)

- R0204 Professional Training in Naval Science** (S-N only)
202280 0850-0850 W, Armory 116, Hatcher, 0 cr
- R1201 Inland and Coastal Navigation** (A-F only)
★LECT 0905-1100 MW, Armory 12A, Sylvia, 3 cr
602907 -1 LAB 0905-1100 F, Armory 12A, Sylvia
★LECT 1220-1415 MW, Armory 12A, Sylvia, 3 cr
210797 -2 LAB 1220-1415 F, Armory 12A, Sylvia
- R3452 Amphibious Warfare I** (prereq #) (A-F only)
577020 0750-0950 T, Armory 205, Hatcher, 2 cr

NEUROLOGY (Neur) Medical School

- 5120 Selected Problems in Neurology** (prereq regis med)
506240 Price, ar cr
- 5122 Pediatric Neurology: Health Care Psychology Interns** (prereq #)
409261 Shapiro, ar cr
- R5124 Sleep Disorders Medicine: Externship** (prereq regis med) (S-N only)
604589 4.5 cr
- 5125 Neuroimmunology Research** (S-N only)
110249 Birnbaum, ar cr
- 5510 Externship in Clinical Neurology** (prereq regis med)
605306 Price, ar cr
- 5541 Pediatric Neurology: Neurochemistry** (prereq regis med)
710853 Swaiman, ar cr
- 5542 Pediatric Neurology** (prereq regis med)
602308 Swaiman, ar cr
- 5544 Clinical Electroencephalography** (prereq regis med)
510899 Torres, ar cr
- 5545 Electromyography** (prereq regis med)
801853 Kennedy, ar cr
- 5570 Immunology-Veterans Administration Hospital** (prereq regis med)
511969 Ansari, ar cr
- 8200 Clinical Neurology**
208578 Price, ar cr
- 8201 Clinical Pediatric Neurology**
110422 Swaiman, ar cr
- 8202 Research in Neurology**
109271 Price, ar cr
- 8203 Applied Electroencephalography**
409793 Torres, ar cr
- 8204 Applied Electromyography**
201906 Kennedy, ar cr
- 8205 Applied Neuropathology**
504116 Sung, ar cr
- 8221 Neurochemical Aspects of Selected Clinical Disorders**
308782 0700-0830 F, PWB 12100, 2 cr
- 8229 Clinical Correlative Neuroanatomy**
010583 1 cr
- 8233 Neurological Clinical Pathological Conference**
902198 1100-1300 W, Mayo B535, Price, 1 cr
- 8234 Neuropsychology Conference**
903464 1000-1200 Th, Mayo C667, Meier, 1 cr
- 8236 Research in Neuropathology**
108931 Sung, ar cr
- 8704 Survey of Neuropathology** (§Path 8702)
711484 1100-1300 M, Mayo B535, Sung, 1 cr
- 8705 Neurological-Neurosurgical Conference** (§Surg 8318, Rad 0124)
301895 1300-1430 F, Mayo C231, Chou; 1 cr (Todd Amph)
- 8777 Thesis Credits: Masters**
106363 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
909216 1-36 cr

NEUROSCIENCE (NSc)

- 5201 Computational Neuroscience I: Membranes and Channels** (§PhsI 5201; prereq PhsI 5112 or equiv)
★LECT 1325-1440 MW, MirdH 5276, Fohlmeister, 5 cr
608612 -1 LAB
- 5400 Veterinary Pharmacology** (§VB 5400; prereq VB 5308 or #)
302920 0900-0950 M, 1000-1050 Th, AnScVM 135, 0900-0950 WF, AnScVM 125, Larson A., 4 cr (STP)

- 5460 Neurochemical Communication** (§MdBc 5460, VB 5460; prereq biochemistry) 909281 1010-1100 MTWThF, MoosT 2580, Larson A., 4 cr
- 8136 Experimental Comparative Veterinary Neurology** (§VB 8136; prereq VB 8135 or #) 910821 Beitz, Fletcher, 3 cr
- 8207 Seminar: Psychopharmacology** (max 3 cr, §Phcl 8207; prereq #) 012382 Sparber, 1 cr (MirdH 3260)
- 8216 Selected Topics: Neurophysiology** (§Phsl 8216; prereq Anat 5111, Phsl 5112 or equiv, or #) 002130 -1 1430-1625 F, MirdH 5231H, Soechting, 3 cr
304330 -2 Miller, ar cr
- 8460 Neurochemical Communication** (§GCB 8460, MdBc 8460, Phcl 8460, VB 8460; prereq biochemistry, 5460 or 15460) 305980 1010-1100 MTWThF, MoosT 2580, 1 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr) 110882 1-36 cr

NEUROSURGERY (NSu) Medical School

- 5500 Externship at the University Hospital** (prereq regis med) 009479 Heros, Seljeskog, others, 4.5-9 cr
- 5510 Externship at Veterans Hospital** (prereq regis med) 807006 Maxwell, Cox, 4.5-9 cr
- 5511 Externship at Hennepin County Medical Center** (prereq regis med) 104810 Rockswold, 4.5-9 cr
- 5512 Externship at St. Paul Ramsey Hospital** (prereq regis med) 712084 Amaral, 4.5-9 cr
- 5520 Neurosurgical Investigation** (prereq regis med) 010308 Ebner, Low, ar cr
- 5530 Neuropsychology** 003777 Meier, 3 cr
- 5531 Advanced Neuropsychological Seminar** (prereq psych fellow specialist or #) 904811 Meier, 2 cr
- 5532 Clerkship in Neuropsychological Assessment** (prereq psych fellow specialist or #) 606021 Meier, 1-4 cr
- 5533 Case Conference in Neuropsychology** (prereq psych fellow specialist or #) (S-N only) 103020 Meier, 1 cr
- 5534 Introduction to Neuropsychological Assessment** (prereq psych fellow specialist or #) (S-N only) 003424 Meier, 3 cr
- 5535 Case Conference in Clinical Psychology** (prereq psych fellow specialist) 101759 Meier, 1-2 cr
- 5536 Seminar in Clinical Psychology** (prereq psych fellow specialist) 803473 Meier, 1-2 cr
- 5537 Psychology Internship** (prereq psych fellow specialist) 005156 Meier, 4-8 cr
- 5550 Neurophysiological Literature Seminar** (prereq medical school course in physiology, #) 803683 Meier, 1 cr
- 8305 Neurosurgical Diagnosis** 309138 Heros, Seljeskog, others, 4 cr
- 8308 Neurosurgical Problems and Management** 108050 Heros, Seljeskog, others, 4 cr
- 8311 Operative Neurosurgery** 703188 Heros, Seljeskog, others, 4 cr
- 8316 Neurosurgical Research** 102099 Ebner, 6 cr
- 8318 Neuroradiological Conference** 603703 1630-1730 F, Mayo C231, Heros, Seljeskog, others, 1 cr (Todd Amph)
- 8320 Neurosurgical Conference** 008039 0800-1100 S, Mayo B507, Heros, Seljeskog, others, 2 cr

- 8324 Readings in Neurobiology** (§NSc 8324; prereq 8104, consent of Medical School) 311603 Ebner, Low, ar cr
- 8330 Neurosurgery Literature Seminar** 702090 2000-2200 Th, MoosT 2580, Heros, Seljeskog, others, 2 cr
- 8777 Thesis Credits: Masters** 707791 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr) 310063 1-36 cr

NORWEGIAN (Nor) Scandinavian Studies Liberal Arts

- R1101 Beginning Norwegian**
810179 -1 0800-0850 MTWThF, PeikH 225, 5 cr
210833 -2 0905-0955 MTWThF, FordH 170, 5 cr
212419 -3 1115-1205 MTWThF, SmithH 111, 5 cr
910799 -4 1220-1310 MTWThF, FolH 240, 5 cr
- R1104 Intermediate Norwegian** (prereq 1103 or equiv)
210914 -1 1010-1100 MTWThF, PeikH 215, 5 cr
708780 -2 1010-1100 MTWThF, PeikH 155, 5 cr
- 3670 Readings in Norwegian Literary Texts** (max 28 cr; prereq 1106 or equiv)
608951 0905-0955 MWF, FolH 142, Mishler, 4 cr

NURSING, SCHOOL OF (Nurs)

- R1001 Challenge of Nursing** (S-N only)
803019 1325-1520 T, HSUnitF 2110, 2140, 2 cr
- R5000 Core Concepts in Nursing** (prereq 15021)
609002 0800-0955 TTh, OwreH 2230, 4 cr
- R5021 Practicum: III Adults** (prereq 15000, pathophysiology or 1 pathophysiology, pharmacology or 1 pharmacology)
★REC 0800-1100 W, HSUnitF 4120, (1st 5 weeks)
305073 -1 CLN 0730-1230 W, (off-campus) (2nd 5 weeks)
★LAB 0800-1100 M, HSUnitF 4120, 3 cr
★REC 0800-1100 F, HSUnitF 4120, (1st 5 weeks)
105429 -2 CLN 0730-1230 F, (off-campus) (2nd 5 weeks)
★LAB 1325-1625 W, HSUnitF 4120, 3 cr
- R5214 Expansion of Perspectives in Nursing I** (prereq RN, admission to School of Nursing)
504097 1640-1835 TTh, HSUnitF 4154, 4172, 4 cr
- 5422H Applied Clinical Research II** (prereq nurs honors stu, □)
576417 1430-1625 T, HSUnitF, Brand, Duckett, 2 cr
- R5440 Core Concepts in Community Health and Long Term Care** (prereq 5450)
104676 1220-1415 TTh, JacH 2135, 4 cr
- R5441 Practicum: Families with Children** (prereq 15440, 15445)
★REC 1010-1205 M, HSUnitF 2120, 2130
177019 -1 CLN 5 cr
★LAB 1010-1205 T, Mayo 100
- R5443 Practicum: Individuals/Groups/Populations** (prereq 15440, 15445)
★REC 1010-1205 M, Mayo 100
606696 -1 CLN 5 cr
- 5445 Health Assessment** (prereq 5241, 5450, 15440, 15441, 15443, or RN)
★LECT 0905-0955 M, OwreH 2230
406697 -1 LAB 3 cr (2 hrs per week ar) (HSUnitF 4130-4137)
102703 -2 LAB 3 cr (2 hrs per week ar) (HSUnitF 4130-4137)
811718 -3 LAB 3 cr (2 hrs per week ar) (HSUnitF 4130-4137)
407719 -4 LAB 3 cr (2 hrs per week ar) (HSUnitF 4130-4137)
005710 -5 LAB 3 cr (2 hrs per week ar) (HSUnitF 4130-4137)
009711 -6 LAB 3 cr (2 hrs per week ar) (HSUnitF 4130-4137)
807720 -7 LAB 3 cr (2 hrs per week ar) (HSUnitF 4130-4137)
805711 -8 LAB 3 cr (2 hrs per week ar) (HSUnitF 4130-4137)
177022 -9 LAB 3 cr (2 hrs per week ar) (HSUnitF 4130-4137)
- R5738 Transcultural Nursing: Theories and Issues** (prereq cultural anthropology course, grad stu in nursing or RN, #)
105679 1640-1835 W, Gustafson, 2-3 cr
- 5799 Self-Directed Study as a Means of Accomplishing Nursing Electives** (prereq #)
903710 ar cr
- 8001 Special Educational Experiences in Nursing** (prereq Δ)
905330 ar cr
- 8009 Special Topics** (prereq #)
111885 ar cr
- R8010 Structure of the Discipline of Nursing**
306353 1325-1625 T, HSUnitF 4154, 4172, Newman, 3 cr
- R8011 Moral and Ethical Positions in Nursing** (prereq grad nurs stu or #)
210427 -1 1325-1625 W, HSUnitF 4150, 4176, Corcoran-Perry, 3 cr
105771 -2 1640-1925 W, HSUnitF 4150, 4176, Crisham, 3 cr
- R8012 Conceptual Framework for Nursing Practice** (prereq 8010)
309477 1640-1940 T, HSUnitF 4150, 4176, Sodergren, 3 cr
- R8014 Research in Nursing** (prereq inferential statistics)
304909 0905-1205 W, HSUnitF 4154, 4172, Feldman, 3 cr
- 8050 Problems in Nursing** (prereq #) (S-N only)
107142 -1 Corcoran-Perry, 1-9 cr
803215 -2 Crisham, 1-9 cr
102166 -3 DeHart, 1-9 cr
506447 -4 Dineen, 1-9 cr
703529 -5 Donaldson, 1-9 cr
705264 -6 Duckett, 1-9 cr
903688 -7 Edwardson, 1-9 cr
412337 -8 Egan, 1-9 cr
111983 -9 Fahy, 1-9 cr
407266 -10 Feldman, 1-9 cr
406182 -11 Gordon, 1-9 cr
109139 -12 Gross, 1-9 cr
504018 -13 Gustafson, 1-9 cr
110405 -14 Lindquist, 1-9 cr
209195 -15 Newman, 1-9 cr
707452 -16 Pederson, 1-9 cr
101736 -17 Ryden, 1-9 cr
211495 -18 Sime, 1-9 cr
607461 -19 Snyder, 1-9 cr
603247 -20 Sodergren, 1-9 cr
105057 -21 Tomlinson, 1-9 cr
109022 -22 1-9 cr
103527 -23 1-9 cr
- R8051 Special Topics in Nursing Research**
111988 -1 1-9 cr
077023 -2 1220-1415 W, HSUnitF 4155, 4157, Ball, 4 cr (addtl hr ar)
- 8060 Advanced Clinical Nursing** (prereq #, Δ)
006291 3-9 cr
- 8064 Research on Decision Making in Health Care** (prereq one grad level research course, #)
276413 0905-1205 Th, HSUnitF 4169, 4171, Corcoran-Perry, 4 cr (addtl hr ar)
- R8114 Advanced Nursing Research** (prereq 8014 or equiv, adv inferential, non-parametric statistics, computer science, Δ)
207480 1220-1625 Th, HSUnitF 4151, 4153, Sime, 4 cr
- R8210 Theory Development in Nursing** (prereq 8110, #) (S-N only)
508795 1325-1625 T, HSUnitF 4169, 4171, Egan, 3 cr
- R8313 Care of the Childbearing Family in Risk** (prereq physiology, #)
510529 0905-1205 W, HSUnitF 4155, 4157, Dineen, 4-6 cr (clin ar)
- 8315 Nurse-Midwifery Management: Intrapart and Postpartal** (prereq 8314)
776416 0905-1310 W, HSUnitF 4150, 4176, Dineen, 9 cr (clin ar)
- 8415 Nurse Clinician Role Development** (prereq a course dealing with the health care delivery system, #)
805210 1535-1835 Th, HSUnitF 4169, 4171, Snyder, 6-9 cr
- R8422 Psychiatric-Mental Health Nursing: Family Dynamics and Therapy** (prereq 8030, #)
109819 1010-1205 T, HSUnitF 4169, 4171, 3 cr (clin ar)

- 8431 **Childbearing-Childrearing Family Nursing I** (prereq 8030, #)
176419 0905-1205 W, HSUnitF 4169, 4171,
Pederson, 4-6 cr (clin ar)
- 8450 **Investigations of Stress and Coping From a Nursing Perspective** (prereq nurs grad stu, psy or behav med, 8014 or equiv, #)
611106 0905-1205 Th, HSUnitF 4151, 4153,
Snyder, 3 cr
- 8455 **Nurse Educator in Higher Education** (prereq 8451, fcourse in educational measurement, #)
★LECT 0905-1205 T, HSUnitF 4154, 4172,
Gustafson, 6 cr
★REC (1 hr ar)
502138 -1 CLN (clin ar)
- 8509 **Special Topics: Nursing Education** (prereq #)
709556 ar cr
- 8609 **Special Topics in Nursing Supervision** (prereq #)
303744 ar cr
- 8701 **Nursing Administration I** (prereq 8030, #)
★LECT 1535-1835 T, HSUnitF 4151, 4153,
Edwardson, 6 cr (clin ar)
402035 -1 REC (clin conf ar)
- 8777 **Thesis Credits: Masters**
508859 1-16 cr
- 8888 **Thesis Credits: Doctoral** (max 18 cr per qtr)
805790 1-36 cr

NUTRITION (Nutr)

Food Science and Nutrition Agriculture

- 8745 **Seminar** (prereq #) (S-N only)
708195 1605-1655 T, FScN 23, Savaiano, 1 cr
- 8777 **Thesis Credits: Masters**
808432 1-16 cr
- 8888 **Thesis Credits: Doctoral** (max 18 cr per qtr)
112325 1-36 cr
- 8990 **Graduate Research** (prereq #)
308412 2-5 cr

OBSTETRICS AND GYNECOLOGY (Obst)

Medical School

- 5500 **Externship in Obstetrics and Gynecology** (prereq regis med)
911208 Twiggs, others, 9 cr
- 5520 **Obstetrics and Gynecology Externship in Clinical Practice** (prereq regis med)
809127 Twiggs, others, 4.5 cr
- 5540 **Advanced Externship in Obstetrics and Gynecology** (prereq 5500)
008901 Twiggs, others, ar cr
- 5560 **Research in Reproduction** (prereq 5500)
109447 Twiggs, others, ar cr
- 5575 **Gynecological Pathology and Diagnostic Cytology** (prereq 5500)
910253 Okagaki, Brooker, 9 cr
- 5590 **Preceptorship in Obstetrics and Gynecology** (prereq 5500)
203901 Twiggs, others, 9 cr
- 8201 **Advanced Obstetrics and Gynecology I**
107505 Twiggs, others, ar cr
- 8202 **Advanced Obstetrics and Gynecology I** (prereq 8201)
311360 Twiggs, others, ar cr
- 8203 **Advanced Obstetrics and Gynecology I** (prereq 8202)
704986 Twiggs, others, ar cr
- 8204 **Advanced Obstetrics and Gynecology I** (prereq 8203)
108520 Twiggs, others, ar cr
- 8205 **Advanced Obstetrics and Gynecology II**
503919 Twiggs, others, ar cr
- 8206 **Advanced Obstetrics and Gynecology II** (prereq 8205)
108565 Twiggs, others, ar cr

- 8207 **Advanced Obstetrics and Gynecology II** (prereq 8206)
707144 Twiggs, others, ar cr
- 8208 **Advanced Obstetrics and Gynecology II** (prereq 8207)
910835 Twiggs, others, ar cr
- 8209 **Advanced Obstetrics and Gynecology III**
401872 Twiggs, others, ar cr
- 8210 **Advanced Obstetrics and Gynecology III** (prereq 8209)
708259 Twiggs, others, ar cr
- 8211 **Advanced Obstetrics and Gynecology III** (prereq 8210)
605242 Twiggs, others, ar cr
- 8212 **Advanced Obstetrics and Gynecology III** (prereq 8211)
105035 Twiggs, others, ar cr
- 8213 **Advanced Obstetrics and Gynecology IV** (prereq 8212)
311553 Twiggs, others, ar cr
- 8214 **Advanced Obstetrics and Gynecology IV** (prereq 8213)
811184 Twiggs, others, ar cr
- 8215 **Advanced Obstetrics and Gynecology IV** (prereq 8214)
302948 Twiggs, others, ar cr
- 8218 **Advanced Obstetrics and Gynecology IV** (prereq 8215)
207947 Twiggs, others, ar cr
- 8217 **Seminar: Obstetrics and Gynecology IV** (prereq 8216)
312301 Twiggs, others, ar cr
- 8218 **Seminar: Obstetrics and Gynecology** (prereq 8217)
510014 Twiggs, others, ar cr
- 8219 **Seminar: Obstetrics and Gynecology** (prereq 8218)
712618 Twiggs, others, ar cr
- 8221 **Seminar: Obstetrics and Gynecology** (prereq 8219)
507176 Twiggs, others, ar cr
- 8222 **Gynecological Oncology** (prereq 8221)
507453 Twiggs, others, ar cr
- 8223 **Gynecological Oncology** (prereq 8222)
006095 Twiggs, others, ar cr
- 8224 **Gynecological Endocrinology I** (prereq 8223)
505430 Twiggs, others, ar cr
- 8225 **Gynecological Endocrinology II** (prereq 8224)
005982 Twiggs, others, ar cr
- 8228 **Obstetrical Physiology and Anesthesiology** (prereq 8225)
707354 Twiggs, others, ar cr
- 8227 **Preceptorship in Clinical Practice** (prereq 8226)
305154 Twiggs, others, ar cr
- 8228 **Selected Aspects of Radiation Therapy** (prereq 8227)
011586 Twiggs, others, ar cr
- 8229 **Selected Aspects of Medical Oncology** (prereq 8228)
904940 Twiggs, others, ar cr
- 8230 **Research in Reproduction** (prereq 8229)
401841 Twiggs, others, ar cr
- 8777 **Thesis Credits: Masters**
906879 1-16 cr

OPERATIONS AND MANAGEMENT SCIENCES (OMS) Management

Non-SMgt students should refer to section 1, Registration instructions for Carlson School of Management Courses, before attempting to register for 3000- and 5000-level OMS courses.

- 81020 **Data Analysis and Statistical Inference for Managers** (SMSci 1020, DSci 1050; prereq IDSc 1010, Math 1111...Math 1131 rec) (A-F only)
★LECT 0815-0930 TTh, BlegH 10
108220 -1 LAB 1300-1400 Th, BlegH 125, 4 cr
104385 -2 LAB 1415-1515 Th, BlegH 125, 4 cr

- 83056 **Production and Inventory Management** (\$OM 3056; prereq 3000 or #) (A-F only)
707158 1315-1445 TTh, HHHCtr 20, 4 cr
- 85160 **Deterministic Modeling and Optimization** (\$DSci 5060; prereq IDSc 3030 or MBA 8025 or #) (A-F only)
576868 1000-1145 MW, BlegH 340, 4 cr
- 86059 **Quality Management** (\$OM 8059; prereq 3000 or MBA 8050 or #) (A-F only)
309432 1300-1445 MW, BlegH 340, 4 cr
- 86705 **Principles for the Design and Improvement of Operations** (prereq PhD stu or #) (A-F only)
576322 0915-1200 W, SocSci 1383, 4 cr
- 8990 **Readings in Operations and Management Science** (\$OM 8990; prereq #, Grad Schl of Mgmt approval) (A-F only)
306370 ar cr
- 8995 **Graduate Research in Operations and Management Science** (\$OM 8995; prereq #, Grad Schl of Mgmt approval) (A-F only)
008221 ar cr

OPHTHALMOLOGY (Oph) Medical School

- 5100 **Introduction to Anatomy, Histology, and Embryology** (prereq physician or vet med student)
611347 0715-0830 Th, PWB 9335, Cameron, 1 cr
- 5180 **Externship** (prereq regis med)
911547 ar cr
- 5190 **Research Problems** (prereq regis med)
105164 ar cr
- 8101 **Clinical Ophthalmology**
703210 0800-1700 MTWThF, PWB 9100,
Knobloch, others, 8 cr (Eye Clinic)
- 8103 **Pediatric Ophthalmology, Strabismus and Hereditary Disorders** (prereq grad physician or grad in veterinary science)
375124 1400-1500 F, PWB 9339, Summers, 3 cr
- 8106 **Strabismus Management** (prereq grad physician or grad in veterinary science)
905831 0730-0830 M, PWB 9339, Leison, 1 cr
- 8119 **Clinical Pathological Correlations in Ophthalmology** (prereq grad physician or grad in veterinary sci)
207544 1500-1630 F, PWB 9339, Cameron, 1 cr
- 8120 **Scope of Ophthalmic Pathology** (prereq grad physician or grad in veterinary science)
102054 1830-1730 F, PWB 9339, Cameron, 2 cr
- 8131 **Practical Ocular Surgery**
302352 0800-1200 MTWThF, Knobloch, others,
3 cr (Mayo OR)
- 8142 **Ophthalmic Pathology Laboratory**
106959 1330-1530 T, PWB 9335, Cameron,
others, 2 cr
- 8152 **Ophthalmology Laboratory**
603295 15 cr
- 8155 **Special Topics in Ophthalmology** (prereq #)
205244 1-3 cr
- 8777 **Thesis Credits: Masters**
104077 1-16 cr

ORAL AND MAXILLOFACIAL SURGERY (OSur) Dentistry

- 5257 **Ambulatory General Anesthesia**
705099 0830-1200 ThF, MoosT 7448, 1 cr
- 5275 **Oral Pathology Review**
502222 1 cr (Th, MoosT 7168)
- 5276 **Medicine for the Oral Surgeon** (prereq participation in an oral surgery residency program)
007005 0700-1800 MTWThF, 2 cr (Univ Hosp PCU's)
- 5277 **Physical Diagnosis for Oral and Maxillofacial Surgery Residents** (prereq participation in oral and maxillofacial surgery residency program)
408191 1800-2100 TTh, 1 cr (VA Hosp PCU's)
- 5280 **Advanced Oral Surgery for Postgraduate Dental Fellows** (S-N only)
675128 1 cr

- 8250 Advanced Oral and Maxillofacial Surgery**
911340 0800-1630 MTWThF, MoosT 7406, ar cr
- 8251 Seminar: Oral Surgery** (max 1 cr)
105259 1330-1530 Th, MoosT 5125, ar cr
- 8252 Research in Oral and Maxillofacial Surgery**
911077 ar cr (MoosT-7406)
- 8253 Problems in Oral and Maxillofacial Surgery**
411091 0800-0900 Th, MoosT 7168, ar cr
- 8254 Topics: Oral Surgery**
503967 1330-1430 Th, MoosT 5125, ar cr
- 8255 General Surgery**
211979 0700-1800 MTWThF, ar cr (Fairview Hosp)
- 8258 Anesthesia II Seminar**
012026 1200-1300 Th, MoosT 7168, 1 cr
- 8280 Oral and Maxillofacial Surgery Clinical Pathology Conference**
407848 1430-1530 Th, MoosT 5125, 1 cr

ORAL BIOLOGY (ÓBio)

Dentistry

- 8001 Research in Oral Biology**
205552 ar cr
- 8002 Tutorial in Oral Biology**
203719 ar cr
- 8021 Topics in Oral Biology** (prereq #)
609887 1315-1530 Th, MoosT 18211, 1-3 cr
- 8030 Seminar**
105415 1215-1315 F, MoosT 18211, 1 cr
- 8101 Topics in Cariology** (prereq possession of a dental degree or PhD) (A-F only)
101896 1115-1300 Th, MoosT 18211, 1-2 cr
- 8777 Thesis Credits: Masters**
108145 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
306014 1-36 cr

ORAL PATHOLOGY (OPat)

Dentistry

- 5017 Oral Pathology Clinic**
508876 ar cr
- 8002 Oral Pathology** (prereq 5251, 5252)
112051 ar cr
- 8004 Histopathology**
106251 2 cr
- 8005 Advanced Oral Pathology**
809189 3 cr
- 8006 Current Literature Review**
807989 1030-1130 T, MoosT 16104, 1 cr
- 8007 Special Oral Pathology**
002306 2 cr
- 8008 Clinical Oral Pathology**
202165 1 cr
- 8011 Surgical Oral Pathology**
602597 ar cr
- 8012 Human and Medical Cytogenetics**
508134 4 cr
- 8015 Methods of Genetic Counseling and Treatment**
610909 1 cr
- 8018 Histopathology**
806602 1600-1800 W, 2 cr
- 8300 Human Development Genetics I** (prereq GCB 3022, BioC 5970, Path 5101 or #)
211626 0800-1000 Th, MoosT 16104, 2 cr

ORAL RADIOLOGY (ORad)

Dentistry

- 8300 Advanced Oral Roentgenographic Interpretation** (prereq #)
909149 0800-0945 M, HSUnitF 2140, 2 cr

ORTHODONTICS (Otho)

Dentistry

- 5001 Clinical Orthodontics**
309916 0900-1200 MTWThF, 1400-1630 MTWThF, MoosT 6320, 6345, ar cr
- 8001 Research in Orthodontics**
208807 ar cr
- 8200 Growth and Development**
806910 0800-0900 MTWThF, 1300-1400 MTWThF, MoosT 6370, ar cr
- 8204 Orthodontic Diagnosis and Treatment Planning**
502950 ar cr
- 8208 Orthodontic Seminar**
004962 0800-0900 MTWThF, 1300-1400 MTWThF, MoosT 6374, ar cr

ORTHOPAEDIC SURGERY (OrSu)

Medical School

- 5180 Orthopaedica I** (prereq regis med)
410099 Thompson, others, ar cr
- 5185 Orthopaedica II: Externship in Orthopaedic Surgery** (prereq regis med)
412533 Thompson, others, ar cr
- 5186 Research Problems in Orthopaedic Surgery** (prereq regis med)
708987 Thompson, others, ar cr
- 5188 Externship in Orthopaedic Surgery and Fractures-Gillette Children's Hospital** (prereq regis med)
811010 Koop, ar cr
- 5190 Externship in Orthopaedic Surgery and Fractures-Veterans Hospital** (prereq regis med)
806146 Premier, ar cr
- 5191 Orthopaedic Externship at Hennepin County Medical Center** (prereq regis med)
501894 Gustilo, ar cr
- 5192 Preceptorship in Orthopaedic Surgery** (prereq regis med jr or sr)
111361 ar cr
- 5193 Scoliosis and Other Spinal Deformities** (prereq general orthopaedic course or elective clerkship in orthopaedic surgery)
602213 9 cr
- 8401 Orthopaedic Conference**
112308 Thompson, others, 3 cr
- 8403 Fractures**
509249 Gustilo, 5 cr
- 8405 Orthopaedic Diagnosis**
011989 Thompson, others, 3 cr
- 8407 Pediatric Orthopaedics**
810195 Koop, 5 cr
- 8408 Orthopaedic Problems and Management**
606939 Thompson, others, 5 cr
- 8409 Orthopaedic Problems and Management**
106136 Aamoth, 5 cr
- 8410 Orthopaedic Pathology**
410121 Thompson, others, 2 cr
- 8411 Orthopaedic Operative Surgery**
009207 Thompson, others, 5 cr
- 8412 Orthopaedic Anatomy**
308135 House, 2 cr
- 8418 Orthopaedic Research**
810133 Bradford, 5 cr
- 8777 Thesis Credits: Masters**
912553 1-16 cr

OTOLARYNGOLOGY (Otol)

Medical School

- 5101 Introduction to the Basic Sciences in Otolaryngology, I: Ear** (prereq #)
202554 Lassman, others, 3 cr
- 5500 General ENT Elective**
805399 Levine, 4.5 cr
- 5501 Acting Internship-ENT Elective**
508490 Levine, 4.5-9 cr
- 5503 Research Basic Science** (prereq regis med student)
004279 Levine, ar cr
- 5970 Directed Studies** (prereq #)
803621 ar cr
- 8220 Research**
712019 18 cr
- 8230 Clinical Otorhinolaryngology**
511972 Adams, others, 6 cr
- 8231 Surgery of Ear, Nose, and Throat**
810309 Adams, others, 4 cr
- 8232 Maxillofacial Surgery**
810830 Adams, Boies, others, 1 cr
- 8233 Plastic and Reconstructive Surgery of the Head and Neck**
904307 Adams, Boies, others, 1 cr
- 8234 Anatomy of the Head and Neck and Temporal Bone Dissection**
805918 Levine, 2 cr
- 8235 Roentgenology of the Head and Neck**
804364 2 cr
- 8236 Pharmacology in ENT**
308409 2 cr
- 8237 Endoscopy**
807314 Adams, others, 2 cr
- 8238 Pathology of the Ear, Nose, and Throat**
112378 Adams, others, 2 cr
- 8239 Otoneurology**
310256 Anderson, Levine, 2 cr
- 8240 Allergy**
707189 2 cr
- 8241 Tumor Clinic**
703997 Adams, others, 1 cr
- 8242 Audiology and Speech Pathology**
104409 Lassman, Margolis, others, 2 cr
- 8243 Introduction to Research Methodology**
206314 Ward, others, 2 cr
- 8244 Seminar: Current Literature**
208029 Adams, Goding, others, 1 cr
- 8245 Master's Thesis Research**
904954 ar cr
- 8246 Ph.D. Thesis Research**
107049 ar cr
- 8248 Readings in Auditory Physiology** (prereq #)
804588 Ruggiero, 1-3 cr
- 8249 Seminar: Current Topics in Cochlear Anatomy** (prereq #) (S-N only)
805868 Santl, 1 cr
- 8250 Advanced Biochemistry of the Auditory System** (prereq MdBc 5100, MdBc 5101 or equiv or #)
910625 Juhn, 2 cr
- 8777 Thesis Credits: Masters**
902136 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
808074 1-36 cr

PATHOBIOLOGY (Path)

Laboratory Medicine And Pathology Medical School

- 5109 Seminar: Selected Topics in Pathobiology** (prereq #)
207060 1600-1700 T, MoosT 2116, LaBien, 1 cr
- 5110 Seminar: Pathology** (prereq #) (S-N only)
202960 1200-1300 M, Mayo C231, 1 cr (Todd Amph)
- 5141 Problems in Experimental and Clinical Chronobiology**
212095 Halberg, ar cr
- 5885 Departmental Seminar** (prereq #)
104877 0800-0900 W, Mayo D230, 1 cr (Eustis Amph)
- 8108 Pathobiology I** (8108-8109-8110); prereq MdBc 5100, MdBc 5101, or I, CBN 5103, CBN 5104 or I, or #)
409051 0905-0955 MWF, MoosT 2580, McCarthy, 3 cr

- 8140 **Research Topics and Methods in Pathobiology**
002080 1-5 cr
- 8201 **Research**
103706 ar cr
- 8217 **Frontiers of Immunology II: Molecular Immunology** (SMiCB 8217; prereq Biol 5001 or equiv)
175330 1010-1100 MWF, MoosT 2520, Orr, Jemerson, 3 cr
- 8888 **Thesis Credits: Doctoral** (max 18 cr per qtr)
502916 1-36 cr

PEDIATRIC DENTISTRY (Pedo) Dentistry

- 5405 **Advanced Pediatric Dentistry for Postgraduate Dental Fellows** (S-N only)
475129 1 cr
- 5414 **Advanced Clinical Pedodontics**
403962 0900-1200 MTWThF, 1300-1600 MTWThF, MoosT 6220, ar cr
- 8001 **Research**
103194 0745-0845 Th, MoosT 6182, ar cr
- 8290 **Hospital Pedodontics I** (S-N only)
102264 0830-1200 MTWThF, 1300-1400 F, PWB 7302, ar cr
- 8291 **Hospital Pedodontics II** (S-N only)
403007 1300-1600 MTWThF, 0900-1200 TW, MoosT 6182, ar cr
- 8292 **Pedodontic Literature**
403878 0800-0900 F, MoosT 6162, ar cr
- 8294 **Pedodontic Diagnosis and Treatment Planning**
812495 0800-0900 M, MoosT 6182, ar cr
- 8295 **Independent Pedodontic Study**
310984 ar cr
- 8298 **Interdisciplinary Care of the Cleft Palate Patient** (S-N only)
810410 1 cr

PEDIATRICS (Ped) Medical School

- 5501 **Pediatric Externship** (prereq successful completion of Year 2 Clinical Medicine III Pediatrics)
109125 Shannon, 9 cr
- 5503 **Pediatric Clerkship with Outstate Clinicians**
802307 Shannon, ar cr
- 5504 **Clinical Aspects of Pediatric Psychology** (prereq #)
709489 ar cr
- 85512 **Pediatric Acting Internship**
308152 Shannon, 9-18 cr
- 5513 **Ambulatory Pediatrics in HMO Setting** (prereq year 2 pediatrics clinical medicine III)
912164 9 cr
- 5520 **Pediatrics Ambulatory Selective Course** (prereq 2nd yr clinical pediatrics)
603233 Shannon, ar cr
- 5525 **International Health**
102949 1900-2100 Th, MoosT 2520, Venters, ar cr
- 85533 **Pediatric Clinical Allergy at University Hospital** (prereq 3rd or 4th yr medical student)
978964 4.5-9 cr
- 85534 **Pediatric Cardiology at the University Hospital**
607220 Moller, ar cr
- 85535 **Infectious Diseases**
911497 Ferrieri, ar cr
- 85536 **Pediatric Hematology/Oncology/Bone Marrow Transplantation at the University Hospital**
710187 Smith, ar cr
- 85537 **Pediatric Endocrinology and Metabolism at the University**
011930 Klein, ar cr
- 85538 **Pediatric Gastroenterology**
909961 Sharp, ar cr

- 5539 **Neonatal Medicine Externship**
406487 Boros, ar cr
- 85540 **Pediatric Neurology**
705331 Swaiman, ar cr
- 85543 **Nephrology at the University**
103986 Fish, ar cr
- 85544 **Pulmonary Disease in Pediatrics** (prereq #)
104197 Warwick, 4.5-18 cr
- 85547 **Topics in Maternal and Child Care** (prereq 5500, 5501 or 5502, #)
610182 ten Bensel, ar cr
- 85548 **Pediatric Genetics at the University**
903996 Pierpont, 9 cr
- 85550 **Externship in Hospital Based Nutrition Support** (prereq regis med) (A-F only)
776965 4.5-9 cr
- 85553 **Adolescent Medicine**
810374 Blum, 9 cr
- 85555 **Neonatal Clerkship** (prereq 5501 or 5512)
108038 Opitz, ar cr
- 85556 **Clinical Pediatrics Clerkship** (prereq 5501 or 5512)
812031 Shannon, ar cr
- 5559 **Pediatric Critical Care Medicine** (prereq 5501 and/or 5512)
207589 Green, 4.5-9 cr
- 5560 **Research/Special Problems in Pediatrics** (prereq regis med) (S-N only)
401970 Shannon, ar cr
- 8204 **Residency in Pediatrics** (prereq #)
302190 Shannon, ar cr
- 8206 **Pediatric Special Interest** (prereq #)
208958 Shannon, ar cr

PERIODONTICS (Pero) Dentistry

- 5222 **Dentistry and Systematic Health Care** (prereq graduate students in Dentistry) (S-N only)
102000 1415-1515 M, MoosT 7360, 1 cr
- 5300 **Advanced Periodontics for Postgraduate Dental Fellows** (S-N only)
875130 1 cr
- 8000 **Advanced Clinical Periodontology**
511275 0930-1215 TWThF, 1330-1600 WThF, MoosT 7470, ar cr
- 8200 **Lectures**
812612 1315-1415 M, MoosT 7360, ar cr
- 8300 **Seminar: Periodontology**
010342 0800-0930 W, MoosT 7360, ar cr

PHARMACEUTICS (Phm) Pharmacy

- 8101 **Readings in Pharmaceutics**
011944 1640-1730 W, HSUnitF 7193, Agyllirah, 1 cr
- 8105 **Pharmacokinetics Research Seminar** (prereq grad in pharmaceutics majoring in pharmacokinetics) (S-N only)
303985 1700-1900 M, HSUnitF 9177, Sawchuk, Zimmerman, 2 cr
- 8420 **Modeling Approaches in Pharmacokinetics** (prereq Phmc 5680, Math 3211 or #) (A-F only)
978690 Sawchuk, 3 cr
- 8777 **Thesis Credits: Masters**
103358 1-16 cr
- 8888 **Thesis Credits: Doctoral** (max 18 cr per qtr)
404853 1-36 cr

PHARMACEUTICS, UNDERGRAD (Phmc) Pharmaceutics Pharmacy

- 5603 **Pharmaceutical Calculations** (A-F only)
203252 1115-1205 MW, MoosT 2690, Grant, 2 cr
- 85605 **Introduction to Dosage Form Design** (prereq 5603) (A-F only)
★LECT 1115-1205 F, MoosT 2690, Carlson
511437 -1 LAB 0800-1100 M, HSUnitF 2160, 2 cr

702459 -2 LAB 0800-1100 W, HSUnitF 2160, 2 cr

- 5680 **Pharmacokinetics** (prereq 5620, Math 1221) (A-F only)
011183 1325-1520 T, 1325-1415 Th, MoosT 2530, Zimmerman, 3 cr
- 5730H **Pharmaceutics Seminar** (prereq #) (A-F only)
403105 1 cr
- 5970 **Directed Studies** (prereq #)
103468 1-5 cr
- 5999 **Special Problems** (prereq #)
112289 ar cr

PHARMACOGNOSY (Phcg) Medicinal Chemistry and Pharmacognosy Pharmacy

- 5899 **Special Problems in Pharmacognosy** (prereq #)
810052 ar cr
- 8500 **Pharmacognosy Seminar**
012401 1535-1730 T, MoosT 2520, Remmel, 1 cr
- 8777 **Thesis Credits: Masters**
009496 1-16 cr
- 8888 **Thesis Credits: Doctoral** (max 18 cr per qtr)
204076 1-36 cr
- 8900 **Research in Pharmacognosy** (prereq #)
803781 ar cr

PHARMACOLOGY (Phcl) Medical School

- 81001 **Dental Therapeutics** (prereq regis dental hygiene program or #)
910754 1325-1520 T, Quebbemann, 2 cr
- 5100 **Pharmacology for Nursing Students** (prereq regis Nurs stu or #)
405064 1325-1520 TTh, PWB 2470, Quebbemann, 4 cr
- 5101 **Pharmacology for Pharmacy Students** (prereq registered 2nd yr Pharmacy student or #) (A-F only)
★LECT 1010-1100 MTWTh, 0905-0955 F, MoosT 2620, Dunham, 5 cr
212064 -1 LAB 1325-1625 F, MoosT 3110
- 5103 **Pharmacology for Dental Students** (prereq regis Dent stu or #)
311827 0845-0930 MTWThF, MoosT 2530, Wilcox, 5 cr (Sept 23-Dec 6)
- 5108 **Problems in Pharmacology** (prereq grad or upper div stu or #)
509316 Loh, ar cr
- 5110 **Pharmacology** (prereq regis med or #)
107861 0800-0850 WF, 1325-1415 Th, MoosT 2650, Hunninghake, 5 cr (Sept 3-Dec 20)
- 8110 **Advanced Pharmacology I** (prereq biochem, physiol background, 5111 or 5110 or #) (A-F only)
405789 1325-1520 F, MirdH 3260, Takemoni, Sladek, 2 cr
- 8204 **Seminar: Selected Topics in Pharmacology** (max 3 cr; prereq 5110 or #)
902377 Wilcox, 1 cr
- 8207 **Seminar: Psychopharmacology** (SNC 8207, max 3 cr; prereq #)
108301 Sparber, 1 cr (MirdH 3260)
- 8209 **Current Research in Drug Metabolism** (prereq #) (A-F only)
312539 Holtzman, 1 cr
- 8217 **Problems in Investigative Pharmacology** (prereq #) (S-N only)
206538 1535-1625 TTh, MirdH 3260, O'Dea, 2 cr
- 8777 **Thesis Credits: Masters**
901715 1-16 cr
- 8888 **Thesis Credits: Doctoral** (max 18 cr per qtr)
004217 1-36 cr

PHARMACY PRACTICE (Phar) Pharmacy

- r5009 Multidisciplinary Perspectives on Aging** (SAdEd 5440, CPsy 5305, Educ 5440, HSU 5009, PA 5414, PubH 5220, PubH 5737, SAHP 5009, Soc 5960, SW 5024)
176378 1640-1825 MW, MoosT 2690, 4 cr
- 5210 Terminology of the Health Sciences** (HSU 5210)
076373 McKennell, 2 cr (for information go to rm 5120 HSUnitF before first day of quarter)
- 5232 Drugs and Prison Health**
304828 Kingston, 2 cr
- 5250 Pharmacy and the Health Care System** (A-F only)
176372 0800-0850 MWF, OwreH 2230, Hadsall, 3 cr
- 5286 Community Drug Information** (prereq third yr phar student, #)
305090 Green, 1-3 cr
- 5290 Specialty Clerkships**
006369 1-16 cr
- 5291 Specialty Externship**
502284 1-12 cr
- 5306 Clinical Toxicology** (prereq third yr phar student or #) (A-F only)
209004 1010-1205 W, 1115-1205 F, MoosT 2530, Sioris, 2 cr
- 5307 Pharm.D. IV Seminar** (prereq PharmD IV student) (S-N only)
102885 -1 1535-1730 M, MoosT 2580, 2 cr
911810 -2 1535-1730 M, HSUnitF 7135, 2 cr
509767 -3 1535-1730 T, HSUnitF 7135, 2 cr
- r5321 Pharmacotherapeutics I** (prereq first yr phar student) (A-F only)
★LECT 1115-1205 TTh, MoosT 2650, Cloyd
408417 -1 REC 0800-0955 M, HSUnitF 2110, 2 cr
303176 -2 REC 1430-1625 M, HSUnitF, 2 cr
007330 -3 REC 0800-0955 W, HSUnitF 2120, 2 cr
710352 -4 REC 1430-1625 W, HSUnitF, 2 cr
208886 -5 REC 0800-0955 F, HSUnitF 2110, 2 cr
- 5390 Community Practice Externship** (prereq third yr phar student) (S-N only)
610215 -1 LECT 0800-1000 T, HSUnitF 7135, Johnson J., 7 cr
★REC
- 5392 Hospital Practice Externship** (prereq third yr phar student) (S-N only)
207155 -1 LECT 0800-1000 Th, HSUnitF 7135, Abramowitz, 7 cr
★REC
- r5500 Pathophysiology and Therapeutics: Cardiovascular Diseases** (prereq 3rd yr pharmacy stu) (A-F only)
203011 0800-0955 MW, HSUnitF 7135, Straka, 4 cr
- 5503 Pathophysiology and Therapeutics: Immune Diseases** (prereq 3rd yr pharmacy stu) (A-F only)
109464 1010-1205 Th, HSUnitF 7135, Canafax, 2 cr
- 5504 Pathophysiology and Therapeutics: Gastrointestinal Disorders** (prereq 3rd yr pharmacy stu) (A-F only)
406201 1010-1205 M, 1010-1100 F, HSUnitF 7135, 2 cr
- 5507 Pathophysiology and Therapeutics: Neoplastic Diseases** (prereq 3rd yr pharmacy stu) (A-F only)
602454 0800-0955 F, MoosT 2520, Brundage, 2 cr
- 5515 Neuroanatomy** (prereq 3rd yr pharmacy stu) (S-N only)
110090 Graves, 1 cr (independent study ar, HSUnitF 7115)
- 5520 Therapeutic Drug Monitoring** (prereq 3rd yr pharmacy stu) (A-F only)
208466 1325-1520 W, HSUnitF 7135, Cipolle, 1 cr (1st 5 weeks)
- 5550 Pharmacy Practice Clerkship: Acute Care** (prereq PharmD IV student) (S-N only)
205440 4-12 cr
- 5551 Pharmacy Practice Clerkship: Clinical Pharmacokinetics** (prereq PharmD IV student) (S-N only)
010101 4 cr
- 5552 Pharmacy Practice Clerkship: Pediatrics** (prereq PharmD IV student) (S-N only)
907532 4 cr
- 5553 Pharmacy Practice Clerkship: Clinical Elective I** (prereq PharmD IV student) (S-N only)
204210 4-12 cr
- 5554 Pharmacy Practice Clerkship: Special Elective I** (prereq PharmD IV student) (S-N only)
707094 4-12 cr
- 5555 Pharmacy Practice Clerkship: Clinical Elective II** (prereq PharmD IV student) (S-N only)
906946 4-12 cr
- 5556 Pharmacy Practice Clerkship: Clinical Elective III** (prereq PharmD IV student) (S-N only)
902427 4-12 cr
- 5557 Pharmacy Practice Clerkship: Special Elective II** (prereq PharmD IV student) (S-N only)
603717 4-12 cr
- 5558 Pharmacy Practice Clerkship: Special Elective III** (prereq PharmD IV student) (S-N only)
806518 4-12 cr
- 5770H Hospital Pharmacy Seminar** (prereq #) (A-F only)
376371 Daniels, 1 cr
- 5970 Directed Studies** (prereq #)
711856 1-5 cr
- 5999 Special Problems** (prereq #)
904341 ar cr
- r3001 General History of Western Philosophy**
★LECT 1010-1100 MWF, FordH 55, Dahl
102708 -1 REC 0905-0955 T, FordH 115, 5 cr
611719 -2 REC 1010-1100 T, FordH 115, 5 cr
907692 -3 REC 1115-1205 Th, FordH 160, 5 cr
- r3105 Introduction to the Theory of Knowledge** (prereq 1001 or #)
676263 1430-1520 MWF, FordH 150, 4 cr
- 3302 Moral Problems of Contemporary Society**
276265 1115-1205 MWF, FordH 120, Root, 5 cr
- 3502 Introduction to Aesthetics**
076275 1115-1230 TTh, FordH 55, Gunderson, 4 cr
- 3970 Directed Studies** (prereq #, Δ, □)
407106 1-5 cr
- 3980 Directed Instruction** (prereq #, Δ, □)
911015 1-5 cr
- r5005 Plato** (prereq 3001 or #)
676277 1220-1310 MWF, FordH 120, Peterson, 4 cr
- 5201 Symbolic Logic I** (prereq 1001 or #)
★LECT 0905-0955 MWF, FordH 285, Hanson
705538 -1 REC 0905-0955 TTh, FordH 130, 5 cr
- 5211 Modal Logic** (prereq 5202 or Math 5162 or #)
676280 1115-1205 MWF, FordH 130, Hanson, 4 cr
- 5232 Topics in the Philosophy of Language** (prereq 3231 or 5231 or #)
276282 1010-1100 MWF, FordH 150, Owens, 4 cr
- 5311 Ethical Theory** (prereq 1003 or #)
976284 1325-1415 MWF, FordH 130, Dahl, 4 cr
- 5602 Philosophy of Science: Theories and Explanation** (prereq 3601 or 5601 or #)
108685 1245-1400 TTh, FordH 120, Savage, 4 cr
- 5622 Philosophy and Feminist Theory** (prereq 8 cr in Phil or WoSt or #)
376287 0945-1100 TTh, FordH 285, Scheman, 4 cr
- 5970 Directed Studies and Research** (prereq #, Δ, CLA approval)
006422 1-5 cr
- 5990 Directed Studies and Research** (prereq #, Δ, CLA approval)
505928 1-5 cr
- 8090 Seminar in History of Philosophy**
176297 1535-1730 Th, FordH 359, 4 cr
- 8110 Seminar: Metaphysics** (prereq 5101 or #)
376290 1535-1730 T, FordH 359, Gunderson, 4 cr
- 8130 Seminar: Epistemology** (prereq 5105 or #)
276296 1115-1205 MWF, FordH 160, Dolan, 4 cr
- 8210 Seminar: Logical Theory** (prereq 5201, 5202 or #)
076292 1535-1730 W, FordH 359, Hellman, 4 cr
- 8600 Seminar in Philosophy of Science**
476295 1535-1730 W, FordH 160, Savage, 4 cr
- 8777 Thesis Credits: Masters**
108288 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
103642 1-36 cr
- 8970 Directed Study and Research** (prereq passing grade on written prelim exam for PhD in philosophy, #)
905487 1-4 cr
- 8990 Directed Study and Research** (prereq passing grade on written prelim exam for PhD in philosophy, #)
811511 1-4 cr

PHILOSOPHY (Phil) Liberal Arts

- r1001 Introduction to Logic**
★LECT 0905-0955 MWF, Botany B6, Dolan
405899 -1 REC 0800-0850 T, FordH 130, 5 cr
210475 -2 REC 0905-0955 T, Meche 202, 5 cr
111580 -3 REC 1010-1100 T, OwreH 2210, 5 cr
806356 -4 REC 0800-0850 Th, FordH 55, 5 cr
305333 -5 REC 0905-0955 Th, VinH 207, 5 cr
009465 -6 REC 1010-1100 Th, EE/CSci 3210, 5 cr
★LECT 1325-1415 MWF, SmithH 100, Owens
111532 -7 REC 1115-1205 T, SmithH 100, 5 cr
312038 -8 REC 1115-1205 T, EE/CSci 3210, 5 cr
607105 -9 REC 1220-1310 T, Phys 210, 5 cr
309544 -10 REC 1430-1520 T, FordH 155, 5 cr
404352 -11 REC 0600-0850 W, FordH 40, 5 cr
111403 -12 REC 1115-1205 Th, AmundH 116, 5 cr
710996 -13 REC 1115-1205 Th, VinH 311, 5 cr
006257 -14 REC 1115-1205 Th, VinH 364, 5 cr
211223 -15 REC 1430-1520 Th, FordH 70, 5 cr
- r1002 Introduction to Philosophy**
★LECT 1010-1100 MWF, NichH 45
811332 -1 REC 0800-0650 T, FordH 55, 5 cr
006159 -2 REC 0905-0955 T, Meche 221, 5 cr
810036 -3 REC 1010-1100 T, SmithH 231, 5 cr
811282 -4 REC 0905-0955 Th, Arch 10, 5 cr
305414 -5 REC 1010-1100 Th, FordH 115, 5 cr
008378 -6 REC 1115-1205 Th, SciCB 175, 5 cr
★LECT 1115-1230 TTh, Botany B6, Hellman
107066 -7 REC 0905-0955 M, LindH 305, 5 cr
909443 -8 REC 1010-1100 M, Arch 25, 5 cr
707970 -9 REC 0905-0955 W, LindH 305, 5 cr
106699 -10 REC 1010-1100 W, FordH 160, 5 cr
704681 -11 REC 1115-1205 F, FordH 349, 5 cr
302707 -12 REC 1220-1310 F, FordH 115, 5 cr
- r1003 Introduction to Ethics**
★LECT 0945-1100 TTh, FordH 120, Bowie
705572 -1 REC 1010-1100 M, Zoology 102, 5 cr
404528 -2 REC 1220-1310 M, FordH 115, 5 cr
907580 -3 REC 0905-0955 W, FordH 160, 5 cr
- r1004 Introduction to Political Philosophy**
★LECT 1115-1230 TTh, FordH 115, Wallace
776268 -1 REC 1115-1205 M, MoosT 2580, 5 cr
978270 -2 REC 1220-1310 M, FordH 130, 5 cr
376273 -3 REC 1220-1310 W, FordH 130, 5 cr

PHYSICAL EDUCATION (PE)
School of Physical Education And
Recreation
Education
Also see (Kin)

Courses listed below are ranked numerically according to activity level, i.e., the level or skill required. The activity level of each course is indicated by the second digit in the course number, 0 = first level, 1 = second level, and so on. Thus 1007, for example, is a first-level course and 1107 is a second-level course. In most cases, the lower level course is prerequisite for the higher; however, students who can demonstrate sufficient skill in activity may usually register for the most advanced course without completing the prerequisite(s).

Most of the courses are considered high intensity, that is, they require a high level of physical exertion. Thus students are encouraged to consider carefully any limits on their health or physical fitness and to consult a physician if they have any questions about their health or about their ability to participate safely in the physical activities involved in any course for which they wish to register.

- r1004 Diving, Springboard** (prereq 1007 or #)
 512586 0800-0855 TTh, UAqCtr, 1 cr (Natorium Diving Well)
- r1007 Swimming** (prereq non-swimmer)
 405128 -1 0800-0850 MWF, CookeH 10, 1 cr
 707306 -2 0905-0955 MWF, CookeH 10, 1 cr
- r1008 Water Polo**
 502639 1115-1205 MWF, UAqCtr, 1 cr (Natorium)
- r1014 Conditioning**
 303422 -1 0800-0850 MWF, FieldHse, 1 cr
 304411 -2 0905-0955 MWF, FieldHse, 1 cr
 107318 -3 1010-1100 MWF, FieldHse, 1 cr
 312606 -4 1115-1205 MWF, FieldHse, 1 cr
 512460 -5 0800-0855 TTh, FieldHse, 1 cr
 004475 -6 0905-1000 TTh, FieldHse, 1 cr
 707001 -7 1010-1105 TTh, FieldHse, 1 cr
 277030 -8 0830-0920 MWF, Gym, 1 cr (StP)
- r1015 Weight Training**
 602499 -1 0800-0850 MWF, StadN 205, 1 cr
 611848 -2 0905-0955 MWF, StadN 205, 1 cr
 603555 -3 1010-1100 MWF, StadN 205, 1 cr
 108985 -4 1115-1205 MWF, StadN 205, 1 cr
 608187 -5 0800-0855 TTh, StadN 205, 1 cr
 310189 -6 0905-1000 TTh, StadN 205, 1 cr
 409454 -7 1010-1105 TTh, StadN 205, 1 cr
 977032 -8 0935-1025 MWF, Gym, 1 cr (StP)
- r1031 Sabre Fencing**
 302108 1010-1105 TTh, PeikG 100, Jacobson, 1 cr
- r1032 Badminton**
 811285 0800-0855 TTh, CookeH 325, 1 cr
- r1033 Foil Fencing**
 910334 0905-1000 TTh, PeikG 100, Jacobson, 1 cr
- r1034 Judo** (facility fee)
 102269 -1 1220-1315 TTh, StadN 207, Holm, 1 cr
 902055 -2 1325-1420 TTh, StadN 207, Holm, 1 cr
- r1035 Karate** (facility fee)
 607265 -1 0905-0955 MW, PeikG 100, Fusaro, 1 cr
 702185 -2 1010-1100 MW, PeikG 100, Fusaro, 1 cr
- r1036 Racquetball**
 910205 -1 1010-1100 MWF, StadN 208, 1 cr
 603751 -2 1115-1205 MWF, StadN 208, 1 cr
 405131 -3 1325-1415 MWF, StadN 208, 1 cr
 908244 -4 1430-1520 MWF, StadN 208, 1 cr
 006033 -5 0800-0855 TTh, StadN 208, 1 cr
 501779 -6 1010-1105 TTh, StadN 208, 1 cr
 975233 -7 1115-1210 TTh, StadN 208, 1 cr
- r1038 Tennis**
 712389 -1 0800-0850 MWF, FieldHse, TCts, 1 cr
 706494 -2 0905-0955 MWF, FieldHse, TCts, 1 cr
 906218 -3 1010-1100 MWF, FieldHse, TCts, 1 cr
 109299 -4 1115-1205 MWF, FieldHse, TCts, 1 cr
 312461 -5 0905-1000 TTh, FieldHse, TCts, 1 cr

- r1044 Self Defense**
 108346 0905-0955 MWF, NorrisH M153A, M153, Bendickson, Brandl, 1 cr
- r1048 Bowling** (moderate intensity) (facility fee)
 503838 -1 0905-0955 MWF, CMU B55, 1 cr
 104944 -2 1010-1100 MWF, CMU B55, 1 cr
 105188 -3 1115-1205 MWF, CMU B55, 1 cr
- r1050 Golf** (moderate intensity)
 503824 -1 1220-1310 MTWThF, StadS 267, Golf Course, 1 cr (Sept 23-Oct 25)
 209102 -2 1325-1415 MTWThF, StadS 267, Golf Course, 1 cr (Sept 23-Oct 25)
- r1053 Ice Skating**
 302125 -1 0905-0955 MWF, WmsA W100, Patten, 1 cr
 306000 -2 1010-1100 MWF, WmsA W100, Patten, 1 cr
- r1060 Tumbling, Floor Exercise, and Trampoline**
 202408 0905-1000 TTh, CookeH 302, 1 cr
- r1067 Basketball**
 102989 1325-1420 TTh, FieldHse, 1 cr
- r1072 Soccer**
 106486 -1 0905-0955 MTWThF, FieldHse, 1 cr (Sept 23-Oct 25)
 910057 -2 1010-1100 MTWThF, FieldHse, 1 cr (Sept 23-Oct 25)
- r1073 Softball**
 307485 1115-1210 MTWThF, FieldHse, 1 cr (Sept 23-Oct 25) BFAB fld
- r1074 Volleyball**
 810859 -1 0800-0850 MWF, CookeH 325, 1 cr
 102992 -2 0905-0955 MWF, CookeH 325, 1 cr
 906350 -3 1010-1100 MWF, CookeH 325, 1 cr
 804056 -4 1115-1205 MWF, CookeH 325, 1 cr
- r1107 Swimming** (prereq swim 100 yards)
 508392 1010-1100 MWF, UAqCtr, 1 cr (Natorium West)
- r1205 Scuba and Skin Diving** (prereq 1107 or equiv) (facility fee)
 008347 1010-1205 TTh, CookeH 400, UAqCtr, Whortonbury, 1 cr (Natorium East)
- r1308 Advanced Lifesaving** (prereq ability to swim 440 yds)
 012222 1010-1100 MWF, UAqCtr, 1 cr (Natorium East)
- r1410 Water Safety Instructor** (prereq curr ARC adv Lifesaving Cert, have or concurrently acquire ARC First Aid, CPR Cert)
 777033 0800-0955 TTh, UAqCtr, 2 cr (Natorium)
- r1497 Directed Study** (prereq 3 cr in physical education, Δ)
 603202 1-6 cr

PHYSICAL MEDICINE AND REHABILITATION (PMed) Medical School

- r1002 Orientation to Physical Therapy** (S-N only)
 006825 1325-1415 Th, ChRC R220, Scudder, 1 cr
- r1003 Orientation to Occupational Therapy** (S-N only)
 206992 1220-1310 T, ChRC R208, Berkeland, 1 cr
- 5135 Pathokinesiology** (prereq #) (A-F only)
 909684 DiFabio, 3 cr
- 5215 Orientation to Physical Therapy Practice** (prereq regis PT) (S-N only)
 204336 0800-0955 T, 1325-1415 Th, ChRC R220, Ellingham, 2 cr (obs ar)
- 5256 Special Interim Clinical Education in Physical Therapy** (prereq regis PT) (S-N only)
 807961 Ellingham, ar cr
- 5275 Applied Anatomy** (prereq regis PT)
 112275 1535-1730 M, 1535-1625 T, 1010-1100 F, ChRC R208, Ellingham, Scudder, others, 3 cr
- 5282 Theory of Therapeutic Exercise** (prereq 5281)
 509528 0800-0955 MTh, 1220-1415 WF, ChRC R208, Montgomery, 4 cr
- 5284 Techniques of Therapeutic Exercise** (prereq 5283)
 808401 1325-1520 M, 0800-0955 TWF, 1010-1205 Th, ChRC R220, Amundsen, Scudder, others, 4 cr

- 5288 Evaluation Procedures II** (prereq regis PT)
 604303 1010-1205 T, 1430-1625 WThF, ChRC R220, Allison, Coleman, others, 4 cr
- 5300 Introduction to Occupational Therapy Practice** (prereq registered OT student) (S-N only)
 407171 1430-1625 MW, ChRC R208, Meyers, 3 cr
- 5312 Therapeutic Activities II** (prereq regis OT)
 003990 0800-0955 MWF, ChRC R255, Thomas, 3 cr
- 5340 Human Development** (prereq regis OT or PT)
 908096 0800-0955 MWF, Zoology 313, Huss, 4 cr
- 5343 Theory: Physical Dysfunction I** (prereq regis OT) (A-F only)
 711064 1430-1625 MW, 0800-0955 TTh, 1010-1100 W, ChRC R262, Stern, Huss, 7 cr
- 5360 Group Process Seminar** (prereq regis OT)
 103768 0800-0955 MWF, ChRC R262, Meyers, 3 cr
- 5370 Rehabilitation Procedures** (prereq regis OT)
 507887 1220-1415 MWF, 1010-1205 Th, ChRC R220, R262, Stern, Scudder, 4 cr
- 5391 Orientation to Work Evaluation** (prereq regis OT) (S-N only)
 906977 1430-1520 F, ChRC R262, Larson, 1 cr
- 5392 Methods of Scientific Research** (prereq regis OT)
 008543 1010-1100 MF, 1010-1205 T, Mayo C368, Amundsen, 4 cr
- 5395 Independent Study in Occupational Therapy** (prereq #)
 403928 Reisman, ar cr
- 5397 Field Work Education in Occupational Therapy** (prereq 5396) (S-N only)
 106919 Meyers, ar cr
- 5398 Fieldwork Education in Occupational Therapy** (prereq registered in program in occupational therapy) (S-N only)
 012348 Meyers, 1 cr
- 5410 Adult Rehabilitation Medicine** (prereq regis med)
 908485 Dykstra, others, ar cr
- 5411 Rehabilitation Medicine: Children** (prereq regis med)
 210492 Dykstra, others, ar cr
- 5414 Physical Medicine and Rehabilitation for the Family Physician** (prereq regis med)
 003973 Dykstra, others, ar cr
- 5415 Private Practice in Physical Medicine and Rehabilitation** (prereq regis med)
 905196 Eckman, 4,5-9 cr
- 5418 Physical Medicine and Rehabilitation at St. Paul Ramsey** (prereq regis med)
 509087 Kosiak, others, ar cr
- 5814 Physiological Assessment in Physical Therapy**
 806339 Amundsen, 1-3 cr
- 5817 Special Topics in Physical Therapy**
 212193 Amundsen, 1-3 cr
- 8103 Clinic** (prereq regis PT)
 506500 Ellingham, ar cr
- 8130 Seminar: Current Literature in Physical Therapy**
 211951 Scudder, Amundsen, 1 cr
- 8135 Advanced Kinesiology** (prereq kinesiology course)
 512261 DiFabio, 3 cr
- 8140 Physiological Assessment in Physical Therapy**
 909992 Amundsen, 1 cr
- 8170 Special Topics in Physical Therapy** (prereq #)
 711095 Amundsen, 1 cr
- 8181 Physiological Bases for Therapeutic Exercise**
 910902 Scudder, 3 cr
- 8185 Problems in Physical Therapy** (prereq regis PT)
 804803 Amundsen, ar cr
- 8188 Teaching Practicum** (max 8 cr; prereq #)
 307504 Ellingham, ar cr

- 8193 Research Problems in Physical Therapy** (prereq 8192 or #)
303582 Amundsen, DiFabio, others, ar cr
- 8195 Research in Physical Therapy** (prereq #)
104242 Amundsen, DiFabio, ar cr
- 8200 Physical Medicine and Rehabilitation Service**
907935 Awad, others, ar cr
- 8205 Readings in Physical Medicine and Rehabilitation** (max 2 cr)
104300 0900-1000 M, ChRC R208, Benninghoff, 2 cr
- 8206 Conference on Physical Medicine and Rehabilitation**
108993 0800-0900 F, ChRC R208, Benninghoff, others, 2 cr
- 8207 Basic and Applied Physiology**
206359 0800-0900 M, 1400-1600 F, ChRC R208, Benninghoff, others, 2 cr
- 8210 Research in Physical Medicine**
403332 Awad, Patterson, others, ar cr
- 8212 Electromyography** (prereq #)
509882 1300-1700 MTWThF, Mayo B564, Benninghoff, others, ar cr
- 8214 Readings in Electromyography** (max 3 cr; prereq #)
703692 0900-1000 F, ChRC R208, Benninghoff, others, 1 cr
- 8220 Seminar: Physical Medicine and Rehabilitation**
307860 0800-0900 W, ChRC R208, Benninghoff, others, 2 cr
- 8777 Thesis Credits: Masters**
104080 Amundsen, 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
702137 1-36 cr

PHYSICS (Phys) Institute of Technology

NOTE: Room assignments for 1000-level labs are available in Phys 215.

- r1001 The Physical World** (§any phys courses other than 1002, 1061, no cr for IT stu; prereq 1 yr high school algebra) (companion lab is 1005)
808821 1220-1310 MTWTF, Phys 166, 4 cr
- r1005 Physics Laboratory** (no cr for IT students; prereq 1001 or f1001) (S-N only)
905490 -1 LAB 1325-1520 T, Phys, 1 cr
806701 -2 LAB 1535-1730 T, Phys, 1 cr
802713 -3 LAB 1325-1520 W, Phys, 1 cr
109683 -4 LAB 1325-1520 Th, Phys, 1 cr
475261 -5 LAB 1535-1730 F, Phys, 1 cr
- r1041 Introductory Physics** (§other intro phys crse, no cr IT ex arch, pre-arch, env des; prereq hs alg, plane geometry)
107732 -1 LECT 1115-1205 MTWTF, Phys 170, 4 cr (concurrent registration in one of lab sections 1-7 of 1045 required)
★REC 1115-1205 Th, (required recitation sections assigned first two days of class)
- r1045 Introductory Physics Laboratory** (no cr IT except arch, pre-arch, env design; prereq 1041 or f1041) (S-N only)
(concurrent registration in 1041 required for lab sections 1-7)
108945 -1 LAB 1325-1520 T, Phys, 1 cr
105682 -2 LAB 1535-1730 T, Phys, 1 cr
501622 -3 LAB 1325-1520 W, Phys, 1 cr
008686 -4 LAB 1325-1520 Th, Phys, 1 cr
804686 -5 LAB 1535-1730 Th, Phys, 1 cr
202716 -6 LAB 1325-1520 F, Phys, 1 cr
611722 -7 LAB 1535-1730 F, Phys, 1 cr
106704 -8 LAB 1535-1730 T, Phys, 1 cr
604687 -9 LAB 1535-1730 Th, Phys, 1 cr
- r1104 General Physics** (no cr for IT students; prereq Math 1142, high school trigonometry or Math 1008) (companion lab is 1107)
509381 1115-1205 MTWThF, Phys 150, 4 cr
- r1107 General Physics Laboratory** (no cr for IT students; prereq 1104 or f1104) (S-N only)
705085 -1 LAB 0800-0955 T, Phys, 1 cr
910706 -2 LAB 1220-1415 T, Phys, 1 cr
808687 -3 LAB 1430-1625 T, Phys, 1 cr
906705 -4 LAB 1640-1835 T, Phys, 1 cr

- 404688 -5 LAB 0905-1100 W, Phys, 1 cr
211724 -6 LAB 1220-1415 W, Phys, 1 cr
107696 -7 LAB 1430-1625 W, Phys, 1 cr
705684 -8 LAB 0800-0955 Th, Phys, 1 cr
204689 -9 LAB 1220-1415 Th, Phys, 1 cr
911726 -10 LAB 1430-1625 Th, Phys, 1 cr
109688 -11 LAB 1640-1835 Th, Phys, 1 cr
007697 -12 LAB 1220-1415 F, Phys, 1 cr
505685 -13 LAB 1430-1625 F, Phys, 1 cr
702722 -14 LAB 1640-1835 F, Phys, 1 cr
- r1271 General Physics I** (prereq Math 1221 or fMath 1221) (companion lab is 1275)
007408 0800-0850 MTWThF, Phys 150, 4 cr
- r1275 General Physics Laboratory I** (prereq 1271 or f1271 or 1311 or f1311) (S-N only)
604284 -1 LAB 0800-0955 T, Phys, 1 cr
001625 -2 LAB 1010-1205 T, Phys, 1 cr
305686 -3 LAB 1220-1415 T, Phys, 1 cr
502723 -4 LAB 1430-1625 T, Phys, 1 cr
801626 -5 LAB 1640-1835 T, Phys, 1 cr
510708 -6 LAB 0905-1100 W, Phys, 1 cr
608688 -7 LAB 1115-1310 W, Phys, 1 cr
506707 -8 LAB 1325-1520 W, Phys, 1 cr
604690 -9 LAB 1010-1205 Th, Phys, 1 cr
711727 -10 LAB 1220-1415 Th, Phys, 1 cr
710710 -11 LAB 1430-1625 Th, Phys, 1 cr
608691 -12 LAB 1640-1835 Th, Phys, 1 cr
601630 -13 LAB 1010-1205 F, Phys, 1 cr
510711 -14 LAB 1220-1415 F, Phys, 1 cr
408692 -15 LAB 1430-1625 F, Phys, 1 cr
106709 -16 LAB 1640-1835 F, Phys, 1 cr
104693 -17 LAB 1010-1205 T, Phys, 1 cr
402729 -18 LAB 1220-1415 T, Phys, 1 cr
311732 -19 LAB 1430-1625 T, Phys, 1 cr
009692 -20 LAB 1640-1835 T, Phys, 1 cr
107701 -21 LAB 0905-1100 W, Phys, 1 cr
805689 -22 LAB 1115-1310 W, Phys, 1 cr
802730 -23 LAB 1325-1520 W, Phys, 1 cr
111733 -24 LAB 1010-1205 Th, Phys, 1 cr
809693 -25 LAB 1220-1415 Th, Phys, 1 cr
007702 -26 LAB 1430-1625 Th, Phys, 1 cr
105690 -27 LAB 1640-1835 Th, Phys, 1 cr
602731 -28 LAB 1220-1415 F, Phys, 1 cr
401631 -29 LAB 1430-1625 F, Phys, 1 cr
310712 -30 LAB 1640-1835 F, Phys, 1 cr
- r1281 General Physics II** (prereq 1271, Math 1241 or fMath 1241) (companion lab is 1285)
809953 1325-1415 MTWThF, Phys 166, 4 cr
- r1285 General Physics Laboratory II** (prereq 1275, 1281 or f1281 or 1331 or f1331) (S-N only)
206524 -1 LAB 1010-1205 T, Phys, 1 cr
208693 -2 LAB 1430-1625 T, Phys, 1 cr
506710 -3 LAB 1640-1835 T, Phys, 1 cr
275262 -4 LAB 1115-1310 W, Phys, 1 cr
904694 -5 LAB 1430-1625 Th, Phys, 1 cr
402732 -6 LAB 1640-1835 Th, Phys, 1 cr
609694 -7 LAB 1115-1310 F, Phys, 1 cr
005691 -8 LAB 1430-1625 F, Phys, 1 cr
- r1291 General Physics III** (prereq 1281) (companion lab is 1295)
011409 1115-1205 MTWThF, Phys 166, 4 cr
- r1295 General Physics Laboratory III** (prereq 1285, 1291 or f1291 or 1341 or f1341) (S-N only)
110817 -1 LAB 1010-1205 T, Phys, 1 cr
607704 -2 LAB 1220-1415 T, Phys, 1 cr
102734 -3 LAB 1430-1625 T, Phys, 1 cr
106712 -4 LAB 1640-1835 T, Phys, 1 cr
902735 -5 LAB 0905-1100 W, Phys, 1 cr
611735 -6 LAB 1115-1310 W, Phys, 1 cr
702736 -7 LAB 1325-1520 W, Phys, 1 cr
611736 -8 LAB 1010-1205 Th, Phys, 1 cr
407705 -9 LAB 1220-1415 Th, Phys, 1 cr
605693 -10 LAB 1430-1625 Th, Phys, 1 cr
502737 -11 LAB 1640-1835 Th, Phys, 1 cr
101633 -12 LAB 1010-1205 F, Phys, 1 cr
810715 -13 LAB 1220-1415 F, Phys, 1 cr
908695 -14 LAB 1430-1625 F, Phys, 1 cr
901634 -15 LAB 1640-1835 F, Phys, 1 cr
610716 -16 LAB 1010-1205 T, Phys, 1 cr
708696 -17 LAB 1220-1415 T, Phys, 1 cr
006713 -18 LAB 1430-1625 T, Phys, 1 cr
304697 -19 LAB 1640-1835 T, Phys, 1 cr
302738 -20 LAB 0905-1100 W, Phys, 1 cr
411737 -21 LAB 1115-1310 W, Phys, 1 cr
209696 -22 LAB 1325-1520 W, Phys, 1 cr
207706 -23 LAB 1010-1205 Th, Phys, 1 cr
405694 -24 LAB 1220-1415 Th, Phys, 1 cr
109697 -25 LAB 1430-1625 Th, Phys, 1 cr
107707 -26 LAB 1010-1205 F, Phys, 1 cr
205695 -27 LAB 1220-1415 F, Phys, 1 cr
102739 -28 LAB 1430-1625 F, Phys, 1 cr

- r1311 Comprehensive Introductory Physics with Calculus I** (prereq Math 1211 or fMath 1211) (companion lab is 1275)
★LECT 0905-0955 MTWTF, Phys 133,
708312 -1 REC 0905-0955 Th, Phys 170, 4 cr
508277 -2 REC 0905-0955 Th, Phys 133, 4 cr
703823 -3 REC 0905-0955 Th, Phys 150, 4 cr
205261 -4 REC 0905-0955 Th, Phys 143, 4 cr
211349 -5 REC 0905-0955 Th, Phys 131, 4 cr
★LECT 1010-1100 MTWTF, Phys 166
009398 -6 REC 1010-1100 Th, Phys 131, 4 cr (IT special program only)
311858 -7 REC 1010-1100 Th, Phys 157, 4 cr (IT special program only)
703756 -8 REC 1010-1100 Th, Phys 170, 4 cr (IT special program only)
905179 -9 REC 1010-1100 Th, Phys 166, 4 cr (IT special program only)
301959 -10 REC 1010-1100 Th, Phys 133, 4 cr
★LECT 1325-1415 MTWTF, Phys 150
807264 -11 REC 1325-1415 Th, Phys 150, 4 cr
904419 -12 REC 1325-1415 Th, Phys 170, 4 cr
103132 -13 REC 1325-1415 Th, Phys 133, 4 cr
811492 -14 REC 1325-1415 Th, Phys 143, 4 cr
508019 -15 REC 1325-1415 Th, Phys 157, 4 cr
104362 -16 REC 1430-1520 Th, Phys 143, 4 cr
206846 -17 REC 1430-1520 Th, Phys 157, 4 cr
503936 -18 REC 1430-1520 Th, Phys 166, 4 cr
906154 -19 REC 1430-1520 Th, Phys 170, 4 cr
- r1341 Comprehensive Introductory Physics with Calculus IV** (prereq 1331) (companion lab is 1295)
411026 -1 0905-0955 MTWTF, Phys 150, 4 cr
103057 -2 1325-1415 MTWTF, Phys 170, 4 cr
- r1411 Honors Physics I** (§1271-1281-1291, 1311-1321-1331-1341; prereq selection for IT Honors Curriculum or consent of IT Honors Office, f1425) (companion lab is 1425)
★LECT 1115-1205 MWTThF, Phys 131
708309 -1 REC 1010-1100 T, Phys 143, 4 cr
304151 -2 REC 1115-1205 T, Phys 131, 4 cr
112468 -3 REC 0905-0955 Th, Phys 236A, 4 cr
805269 -4 REC 1010-1100 Th, Phys 143, 4 cr
- r1425 Honors Physics Laboratory** (§1275-1285-1295; prereq selection for IT Honors Curriculum or consent of IT Honors Office, f1411) (S-N only)
903139 -1 LAB 0905-1100 T, Phys, 1 cr
701635 -2 LAB 1220-1415 T, Phys, 1 cr
410717 -3 LAB 1430-1625 T, Phys, 1 cr
508697 -4 LAB 1220-1415 W, Phys, 1 cr
806714 -5 LAB 0905-1100 Th, Phys, 1 cr
104698 -6 LAB 1430-1625 Th, Phys, 1 cr
502740 -7 LAB 1220-1415 F, Phys, 1 cr
606715 -8 LAB 1430-1625 F, Phys, 1 cr
- r1441 Honors Physics IV** (§1271-1281-1291, 1311-1321-1331-1341; prereq selection for IT Honors Curriculum or consent of IT Honors Office, 1431, f1445) (companion lab is 1445)
★LECT 1115-1205 MWTThF, Phys 133
711145 -1 REC 1010-1100 T, Phys 133, 4 cr
806406 -2 REC 1115-1205 T, Phys 133, 4 cr
007361 -3 REC 0905-0955 Th, Phys 157, 4 cr
912276 -4 REC 1010-1100 Th, Phys 210, 4 cr
- r1445 Honors Physics Laboratory** (§1275-1285-1295; prereq selection for IT Honors Curriculum or consent of IT Honors Office, f1441) (S-N only)
305249 -1 LAB 1325-1520 T, Phys, 1 cr
004699 -2 LAB 1535-1730 T, Phys, 1 cr
302741 -3 LAB 1220-1415 W, Phys, 1 cr
211738 -4 LAB 1325-1520 Th, Phys, 1 cr
909698 -5 LAB 1535-1730 Th, Phys, 1 cr
907708 -6 LAB 1220-1415 F, Phys, 1 cr
105696 -7 LAB 1430-1625 F, Phys, 1 cr
- r3011 Oscillations** (prereq 1291 or f1291 or 1341 or f1341 or 1441 or f1441...Math 3321 or fMath 3321 rec)
475258 1010-1100 MTWTF, Phys 131, 4 cr
- r3501 Modern Physics** (§3511-3512-3513, no cr for physics majs; prereq 1291 or 1341 or 1441 or 1106) (companion lab is 3515)
012608 1325-1415 MTWTF, Phys 133, 4 cr
- r3970 Directed Studies** (prereq #, Δ)
111456 1-5 cr
- r5021 Introduction to Analytic Mechanics** (prereq 3011, Math 3231 or equiv)
407901 0905-0955 MTWTF, Phys 170, 4 cr
- r5031 Topics in Mathematical Physics** (prereq two 5000-level math courses)
110414 1115-1205 MTWTF, Phys 143, 4 cr

- r5051 Classical Physics** (prereq 5022, 5024, advanced calculus or #)
212033 0855-1000 MWF, Phys 210, 4 cr
- r5061 Computational Methods in the Physical Sciences** (§Ast 5061; prereq upper div IT/CLA or grad or #)
176601 -1.1130-1300 Th, MechE 102, Woodward, 4 cr
- r5101 Introduction to Quantum Mechanics** (prereq 3512)
705006 1325-1415 MTWF, Phys 210, 4 cr
- r5121 Methods of Experimental Physics I** (prereq 3513 or #)
811203 1220-1310 MWF, Phys 170, 5 cr (lab ar)
- r5124 Experimental Project** (prereq 5123, #)
808088 ar cr
- r5151 Quantum Mechanics** (prereq 5102 or equiv, advanced calculus or #)
303162 0815-0955 TTh, Phys 210, 4 cr
- r5201 Thermal and Statistical Physics** (prereq 3513 or equiv)
711369 1010-1100 MTWF, Phys 210, 4 cr
- r5231 Introduction to Solid-State Physics** (prereq grad or advanced undergrad student in physics or science or engineering)
811413 1115-1205 MTWF, Phys 210, 4 cr
- r5400H Junior Honors Seminar** (prereq IT or CLA upper div honors student, #) (S-N only)
307342 1535-1650 T, Phys 157, 1 cr
- r5410H Senior Honors Seminar** (prereq IT or CLA upper div honors student, #) (S-N only)
412516 1535-1650 Th, Phys 157, 1 cr
- r5924 History of 19th Century Physics** (§HSci 5924; prereq general physics or #)
675257 1045-1200 TTh, Phys 236A, 4 cr
- r5950 Seminar** (prereq Δ)
910415 1600-1730 W, Phys 131, ar cr
- r5970 Directed Studies** (prereq #, Δ)
207320 1-5 cr
- r5980 Research Seminar** (prereq grad stu or upper div phys maj) (S-N only)
610019 1430-1520 M, Phys 157, 1 cr
- r5990 Directed Research** (prereq 3rd yr, Δ)
003844 ar cr
- r8081 General Relativity** (prereq 5053 or #)
275259 1325-1415 MWF, Phys 157, 3 cr
- r8121 Advanced Quantum Mechanics** (prereq 5153 or #)
406571 0905-0955 MWF, Phys 157, 3 cr
- r8200 Seminar: Condensed Matter Physics** (prereq #) (S-N only)
104894 1325-1500 Th, Phys 210, ar cr
- r8211 Equilibrium Statistical Mechanics** (prereq 5153 or #)
812240 1010-1100 MWF, Phys 157, 3 cr
- 8221 Solid-State Physics** (prereq 5152-5153, 5211 or #)
107312 0800-0850 MWF, Phys 143, 3 cr
- r8300 Seminar: Nuclear Physics** (prereq #) (S-N only)
211237 1430-1625 W, Phys 236A, ar cr
- r8313 Relativistic Nuclear Many-Body Theory** (prereq 8122 or #)
675260 1430-1520 MThF, Phys 236A, 3 cr
- r8370 Seminar: Elementary Particle Physics** (prereq #) (S-N only)
308118 ar cr
- 8371 Elementary Particle Physics** (prereq 8122 or #)
501619 1010-1100 MWF, Phys 143, 3 cr
- r8400 Seminar: Space Physics** (prereq #) (S-N only)
875256 1430-1625 T, Phys 236A, ar cr
- 8421 Solar and Magnetospheric Physics** (prereq #)
077104 1220-1310 MWF, Phys 157, 3 cr
- r8500 Plan B Project** (no cr toward PhD; prereq #) (S-N only)
104967 4 cr
- 8777 Thesis Credits: Masters**
211240 1-16 cr

8888 Thesis Credits: Doctoral (max 18 cr per qtr)
508506 1-36 cr

r8990 Research in Physics (prereq #)
511521 ar cr

PHYSIOLOGY (Phsl) Medical School

- 1001 Human Physiology** (prereq high school biology, chemistry or #)
★LECT 1430-1520 MWF, MoosT 2690, Bloom, 4 cr
109349 -1 DEM 1220-1415 W, MoosT 3110
504889 -2 DEM 1535-1730 W, MoosT 3110
- 3052 Principles of Physiology** (prereq 1 yr college chemistry, physics, math through integ calculus)
807572 1010-1100 MWF, MirdH 5276, Levitt, 3 cr
- 3055 Principles of Physiology** (prereq 1 yr college chem, physics, math through integ calculus, Phsl maj or pre-maj, or #)
507288 1010-1100 MWF, MirdH 5276, Levitt, 5 cr
- 3070 Neurophysiology** (prereq biochemistry, human or mammalian anatomy)
807538 1325-1415 TTh, MoosT 3110, 1430-1520 TTh, MoosT 2690, Fohlmeister, 2 cr (bgn Oct 10) (7 week course)
- 3091H Honors Course: Readings in Physiology** (prereq honors candidates in physiology, Δ)
203042 Poppele, ar cr
- 3092H Honors Course: Problems in Physiology** (prereq honors candidates in physiology, Δ)
708889 Poppele, ar cr
- 3970 Directed Studies** (prereq #, Δ)
903724 ar cr
- 5113 Problems in Physiology** (prereq #)
106421 ar cr
- r5201 Computational Neuroscience I: Membranes and Channels** (prereq 5112 or equiv)
809578 -1 LECT 1325-1440 MW, MirdH 5276, Fohlmeister, 5 cr
★LAB
- 5440 Quantitative Physiology** (prereq one yr each: college chemistry, physics, math thru integral calculus, grad stu)
106340 1010-1100 MWF, MirdH 5276, Levitt, 3 cr
- 5552 Readings in Physiology**
906915 ar cr
- 5553 Research in Physiology**
404318 ar cr
- 8113 Problems in Physiology** (prereq #)
402309 ar cr
- 8201 Literature Seminar** (S-N only)
412404 Branton, 1 cr
- 8202 Readings in Physiology**
505475 ar cr
- 8203 Research in Physiology**
507498 ar cr
- 8216 Selected Topics in Neurophysiology** (prereq 5112, CBN 5111)
608979 1430-1625 F, MirdH 5231H, Soechting, ar cr
- 8777 Thesis Credits: Masters**
210511 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
302285 1-36 cr

PLANT BIOLOGY (PBio) Biological Sciences

- 3131 Survey of Plant Physiology** (§5131, Bot 3131, Bot 5131, PIPh 3131, PIPh 5131; prereq Biol 1103 or Biol 3012, BioC 3031 or 1 or Biol 5001)
610893 1250-1340 MTWF, BorH 335, Soulen, 4 cr
- 3960 Research Topics in Plant Biology** (prereq Biol 1103 or Biol 3012) (S-N only)
006596 1355-1445 M, BioSci 12, Rubenstein, 1 cr
- 5001 Basic Botany** (§Bot 5001; prereq Biol 1008 or Biol 1009, #, Δ)
107228 ar cr

r5103 Algae, Fungi and Bryophytes (§Bot 5103; prereq Biol 1103 or Biol 3012)
★LECT 1250-1340 MWF, BioSci 70, McLaughlin
776335 -1 LAB 1355-1655 MW, BioSci 163, McLaughlin, 5 cr

5131 Survey of Plant Physiology (§3131, Bot 3131, Bot 5131, PIPh 3131, PIPh 5131; prereq Biol 1103 or Biol 3012, BioC 3031 or 1 or Biol 5001)
★LECT 1250-1340 MTWF, BorH 335, Soulen
403654 -1 REC 1250-1340 Th, BorH 335, 4 cr

r5132 Plant Physiology Laboratory (§Bot 5132, PIPh 5132; prereq 3131 or 13131 or 5131 or 15131)
★LECT 1355-1555 T, BioSci 163, Gant
176333 -1 REC 1355-1445 Th, BioSci 163, Soulen, 2 cr

5184 Plant Growth and Development (§Bot 5184, PIPh 5184; prereq 5131 or equiv)
606889 0845-1000 T, 0845-1025 Th, ClaOff B42, Smith, Olszewski, 3 cr

5960 Special Topics (prereq #, Δ)
605211 ar cr

r5970 Directed Studies (prereq #, Δ)
804865 ar cr

5990 Directed Research (prereq #, Δ)
204787 ar cr

8310 Methods in Plant Physiology
477530 Vance, 1 cr

8777 Thesis Credits: Masters
308295 1-16 cr

8888 Thesis Credits: Doctoral (max 18 cr per qtr)
902931 1-36 cr

r8950 Seminar (prereq #)
903948 1 cr

8990 Research Problems (prereq #, Δ)
111179 ar cr

PLANT BREEDING (PIBr)

8777 Thesis Credits: Masters
906364 1-16 cr

8888 Thesis Credits: Doctoral (max 18 cr per qtr)
709217 1-36 cr

PLANT PATHOLOGY (PIPA) Agriculture

3090 Research in Plant Pathology (prereq 1001 or equiv or #)
612384 ar cr

r5002 Introductory Plant Pathology for Advanced Students (§1001, 3001; prereq 14 cr plant science or #)
★LECT 1145-1235 MWF, BorH 365, Mac Donald, 5 cr
805109 -1 LAB 1040-1235 TTh, BorH 295, AGRPGGH 106, Mac Donald
107648 -2 LAB 1355-1550 TTh, BorH 295, AGRPGGH 106, Mac Donald

r5005 Plant Viruses and Virus Diseases (prereq 20 cr biology including botany, biochemistry, plant physiology) (A-F only)
★LECT 1250-1340 TTh, BorH 365, Banitari, Lockhart, 3 cr
709945 -1 LAB 1355-1550 T, AGRPGGH 106, BorH 291, Banitari, Lockhart

r5105 Introduction to the Study of Fungi (prereq 9 cr botany or Biol 1009 or #)
★LECT 0935-1025 TTh, BorH 365, Anderson, Groth, others, 4 cr
512524 -1 LAB 1040-1235 TTh, BorH 296, Anderson, Groth, others

r5750 Plant Disease Diagnosis (prereq 5002 or #) (A-F only)
★LECT 0830-0920 TTh, BorH 365, Lockhart, 3 cr
575767 -1 LAB 1355-1550 Th, BorH 291, Lockhart

8001 Plant Disease Theory I: Molecular to Cellular (prereq 5005, 5006, 5007 or #)
106032 1355-1550 TTh, BorH 491, Young, Mirocha, others, 4 cr

- 8090 Advanced Procedures and Research in Plant Pathology**
108315 ar cr
- 8095 Advanced Procedures and Research in Mycology**
507985 Stewart, others, 1-6 cr
- 8201 Seminar**
105942 1500-1600 M, BorH 365, 1 cr
- 8777 Thesis Credits: Masters**
212114 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
003066 1-36 cr

PLANT PHYSIOLOGY (PIPH)
Agriculture
Also see (PBio)

- 8251 Seminar: Plant Physiology** (S-N only)
908969 1400-1600 Th, BioSci 6, Markhart, 1 cr
- 8777 Thesis Credits: Masters**
410801 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
006517 1-36 cr

POLISH (Pish)
Russian And East European Studies
Liberal Arts

- 1101 Beginning Polish**
175490 0905-1030 MWF, CivMinE 214, Polakiewicz, 5 cr
- 5970 Directed Readings** (prereq #, Δ, CLA approval)
304182 1-4 cr

POLITICAL SCIENCE (Po)
Liberal Arts

- R1001 American Government and Politics**
★LECT 1115-1205 MWF, WilleyH 125, Smith.
476233 -1 REC 1115-1205 T, BlegH 255, 5 cr
276234 -2 REC 1115-1205 T, HHCir 20, 5 cr
176235 -3 REC 1115-1205 T, BlegH 135, 5 cr
976236 -4 REC 1115-1205 T, BlegH 5, 5 cr
576238 -5 REC 1115-1205 T, AndH 270, 5 cr
376239 -6 REC 1325-1415 T, BlegH 125, 5 cr
776240 -7 REC 1325-1415 T, Law 1, 5 cr
576241 -8 REC 1325-1415 T, BlegH 5, 5 cr
376242 -9 REC 0905-0955 Th, BlegH 420, 5 cr
176243 -10 REC 0905-0955 Th, Law 3, 5 cr
076244 -11 REC 1010-1100 Th, BlegH 125, 5 cr
876245 -12 REC 1010-1100 Th, BlegH 330, 5 cr
676246 -13 REC 1115-1205 Th, HHCir 20, 5 cr
476247 -14 REC 1115-1205 Th, BlegH 135, 5 cr
276248 -15 REC 1220-1310 Th, BlegH 245, 5 cr
176249 -16 REC 1220-1310 Th, BlegH 115, 5 cr
- R1001H Honors Course: American Government and Politics** (not open to jr, sr)
★LECT 1115-1205 MWF, WilleyH 125, Smith.
.176252 -80 REC 1115-1205 Th, Law 3, 5 cr
976253 -81 REC 1115-1205 Th, SocSci 1383, 5 cr
- R1025 World Politics**
307549 0945-1100 TTh, NichH 45, Sylvan, 4 cr
- R1026 American Foreign Policy**
711890 0800-0850 MWF, AndH 270, 4 cr
- R1041 Contemporary Political Ideologies**
402438 1220-1310 MWF, AndH 350, Ball, 4 cr
- R1054 Introduction to Comparative Politics**
011264 1010-1100 MWF, AndH 270, 4 cr
- R1061 Introduction to Political Thought**
476250 0945-1100 TTh, AndH 330, 4 cr
- R3051 Introduction to Political Analysis**
304361 0905-0955 MTWThF, AndH 350, 5 cr
- 3070 Directed Field Studies** (prereq #, Δ)
101809 -1 1-4 cr
- 3080 Internship** (max 8 cr; prereq Δ) (S-N only)
710562 4 cr
- R3109H Honors Course: Seminar on Political Science Research** (prereq political science honors program maj, 3108H) (A-F only)
105813 0905-0955 MW, HHCir 20, Ball, 4 cr

- 3110H Honors Work in Selected Fields** (max 6 cr; prereq political science honors program maj, 3109H)
301900 1-6 cr
- R3309 Judicial Process** (prereq 1001 or equiv or #)
776254 0905-0955 MWF, AndH 270, McGuire, 4 cr
- R3331 Minnesota Government and Politics** (1001 rec)
277108 1115-1230 TTh, BlegH 150, Backstrom, 4 cr
- R3477 Political Development** (prereq 1054 or 3051 or #)
177109 1245-1400 TTh, BlegH 10, Toprak, 4 cr
- 3751 Fieldwork in Politics** (prereq 1001 or equiv)
210704 1535-1730 TTh, Law 1, Backstrom, 4 cr
- R3835 The International System** (\$5884)
508537 1220-1310 MWF, AndH 270, 4 cr
- R3836 Foreign Policy Decision Making** (\$5876)
477110 1325-1415 MWF, BlegH 5, 4 cr
- 3970 Directed Studies** (prereq #, Δ, □)
112445 1-6 cr
- R5410 Advanced Topics in Government and Politics**
277111 -1 1325-1415 MWF, BlegH 155, Davidheiser, 4 cr (Politics and Government of Eastern Europe) (prereq 3051 or #)
177112 -2 1325-1445 TTh, BlegH 215, Sikkink, 4 cr (Politics of Latin America) (prereq 3015, Span 1105 or #)
- R5473 Chinese Government and Politics** (\$5454; prereq 3051 or non-political science grad student or #)
702882 0945-1100 TTh, BlegH 145, Kelliher, 4 cr
- R5501 Principles of American Constitution I** (prereq 1001 or equiv)
576255 1415-1530 MWF, BlegH 10, Krislov, 5 cr
- R5658 Development of Political Thought: Modern** (prereq 1061 or 9 cr in social sciences) (A-F only)
376256 1415-1530 TTh, BlegH 110, Dietz, 4 cr
- R5767 Public Opinion and Voting Behavior** (prereq 1001 or equiv or #)
977113 1115-1205 MWF, BlegH 230, Flanigan, 5 cr
- 8103 Political Science as a Profession** (prereq pol sci grad stu) (S-N only)
610120 1325-1520 F, SocSci 1383, 3 cr
- 8140 Individual Readings and Research in Methodology** (prereq pol sci grad maj or #, Δ)
405808 1-3 cr
- 8150 Research Seminar: Methodology** (prereq pol sci grad maj or #)
205468 3 cr
- 8201 Development of Political Thought** (prereq pol sci grad maj or #)
104684 1535-1730 Th, SocSci 101, Ball, 3 cr
- 8240 Individual Reading and Research in Political Thought** (prereq pol sci grad maj or #, Δ)
002953 1-3 cr
- 8250 Research Seminar: Political Theory** (prereq pol sci grad maj or #)
303873 3 cr
- 8260 Topics in Political Theory: Feminist Political Theory** (prereq pol sci grad maj or #)
677106 1325-1520 F, Law 3, Disch, 3 cr
- 8300 American Politics** (prereq pol sci grad maj or Δ)
676232 1230-1500 F, BlegH 205, Flanigan, Gray, 4 cr
- 8314 Judicial Process** (prereq pol sci grad maj or #)
076230 1325-1520 W, SocSci 1383, McGuire, 3 cr
- 8340 Individual Reading and Research in American Politics** (prereq pol sci grad maj or #, Δ)
509445 1-3 cr
- 8350 Research Seminar: American Politics** (prereq pol sci grad maj or #)
308958 1325-1520 Th, BlegH 135, Smith, 3 cr
- 8404 International Hierarchy** (prereq 8400 or 8401 or #)
477107 1535-1730 M, SocSci 101, Sylvan, 3 cr

- 8440 Individual Reading and Research in International Relations** (prereq pol sci grad maj or #, Δ)
702056 1-3 cr
- 8480 Topics in International Politics: Structure and Practice in International Relations and Comparative Research** (\$8660; prereq pol sci grad maj or #)
577115 1325-1520 Th, BlegH 255, Duvall, 3 cr
- 8600 Introduction to Comparative Politics** (prereq pol sci grad maj or Δ) (A-F only)
676229 1230-1500 T, SocSci 1383, Kelliher, Sikkink, 4 cr
- 8801 Government and Politics in Western Europe** (prereq 5461 or equiv or #)
806700 1325-1520 T, Law 3, Shively, 3 cr
- 8640 Individual Readings and Research in Comparative Politics** (prereq pol sci grad maj or #, Δ)
805093 1-3 cr
- 8641 Comparative Mass Political Behavior** (prereq pol sci grad maj or #)
777114 1325-1500 M, SocSci 1383, Shively, 3 cr
- 8645 Comparative Analysis of Elites in an Institutional Context** (prereq pol sci grad maj or #)
876231 1535-1730 M, SocSci 1383, Benjamin, 3 cr
- 8850 Research Seminar: Comparative Politics: The Politics of Central Europe** (prereq pol sci grad maj or #)
803246 1535-1730 TW, SocSci 101, Freeman, 3 cr
- 8660 Topics in Comparative Politics: Structure and Practice in Comparative and International Relations Research** (\$8460; prereq pol sci grad maj or #)
877105 1325-1520 Th, BlegH 255, Duvall, 3 cr
- 8777 Thesis Credits: Masters**
605063 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
411902 1-36 cr

PORTUGUESE (Port)
Spanish And Portuguese
Liberal Arts

- R1001 Beginning Portuguese**
308202 -1 0800-0850 MTWThF, FolH 246, 5 cr
103745 -2 1010-1100 MTWThF, FolH 240, 5 cr
- R1003 Beginning Portuguese** (prereq 1002 or #)
105141 1115-1205 MTWThF, FolH 240, 5 cr
- R1004 Intermediate Portuguese Grammar and Composition** (prereq 1003)
109528 0905-0955 MTWThF, FolH 240, 5 cr
- R1006 Intermediate Portuguese** (prereq 1005)
406019 1325-1415 MTWThF, FolH 240, 5 cr
- R3014 Conversation and Composition** (prereq 1006 or equiv)
706785 0945-1100 TTh, CivMinE 214, 5 cr
- 3970 Directed Studies** (prereq #, Δ, □)
707466 1-5 cr
- 5522 Literature and Liberal Problematic in Portugal** (prereq three 3xxx Port courses or Δ)
275538 1515-1800 M, FolH 344, Sousa, 4 cr
- 5970 Directed Readings** (max 15 cr; prereq #, Δ, CLA approval)
311259 1-5 cr
- 5990 Directed Research** (prereq #, Δ, CLA approval)
107150 1-5 cr
- 8777 Thesis Credits: Masters**
711825 1-16 cr
- 8970 Directed Readings in Romance Languages**
209519 ar cr

PROSTHODONTICS (Pros)
Dentistry

- 5200 Fixed Prosthodontics Seminar for Postgraduate Dental Fellows** (S-N only)
675131 1 cr

- 8003 Advanced Technical Restorative Dentistry**
403671 1000-1200 F, MoosT 9170, ar cr
- 8005 Advanced Clinical Prosthodontics I**
709363 0900-1200 WTh, 1300-1500 Th,
1500-1700 F, MoosT 9139, ar cr
- 8006 Advanced Clinical Prosthodontics II (prereq #)**
907498 0900-1200 MWTh, 1300-1700 TThF,
MoosT 9139, ar cr
- 8010 Seminar: Advanced Restorative Dentistry**
111408 1000-1200 M, MoosT 9170, ar cr
- 8015 Seminar: Prosthodontics I (prereq #)**
209410 1000-1200 W, MoosT 9170, ar cr

PSYCHOLOGY (Psy) Liberal Arts

- r1001 Introduction to Psychology**
★LECT 1325-1415 MTWTh, WilleyH 175,
Burkhardt, Fox, others
- 176467 -1 REC 0905-0955 F, BlegH 10, 5 cr
076468 -2 REC 1010-1100 F, BlegH 10, 5 cr
176470 -3 REC 1115-1205 F, BlegH 10, 5 cr
876472 -4 REC 1115-1205 F, CivMinE 212, 5 cr
676473 -5 REC 1220-1310 F, BlegH 150, 5 cr
276475 -6 REC 1220-1310 F, FordH 155, 5 cr
178476 -7 REC 1325-1415 F, BlegH 150, 5 cr
976477 -8 REC 1325-1415 F, SmithH 231, 5 cr
776478 -9 REC 1430-1520 F, BlegH 150, 5 cr
576479 -10 REC 1430-1520 F, SmithH 231, 5 cr
- r1004 Introductory Laboratory Psychology**
(1004-1005†; prereq soph, 1001 or II)
★LECT 1115-1205 T, SciCB 175,
Viemeister
- 304800 -1 LAB 1325-1625 T, EIH 150, 4 cr
109053 -2 LAB 1325-1625 T, EIH 160, 4 cr
509347 -3 LAB 0905-1205 W, EIH 150, 4 cr
007103 -4 LAB 0905-1205 W, EIH 160, 4 cr
303144 -5 LAB 1325-1625 W, EIH 150, 4 cr
310547 -6 LAB 1325-1625 W, EIH 160, 4 cr
701814 -7 LAB 0905-1205 Th, EIH 150, 4 cr
411205 -8 LAB 0905-1205 Th, EIH 160, 4 cr
508182 -9 LAB 1325-1625 Th, EIH 150, 4 cr
601983 -10 LAB 1325-1625 Th, EIH 160, 4 cr
911869 -11 LAB 0905-1205 F, EIH 150, 4 cr
109134 -12 LAB 0905-1205 F, EIH 160, 4 cr
404559 -13 LAB 1325-1625 F, EIH 150, 4 cr
702526 -14 LAB 1325-1625 F, EIH 160, 4 cr
- r1011 Career Decision Making** (cannot be applied
toward any CLA degree; prereq fr or soph or #)
402133 -1 1220-1415 T, SmithH 111, Klein, 2 cr
205891 -2 1325-1520 Th, SmithH 111, Klein, 2 cr
- r3031 Sensation and Perception (prereq 1004)**
812139 0945-1100 TTh, SciCB 175, Burkhardt,
4 cr
- 3135 Introduction to Individual Differences**
(§3135; prereq 3801 or equiv)
007022 1115-1230 TTh, OwreH 2230, 4 cr
- 3604 Introduction to Abnormal Psychology**
(§504H; prereq 1001)
405016 1245-1400 TTh, NichH 211, Iacono, 4 cr
- r3801 Introduction to Measurement and Statistical
Methods (prereq 1001 or equiv)**
★LECT 1245-1400 MWF, NichH 45,
Cudeck
- 802260 -1 REC 1115-1230 M, Arch 50, 4 cr
103219 -2 REC 1430-1520 T, JonesH 10, 4 cr
711193 -3 REC 1115-1230 W, Arch 50, 4 cr
004248 -4 REC 1220-1310 Th, ChDev 216, 4 cr
306997 -5 REC 1325-1415 Th, JonesH 10, 4 cr
176484 -6 REC 1115-1230 F, NichH 109, 4 cr
- r3902 Major Project in Psychology (prereq 1005,
3801, jr or sr psychology maj)**
- 212131 -1 1325-1520 M, EIH N119, 4 cr
510398 -2 1010-1205 T, Phys 157, 4 cr
310581 -3 1325-1520 W, EIH N119, 4 cr
706396 -4 1325-1520 W, WulH 230, 4 cr
809581 -5 1010-1205 Th, NichH 122, 4 cr
609582 -6 1015-1200 F, APh 226, 4 cr
- 3970 Directed Studies (prereq #, Δ, □)**
501913 1-8 cr
- 3990 Directed Research (prereq #, Δ, □)**
504990 -1 1-8 cr
- r5011 Theories of Learning and Cognition (prereq
3011 or #)**
102488 1245-1400 TTh, EIH N119, Peterson, 4 cr
- r5015 Cognitive Processes (prereq 3011 or 3051 or
5014, except for students in honors sequence,
grad students)**
603085 1115-1205 MWF, EIH N119, Nissen, 4 cr
- 5031 Perception (§NSc 5031; prereq 3051 or 3031
or #)**
976480 0945-1100 TTh, EIH 50, Legge, 4 cr
- 5081 Fundamentals of Physiological Psychology**
(§3061; prereq 1001)
607332 1220-1310 MWF, SciCB 175, Chapman,
4 cr
- 5135 Introduction to Individual Differences**
(§3135; prereq 3801 or equiv, 5882 or #)
109389 1115-1230 TTh, OwreH 2230, 4 cr
- 5137 Introduction to Behavioral Genetics (prereq/
3135 or 5135 or #)**
002063 1430-1545 TTh, EIH N119, McGue, 4 cr
- r5205 Applied Social Psychology (prereq 3201 or
grad stu or #)**
676487 1115-1230 TTh, EIH N119, Gonzales,
4 cr
- r5806 Biology of Personality and Psychopathology**
(prereq 1004 and 1005 or equiv, 3061 or 5061,
3604 or 5604, or #) (A-F only)
111725 1300-1430 TTh, EIH N227, Depue, 4 cr
- 5703 Psychology of Organizational Training and
Development (prereq 3801 or equiv, 8 cr in
psychology or #)**
709055 0945-1100 TTh, VinH16, Campbell, 4 cr
- 5704 Engineering Psychology (prereq 3801 or
equiv, 8 cr in psychology or #)**
102720 1415-1700 T, EIH 50, Ackerman, 4 cr
- r5862 Psychological Measurement: Theory and
Methods (prereq 3801 or equiv, honors or grad
stu or #)**
309236 1115-1230 TTh, VinH 16, Weiss, 4 cr
- r5900H Honors Seminar: Psychology (prereq
psychology honors maj or #) (S-N only)**
109537 1430-1625 W, EIH N227, Peterson, 1 cr
- 5901H Honors Project (prereq sr, #) (A-F only)**
211514 4-8 cr
- 8010 Advanced Topics in Learning (prereq
5012-5013 or #) (S-N only)**
901763 1300-1500 TTh, EIH N668, Overmier,
3 cr
- 8070 Seminar: Psychopharmacology (prereq #)**
508487 Sparber, 1 cr
- 8120 Personality, Therapy, and Women (prereq
5101, 8 cr in psychology or #)**
776481 1230-1530 W, EIH N668, Faunca, 4 cr
- 8201 Social Cognition (prereq #)**
309074 1000-1200 W, EIH N305, Borgida, 3 cr
- 8204 Seminar: Research in Social Psychology**
(prereq PhD candidate in psychology, #)
809452 1200-1400 T, EIH N305, Berscheid,
Snyder, others, 3 cr
- 8210 Psychological Aspects of Interpersonal
Communication (prereq #...8201 rec)**
177496 Fleming, 3 cr (EIH 305)
- 8410 Perspectives in Learning, Perception, and
Cognition (prereq post-baccalaureate status)
(S-N only)**
207043 1535-1730 Th, EIH 50, 60, Overmier,
Broen, 1 cr
- r8502 Counseling Psychology II: Assessment**
(prereq counseling psych stu or #)
★LECT 1430-1630 W, EIH N595, Dawis,
4 cr
076485 -1 LAB 1300-1430 F, EIH N595, Dawis
- 8514 Practicum in Student Counseling (prereq
8501, 8502, 8503 or equiv) (S-N only)**
507128 1430-1625 Th, EddyH 202, Loper, others,
3 cr
- 8517 Practicum in Rehabilitation Counseling**
(prereq 8503 or #)
007537 1325-1520 TTh, Mayo 796, Athelstan, 3 cr
- 8520 Pre-Practicum in Applied Psychology**
(prereq #) (S-N only)
803635 1430-1545 M, EIH N227, Wark, 3 cr (alt
M) (bgn Sept 30)
- 8548 Seminar: Research in Counseling
Psychology (prereq 8547, #) (S-N only)**
576482 1400-1600 F, EIH N595, Dawis, 1 cr
- 8560 Internship in Counseling Psychology (prereq
#)**
412158 -1 1-12 cr
302383 -2 1-12 cr
- 8611 Professional Methods in Clinical
Psychology I: Assessment (prereq clinical
psychology maj)**
★LECT 1545-1700 TTh, EIH N668, Grove,
4 cr
111871 -1 LAB 1315-1500 W, EIH N423, Grove
- 8620 Practicum in Clinical Psychology (prereq #)
(S-N only)**
410961 1-6 cr
- 8621 Professional Methods in Clinical
Psychology II: Theories of Intervention**
(prereq clinical psychology major, 8611, 8612,
8613)
611994 1000-1200 TF, EIH N227, Leon, 3 cr
- 8631 Professional Methods in Clinical
Psychology III: Techniques of Intervention**
(prereq clinical psychology major, 8611, 8612,
8613)
208547 1600-1800 Th, EIH N423, Ayers, 3 cr
- 8840 Seminar: Topics in Clinical Psychology**
(prereq #)
510062 1015-1200 F, EIH N423, Leon, 1-6 cr
- 8864 Personality Assessment (prereq #)**
403458 1415-1645 F, EIH N227, Tellegen, 4 cr
- 8670 Internship in Clinical Psychology (prereq
PhD candidate in clinical psychology,
permission of director of training program)**
003326 Leon, 2-4 cr
- 8703 Seminar: Industrial and Organizational
Psychology (prereq #)**
376483 Campbell, Dunnette, others; 4 cr
- 8777 Thesis Credits: Masters**
809855 1-16 cr
- 8881 Seminar: Psychometric Methods**
(8881-8882-8883†; prereq #)
710707 Weiss, 1 cr
- 8888 Thesis Credits: Doctoral (max 18 cr per qtr)**
709783 1-36 cr
- r8970 Seminar: Special Areas of Psychology and
Related Sciences (prereq #)**
306272 -1 0945-1100 MW, EIH N227, Fletcher,
4 cr
906168 -2 1515-1715 T, EIH N227, Biederman,
3 cr
311021 -3 1215-1315 W, EIH 225, Fox, Fletcher,
1-6 cr
805370 -4 1330-1530 Th, ChDev 218, 1-6 cr
201792 -5 1500-1800 Th, EIH N491, Ackerman,
Kanfer, 2 cr
607802 -6 Meehl, Grove, 1-6 cr
109285 -7 1325-1520 W, EIH 225, Kersten,
1-6 cr
907577 -8 1515-1630 W, Thompson, 1 cr (Health
Associates, rm 145, 2221 University Ave
SE)
110610 -9 1100-1230 M, EIH N305, Berscheid,
1-6 cr
- 8971 Seminar: Issues in Psychology as a
Profession (prereq 1st year psychology grad)
(S-N only)**
110307 1315-1445 M, EIH N839, Peterson, 2 cr
- 8990 Directed Teaching in Psychology (prereq #)**
402987 1-6 cr
- 8990 Research Problems (prereq #)**
111952 1-6 cr

PUBLIC AFFAIRS (PA)

- r5001 Politics, Planning and Decision Making**
(prereq public affairs or planning or public health
maj or #) (A-F only)
076390 -1 1600-1745 MW, HHHClr 25, 4 cr
(Politics of the Policy Process)
102717 -2 1600-1745 MW, HHHClr 30, Bryson,
4 cr (Planning and Public Decision
Making)
276394 -3 1600-1745 MW, HHHClr 60, Boyte,
4 cr (Public Philosophy)
- r5011 Policy Analysis I: Applied Microeconomics
for Policy Analysis (§8201; prereq
intermediate microeconomics, public affairs and
planning maj or #) (A-F only)**
701733 1600-1745 TTh, HHHClr 25, Kudrie,
Brandl, 4 cr
- r5102 Legal Environment of Public Affairs (prereq
grad or adult special or Δ)**
103589 1815-2045 T, HHHClr 30, 3 cr

- r5191 Topics in Public and Independent Sector Management** (prereq grad or adult special or Δ)
708746 1815-2045 Th, HHCtr 25, Stinson, Tripplett, 3 cr
- r5192 Topics in Public and Independent Sector Management** (prereq grad or adult special or Δ)
376869 1115-1230 MW, HHCtr 25, Freeman, 3 cr
- r5200 Introduction to Planning** (§5515; prereq grad or adult special or Δ)
011457 1900-2130 W, HHCtr 25, Lukermann, 3 cr
- r5230 Strategic Planning and Management** (§5530; prereq grad or adult special or Δ) (A-F only)
876391 1900-2130 T, HHCtr 25, Bryson, 3 cr
- r5241 Policy Planning Strategy** (prereq grad or adult spec or #)
303419 1815-2045 Th, HHCtr 30, Bolan, 3 cr
- r5291 Topics in Planning** (prereq grad or adult special or Δ)
705720 1900-2130 W, HHCtr 30, 3 cr
- 5301 Topics in Policy Analysis I** (prereq grad or public affairs or planning maj or #...§5011 rec)
609792 0945-1100 TTh, BlegH 130, Vaupel, 3 cr
- r5401 Social Policy** (prereq grad or adult special or Δ)
607041 1325-1440 TTh, HHCtr 25, Light, Bolan, 3 cr
- r5414 Multidisciplinary Perspectives on Aging** (§AdEd 5440, CPsy 6305, Educ 5440, HSU 5009, PubH 5520, PubH 5737, SAHP 5009, Soc 5960, SW 5024; prereq grad or adult special or Δ)
112440 1640-1825 MW, MoosT 2690, Eustis, Ostwald, others, 4 cr
- r5433 Social Welfare Reform and Income Support Policy** (§8630, 8631; prereq grad or adult special or Δ)
277576 1815-2045 T, BlegH 255, Patten, 3 cr
- r5491 Topics in Social Policy** (prereq grad or adult special or Δ)
509686 1900-2130 W, HHCtr 60, Himmelman, 3 cr
- r5492 Topics in Social Policy** (prereq grad or adult special or Δ)
102782 1815-2045 M, HHCtr 60, Nathan, 3 cr
- 5501 Economic Development I** (prereq grad or adult special or Δ)
112560 1325-1440 MW, HHCtr 25, Schuh, 3 cr
- r5511 Community-Based Community and Economic Development**
476393 0945-1100 TTh, HHCtr 30, 3 cr
- r5601 Land Use** (prereq grad or adult special or Δ)
005352 1115-1230 TTh, HHCtr 25, Borchert, Lukermann, 4 cr
- r5605 Geographical Perspectives on Urban Planning I** (prereq grad or adult special or #)
177529 1325-1520 MF, BlegH 415, Miller, 4 cr
- r5611 Housing Policy** (§5505; prereq grad or adult special or Δ)
410216 1115-1230 MW, HHCtr 30, Goetz, 3 cr
- 5701 Technology Planning I** (§5161; prereq grad or adult special or Δ)
912598 1115-1230 TTh, BlegH 330, Geesaman, 3 cr
- r5801 U.S. Foreign Policy: Process and Analysis** (prereq Econ 3101, grad stu or adult special or #)
104331 1245-1400 TTh, HHCtr 30, Kudrie, Sampson, 3 cr
- r5901 Computer Applications in Public Affairs** (prereq Public Affairs or Planning majors or #) (A-F only)
507274 0905-1100 MW, HHCtr 35, Finn, 2 cr
- 5950 Modernization and Human Development**
506576 1115-1310 W, HHCtr 20, Crosby, 3 cr
- 8900 Public Affairs Internship** (max 6 cr; prereq PA or planning majors who have completed core courses in PA, 5001, 5002, 5011, 5012, 5021, 5022 or #) (S-N only)
203591 1-6 cr
- 8910 Independent Study** (prereq #)
509090 ar cr
- 3003 Fundamentals of Alcohol and Drug Abuse** (§3004, 5003, 5023)
107097 1220-1310 TTh, PWB 2470, Rothenberger, 2 cr
- 3004 Basic Concepts in Personal and Community Health** (§3001, 3003, 5003, 5022, 5023, GC 3114)
107027 1220-1310 MTWThF, PWB 2470, Rothenberger, 5 cr
- 3034 Topics in Alcohol and Drug Problems** (prereq #)
204823 ar cr
- 3400 Directed Studies: Biometry** (prereq #)
407140 ar cr
- r5001 Philosophical and Conceptual Bases of Public Health Practice** (prereq public health grad student or grad or #)
910267 1430-1520 M, 1325-1520 W, Mayo A270, 3 cr
- r5003 Fundamentals of Alcohol and Drug Abuse** (§3003, 3004, 5023)
102443 1220-1310 TTh, PWB 2470, Rothenberger, 2 cr
- 5004 Field Instruction in Public Health** (prereq #)
407400 ar cr
- 5005 Topics in Public Health** (prereq advanced proposal, #)
905912 ar cr
- 5008 Preventive Medicine Seminar** (prereq hlth sci grad stu) (S-N only)
176534 1115-1310 Th, Mayo A270, Folsom, 1 cr (alt Th)
- 5010 Public Health Approaches to AIDS** (prereq upper div or grad stu)
809788 1640-1825 M, 1640-1730 W, MoosT 2520, Rothenberger, 3 cr
- 5014 Behavioral Medicine I: Theory, Research and Practice** (§5753; prereq psy grad stu or professional in hlth related discipline or hlth sci grad stu)
077068 1640-1910 M, Mayo A270, Hung, 3 cr
- r5015 Topics in Interdisciplinary Studies** (prereq #)
512300 ar cr
- 5018 Prevention of Mental Disorders** (§5803; prereq public hlth or hlth sci grad or behav and soc sci grad student)
109769 1010-1300 W, Stad, Williams, 3 cr (Stadium Gate 20)
- 5022 Personal and Community Health** (§3001, 3004, 5023, GC 3114)
204871 1220-1310 MWF, PWB 2470, Rothenberger, 3 cr
- 5023 Basic Concepts in Personal and Community Health** (§3001, 3003, 3004, 5003, 5022, GC 3114)
311035 1220-1310 MTWThF, PWB 2470, Rothenberger, 5 cr
- r5044 Topics in Alcohol and Drug Problems** (prereq advance proposal, #)
910351 1-4 cr
- 5054 Foundations of Public Health Education** (prereq health educ maj and community health educ maj or #)
109554 1325-1625 F, Stad, Perry, 3 cr
- 5084 Internship in Health Education Practice I** (prereq health educ maj and community health educ maj or #) (S-N only)
402276 ar cr
- 5085 Internship in Health Education Practice II** (prereq health educ maj and community health educ maj or #) (S-N only)
005111 ar cr
- r5086 Seminar: Community Health Education** (prereq health educ maj and community health educ maj or #) (S-N only)
807813 0905-1100 T, Mayo A269, Luepker, 2 cr
- r5090 Research Topics in Health Education** (prereq health educ maj and community health educ maj or #)
911600 2-8 cr
- r5096 Topics: Research** (prereq health educ maj and community health educ maj or #)
803490 ar cr
- 5097 Topics: Selected Readings** (prereq grad student in health sciences)
707287 ar cr
- 5150 Topics: Environmental and Occupational Health** (prereq #)
105063 -1 ar cr
376516 -2 McGovern, ar cr
078518 -3 Olson, ar cr
- 5154 Practicum in Environmental and Occupational Health** (prereq environmental health maj) (S-N only)
110039 1-6 cr
- 5156 Environmental Health Survey** (prereq environmental health maj) (A-F only)
976513 0905-0955 MWF, Mayo 1250, Vesley, 3 cr
- 5159 Seminar: Environmental Health** (prereq environmental health student) (A-F only)
502379 1325-1520 Th, MoosT 2520, 1 cr
- 5168 Theory and Practice of Occupational Health: Field Experience** (prereq 5167) (S-N only)
476989 Olson, 1 cr
- 5181 Air Pollution** (prereq 2 yrs chemistry, general physics, calculus, or #) (A-F only)
403217 0800-1000 TTh, HSUnitF 2110, 2140, Swackhamer, 4 cr
- 5197 Topics: Injury Prevention in the Workplace, Community, and Home** (§5597; prereq #)
704714 Gerberich, 1-3 cr
- 5201 Radiation Protection and Measurement**
176520 1325-1415 MW, Mayo A269, Barber, 2 cr
- 5202 Radiation Laboratory** (prereq 5201 or §5201)
876522 1220-1415 F, BoyNH 535, Barber, 1 cr
- 5211 Industrial Hygiene Engineering**
105477 1325-1625 T, Mayo 1250, Vincent, 3 cr
- 5261 General Environmental Toxicology** (prereq undergrad course in biol, some chem desirable)
807023 1730-1900 TTh, HSUnitF 2110, 2140, Toscano, 3 cr
- 5326 Research in Animal/Human Health** (prereq VPH or Epi maj or #)
808253 Diesch, Pullen, others, ar cr
- r5330 Epidemiology I** (prereq basic courses in microbiology and statistics, preferably biostatistics)
★LECT 1430-1520 MWF, MoosT 2530
601806 -1 LAB 1535-1730 M, MoosT 2530, 4 cr
710321 -2 LAB 1325-1520 Th, HSUnitF 2110, 2140, 4 cr
- 5380 Applied Human Nutrition** (prereq biochemistry or equiv)
776582 1325-1520 MW, MoosT 2580, Leon, 4 cr
- r5382 Clinical Trials II** (prereq epidemiology, biometry maj or #)
308989 1220-1335 MF, Stad, Grimm, Flack, 3 cr (Gate 27, Library)
- 5384 Human Physiology** (prereq basic biology or anatomy)
308708 1115-1205 TWTh, Mayo A269, 1115-1310 F, MoosT 2520, Crow, 4 cr
- r5392 Public Health Approaches to Health Behavior Change** (prereq publ or grad or hlth sci stu or #)
307275 1220-1505 Th, Stad, Finnegan, 3 cr (Gate 20, conf rm C)
- 5399 Seminar: Topics in Epidemiology** (prereq basic epidemiology, biometry course or #)
502513 1535-1625 M, Stad, Luepker, 1-4 cr (Gate 20, Conf rm C)
- r5404 Introduction to Biostatistics and Statistical Decision** (prereq hospital and health care administration student)
806454 1325-1520 TTh, Mayo C381, Weckwerth, 4 cr
- 5409 Biostatistics in Clinical Studies** (prereq DDS, MD, DVM, PharmD, clinical nursing student)
203820 1220-1310 MWF, Mayo 1250, Keenan, 3 cr
- 5413 Vital and Health Statistics**
705443 1010-1100 Th, OwreH 2210, Kjelsberg, 1 cr
- r5414 Biostatistical Methods I**
708536 1115-1310 TTh, MoosT 2690, Le, 3 cr
- r5420 Statistical Computing I - Using Statistical Packages** (prereq 5450 or # or #) (S-N only)
804848 0905-0955 MTW, MoosT 2571, 2585, Jeffries, 3 cr

PUBLIC HEALTH (PubH)

- 3001 Personal and Community Health** (§3004, 5022, 5023, GC 3114)
509137 1220-1310 MWF, PWB 2470, Rothenberger, 3 cr

- a5450 Biostatistics I** (prereq Math 1111 or Math 1201)
406134 -1 0800-0850 MTWTh, MoosT 2571, 2585, Thomas, 4 cr
103656 -2 1010-1100 MTWTh, Jach 2135, Jeffries, 4 cr
- 5460 Demographic Methods in Public Health** (§Soc 5561; prereq biostatistics or epidemiology maj or #)
010115 1115-1205 MW, Mayo A270, Kjelsberg, Grimm, 2 cr
- 5470 Topics in Biostatistics** (prereq #)
307065 ar cr
- a5510 Research Methodology in Public Health Nursing** (prereq #) (S-N only)
603023 -1 Aroskar, 1-3 cr
107956 -2 Berkseth, 1-3 cr
409339 -3 McGovern, 1-3 cr
105852 -4 Ostwald, 1-3 cr
108847 -5 Spradley, 1-3 cr
205339 -6 Froberg, 1-3 cr
703031 -7 Olson, 1-3 cr
- 5530 Public Health Nursing Practicum** (prereq #) (S-N only)
110476 -1 Aroskar, 1-4 cr
078535 -2 Berkseth, 1-4 cr
676537 -3 Froberg, 1-4 cr
276539 -4 McGovern, 1-4 cr
676540 -5 Olson, 1-4 cr
476541 -6 Ostwald, 1-4 cr
276542 -7 Spradley, 1-4 cr
- 5531 Public Health Nursing Practicum** (prereq #) (S-N only)
012351 -1 Aroskar, 1-4 cr
976544 -2 Berkseth, 1-4 cr
576546 -3 Froberg, 1-4 cr
376547 -4 McGovern, 1-4 cr
076549 -5 Olson, 1-4 cr
376550 -6 Ostwald, 1-4 cr
076552 -7 Spradley, 1-4 cr
- 5575 Topics: Public Health Nursing** (prereq #)
903075 -1 Aroskar, ar cr
876553 -2 Berkseth, ar cr
476555 -3 Froberg, ar cr
276556 -4 McGovern, ar cr
176557 -5 Olson, ar cr
776559 -6 Ostwald, ar cr
176560 -7 Spradley, ar cr
- 5605 Perinatal Health and Family Planning** (prereq maternal and child health maj or #) (A-F only)
902864 1535-1830 T, Mayo A269, Lia-Hoagberg, 3 cr
- 5610 Principles of Maternal and Child Health** (prereq grad student or #)
909491 -1 0800-1200 MTWThF, PWB 6210, ten Bense, 3 cr (Sept 5-18 only) (MCH stu only) (A-F only)
810066 -2 1640-1900 W, MoosT 2620, 3 cr
- 5614 Field Experience in Maternal and Child Health** (prereq MCH grad student) (S-N only)
210038 -1 Alexander, ar cr
711906 -2 Berkseth, ar cr
503788 -3 Brown, ar cr
503435 -4 Froberg, ar cr
007165 -5 Himes, ar cr
307535 -6 Leland, ar cr
002452 -7 Leonard, ar cr
311729 -8 Lia-Hoagberg, ar cr
276525 -9 Patterson, ar cr
176526 -10 Story, ar cr
976527 -11 tenBensel, ar cr
- 5621 Maternal and Child Health Student/Faculty Seminar** (prereq MCH grad student) (S-N only)
876990 3 cr
- a5624 International Health** (§Pad 5525; prereq #)
105553 1900-2100 Th, MoosT 2520, Venters, ar cr
- 5626 Organizational and Political Context of Leadership in Public Health** (prereq grad stu in hith sci) (A-F only)
676991 3 cr
- 5648 Topics in Maternal and Child Health** (prereq #)
507582 -1 ar cr
476992 -2 Alexander, ar cr
276993 -3 Berkseth, ar cr
176994 -4 Brown, ar cr
976995 -5 Froberg, ar cr
776996 -6 Himes, ar cr
576997 -7 Leland, ar cr
- 376998 -8 Leonard, ar cr
176999 -9 Lia-Hoagberg, ar cr
177000 -10 Patterson, ar cr
977001 -11 Story, ar cr
777002 -12 ten Bense, ar cr
- 5649 Maternal and Child Health Research** (prereq #) (S-N only)
607850 -1 Brown, ar cr
903500 -2 Leonard, ar cr
504858 -3 Lia-Hoagberg, ar cr
508540 -4 Himes, ar cr
809046 -5 Berkseth, ar cr
606278 -6 Froberg, ar cr
807698 -7 ten Bense, ar cr
109487 -8 Story, ar cr
102983 -9 Patterson, ar cr
305591 -10 Alexander, ar cr
112655 -11 Leland, ar cr
- 5700 Public Health Administration I** (prereq student in public health administration or #)
803411 0905-1100 MW, Mayo A270, Block, 3 cr
- 5703 Public Health Administration Clerkship** (prereq student in public health administration or #) (S-N only)
401967 1-12 cr
- 5704 Field Experience: Public Health Administration** (prereq student in public health administration or #) (S-N only)
507405 -1 Block, 1-12 cr
909183 -2 Dornblaser, 1-12 cr
912438 -3 Gordon, 1-12 cr
210332 -4 Johnson, 1-12 cr
011037 -5 Litman, 1-12 cr
302237 -6 Ostwald, 1-12 cr
102409 -7 Resnick, 1-12 cr
302979 -8 Spradley, 1-12 cr
406425 -9 Stauffer, 1-12 cr
103891 -10 Veninga, 1-12 cr
107531 -11 Weckwerth, 1-12 cr
- 5707 Independent Study: Public Health Administration** (prereq student in public health administration or #) (S-N only)
707256 -1 Block, 1-12 cr
776528 -2 Ostwald, 1-12 cr
576529 -3 Spradley, 1-12 cr
976530 -4 Veninga, 1-12 cr
577003 -5 1-12 cr
- 5722 Interpersonal Behavior in Health Organizations** (§5059)
102773 1115-1310 MW, MoosT 2520, Veninga, 4 cr
- 5723 Administrative Residency** (prereq student in public health administration or #) (S-N only)
403444 ar cr
- 5734 Ethical Dimensions of Public Health** (§5516; prereq public health or grad stu or #) (S-N only)
376533 1640-1835 W, PWB 5206, Aroskar, 1 cr (Sept 25, Oct 2, 16, 30, Nov 6)
- 5737 Topics: Multidisciplinary Perspectives on Aging** (§5520, AdEd 5440, CPsy 5305, Educ 5440, HSU 5009, PA 5414, SAHP 5009, Soc 5960, SW 5024)
776531 1640-1825 MW, MoosT 2690, 4 cr
- 5738 Topics: Adult Health** (§5513; prereq #) (S-N only)
576532 Ostwald, 1-3 cr
- 5739 Topics: Public Health Administration** (prereq student in public health administration or #)
411334 ar cr
- a5742 Management of Health Care Organizations** (prereq MHA student or #)
103611 0905-1100 M, 1325-1520 F, Mayo C381, Reiling, 3 cr
- a5749 Long Term Care Administration** (prereq MHA or PHA students or #)
711050 0800-0850 M, 0800-0955 W, Mayo C381, Gordon, 3 cr
- a5756 Financial Accounting in Health Organizations** (prereq MHA or PHA student or #)
710299 1315-1500 MW, HSUnitF 2110, 2140, 4 cr
- 5758 Hospital and Other Health Care Organizations Financial Statement Analysis** (prereq 5757)
703174 1800-2100 Th, Mayo C381, Oszustowicz, 4 cr
- a5766 Applied Field Research I** (prereq MHA student or #)
107853 -1 1325-1415 W, Mayo C381, Weckwerth, 1 cr
011118 -2 1430-1520 W, Mayo C381, Resnick, 1 cr
- 5770 Topics: Hospital and Health Care Administration** (prereq hospital administration student or #)
807068 -1 ar cr
404240 -2 ar cr
- 5772 Multihospital Systems and Academic Health Centers** (prereq hospital administration students or #)
108380 1535-1730 MW, Mayo C381, Johnson, 3 cr
- a5790 Sociology of Medicine and Health Care: An Introduction to Medical Sociology** (§Soc 5855)
007179 1115-1205 MWF, Mayo C381, Litman, 4 cr
- a5791 Public Health and Medical Care Organizations** (prereq School of Public Health student or grad student) (A-F only)
102216 0905-1205 T, HSUnitF 2120, 2130, Resnick, 3 cr
- a5792 Health Services Organization in the Community** (prereq hospital administration student)
310418 0800-1100 F, Reiling, 1 cr (off-campus field trips)
- a5793 Economic Aspects of Health Care** (prereq MHA or PHA student or PhD in HSRP/A or #)
511115 1115-1230 TTh, Mayo 1250, Nyman, 3 cr
- 5806 Principles of Public Health Research** (prereq grad or enrollment School of PubH, compl of or 1 in course in stat or vital stat)
202103 1535-1730 MW, MoosT 2650, Garrard, 3 cr
- 5652 Program Evaluation in Health and Mental Health Settings** (§HSU 5026; prereq PubH students or grad students only, 5806 or equivalent research methods and basic statistics course)
805823 1325-1520 MW, PWB 6224, Pirie, 4 cr
- 5881 Topics in Health Services Research and Policy** (prereq #)
077376 -1 1430-1625 W, Mayo A269, Kane R., ar cr
877377 -2 ar cr
- 5900 Public Health Nutrition: Principles and Programs** (prereq public health nutrition student or #)
506870 1000-1700 MTWThF, Mayo A289, Splett, 3 cr (Sept 5-20)
- 5901 Seminar: Public Health Nutrition** (prereq public health nutrition maj) (S-N only)
312492 1010-1205 Th, PWB 5254, 5258, Splett, 1 cr (Oct 3, 17, Nov 7, 14, Dec 5)
- 5902 Maternal and Infant Nutrition** (prereq 3000 level nutrition course or equiv or #)
712571 0905-1100 T, 0905-0955 Th, Mayo A270, Brown, 3 cr
- 5906 Field Experience: Public Health Nutrition** (prereq public health nutrition maj) (S-N only)
510157 -1 0800-0850 Th, Mayo A316, Krinke, 1-8 cr (Sept 26, Oct 24, Nov 21)
110221 -2 Story, 1-8 cr
- 5909 Topics in Public Health Nutrition** (prereq public health nutrition student or #)
012012 -1 Brown, 1-12 cr
404433 -2 Splett, 1-12 cr
209326 -3 Krinke, 1-12 cr
110825 -4 Buzzard, 1-12 cr
703577 -5 Story, 1-12 cr
707998 -6 Kushi, 1-12 cr
309060 -7 Himes, 1-12 cr
805286 -8 Lansing, 1-12 cr
408689 -9 1-12 cr
- 8150 Research: Environmental and Occupational Health** (prereq #)
108167 1-6 cr
- 6191 Research: Injury Prevention in the Workplace, Community, and Home** (prereq #)
602793 Gerberich, 3-6 cr
- 8330 Research in Epidemiology** (prereq epidemiology maj)
812108 1-8 cr

- 8331 Field Practice in Epidemiologic Investigations** (prereq epidemiology maj) (S-N only)
108498 1-8 cr
- 8332 Readings in Epidemiology** (prereq epidemiology maj, #)
306403 1-4 cr
- 8379 Seminar in Epidemiology** (prereq epidemiology, physiological hygiene maj) (S-N only)
111577 1220-1415 T, PWB 5254, 5258, HSUnitF 2165, Luepker, Potter, others, 2 cr
- 8400 Seminar in Biostatistics** (prereq biostat maj or #)
911967 ar cr
- 8420 Survival Analysis** (prereq 5454 or equiv, 5459 or equiv, knowledge of FORTRAN) (A-F only)
003343 1325-1440 MW, PWB 5254, 5258, Le, 3 cr
- 8430 Sequential Analysis** (prereq 8420, Stat 5133, FORTRAN, biostat stu, or #)
404691 1325-1440 TTh, Mayo A434, Goldman, 3 cr
- 8449 Topics in Biostatistics** (prereq 5450, #)
709508 ar cr
- 8450 Research in Biostatistics**
404447 ar cr
- 8750 Seminar: Alternative Patterns of Health Care** (prereq grad or hospital administration student or #) (A-F only)
906445 1330-1500 TTh, Mayo C396, Litman, 4 cr
- 8761 Readings in Theory and Principles of Hospital and Health Care Administration** (prereq PhD student in hospital administration or health services research and policy or #)
004993 1115-1230 TTh, PWB 5224, Nyman, 3 cr
- 8763 External Forces Affecting Health Services Delivery** (prereq PhD student in hospital administration or health services research and policy or #) (A-F only)
111868 Weckwerth, 3 cr
- 8764 Research Applications to Health Services Delivery** (prereq 8763) (S-N only)
903433 Weckwerth, 3 cr
- 8777 Thesis Credits: Masters**
004220 1-16 cr
- 8782 Research Practicum** (prereq PhD student in hospital administration or health services research and policy or #)
905442 -1 Litman, Weckwerth, 3 cr
007859 -2 Weckwerth, Litman, 3 cr
- 8810 Seminar: Research Studies in Health Care** (§8781; †8810-8811-8812; prereq PhD stu in hltl srv res, pol and adm, †Stat 5121, 5122, 5302, or #) (A-F only)
407591 1245-1430 MW, MoosT 2107, Finch, 3 cr
- 8888 Thesis Credits: Doctoral** (max 18 or per qtr)
103933 1-36 cr
- 8900 Seminar in Advanced Life Cycle Nutrition** (prereq 5902 or 5932 or 5935 or equiv)
377374 0905-1150 Th, HSUnitF 2165, Himes, 3 cr

RADIOLOGY (Rad) Medical School

- 0120 X-Ray Conference** (prereq #)
012253 1600-1800 T, Mayo C231, Thompson, 0 cr (Todd Amph)
- 0121 Medical Roentgenologic Conference**
612109 1130-1200 T, Mayo C231, Thompson, 0 cr (Todd Amph)
- 0123 Surgical Roentgenologic Conference**
806020 0900-1100 S, Mayo C231, Thompson, 0 cr (Todd Amph)
- 0124 Neurosurgical-Roentgenologic Conference**
803523 1300-1430 F, Mayo C231, Lee, 0 cr (Todd Amph)
- 0125 Cardiovascular Roentgenologic Conference**
903982 1200-1300 Th, Mayo B167, Amplatz, 0 cr (Rigler Lib)
- 0126 Roentgenologic Conference on Chest Diseases**
508201 1200-1300 M, Mayo B167, Thompson, 0 cr (Rigler Lib)

- 0220 Nuclear Medicine: Clinical Conference**
812593 1700-1800 T, Mayo C231, Boudreau, 0 cr (Todd Amph)
- 5101 Externship: Diagnostic Radiology-University Hospitals** (prereq regis med)
508814 Thompson, ar cr
- 5102 Externship: Diagnostic Radiology-Veterans Administration Hospital** (prereq regis med)
705412 Reinke, ar cr
- 5103 Externship: Diagnostic Radiology-Hennepin County General Hospital** (prereq regis med)
807930 Anderson, ar cr
- 5104 Externship: Diagnostic Radiology-St. Paul Ramsey Hospital** (prereq regis med)
109013 Krueckeberg, ar cr
- 5105 Externship: Diagnostic Radiology-St. Luke's Hospital, Duluth** (prereq regis med)
403993 Ahrens, ar cr
- 5110 Research Problems in Radiology** (prereq regis med)
507095 Thompson, ar cr
- 5140 Special Problems: Roentgenology** (prereq regis med)
307387 Thompson, ar cr
- 5170 Basic Radiological Physics** (§BPhy 5170, TRad 5170; prereq #)
810942 1630-1730 W, 1600-1730 F, Mayo B167, Ritenour, 3 cr
- 5174 Physics of Diagnostic Radiology** (§BPhy 5174, TRad 5174; prereq 5170 or #)
304408 1400-1530 TW, Mayo B261, Ritenour, 3 cr (Rigler Lib)
- 5240 Special Problems: Nuclear Medicine** (prereq regis med)
103902 Boudreau, ar cr
- 5511 Roentgen Technique**
608058 1700-1800 M, Mayo C231, Ritenour, 1 cr (Todd Amph)
- 5530 Externship in Nuclear Medicine at University Hospital** (prereq regis med)
911273 Boudreau, ar cr
- 5540 Special Problems: Radiological Physics** (prereq regis med)
407929 Ritenour, ar cr
- 8100 Gastrointestinal Roentgenology**
710223 Letourneau, ar cr
- 8101 Urologic Roentgenology**
312198 Goldberg, ar cr
- 8102 Neurological Roentgenology**
608805 Thompson, ar cr
- 8103 Cardiovascular Roentgenology**
805417 Amplatz, ar cr
- 8104 Pediatric Roentgenology**
110204 Day, ar cr
- 8105 Pulmonary Roentgenology**
407851 Thompson, ar cr
- 8150 Research: Roentgenology**
010132 Thompson, ar cr
- 8200 Nuclear Medicine**
207981 Boudreau, ar cr
- 8210 Fundamentals of Nuclear Medicine** (prereq 1st yr resident)
311200 1600-1700 M, Mayo C231, Boudreau, 1 cr
- 8250 Research: Nuclear Medicine**
003813 Boudreau, ar cr
- 8450 Research: Radiation Biology**
206099 Ritenour, Song, ar cr
- 8550 Research: Radiological Physics**
410331 Ritenour, ar cr
- 8777 Thesis Credits: Masters**
908146 1-16 cr

RECREATION, PARK, AND LEISURE STUDIES (Rec) School of Physical Education And Recreation Education

- r1520 Orientation to Leisure and Recreation** (A-F only)
811959 0905-1100 TTh, CookeH 206, Parker, 4 cr

- r3150 Leadership in Outdoor Recreation** (prereq recreation maj, 1520) (A-F only)
710626 1325-1625 W, CookeH 214, Tholkes, 3 cr
- r3210 Therapeutic Information for Recreators** (prereq Phar 5210, Anat 1027 or 1004, Δ) (A-F only)
307566 0905-0955 MWF, CookeH 206, Weiss, 3 cr
- r3530 Recreation and Park Areas and Facilities** (prereq 1520, recreation maj or Δ) (A-F only)
005058 1325-1520 TTh, CookeH 206, Garceau, 4 cr
- 3700 Senior Internship** (prereq sr, recreation maj or minor, Δ) (S-N only)
605385 Schultz, 1-15 cr
- 3900 Directed Study** (max 9 cr; prereq recreation maj only, Δ) (S-N optional)
406232 3 cr
- r5100 Foundations of Recreation** (§8120; prereq MEd, adult special or grad student) (A-F only)
805983 1830-2030 M, CookeH 206, Schultz, 3 cr
- r5180 Employee Recreation Services** (prereq 1520 or 5100 or #) (A-F only)
675226 1115-1230 TTh, CookeH 206, Schultz, 3 cr
- r5210 Introduction to Therapeutic Recreation** (prereq 1520 or 5100, rec maj or Δ) (A-F only)
012527 -1 1615-1815 M, CookeH 109, Weiss, 3 cr (grad and M Ed only)
003911 -2 1325-1525 W, CookeH 109, Weiss, 3 cr (undergrad maj only)
- r5299 Client Assessment and Program Evaluation in Therapeutic Recreation** (prereq 5220 or Δ) (A-F only)
003018 1615-1930 W, CookeH 206, Schleien, 4 cr
- r5300 Foundations of Outdoor Education** (prereq sr, 1520 or 5100 or #) (A-F only)
475227 1325-1625 M, CookeH 206, Mc Avoy, 3 cr
- r5460 Foundations of Sport Management** (§PE 5460; prereq Rec or Kin maj or #) (A-F only)
275228 1115-1230 MW, CookeH 206, Kane, 3 cr
- 5630 Practicum: Therapeutic Recreation** (prereq recreation M.Ed. or grad) (S-N only)
207057 Schleien, Weiss, 3-9 cr
- 5640 Practicum: Leisure Services** (prereq recreation M.Ed. or grad) (S-N only)
108881 Schultz, 3-9 cr
- r5980 Introduction to Research** (§PE 5980; prereq MEd, grad or Δ) (A-F only)
101543 1615-1845 Th, CookeH 206, Kane, 3 cr
- 5981 Problems** (prereq MEd or MA student or Δ) (A-F only)
304893 ar cr
- 5983 Readings: Recreation** (prereq MEd, grad or Δ) (A-F only)
510983 1-3 cr
- 8777 Thesis Credits: Masters**
207866 1-16 cr
- 8980 Research Problems** (prereq 5980, PsyF 5110 or EPsy 5260 or #) (S-N only)
804316 1430-1520 T, CookeH 400, Schultz, 1 cr
- 8961 Research Problems** (prereq 8980 or #) (S-N only)
603572 ar cr

RELIGIOUS STUDIES (RelS) Liberal Arts

- r3035 Christian Religious Traditions** (§1035, 5035; prereq jr or sr)
075725 1115-1205 MWF, FordH 115, Tapp, 4 cr
- 3036 The Religion of Islam** (§5036, MidE 3036, MidE 5036)
101664 1115-1230 TTh, FolH 306, Barker, 4 cr
- 3201 The Bible: Narrative Texts** (§ANE 1001, ANE 3001)
675727 0905-0955 MWF, FolH 306, Paradise, 4 cr
- 3970 Directed Studies** (prereq #, Δ, □)
912584 3-5 cr
- r5035 Christian Religious Traditions** (§1035, 3035; prereq jr or sr)
875726 1115-1205 MWF, FordH 115, Tapp, 4 cr

- 5036 The Religion of Islam** (§5036, MidE 3036, MidE 5036)
209729 1115-1230 TTh, FolH 306, Barker, 4 cr
- r5101 Religion and American Culture** (§AmSt 5101)
375723 1115-1230 TTh, BuH 120, Delattre, 4 cr
- 8777 Thesis Credits: Masters**
612403 1-16 cr
- 8970 Directed Studies** (prereq Δ)
108178 2-5 cr

RHETORIC (Rhet) Agriculture

NOTE: A \$30 microcomputer lab card will be required in all computer-assisted sections of the following rhetoric courses: 1101, 1104, 1151, 3562. This card may be purchased at the Bursar's Office. Check with the instructor on the first day of class for more information.

- r1101 Writing to Inform and Persuade** (§Comp 1011)
304814 -1 0805-0920 MW, HckrH 302, 4 cr (computer use) (course fee)
011135 -2 1120-1235 MW, HckrH 302, Walzer, 4 cr (computer use) (course fee)
208256 -3 0935-1025 MWF, HckrH 210, 4 cr
110713 -4 1145-1235 MWF, HckrH 210, 4 cr
306711 -5 0845-1000 TTh, HckrH 210, 4 cr
309575 -6 1015-1130 TTh, HckrH 302, Duin, 4 cr (computer use) (course fee)
- r1104 Library Research Methods** (S-N only)
006243 -1 LAB 0935-1025 M, CentLib 2, Richardson, 1 cr (orientation meeting, Sept 24) (computer assisted instruction) (course fee)
611400 -2 LAB 1500-1550 M, CentLib 2, Richardson, 1 cr (orientation meeting, Sept 24) (computer assisted instruction) (course fee)
607833 -3 LAB 1145-1235 T, CentLib 2, Richardson, 1 cr (orientation meeting, Sept 25) (computer assisted instruction) (course fee)
012091 -4 LAB 1500-1550 T, CentLib 2, Richardson, 1 cr (orientation meeting, Sept 25) (computer assisted instruction) (course fee)
912293 -5 LAB 1145-1235 W, CentLib 2, Richardson, 1 cr (orientation meeting, Sept 26) (computer assisted instruction) (course fee)
607587 -6 LAB 1500-1550 W, CentLib 2, Richardson, 1 cr (orientation meeting, Sept 26) (computer assisted instruction) (course fee)
- r1151 Writing in Your Major** (prereq completion of fr communication requirement, soph status, 1104 or College of Natural Resources stu only: FR 1104 or ForP 1104 or FW 1104)
210122 -1 0935-1050 MW, HckrH 302, 4 cr (computer use) (course fee)
805935 -2 0830-0920 MWF, HckrH 111, 4 cr
104208 -3 1040-1130 MWF, HckrH 100, 4 cr
508442 -4 1015-1130 TTh, HckrH 111, 4 cr
408319 -5 1315-1430 TTh, HckrH 111, 4 cr
011734 -6 1500-1615 TTh, HckrH 302, 4 cr (computer use) (course fee)
- 1160 Efficient College Reading**
808513 1415-1530 TTh, FordH 120, Bennett, 3 cr (Mpls)
- r1220 Principles of Human Communication**
176395 1015-1155 TTh, HckrH 210, 4 cr
- r1222 Public Speaking** (prereq completion of freshman communication requirement)
705930 -1 0935-1025 MTWTh, CentLib 6, 4 cr
605273 -2 1040-1130 MTWTh, CentLib 6, 4 cr
604446 -3 1145-1235 MTWTh, CentLib 6, 4 cr
202263 -4 1355-1445 MTWTh, CentLib 6, 4 cr
603569 -5 1145-1325 MW, CentLib 4, 4 cr
710948 -6 0820-1000 TTh, CentLib 4, Wharton, 4 cr
511583 -7 1015-1155 TTh, CentLib 4, Bennett, 4 cr
807703 -8 1315-1455 TTh, CentLib 4, 4 cr
- r1301 Humanities: Modern Thought and the Enlightenment**
910270 1015-1130 TTh, HckrH 312, Marchand, 4 cr

- r1303 Humanities: Modern Thought and the Impact of Evolution**
211058 1315-1430 TTh, HckrH 312, Marchand, 4 cr
- r1310 Humanities: The Land in American Experience**
504908 0935-1025 MWF, HckrH 312, Scanlan, 4 cr
- r3101 Functional Photography** (prereq Dsgn 1501 or Rhet 3562)
801917 1355-1535 MW, CentLib 4, Breneman, 4 cr
- r3254 Advanced Public Speaking** (prereq 1222)
104435 0830-0920 MTWTh, HckrH 222, Gore, 4 cr
- r3266 Communication, Discussion in Small Group Decision Making** (prereq 1222 or #)
408112 0935-1025 MTWTh, HckrH 222, Gore, 4 cr
- 3270 Speech: Special Problems** (prereq #, Δ)
602048 Gore, Bennett, others, 1-5 cr
- r3370 American Humanities**
011300 1250-1340 MWF, HckrH 312, Horberg, 4 cr
- 3374 Special Problems in Humanities** (prereq #, Δ)
504973 Horberg, Marchand, others, 1-2 cr
- r3375 Humanities: Agricultural Heritage**
377004 1040-1130 MWF, HckrH 312, Scanlan, 4 cr
- r3380 Humanities: The Literature of Social Reflection**
407221 -1 1145-1300 T, McNH 146, Horberg, 2 cr
710318 -2 1315-1430 W, HckrH 301, Marchand, 2 cr
- r3562 Writing in Your Profession** (prereq completion of freshman communication requirement, 1151, jr or sr) (A-F only)
503600 -1 0935-1025 MWF, HckrH 111, Ferguson, 4 cr
608027 -2 1040-1130 MWF, HckrH 111, Horberg, 4 cr
805403 -3 1145-1235 MWF, HckrH 111, 4 cr
112204 -4 1355-1445 MWF, HckrH 111, Gross, 4 cr
409695 -5 0845-1000 TTh, HckrH 302, 4 cr (computer use) (course fee)
507839 -6 1145-1300 TTh, HckrH 302, 4 cr (computer use) (course fee)
205082 -7 1315-1430 TTh, HckrH 302, 4 cr (computer use) (course fee)
- r3565 Writing for Publication** (prereq 3562, #)
108511 1250-1405 MW, HckrH 302, Sperbeck, 4 cr (computer use) (course fee)
- r3572 Grammatical Editing for Technical Writers** (prereq STC/Tech comm maj or min or pre-maj) (S-N only)
201632 1315-1430 M, HckrH 209, Walzer, 2 cr
- r3700 Rhetorical Theory: Persuasion and the Literature of Science** (prereq completion of freshman communication requirement)
976396 1040-1130 MWF, HckrH 210, Gross, 4 cr
- 5100 Technical Communication: Special Problems** (prereq #, Δ)
107455 McDowell, Mikelonis, others, ar cr
- r5165 Studies in Organizational Communication, Conflict, and Change** (prereq freshman communication or equiv or grad status)
610283 1600-1740 TTh, HckrH 312, Schuelke, 4 cr
- r5170 Managerial Communications** (prereq freshman communication or equiv or grad status)
776397 1315-1455 TTh, HckrH 210, Wharton, 4 cr
- 5180 Internship in Technical Communication** (prereq #, Δ)
606911 McDowell, Mikelonis, others, 2-6 cr
- r5258 Interviewing: Dynamics of Face-to-Face Communication**
104788 1315-1455 TTh, HckrH 222, McDowell, 4 cr
- r5500 Research in Communication Strategies**
107304 1600-1920 Th, HckrH 222, McDowell, 4 cr
- r5531 Scientific and Technical Communication Course Development: Developing Writing Courses** (prereq 3562, sr or grad status)
010714 1250-1340 M, HckrH 301, Lay, 1 cr

- 5571 Writing for Special Purposes** (prereq STC/Tech comm maj or min, freshman communication, 3562 or #)
105298 2 cr
- r5573 Grant Proposal** (prereq STC/Tech Comm, freshman communication requirement, 3562 or grad stu or #)
877378 1015-1155 T, HckrH 301, Mikelonis, 3 cr
- r5574 Electronic Publishing** (prereq 3562, 3572, Agri 1200 or grad stu) (A-F only)
108694 1015-1155 Th, HckrH 301, Lay, 2 cr
- r5575 Newsletter** (prereq STC/Tech comm maj or min or pre-maj, freshman comm req, 3562 or grad stu or #)
704695 1040-1310 W, HckrH 301, Mikelonis, 3 cr (computer use) (course fee)
- r5581 Document Design** (prereq 3562, sr or grad status, #) (A-F only)
002984 1315-1545 Th, HckrH 209, Duin, 4 cr
- r5600 Transfer of Technology** (prereq work experience in scientific/technical communication or #)
504696 1355-1715 M, HckrH 301, Schuelke, 4 cr
- r8100 Introduction to Scientific and Technical Communication** (prereq STC/Tech Comm grad stu or Δ) (A-F only)
576396 1600-1830 T, HckrH 209, Wahlstrom, 3 cr
- r8110 Theory and Research in Audience Analysis** (prereq MS student in tech comm)
103793 1600-1830 W, HckrH 209, Ferguson, 3 cr
- 8180 Design Project** (prereq MS student in tech comm plan B)
007375 4 cr
- 8777 Thesis Credits: Masters**
805496 1-16 cr

RUSSIAN (Russ) Russian And East European Studies Liberal Arts

- r1101 Beginning Russian**
108484 -1 0800-0850 MTWThF, WuIH 130, 5 cr
206632 -2 0905-0955 MTWThF, WuIH 130, 5 cr
511325 -3 1010-1100 MTWThF, WuIH 130, 5 cr
511230 -4 1010-1100 MTWThF, MRRC 211, 5 cr
706379 -5 1115-1205 MTWThF, JonesH 4, 5 cr
006470 -6 1220-1310 MTWThF, Kohl S138, 5 cr
107044 -7 1325-1415 MTWThF, FordH 170, 5 cr
- r1104 Intermediate Russian** (prereq 1103)
711436 -1 1115-1310 MW, ChDev 218, 4 cr
806292 -2 1325-1520 MW, ChDev 216, 4 cr (Russ, Russ Area Studies maj only)
211576 -3 1325-1520 MW, ChDev 216, 4 cr
007960 -4 0800-0955 TTh, Arch 15, 4 cr (Russ, Russ Area Studies maj only)
904470 -5 0800-0955 TTh, Arch 15, 4 cr
807474 -6 1115-1310 TTh, ChDev 218, 4 cr (Russ, Russ Area Studies maj only)
406294 -7 1115-1310 TTh, ChDev 218, 4 cr
- r3101 Third-Year Russian** (prereq 1106)
076258 -1 1010-1205 MW, FolH 214, 4 cr
603409 -2 1325-1520 MW, FolH 246, 4 cr
102913 -3 1325-1520 TTh, ChDev 216, Corten, 4 cr
- 3104 Introduction to Literary Analysis** (prereq 3103 or equiv)
204451 0905-1100 TTh, FolH 138, Corten, 4 cr
- 3311 Major Project in Russian** (prereq Russian lang maj or #)
612398 2 cr
- 3311H Honors Course: Major Project in Russian** (prereq honors sr, Russian lang maj or #) (A-F only)
510128 2-4 cr
- 3421 Literature: Middle Ages-Dostoevsky in Translation** (§5421; prereq 1106 or equiv for Russ lang/lit maj)
407526 1115-1310 TTh, FolH 208, Jahn, 4 cr
- 3970 Directed Readings** (prereq #, Δ, □)
804073 3-5 cr
- 5021 Soviet Union Study Tour**
107500 6-18 cr
- r5104 Introduction to Literary Analysis** (prereq 3106 or equiv)
707130 0905-1100 TTh, FolH 138, Corten, 4 cr

- 5421 **Literature: Middle Ages-Dostoevsky in Translation** (§3421)
812125 1115-1310 TTh, FolH 208, Jahn, 4 cr
- 5970 **Directed Readings** (prereq #, Δ, CLA approval)
308569 1-4 cr
- 8777 **Thesis Credits: Masters**
101793 1-16 cr

SANSKRIT (Skt) South Asian & Middle Eastern Studies Liberal Arts

- 5131 **Beginning Sanskrit**
575493 0905-0955 MWF, FolH 426, Malandra, 5 cr
- 5161 **Advanced Sanskrit** (prereq 5133)
775492 Junghare, 4 cr
- 5710 **Topics: Language and Literature**
375494 Malandra, 5 cr

SCANDINAVIAN (Scan) Scandinavian Studies Liberal Arts

- 3604 **Finnish Literature in Translation**
711730 1245-1400 TTh, FolH 50, Vahamaki, 4 cr
- R3606 **The Expressionist Film in Scandinavia**
775542 1115-1205 MF, 1115-1310 W, FolH 116, Mishler, 4 cr
- R3618 **Scandinavian Drama, 1870-1940**
375544 1115-1230 TTh, FolH 234, Stockenström, 4 cr
- 3970 **Directed Studies** (max 15 cr; prereq #, Δ, □)
602356 1-5 cr
- R5202 **Scandinavian Literature from Romanticism to the Modern Breakthrough** (prereq reading knowledge of a Scan language for Scan grad students)
075546 1430-1545 TTh, FolH 334, Houe, 4 cr
- R5704 **History of the Scandinavian Languages**
475549 1325-1415 MWF, FolH 344, 4 cr
- 5970 **Directed Studies** (prereq #, Δ, CLA approval)
105150 1-15 cr
- 8888 **Thesis Credits: Doctoral** (max 18 cr per qtr)
712327 1-36 cr
- 8970 **Research: Scandinavian Literature and Language**
104975 1-6 cr

SCHOOL HEALTH EDUCATION (Hlth) School of Physical Education And Recreation Education

- R3330 **Teaching Health in the Elementary School** (prereq elementary education maj) (A-F only)
509493 1330-1500 TTh, NorrisH 3, Clifford, 3 cr

SCIENCE IN AGRICULTURE (ScAg) Agriculture

- R1001 **Orientation to Science in Agriculture** (S-N only)
105768 1500-1630 M, BorH 335, Hunter, 1 cr
- 5009 **Undergraduate Senior Thesis: Science in Agriculture** (not for grad credit; prereq #) (A-F only)
301699 Hunter, 1-5 cr

SCIENTIFIC COMPUTATION (SciC)

- 8101 **Supercomputer Research Seminar** (max 4 cr) (A-F only)
175125 1315-1430 W, Truhler D., 1 cr (Minnesota Supercomputer Center, 1200 Washington Ave So, Room 3125)

SECONDARY EDUCATION (SeEd) Curriculum And Instruction Education

- R3150 **Introduction to Secondary School Teaching** (prereq educ stu, 5 cr introductory psychology) (A-F only)
007070 -1 LECT 0800-0955 MWF, PeikH 28, Anderson, 5 cr
★LAB (3 hrs ar each week off campus)
611526 -2 LECT 1220-1415 MWF, PeikH 225, Willie, 5 cr (Post-Bac students only)
★LAB (3 hrs ar each week off-campus)
476538 -3 LECT 1325-1520 MWF, PeikH 28, Bruning, 5 cr (Post-Bac students only)
★LAB (3 hrs ar each week off-campus)
- 3151 **Directed Study** (prereq Δ) (A-F only)
404111 1-9 cr
- R3152 **Practicum: Secondary Education** (max 7 cr; prereq educ stu, Δ) (S-N only)
811928 -1 1535-1625 T, PeikH 375, 1 cr (13150) (math maj only)
610554 -2 1535-1625 Th, PeikH 375, 1 cr (2nd qtr math maj only)
809242 -3 1220-1310 TTh, PeikH 325, 335, 375, Orton, 2 cr (13365) (math maj only)
111014 -4 4 cr (social studies maj only)
- R3365 **Teaching Secondary School Mathematics** (prereq 3150, 3155, 13152 lor 2 cr) (A-F only)
509235 1325-1520 TTh, PeikH 325, 335, 375, Orton, 4 cr (13152, sec 3) (math maj only)
- R3366 **Computer Assisted Mathematics Instruction** (prereq 3155, Math 1231 or one year of calculus) (A-F only)
006047 1115-1415 MW, PeikH 355, Stochl, 4 cr
- 3600 **Student Teaching** (prereq Δ) (S-N only)
307924 Anderson E., ar cr
- 3631 **Student Teaching in Second Languages** (S-N only)
804350 Tedick, 3-12 cr
- 3641 **Student Teaching in Social Studies** (max 15 cr; prereq 3350, sr) (S-N only)
911953 Mackey, 3-15 cr
- R3661 **Student Teaching in Mathematics** (prereq 3365 during same year) (S-N only)
710397 1630-1900 Th, PeikH 375, 3-12 cr (addtl hrs ar)
- 5145 **Classroom Management** (§Elem 5145; prereq secondary teaching or administrative experience or #) (A-F only)
701697 1640-1915 M, PeikH 165, Bruning, 3 cr
- R5151 **School-Based Projects in Social Studies Education** (max 12 cr) (A-F only)
304635/Mackey, 1-12 cr
- 5152 **Techniques of Instruction in Social Studies** (A-F only)
402018 0800-1100 MW, PeikH 165, Mackey, 3 cr (Post-Bac students only)
- 5178 **Aspects of Secondary School English** (prereq admission to postbac prog in engl educ, Δ) (A-F only)
910446 1010-1100 T, PeikH 25, Kegler, 3 cr (Post-Bac students only) (addtl hr ar)
- 5185 **School and Professional Based Experiences in Second Languages and Cultures** (max 12 cr; prereq MED students) (A-F only)
202375 -1 Jorstad, 1-12 cr (MEd only)
001964 -2 Lange, 1-12 cr (MEd only)
101994 -3 Paige, 1-12 cr (MEd only)
102613 -4 Tedick, 1-12 cr (MEd only)
010809 -5 Walker, 1-12 cr (MEd only)
704230 -6 1325-1520 TTh, PeikH 215, Tedick, 4 cr (PBS only)
- 5189 **Planning and Assessing Second Language Curriculum** (A-F only)
910401 1220-1415 MW, PeikH 215, Walker, 4 cr (PBS only)
- 5191 **Workshop: Teaching of Second Languages and Cultures** (max 10 cr) (A-F only)
007117 1430-1625 MW, PeikH 215, Tedick, Walker, 4 cr (PBS only)
- R5218 **Assessment of Learners with Limited English Proficiency** (A-F only)
709069 1535-1905 Th, PeikH 215, Walker, 4 cr
- 5304 **Language in School and Society** (prereq Engl 3851 or Engl 5851 or Ling 3001 or equiv, admis to postbac prog in engl ed, Δ) (A-F only)
176543 1220-1415 TTh, PeikH 48, Piche, 3 cr (English postbac students only)

- 5321 **Teaching Literature in Secondary Schools** (A-F only)
507646 1220-1415 MW, PeikH 46, Beach, 3 cr (English Post-Bac students only)
- 5326 **Teaching Film and Television** (A-F only)
776545 1630-1915 Th, PeikH 46, Beach, 3 cr
- 5351 **Directed Study** (max 6 cr; prereq educ or grad stu) (S-N optional)
405467 -1 Beach, ar cr
305638 -2 Bruning, ar cr
002614 -3 Finley, ar cr
101574 -4 Gennaro, ar cr
710657 -5 Heller, ar cr
008641 -6 Johnson, ar cr
706656 -7 Jorstad, ar cr
504634 -8 Mackey, ar cr
976558 -9 Paige, ar cr
976561 -10 Tedick, ar cr
576563 -11 Walker ar cr
- 5390 **Current Developments in Secondary School Science Teaching** (prereq 3356, 3357 or equiv undergrad courses or experience teaching science) (A-F only)
176548 1630-1915 T, PeikH 365, Gennaro, 3 cr
- 5395 **School-Based Projects in Science Education** (max 12 cr; prereq MED student in science education) (A-F only)
002225 -1 Finley, 1-12 cr
176551 -2 Gennaro, 1-12 cr
112008 -3 Heller, 1-12 cr
508425 -4 Johnson, 1-12 cr
004332 -5 Lawrenz, 1-12 cr
- 5397 **Studies in Science Education** (§8897; prereq MED student, #) (A-F only)
077006 1800-2100 W, PeikH 365, Finley, 3 cr
- 5659 **School-Related Projects in Language Arts** (max 6 cr; prereq MED student in English education) (A-F only)
604818 -1 Beach, 1-6 cr
004301 -2 Graves, 1-6 cr
112471 -3 Kegler, 1-6 cr
676554 -4 Piche, 1-6 cr
- 5700 **Science Education for the Middle School** (prereq science education program participant or #) (A-F only)
906591 0905-1100 TTh, PeikH 365, Heller, 2 cr (postbac students only)
- 5701 **Applying Science Education to the Middle School** (prereq science education program participant or #, 15700) (A-F only)
504536 1115-1325 W, PeikH 365, Heller, 2 cr (postbac students only)
- 5704 **Clinical Experience in Science Teaching** (prereq 5702, 5703, #, 15705) (S-N only)
176565 -1 Gennaro, 12 cr (off-campus)
076566 -2 12 cr (off-campus)
- 5705 **Seminar: Reflecting on Clinical Experience in Science Teaching** (prereq 5702, 5703, #, 15704) (A-F only)
876567 1630-1900 Th, PeikH 365, Heller, 3 cr
- 8387 **Research Seminar: Second Languages and Cultures Education** (max 9 cr; prereq 8188)
706544 1430-1730 M, PeikH 27, Jorstad, 3 cr
- 8801 **Problems: Teaching Social Studies** (prereq 5150, 5152, 5156, 8104 or #)
610084 -1 Mackey, 3-9 cr
- 8871 **Problems: Curriculum Construction** (prereq #)
102448 -1 Finley, ar cr
276573 -2 Heller, ar cr
- 8887 **Research Foundations of Secondary School Science Teaching**
676568 1800-2100 W, PeikH 365, Finley, 3 cr
- 8894 **Problems: Second Languages and Cultures Education** (max 8 cr)
406375 -1 1535-1900 T, PeikH 315, Tedick, 3 cr
905893 -2 Jorstad, ar cr
602616 -3 Lange, ar cr
411379 -4 Paige, ar cr
876570 -5 Tedick, ar cr
476569 -6 Walker, 3 cr
- 8895 **Readings in English Education**
701845 -1 Beach, 1-3 cr
212209 -2 Kegler, 1-3 cr
801898 -3 Piche, 1-3 cr
- 8896 **Problems: Teaching English**
703546 -1 Beach, ar cr
406960 -2 Kegler, ar cr
310127 -3 Piche, ar cr

- 8898 Readings in Second Languages and Cultures Education**
 905148 -1 Jorstad, 1-3 cr
 406537 -2 Lange, 1-3 cr
 111675 -3 Paige, 1-3 cr
 101955 -4 Tedick, 1-3 cr
 176574 -5 Walker, 1-3 cr

**SLAVIC (Slav)
 Russian And East European Studies
 Liberal Arts**

- 5900 Topics in Russian and East European Studies (max 12 cr)**
 175495 -1 1430-1730 Th, FolH 142, Liberman, 4 cr
 075496 -2 1820-2100 Th, FolH 142, 4 cr

**SMALL ANIMAL CLINICAL SCIENCES (SACS)
 Veterinary Medicine**

- 5000 Clinical Small Animal Medicine (prereq #) (S-N only)**
 510059 6 cr
- 5002 Clinical Small Animal Surgery (prereq #) (S-N only)**
 907918 Caywood, Lipowitz, others, 8 cr
- 5004 Clinical Small Animal Specialties (prereq #) (S-N only)**
 006968 6 cr
- 5008 Clinical Anesthesiology (prereq #) (S-N only)**
 803053 Raffe, Robinson E., 4 cr
- 5008 Clinical Radiology (prereq #) (S-N only)**
 803456 Feeney, Johnston G., others, 4 cr
- 5171 Small Animal Medicine (prereq 5170 or #) (A-F only)**
 112526 0900-0950 MWThF, VetTchHos A325, Hardy, Klausner, others, 4 cr
- 5255 Diseases of the Urinary System (prereq regis 3rd or 4th yr vet med or grad or #)**
 704972 1300-1450 M, VetTchHsp 308, Osborne, Polzin, 2 cr (SACS conf rm)
- 5380 Anesthesiology and Critical Care (prereq 5170 or #) (A-F only)**
 509896 1100-1150 M, 1000-1050 WTh, AnScVM 125, Raffe, Robinson E., 3 cr
- 5398 Independent Research in Veterinary Anesthesiology (prereq registered in veterinary medicine or grad or #)**
 108887 Robinson E., 1-6 cr
- 5452 Veterinary Radiology II (prereq 5451 or #) (A-F only)**
 ★LECT 1000-1050 MF, AnScVM 135, Feeney, Johnston G., others
 606309 -1 LAB 1300-1550 W, VetTchHos A325, 3 cr
 109433 -2 LAB 1300-1550 T, VetTchHos A325, 3 cr
- 5453 Special Procedures in Veterinary Radiology (prereq regis 3rd or 4th yr vet med or grad or #) (A-F only)**
 204966 1500-1650 M, VetTchHsp 282, Johnston G., Feeney, others, 2 cr
- 8180 Advanced Clinical Neurology (prereq #)**
 105401 Fletcher, Hardy, ar cr
- 8190 Comparative Cardiovascular Diseases (prereq grad)**
 303713 Ogburn, 3 cr
- 8191 Advanced Comparative Electrocardiology (prereq grad, #)**
 504293 Ogburn, 3 cr
- 8192 Special Cardiology Clinics (prereq grad, #)**
 209875 Ogburn, ar cr
- 8196 Internal Medicine in Small Companion Animals (prereq grad, #)**
 605256 Osborne, 2 cr
- 8197 Advanced Dermatologic Clinics (prereq grad, #) (A-F only)**
 507842 McKeever, 4 cr
- 8198 Problems in Veterinary Comparative Dermatology (prereq grad, #)**
 003956 McKeever, ar cr

- 8200 Directed Studies in Veterinary Comparative Dermatology (prereq grad, #) (A-F only)**
 306952 McKeever, 2 cr
- 8290 Advanced Veterinary Medicine (prereq 5172, LACS 5162, #)**
 702106 Osborne, Polzin, ar cr
- 8291 Advanced Diagnosis and Therapeutics of Animal Diseases (prereq 5172, LACS 5162, #)**
 211867 Osborne, ar cr
- 8292 Seminar: Veterinary Medicine (prereq grad, #)**
 703918 Osborne, ar cr
- 8293 Medical Conference (prereq 5172, LACS 5162, #)**
 505895 Osborne, ar cr
- 8295 Comparative Veterinary Medical Ophthalmology (prereq grad or #)**
 612207 Bistner, 3 cr
- 8296 Comparative Veterinary Surgical Ophthalmology (prereq grad or #)**
 302044 Bistner, 3 cr
- 8297 Advanced Clinical Veterinary Ophthalmology (prereq grad or #)**
 304490 Bistner, 3 cr
- 8298 Research in Veterinary Ophthalmology (prereq grad or #)**
 212436 Bistner, 3-5 cr
- 8299 Research in Veterinary Medicine**
 305140 ar cr
- 8390 Seminar: Veterinary Surgery (prereq 5360, 5365 or equiv, #)**
 106161 Wallace, Lipowitz, others, ar cr
- 8391 Advanced Small Animal Surgery (prereq CVM 5350 or equiv, #)**
 105074 -1 Wallace, Lipowitz, others, ar cr
 912570 -2 Wallace, Lipowitz, others, ar cr
- 8394 Surgery of the Gastrointestinal System (prereq LACS 5160 or #)**
 712232 Caywood, Lipowitz, ar cr
- 8398 Research in Veterinary Anesthesia (prereq grad of professional veterinary curriculum, 8396, LACS 8397 or equiv, #) (A-F only)**
 305462 Raffe, Robinson E., 2-4 cr
- 8399 Seminar: Veterinary Anesthesia (prereq grad of professional veterinary curriculum, 8396, LACS 8397 or equiv, #) (A-F only)**
 302092 Raffe, Robinson E., 1-4 cr
- 8410 Surgical Physiology (prereq 8391, #)**
 611218 Wallace, Caywood, 2 cr
- 8420 Neurosurgery (prereq 6391 or equiv, #) (A-F only)**
 402942 Wallace, 2-3 cr
- 8430 Thoracic and Cardiovascular Surgery (prereq 8391, #)**
 610456 Caywood, Lipowitz, 3 cr
- 8471 Therapeutic Radiology (max 2 cr; prereq 5452, #)**
 408174 Feeney, Johnston G., others, ar cr
- 8480 Seminar: Veterinary Radiology (prereq 5452, #)**
 308846 0800-0850 T, VetTchHsp 282, Walter, Feeney, others, 1 cr
- 8490 Advanced Veterinary Radiology (prereq 5450, 5451, 5452 or equiv, #) (A-F only)**
 608366 Feeney, Johnston G., others, 1-2 cr
- 8491 Fundamentals of Nuclear Medicine (prereq #) (A-F only)**
 907854 Johnston G., Feeney, others, ar cr
- 8492 Radiation Biology (max 3 cr; prereq grad, #) (A-F only)**
 811573 Feeney, Johnston G., others, 1-3 cr

**SOCIAL, ADMINISTRATIVE, AND HOSPITAL PHARMACY (SAHP)
 See (Phar)**

**SOCIAL AND ADMINISTRATIVE PHARMACY (SAPH)
 Social, Administrative, and Hospital Pharmacy
 Pharmacy**

- 8100 Seminar**
 405453 -1 0800-0955 Th, HSUnitF 7193, Daniels, 1 cr
 412368 -2 1430-1625 Th, HSUnitF 7193, Hadsall, 1 cr
- 8200 Research Problems**
 711386 Hadsall, ar cr
- 8210 Experimental Pharmacotherapeutics I (A-F only)**
 803554 1325-1520 T, HSUnitF 7193, Canafax, 2 cr
- 8290 Clinical Clerkship (prereq 8270)**
 410023 2-5 cr
- 8400 Special Clinical Problems**
 205910 ar cr
- 8700 Hospital Administration (A-F only)**
 908213 1500-1700 Th, HSUnitF 7191, Daniels, 2 cr
- 8777 Thesis Credits: Masters**
 005870 1-16 cr
- 8888 Thesis Credits: Doctoral (max 18 cr per qtr)**
 307793 1-36 cr

**SOCIAL AND PHILOSOPHICAL FOUNDATIONS OF EDUC (SPFE)
 Educational Policy And Administration
 Education**

- 8777 Thesis Credits: Masters**
 101784 1-16 cr

**SOCIAL WORK (SW)
 Human Ecology**

- R1001 Introduction to Social Welfare and Community Services**
 111957 0905-1100 MW, BlegH 235, Pandey, 5 cr
- 3970 Directed Studies**
 606195 1-15 cr
- 3990 Directed Research (prereq #)**
 807331 ar cr
- R5024 Multidisciplinary Perspectives on Aging (AdEd 5440, CPsy 5305, Educ 5440, HSU 5009, PA 5414, PubH 5520, PubH 5737, SAHP 5009, Soc 5960)**
 205017 1640-1825 MW, MoosT 2690, Quam, 4 cr
- 5111 Contemporary Policy and Programs in Social Welfare (prereq grad standing or 12 cr in social sciences)**
 109173 0800-1100 T, FordH 175, Pandey, 3-4 cr
- 5211 Advanced Theories of Human Growth and Change (prereq grad standing or 12 cr in social sciences)**
 703109 0800-1100 Th, FordH 175, Brookins, 3-4 cr
- 5349 Social Welfare in America (SHist 5349)**
 108329 1115-1230 TTh, AndH 350, Chambers, 3-4 cr
- R5601 Ethno-Cultural Concepts in Social Work Practice**
 011278 1430-1730 M, FordH 60, Williams, 3-4 cr
- 8010 Field Instruction I (8010+; 4 cr or ar cr by #) (S-N only)**
 410183 Johnston, ar cr
- 8020 Field Instruction II (8020+; 4 cr or ar cr by #; prereq 8010) (S-N only)**
 012544 Johnston, ar cr (alt M)
- 8030 Field Instruction in Social Work III (8030+; prereq 8020) (S-N only)**
 006274 Johnston, ar cr
- R8121 Social Policy and Delivery Systems for Family and Children's Services (prereq 5111)**
 107052 1220-1520 T, BlegH 135, Wattenberg, 3 cr

- r8122 Health/Mental Health Policy** (prereq 5111)
607086 1325-1625 T, FordH 349, Bracht, 3 cr
- r8300 Organizations and Community Systems**
006503 1430-1730 M, FordH 285, Carter, 3 cr
- r8350 Planned Social Change**
605353 1325-1625 T, FordH 160, Umbreit, 3 cr
- r8400 Social Work Methods I** (prereq 18010)
★LECT 1315-1445 T, FordH 115, Rooney
712406 -1 REC 1500-1630 T, FordH 50, Rooney,
3 cr
210217 -2 REC 1500-1630 T, FordH 115, Quam,
3 cr
804087 -3 REC 1500-1630 T, FordH 70, 3 cr
- r8406 Supervision and Consultation in Social
Work Practice** (prereq 8401, #)
404383 0800-1100 Th, FordH 160, Sullivan, 3 cr
- r8407 Strategies of Family Intervention** (prereq
8401, 2nd yr MSW student, #)
810150 0800-1100 T, FordH 160, Peterson, 3 cr
- r8421 Social Work Practice: Psychopathology and
Intervention**
003469 1430-1730 M, FordH 160, Abramson, 3 cr
- r8424 Social Work with Involuntary Clients** (prereq
8401)
005190 0800-1100 M, FordH 160, Rooney, 3 cr
- r8450 Special Topics: Practice with Individuals,
Families, and Groups: Direct Work with
Adolescents** (prereq 8401 or #)
210346 0905-1205 Th, McNH 22, Beker, 3 cr
(SIP)
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
208290 1-36 cr
- r8902 Direct Practice Evaluation** (prereq 8901 or
equiv)
375396 0800-1100 T, FordH 349, Gilgun, 3 cr
- 8970 Directed Study** (prereq #)
202506 -1 ar cr
004587 -2 ar cr
- 8990 Research Projects** (max 6 cr)
308037 ar cr
- r8991 Research Seminar** (prereq doctoral student)
609050 0800-1100 Th, FordH 349, Jones, 3 cr

SOCIOLOGY (Soc) Liberal Arts

- r1001 Introduction to Sociology**
311911 -1 0800-0850 MWF, AndH 210, 4 cr
009126 -2 1010-1100 MWF, JonesH 11, 4 cr
(MLK stu only)
406277 -3 1220-1310 MWF, BlegH 5, Fulton, 4 cr
977158 -4 0945-1100 TTh, AndH 310, Spitzer,
4 cr
- r1001H Honors Course: Introduction to Sociology**
106492 1115-1230 TTh, HHCtr 35, Kennedy,
4 cr
- r3201 Principles of Social Psychology** (prereq
1001)
★LECT 1245-1400 TTh, BlegH 150, Spitzer
076356 -1 LAB 0800-0940 T, BlegH 260, 5 cr
876357 -2 LAB 0955-1135 T, BlegH 260, 5 cr
476359 -3 LAB 0800-0940 Th, BlegH 260, 5 cr
876360 -4 LAB 0955-1135 Th, BlegH 260, 5 cr
- r3214 Understanding Everyday Life** (prereq soph or
jr or sr)
676361 1010-1100 MWF, AndH 370, Fulton, 4 cr
- r3401 Principles of Social Organization** (prereq
1001, 3801)
★LECT 0800-0850 MWF, AndH 230,
Savelsberg
210718 -1 LAB 0905-1045 M, Law 1, 5 cr
308698 -2 LAB 1100-1240 M, Law 1, 5 cr
206717 -3 LAB 0905-1045 W, Law 1, 5 cr
504701 -4 LAB 0905-1045 F, Law 1, 5 cr
- r3405 Inequality: Introduction to Stratification**
(prereq 1001)
802744 0815-0930 TTh, BlegH 155, Nelson, 4 cr
- r3481 Modern Japanese Society** (SEAS 3481;
prereq introductory sociology or #)
476362 1220-1310 MWF, BlegH 145, Broadbent,
4 cr
- r3524 America's Sexual Crisis**
305008 1115-1205 MWF, AndH 370, Reiss, 4 cr
- r3801 Sociological Methods I: Descriptive
Statistics** (prereq intermediate algebra or GC
0631)
★LECT 0945-1100 TTh, BlegH 10,
411351 -1 LAB 0755-0845 MW, BlegH 90, 5 cr
110114 -2 LAB 0900-0950 MW, BlegH 90, 5 cr
410328 -3 LAB 1025-1115 MF, BlegH 90, 5 cr
606942 -4 LAB 1125-1215 MF, BlegH 90, 5 cr
102465 -5 LAB 1325-1415 MF, BlegH 90, 5 cr
- r3801H Honors Course: Sociological Methods I:
Descriptive Statistics** (prereq intermediate
algebra or GC 0631 or #)
★LECT 0945-1100 TTh, BlegH 10,
310810 -80 LAB 1225-1315 MF, BlegH 90, 5 cr
- r3803 Sociological Methods III: Research Methods**
(prereq 3801, 3802 or equiv or #)
★LECT 1115-1230 TTh, BlegH 130,
Anderson R.
904887 -1 LAB 0800-0850 MW, HHCtr 35, 5 cr
105219 -2 LAB 0905-0955 MW, HHCtr 35, 5 cr
511468 -3 LAB 1010-1100 MW, HHCtr 35, 5 cr
276363 -4 LAB 0800-0850 TTh, HHCtr 35, 5 cr
- r3811 Computer Usage for Social Statistics** (13801
rec) (S-N only)
802078 1430-1630 M, BlegH 90, 1 cr
- r3960 Topics in Sociology** (prereq 1001)
777159 1325-1415 MWF, AndH 230, Brewer, 4 cr
- r3966 Major Projects Seminar** (prereq all other
required Soc coursework, Comp 3014, Δ) (A-F
only)
606424 -1 1115-1230 TTh, BlegH 205, Nelson,
4 cr
101638 -2 1115-1230 TTh, HHCtr 30, Ward,
4 cr
177157 -3 1115-1230 TTh, BlegH 225, 4 cr
- 3970 Directed Studies** (prereq #, Δ, □)
303291 1-15 cr
- 3990 Sociology Honors Thesis** (max 8 cr; prereq jr
or sr sociology honors student, #, Δ, □)
408546 4-8 cr
- r5104 Community-Based Corrections** (§CJS 5113;
prereq 3102 or #)
176364 0905-0955 MWF, BlegH 230, Carlson,
4 cr
- r5107 Comparative Criminology and Criminal
Justice Systems** (§CJS 5121; prereq 3102 or
#)
976365 1245-1400 TTh, BlegH 250, Ward, 4 cr
- r5142 Juvenile Justice Law and Organization**
(§CJS 5103; prereq 3101, 3102 or #...5161,
5162 rec)
003648 1415-1700 Th, BlegH 220, Malmquist, 4 cr
- r5651 Rural Social Institutions** (prereq any 3xxx
sociology course or #)
576367 0905-0955 MWF, BlegH 350, Donohue,
4 cr
- r5701 Analytical Social Theory** (prereq 8 cr in social
science or #)
108007 1010-1100 MWF, BlegH 155, Cooperman,
4 cr
- r5801 Computer Methods in Social Research**
776386 0900-1015 TTh, HHCtr 35, Anderson R.,
4 cr
- r5812 Content Analysis Methods** (prereq 3803 or
equiv or #)
176369 0815-0930 TTh, BlegH 205, McTavish,
4 cr
- r5855 Sociology of Medicine and Health Care: An
Introduction to Medical Sociology** (§PubH
5790; prereq jr or sr or grad student)
503208 1115-1205 MWF, Mayo C381, Litman,
4 cr
- r5954 Sociology of Gender** (prereq 3401 or #)
376368 1100-1215 WF, Law 1, Laslett, 4 cr
- r5960 Topics in Sociology** (prereq 1001)
806504 1640-1825 MW, MoosT 2690, Copeland,
Galle B., others, 4 cr (Multidisciplinary
Perspectives on Aging)
- 5970 Directed Studies** (prereq #, Δ, CLA approval)
212520 1-15 cr
- 8090 Topics in Sociology** (prereq #)
905909 ar cr
- r8421 Life Course Perspectives in the Sociology of
Work**
977161 1325-1600 F, BlegH 330, Mortimer, 3 cr

- r8551 Seminar: Problems in Population Research**
177160 1415-1645 Th, BlegH 260, Kennedy, 3 cr
- r8701 Seminar: Social Theory** (prereq 1st yr
sociology grad stu or #)
103298 1500-1730 W, BlegH 210, Laslett, 4 cr
- r8714 Comparative Sociology: Perspectives in
Theory and Research**
576370 1520-1750 M, Law 1, Broadbent, 3 cr
- r8725 Seminar: Theory Construction** (prereq 1st yr
sociology grad student or #)
206300 1325-1505 MW, BlegH 205, Cooperman,
4 cr
- 8777 Thesis Credits: Masters**
110288 1-16 cr
- r8811 Methods of Social Research** (prereq 3802,
3803 or #)
★LECT 1325-1440 MW, BlegH 260,
McTavish
707290 -1 LAB 1325-1500 Th, SocSci 101, 4 cr
606308 -2 LAB 1325-1500 F, SocSci 101, 4 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
910138 1-36 cr

SOIL SCIENCE (Soil) Agriculture

- r3104 Computer Applications in Soil Science**
106198 1300-1500 M, BorH 375, Robert, 2 cr
- r3125 Basic Soil Science** (§1020; prereq Chem 1001
or Chem 1004)
★LECT 0935-1025 MWF, BorH 335,
Cooper
211903 -1 REC 0830-0920 Th, Soils S415,
Cooper, 5 cr
706804 -2 REC 0935-1025 Th, Soils S415,
Cooper, 5 cr
804221 -3 REC 1040-1130 Th, Soils S415,
Cooper, 5 cr
★LAB 1200-1700 M, 0900-2100 TW, BorH
242, (2 hr lab ar, M p.m. to W p.m.)
- 3521 Collegiate Soil Judging** (max 3 cr; prereq
3520) (A-F only)
107522 Cooper, 1 cr
- 5114 Special Problems in Soils** (max 10 cr; prereq
1122 or #)
404075 1-5 cr
- 5232 Soil Physics: Transport Processes in Soil**
(prereq Math 1142, two quarters of Phys or #)
★LECT 0935-1025 MWF, BorH 375, Gupta
312072 -1 LAB 0935-1235 T, BorH 191, Gupta,
4 cr
- 5560 Uses and Interpretation of Soil Survey
Information** (prereq 3520 or #) (A-F only)
002581 1630-1745 TTh, Soils S521, Anderson,
3 cr
- r5610 Soil Biology** (prereq 1122, PIPa 1001 or #)
★LECT 1040-1130 MWF, BorH 375,
Graham
404044 -1 LAB 1355-1550 T, Soils S332,
Graham, 4 cr
- 8000 Supervised Teaching Experience** (§Agro
8000, Hort 8000; prereq #) (S-N only)
810732 1350-1440 M, BorH 409, Allan, 2 cr
- 8124 Research Problems in Soils**
706012 2-5 cr
- 8128 Seminar: Soils** (S-N only)
606133 1605-1800 M, BorH 375, 1 cr
- 8777 Thesis Credits: Masters**
108002 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
403069 1-36 cr

SOUTH ASIAN STUDIES (SoAS) South Asian & Middle Eastern Studies Liberal Arts

- 5970 Directed Studies**
505010 ar cr
- 5990 Directed Research**
511146 ar cr
- 8777 Thesis Credits: Masters**
312184 1-16 cr

8888 Thesis Credits: Doctoral (max 18 cr per qtr)
109996 1-36 cr

8990 Research
003522 ar cr

SOVIET CENTRAL ASIAN STUDIES (SCAS)

Russian And East European Studies Liberal Arts

- 3531 Soviet Central Asian Culture Sphere
804784 1430-1520 MWF, FolH 218, Bashiri, 4 cr
- 3601 Fiction: Iran and Soviet Central Asia (SMidE 3601)
475499 1010-1100 MWF, FolH 138, Bashiri, 4 cr
- 5601 Fiction: Iran and Soviet Central Asia (SMidE 5601)
375513 1010-1100 MWF, FolH 138, Bashiri, 4 cr
- 5990 Directed Research (prereq #)
011023 1430-1520 MWF, FolH 218, Bashiri, ar cr

SPANISH (Span)

Spanish And Portuguese Liberal Arts

- r1101 Beginning Spanish
105026 -1 0800-0850 MTWThF, VinH 209, 5 cr
011958 -2 0905-0955 MTWThF, Arch 45, 5 cr
110350 -3 1115-1205 MTWThF, Arch 60, 5 cr
212369 -4 1220-1310 MTWThF, KoltH S140, 5 cr
306093 -5 1220-1310 MTWThF, Arch 15, 5 cr
509865 -6 1325-1415 MTWThF, AmundH 104, 5 cr
907515 -7 1325-1415 MTWThF, Arch 15, 5 cr
102295 -8 1430-1520 MTWThF, KoltH S132, 5 cr
- r1102 Beginning Spanish (prereq 1101)
209424 -1 0800-0850 MTWThF, AmundH 158, 5 cr
306563 -2 0905-0955 MTWThF, PeikH 225, 5 cr
201730 -3 1115-1205 MTWThF, FolH 104, 5 cr
305896 -4 1220-1310 MTWThF, KoltH S139, 5 cr
009269 -5 1325-1415 MTWThF, AmundH 124, 5 cr
607878 -6 1430-1520 MTWThF, AmundH 156, 5 cr
- r1103 Beginning Spanish (prereq 1102)
208046 -1 0800-0850 MTWThF, KoltH S134, 5 cr
802159 -2 0905-0955 MTWThF, KoltH S135, 5 cr
411513 -3 1010-1100 MTWThF, PeikH 225, 5 cr
712361 -4 1115-1205 MTWThF, AkerH 309, 5 cr
111568 -5 1220-1310 MTWThF, AmundH 158, 5 cr
206443 -6 1325-1415 MTWThF, AmundH 158, 5 cr
411320 -7 1430-1520 MTWThF, AmundH 158, 5 cr
202070 -8 1430-1520 MTWThF, KoltH S135, 5 cr
- r1104 Intermediate Spanish (prereq 1103 or 3 yrs high school Spanish)
103687 -1 0800-0850 MTWThF, KoltH S135, 5 cr
104183 -2 0905-0955 MTWThF, AmundH 158, 5 cr
712506 -3 0905-0955 MTWThF, JonesH 11, 5 cr
203302 -4 1010-1100 MTWThF, Arch 60, 5 cr
407820 -5 1115-1205 MTWThF, Arch 15, 5 cr
506822 -6 1220-1310 MTWThF, KoltH S137, 5 cr
003696 -7 1220-1310 MTWThF, KoltH S134, 5 cr
911550 -8 1325-1415 MTWThF, AkerH 309, 5 cr
804235 -9 1325-1415 MTWThF, KoltH S137, 5 cr
105701 -10 1430-1520 MTWThF, KoltH S136, 5 cr
311178 -11 1430-1520 MTWThF, KoltH S134, 5 cr
- r1105 Intermediate Spanish (prereq 1104 or 4 yrs high school Spanish)
110185 -1 0800-0850 MTWThF, Arch 20, 5 cr
912228 -2 0905-0955 MTWThF, AmundH 116, 5 cr
107519 -3 1010-1100 MTWThF, Arch 15, 5 cr
405033 -4 1115-1205 MTWThF, FolH 326, 5 cr
202327 -5 1220-1310 MTWThF, AkerH 309, 5 cr
103950 -6 1325-1415 MTWThF, KoltH S135, 5 cr
902752 -7 1430-1520 MTWThF, KoltH S133, 5 cr
- r1106 Intermediate Spanish (prereq 1105 or 5 yrs high school Spanish)
502043 -1 0800-0850 MTWThF, KoltH S132, 5 cr
409020 -2 0905-0955 MTWThF, KoltH S134, 5 cr
106038 -3 1010-1100 MTWThF, AkerH 211, 5 cr
205504 -4 1115-1205 MTWThF, KoltH S134, 5 cr
905702 -5 1220-1310 MTWThF, Phys 236A, 5 cr
702753 -6 1325-1415 MTWThF, KoltH S134, 5 cr

r1501 Culture, Civilization of Spain, Portugal: The
Route of Modern Spain, Portugal
110722 1220-1310 MWF, FolH 340, 4 cr

r3002 Reading for Speed and Comprehension
(prereq 1106 or equiv)
007201 -1 0905-0955 MWF, FolH 50, 4 cr
308894 -2 1325-1415 MWF, FolH 312, 4 cr

r3004 Written Communication: Formal and
Informal (prereq 1106 or equiv)
106208 -1 0800-0850 MWF, FolH 104, 4 cr
711405 -2 1115-1205 MWF, FolH 344, 4 cr

r3005 Oral Communication: Speaking and
Listening (prereq 1106 or equiv)
203056 -1 0800-0850 MTWThF, FolH 50, 4 cr
910396 -2 1010-1100 MTWThF, FolH 50, 4 cr

r3104 The Art of Reading Literary Texts (SLAS
3104, Spn 3104; prereq 3002)
108332 -1 0905-0955 MWF, FolH 104, Jones,
4 cr
107858 -2 1115-1230 TTh, FolH 344, Zahareas,
4 cr

r3251 Spanish-American Literature: Aspects of
Prose and Fiction (prereq 3104)
604706 1010-1100 MWF, FolH 104, Vidal, 4 cr

r3251H Honors Course: Spanish-American
Literature: Aspects of Prose and Fiction
(prereq 3104, honors student or #)
502754 1010-1100 MWF, FolH 104, Vidal, 4 cr

r3502 Spanish Civilization: Modern Spain (SLAS
3502; prereq 3002)
875614 1115-1205 MWF, FolH 218, Sullivan, 5 cr

r3512 Spanish-American Civilization: Modern
Latin America (SLAS 3513; prereq 3002)
675615 1220-1310 MWF, FolH 104, Vidal, 5 cr

r3702 The Structure of Spanish: Morphology and
Syntax (prereq 3004 or #)
475616 1245-1400 TTh, BuH 120, Ocampo, 4 cr

3970 Directed Studies (prereq #, Δ, □)
602258 1-5 cr

3973 Major Project (A-F only)
307468 2 cr

5106 The Literature of the Reconquest and Feudal
Spain (prereq 3xxx or 5xxx literature courses in
Span or Port)
275617 1515-1800 Th, FolH 138, Zahareas, 4 cr

5272 Hispanic Modernism (prereq three 3xxx or
5xxx Spanish or Portuguese literature courses
or Δ) (A-F only)
175618 1515-1800 W, FolH 134, Talens, 4 cr

5527 National Literary Consciousness and Free
Trade (SLAS 5527; prereq three 3xxx or 5xxx
Span or Port lit courses or Δ)
975619 1515-1800 W, FolH 240, Vidal, 4 cr

5910 Topics in Spanish Peninsular Literature
(max 12 cr; prereq 3104 or SpPt 3104 or Δ)
902993 1515-1800 M, FolH 134, Talens, 4 cr

5970 Directed Readings (max 15 cr; prereq #, Δ,
CLA approval)
109456 1-5 cr

5990 Directed Research (prereq #, Δ, CLA
approval)
706463 1-5 cr

8200 Spanish Literary Texts: Theories of Formal
Structures
275620 1515-1800 T, FolH 246, Zahareas, 4 cr

8730 Seminar in Spanish and Portuguese Syntax
(prereq 5713 or #) (A-F only)
175621 1535-1625 TTh, FolH 218, Ocampo, 4 cr

8777 Thesis Credits: Masters
904372 1-16 cr

8888 Thesis Credits: Doctoral (max 18 cr per qtr)
410362 1-36 cr

8970 Directed Readings in Romance Languages
(prereq Δ)
611333 ar cr

SPANISH-PORTUGUESE (SpPt)

Spanish And Portuguese Liberal Arts

3980 Directed Instruction (max 8 cr; prereq #, Δ,
□) (S-N only)
404335 1-4 cr

5999 The Teaching of College-Level Spanish and
Portuguese: Theory and Practice (A-F only)
411141 1010-1100 MWF, VinH 301, Klee, 4 cr

SPEECH-COMMUNICATION (Spch)

Liberal Arts

r1101 Fundamentals of Speech-Communication:
Oral Communication (\$1441)
801951 -1 0800-0955 M, FolH 334, 0800-0955 F,
FolH 419, 4 cr

312489 -2 1010-1205 MW, FolH 334, 4 cr
505380 -3 1010-1205 MW, FolH 318, 4 cr
012446 -4 1220-1415 MW, FolH 208, 4 cr
903707 -5 0800-0955 TTh, FolH 318, 4 cr
207835 -6 0800-0955 TTh, FolH 326, 4 cr
705197 -7 1010-1205 TTh, FolH 318, 4 cr
507906 -8 1010-1205 TTh, FolH 214, 4 cr
107075 -9 1220-1415 TTh, FolH 340, 4 cr

r1102 Fundamentals of Speech-Communication:
Communication Process
002371 1115-1205 MWThF, NichH 211, 4 cr

1110 Freshman Discussion and Debate (prereq
freshman who qualify for freshman debate
squad, #)
912004 1430-1625 WF, FolH 344, 2 cr

r1313 Analysis of Oral Argument
504147 -1 0800-0955 MW, FolH 318, 4 cr
103406 -2 0800-0955 TTh, FolH 334, 4 cr
304120 -3 1010-1205 TTh, FolH 334, 4 cr
706141 -4 1220-1415 TTh, FolH 326, 4 cr

r3191H Honors Course: Tutorial Seminar in Speech
(prereq honors candidate in
speech-communication, #, Δ)
402374 1325-1520 MW, SmithH 111, Shapiro,
4 cr

r3201 Introduction to Broadcasting Production
707984 -1 0800-0955 MW, RangC 610, 4 cr
010129 -2 1010-1205 MW, RangC 610, 4 cr
110834 -3 0800-0955 TTh, RangC 610, 4 cr
407316 -4 1430-1625 TTh, RangC 616, 4 cr

r3211 Determinants of Broadcast Programming
811086 1010-1205 MW, FolH 306, 4 cr

r3291 Broadcasting and New Telecommunication
Media (prereq 3211 or #)
806566 -1 0800-0955 MW, FolH 419, 4 cr
(spch-comm maj only)
210993 -2 0800-0955 MW, FolH 419, 4 cr

r3401 Theories of Person to Person
Communication (prereq 1102 or #, Psy 1001)
101882 1115-1310 TTh, Moost 2620, Sykes, 4 cr

r3411 Small Group Communication Processes
(\$3641; prereq 1101 or #)
308345 -1 0800-0955 MW, FolH 312, 4 cr
(spch-comm maj only)
805899 -2 0800-0955 MW, FolH 312, 4 cr
609273 -3 0800-0955 MW, FolH 312, 4 cr (SMgt
or pre-bus or pre-mgmt maj only)
602177 -4 1010-1205 MW, FolH 312, 4 cr
(spch-comm maj only)
001737 -5 1010-1205 MW, FolH 312, 4 cr
808267 -6 1010-1205 MW, FolH 312, 4 cr (SMgt
or pre-bus or pre-mgmt maj only)
707273 -7 0800-0955 TTh, FolH 312, 4 cr
(spch-comm maj only)

407977 -8 0800-0955 TTh, FolH 312, 4 cr
111207 -9 0800-0955 TTh, FolH 312, 4 cr (SMgt
or pre-bus or pre-mgmt maj only)
102028 -10 1010-1205 TTh, FolH 312, 4 cr
(spch-comm maj only)
302061 -11 1010-1205 TTh, FolH 312, 4 cr
202196 -12 1010-1205 TTh, FolH 312, 4 cr (SMgt
or pre-bus or pre-mgmt maj only)
102197 -13 1220-1415 TTh, FolH 312, 4 cr
(spch-comm maj only)
008381 -14 1220-1415 TTh, FolH 312, 4 cr
307809 -15 1220-1415 TTh, FolH 312, 4 cr (SMgt
or pre-bus or pre-mgmt maj only)

r3431 The Role of Persuasion in the Modern World
(soph standing rec)
505377 -1 0800-0955 MW, PeikH 155, Scott, 4 cr
(spch-comm maj only)
409826 -2 0800-0955 MW, PeikH 155, Scott, 4 cr

r3441 Communicating in Organizations (prereq
1102 or 1101 or equiv)
312315 -1 0800-0955 WF, FolH 334, 4 cr
(spch-comm maj only)
503886 -2 0800-0955 WF, FolH 334, 4 cr

- R3451 Intercultural Communication: Theory and Practice** (SUC 3701; prereq planning an intercultural experience)
103213 1325-1520 MW, FolH 104, 4 cr
- R3452 Communication and the Intercultural Reentry** (SUC 3703; prereq return from an intercultural experience)
811167 1325-1520 TTh, FolH 318, 4 cr
- R3605 Persuasive Speaking** (prereq 1101)
312363 -1 1010-1205 MW, FolH 419, 4 cr (spch-comm maj only)
403427 -2 1010-1205 MW, FolH 419, 4 cr
504178 -3 1010-1205 MW, FolH 419, 4 cr (SMgt or pre-bus or pre-mgmt maj only)
908308 -4 0800-0955 TTh, FolH 419, 4 cr (spch-comm maj only)
610585 -5 0800-0955 TTh, FolH 419, 4 cr
010499 -6 0800-0955 TTh, FolH 419, 4 cr (SMgt or pre-bus or pre-mgmt maj only)
- 3620 Intercollegiate Debate and Oratory** (prereq #)
803912 1430-1625 WF, FolH 344, 2 cr
- R3625 Ethical Standards in Modern Communication** (prereq 1101 or 1101H or #)
305669 -1 1325-1520 MW, FolH 326, Jensen, 4 cr (spch-comm maj only)
502690 -2 1325-1520 MW, FolH 326, Jensen, 4 cr
- 3970 Directed Studies** (no major program cr for spch-comm maj; prereq at least one spch-comm course, #, Δ, □)
705037 ar cr
- 3980 Directed Instruction** (max 8 cr, no major program cr for speech-communication maj; prereq #, Δ, □) (S-N only)
404805 1-4 cr
- R5211 Contemporary Problems in American Broadcasting** (prereq 3211, sr status)
801996 -1 1010-1205 TTh, FolH 419, Peck, 4 cr (spch-comm maj only)
701795 -2 1010-1205 TTh, FolH 419, Peck, 4 cr
- R5261 Communicative Processes of Television** (prereq 3211 or #)
410068 -1 1325-1520 TTh, FolH 218, Peck, 4 cr (spch-comm maj only)
203087 -2 1325-1520 TTh, FolH 218, Peck, 4 cr
- R5281 Broadcasting Audience Analysis and Programming** (prereq 3211)
802467 -1 1325-1520 MW, FolH 419, 4 cr (spch-comm maj only)
110025 -2 1325-1520 MW, FolH 419, 4 cr
- R5411 Small Group Communication Theory** (prereq 3411 or #)
311469 -1 1325-1520 MW, FolH 318, Bormann, 4 cr (spch-comm maj only)
107875 -2 1325-1520 MW, FolH 318, Bormann, 4 cr
- R5421 Quantitative Research in Communication** (prereq 3401 or 5403 or #)
705880 -1 1220-1415 TTh, FolH 419, Hewes, 4 cr (spch-comm maj only)
403086 -2 1220-1415 TTh, FolH 419, Hewes, 4 cr
- R5441 Communication in Human Organizations** (prereq 3401 or 8 cr social science, 3441 or #)
109229 -1 1600-1800 MW, FolH 318, 4 cr (spch-comm maj only)
608013 -2 1600-1800 MW, FolH 318, 4 cr
- R5451 Processes of Intercultural Communication** (prereq 3401, Anth 1102 or another course in cultural anthropology or #)
509428 -1 1430-1625 MW, FolH 312, Albert R., 4 cr (spch-comm maj only)
911032 -2 1430-1625 MW, FolH 312, Albert R., 4 cr
- R5611 Classical Rhetoric** (prereq 1101 or 1101H)
776576 1325-1520 MW, FolH 116, Scott, 4 cr
- R5613 Explorations Into Argumentation** (prereq 1101 or 1313 or #)
576577 -1 0800-0955 MW, FolH 326, Jensen, 4 cr (spch-comm majors only)
376578 -2 0800-0955 MW, FolH 326, Jensen, 4 cr
- 5970 Directed Readings** (prereq nine 3xxx-5xxx speech-communication cr, #, Δ, CLA approval)
902122 ar cr
- 8401 Current Advanced Theories to Person to Person Communication** (prereq 5401 or #)
711713 1430-1730 W, FolH 334, Sykes, 3 cr

- 8402 Seminar: Interpersonal Communication Problems**
176579 1430-1730 M, FolH 114, Hewes, 3 cr
- 8441 Seminar: Organizational Communication** (prereq 5441 or #)
576580 1600-1800 TTh, FolH 334, Shapiro, 3 cr
- 8503 Historical and Descriptive Research in Speech Communication**
604088 1535-1730 TTh, FolH 318, Browne, 3 cr
- 8621 Seminar: History and Criticism of Public Address** (prereq 5617, 5618 or Δ)
376581 1535-1830 M, FolH 246, Bormann, 3 cr
- 8777 Thesis Credits: Masters**
111241 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
503497 1-36 cr
- 8990 Research** (prereq #, Δ)
206930 ar cr

STATISTICS (Stat) Liberal Arts

NOTE: A \$30 microcomputer lab card may be required in the following statistics courses: 3012, 5021, 5161, 5162, 5163, 5301, 5302. Check with the instructor on the first day of class for more information.

- R1001 Introduction to Ideas of Statistics** (prereq high school algebra)
★LECT 0800-0850 MWF, Arch 45
310015 -1 LAB 0800-0850 T, VinH 207, 4 cr
309169 -2 LAB 0800-0850 Th, VinH 207, 4 cr
★LECT 1010-1100 MWF, AkerH 309
208922 -3 LAB 1010-1100 Th, VinH 206, 4 cr
509350 -4 LAB 1010-1100 Th, VinH 206, 4 cr
★LECT 1355-1445 MWF, ClaOff B25, Hawkins, (StP)
310953 -5 LAB 1355-1445 T, ClaOff B22, 4 cr (StP)
305476 -6 LAB 1355-1445 Th, ClaOff B22, 4 cr (StP)
- R3011 Statistical Analysis** (prereq college algebra)
★LECT 0800-0850 MWF, PillsH 110
007456 -1 LAB 0800-0850 T, VinH 203, 4 cr
912424 -2 LAB 0800-0850 Th, VinH 203, 4 cr
★LECT 0935-1025 MWF, ClaOff B35, Oehert, (StP)
103759 -3 LAB 0935-1025 T, ClaOff B36, 4 cr (StP)
405047 -4 LAB 0935-1025 Th, ClaOff B36, 4 cr (StP)
★LECT 1010-1100 MWF, EIH N119, Geyer
212548 -5 LAB 1010-1100 T, VinH 203, 4 cr
108976 -6 LAB 1010-1100 Th, VinH 203, 4 cr
★LECT 1250-1340 MWF, ClaOff B35, (StP)
306076 -7 LAB 1250-1340 T, ClaOff B42, 4 cr (StP)
111899 -8 LAB 1250-1340 Th, ClaOff B42, 4 cr (StP)
- R3012 Statistical Analysis** (prereq 3011)
★LECT 1220-1310 MWF, Phys 210, Lindgren
809337 -1 LAB 1220-1310 T, VinH 203, 4 cr
108047 -2 LAB 1220-1310 Th, VinH 203, 4 cr
- R3091 Introduction to Probability and Statistics** (§5121, 5131; prereq differential, integral calculus)
★LECT 0800-0850 MWF, AkerH 309
209455 -1 LAB 0800-0850 T, VinH 206, 4 cr
103681 -2 LAB 0800-0850 Th, VinH 206, 4 cr
★LECT 0905-0955 MWF, AkerH 225, Sudderth
303999 -3 LAB 0905-0955 T, VinH 206, 4 cr
205048 -4 LAB 0905-0955 Th, VinH 206, 4 cr
★LECT 1115-1205 MWF, MurH 308
806969 -5 LAB 1115-1205 T, VinH 203, 4 cr
103222 -6 LAB 1115-1205 Th, VinH 203, 4 cr
- R5021 Statistical Analysis** (§3012; prereq college algebra)
★LECT 0900-1000 MWF, AkerH 309, Meeden
003892 -1 LAB 0900-1000 T, VinH 203, 5 cr
607959 -2 LAB 0900-1000 Th, VinH 203, 5 cr
★LECT 1035-1135 MWF, ABLMS 125, Hawkins, (StP)
103003 -3 LAB 0825-0925 T, ClaOff B22, 5 cr (StP)
712201 -4 LAB 0930-1030 T, Agr A202, 5 cr (StP)
- 002483 -5 LAB 1035-1135 T, ClaOff B42, 5 cr (StP)
- R5121 Theory of Statistics** (§5131-5132-5133; prereq Math 1241 or Math 1331 or Math 1621)
★LECT 1115-1205 MWF, Zoology 313
804137 -1 REC 1115-1205 TTh, VinH 1, 5 cr
510112 -2 REC 1220-1310 TTh, VinH 1, 5 cr
- R5131 Theory of Statistics** (§5121-5122; prereq Math 3311 or 3411)
605371 -1 0905-0955 MWF, VinH 211, Lindgren, 4 cr
110171 -2 1010-1100 MWF, VinH 203, Pruitt, 4 cr
806471 -3 1115-1205 MWF, VinH 2, Sudderth, 4 cr
008154 -4 1320-1420 MTWThF, VinH 203, Lane, 4 cr (1st 5 weeks) (instructor permission required)
- R5132 Theory of Statistics** (prereq 5131)
309933 1320-1420 MTWThF, VinH 203, Lane, 4 cr (2nd 5 weeks) (instructor permission required)
- R5301 Designing Experiments** (§5163; prereq 3012 or 5021 or 5133 or #)
★LECT 1350-1450 MWF, ClaOff B35, (StP)
609338 -1 LAB 1245-1345 Th, ClaOff B22, 5 cr (StP)
402391 -2 LAB 1350-1450 Th, ClaOff B30, 5 cr (StP)
- R5302 Applied Regression Analysis** (§5161; prereq 3012 or 5021 or 5133 or #)
★LECT 1140-1240 MWF, ClaOff B45, Cook, (StP)
309897 -1 LAB 0930-1030 Th, ClaOff B22, 5 cr (StP)
406246 -2 LAB 1035-1135 Th, ClaOff B22, 5 cr (StP)
277173 -3 LAB 1140-1240 Th, ClaOff B22, 5 cr (StP)
- 5401 Introduction to Multivariate Methods** (prereq 5302 or 5133)
112297 1035-1135 MWF, ClaOff B42, Bingham, 4 cr (StP)
- 5890 Senior Paper** (prereq sr in statistics) (A-F only)
108419 2 cr
- 5900 Tutorial Course** (prereq #)
311374 ar cr
- 6151 Mathematical Statistics** (prereq 5133 or #, advanced calculus, matrix algebra)
604429 1110-1210 MWF, VinH 203, Meeden, 4 cr
- 8311 Linear Models** (prereq 5122 or 5133, linear algebra)
408272 1500-1640 MW, ClaOff B36, Martin, 4 cr (StP)
- 8411 Multivariate Analysis** (prereq 8153)
176453 1415-1530 TTh, VinH 206, Geisser, 3 cr
- 8777 Thesis Credits: Masters**
112115 1-16 cr
- 8801 Statistical Consulting** (prereq statistics maj or #) (S-N only)
302996 1500-1700 M, ClaOff B42, Hawkins, 1-3 cr (StP)
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
805871 1-36 cr
- 8900 Student Seminar** (prereq statistics maj or #) (S-N only)
505086 1 cr
- 8901 Directed Readings and Research** (prereq #)
011345 1-3 cr
- 8931 Advanced Topics in Statistics: Expert Opinion Modeling** (prereq #)
076454 Dickey, 3 cr

SUMERIAN (Sum) Classical & Near Eastern Studies Liberal Arts

- 5011 Elementary Sumerian**
175397 0800-0850 MWF, FolH 344, Reisman, 4 cr
- SURGERY (Surg)
Medical School**
- 5500 Externship: Surgery at the University and Affiliated Hospitals** (prereq regis med)
210301 Cerra, 9 cr

- 5502 Externship in the Surgical Intensive Care Unit** (prereq regis med)
907269 Cerro, 9 cr
- 5503 Research Problems in Surgery** (prereq regis med) (S-N only)
708245 Sutherland, 1-18 cr
- 5504 Hospital Base Nutrition** (prereq medical stu year 3 and 4)
102191 Cerro, 4.5-9 cr
- 5510 Advanced Surgery Externship: Subinternship** (prereq 3rd or 4th yr medical student, 5500)
311326 4.5-9 cr
- r5511 Emergency Medicine - St. Paul Ramsey Medical Center** (prereq 5500, 3 or 4 yr medical student)
601952 Cerro, 9 cr
- 5522 Plastic and Reconstructive Surgery** (prereq 5500)
106600 4.5-9 cr
- 5523 Externship in Colon and Rectal Surgery: Veterans Administration Hospital** (prereq regis med)
908535 Goldberg, ar cr
- 5524 Biomedical Ethics** (prereq #)
706236 4.5-9 cr
- 5525 Colloquium in Biometry for Surgeons** (prereq regis med or grad) (A-F only)
507050 3 cr
- 5526 Clinical Nutrition Seminar** (prereq acceptance to master's prog in nutr support dietetics or Kellogg MD fellowship prog) (S-N only)
604852 Shronts, 1 cr
- 5527 Hospital Nutrition Support** (prereq acceptance to the master's program in nutrition support dietetics) (S-N only)
106802 Shronts, 9 cr
- 8200 Clinical Surgical Problems in Management**
603782 Najarian, 5 cr
- 8201 Surgical-Roentgenological Conference**
403198 0905-1310 S, Mayo B139, Najarian, 1 cr (Todd Amph)
- 8202 Surgical Research**
210850 Najarian, 5 cr
- 8203 Surgery Complications and Research Conference**
403315 1600-1700 T, PWB 11157, Najarian, 1 cr
- 8207 Transplantation, Bone Marrow Conference**
211206 1630-1700 Th, PWB 11157, Najarian, 1 cr
- 8777 Thesis Credits: Masters**
002919 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
812481 1-36 cr

SWEDISH (Swed) Scandinavian Studies Liberal Arts

- r1101 Beginning Swedish**
003407 -1 0800-0850 MTWThF, FolH 138, 5 cr
112509 -2 0905-0955 MTWThF, PeikH 215, 5 cr
401757 -3 1115-1205 MTWThF, KolH S132, 5 cr
406800 -4 1220-1310 MTWThF, FolH 246, 5 cr
- r1104 Intermediate Swedish** (prereq 1103 or equiv)
608089 -1 1220-1310 MWF, VinH 206,
1220-1310 TTh, PeikH 225, 5 cr
304778 -2 1220-1310 MTWThF, FolH 218, 5 cr
- r3670 Readings in Swedish Literary Texts** (max 28 cr; prereq 1106 or equiv)
609842 0815-0930 TTh, FolH 142, Stockerstrom,
4 cr

TEXTILES AND CLOTHING (TexC) Design, Housing, And Apparel Human Ecology

- r1641 Introduction to Merchandising** (prereq 1642)
701554 1325-1520 MW, MurH 311, Peterson, 3 cr (Mpls)
- r1642 Seminar: Orientation to Retail Merchandising** (prereq 11641) (S-N only)
410636 1325-1520 MW, MurH 311, Peterson, 1 cr (Mpls)

- r3603 Ready-to-Wear Analysis** (prereq 3621)
112020 0930-1045 MW, McNH 316, Sieben, 3 cr
- r3621 Textiles** (prereq soph, Chem 1002, 1003 or 1005 or #)
★LECT 1355-1445 MWF, McNH 33, (1 hr ar)
809161 -1 LAB 0935-1130 TTh, McNH 322, 5 cr
104104 -2 LAB 1250-1445 TTh, McNH 322, 5 cr
- r3622 Textiles for Interiors** (prereq 3621, #)
102384 1040-1235 MWF, McNH 340, 3 cr
- r3643 Retail Merchandising** (prereq 1641, Mktg 3065)
906636 0830-1035 TTh, McNH 180, 5 cr
- r3645 Retail Experience Seminar II** (prereq 3643 or 1, 3644, 500 hrs approved selling experience) (S-N only)
176923 1040-1235 Th, McNH 180, 2 cr
- r3664 Fashion Trend Analysis** (prereq jr or sr, Soc 1001, Psy 1001)
610005 1250-1445 TTh, McNH 180, 4 cr
- 5003 Cooperative Education Program** (5003-5004); prereq sr, 15004, #, minimum GPA of 2.50) (S-N only)
108369 -1 4-8 cr (retail merchandising students)
603975 -2 4-8 cr (textiles and clothing students)
- 5004 Cooperative Education Integrative Paper** (5003-5004); no grad cr; prereq sr, 15003, #) (A-F only)
608176 -1 2-4 cr (retail merchandising students)
508456 -2 2-4 cr (textiles and clothing students)
- 8661 Readings in Clothing** (prereq min 12 cr in textiles and clothing courses, #)
804283 1-3 cr
- r6662 Sociocultural Literature of Dress** (A-F only)
976446 0830-0945 MW, McNH B3, Eicher, 3 cr
- 8663 Problems: Clothing and Textiles** (max 9 cr; prereq #)
304926 3-9 cr
- 8667 Theoretical Orientations in Clothing and Human Behavior** (prereq 8662 or equiv) (A-F only)
076924 1040-1210 MW, McNH 363, Williams, 4 cr

THEATRE ARTS (Th) Liberal Arts

- r1101 Introduction to the Theatre**
603877 -1 0905-1100 MW, RarigC 190, Noite,
4 cr
112194 -2 0905-1100 TTh, RarigC 190, Norwood,
4 cr
- r1301 Beginning Acting for Non-Theatre Majors** (prereq 1101 or 1)
576451 -1 1325-1520 MW, RarigC 90, 4 cr
378452 -2 0905-1100 TTh, RarigC 90, 4 cr
477379 -3 1325-1520 TTh, RarigC 90, 4 cr
- r1321 Beginning Acting** (prereq 1101, 1504)
408367 -1 1325-1520 MW, RarigC 20, 4 cr
207821 -2 1325-1520 TTh, RarigC 20, 4 cr
- r1326 Beginning Movement for Actors** (prereq 1321)
109061 1325-1520 MW, RarigC 10, 4 cr
- r1405H Honors Course: Introduction to the Theatre** (prereq 1101, #)
676456 1325-1415 MW, RarigC 75, 2 cr
- r1502 Makeup for the Actor** (prereq 1504, clean-shaven face)
307728 0800-0955 TTh, RarigC 45, 2 cr
- r1504 Elements of Technical Theatre** (prereq 1101 or 1)
806325 1115-1205 TTh, RarigC 190, 4 cr (lab ar)
- 3171 History of the Theatre: Ancient Greece through Renaissance** (prereq 1101, theatre arts maj)
406871 1010-1205 TTh, BlegH 215, Kobialka, 4 cr
- r3311 Beginning Voice Production** (prereq 1321 or 1) (A-F only)
007134 0905-0955 MTWTh, RarigC 210, 4 cr
- r3321 Intermediate Acting** (prereq 1326)
207334 1010-1205 MW, RarigC 210, 4 cr
- 3412H Honors Course: Tutorial Seminar in Theatre Arts** (prereq candidate for honors in theatre arts, Δ)
504830 0-3 cr
- r3513 Technical Theatre Production I** (prereq 1504)
905098 1115-1205 MW, 1010-1205 F, RarigC 190,
275, Gwinup, Brockman, 5 cr (lab ar)
- r3701 Introduction to Directing** (prereq 1101, 1301, or 1321, or maj or min) (A-F only)
105505 -1 1535-1730 MW, RarigC 185, Kanee,
4 cr
809757 -2 1325-1520 TTh, RarigC 185, Kanee,
4 cr
- r3711 Beginning Stage Direction** (prereq 1504, 3701, jr or sr) (A-F only)
110719 1010-1205 MW, RarigC 185, Adey, 4 cr
- r3801 Performing Fiction**
112230 1535-1730 MW, RarigC 20, 4 cr
- r3803 Platform Performance** (prereq Management maj)
410720 -1 1325-1520 MW, BlegH 120, 4 cr
908700 -2 1325-1520 MW, RarigC 610, 4 cr
804705 -3 1325-1520 TTh, BlegH 115, 4 cr
111742 -4 1325-1520 TTh, RarigC 610, 4 cr
- r5100 Theatre Practicum** (prereq written permission, #, Δ) (A-F only)
606049 -1 1-6 cr
909359 -2 1-6 cr
- r5110 Theatre Performance** (max 9 cr; prereq written permission after casting and/or assignment to a production) (S-N only)
610330 Montgomery, 1 cr
- r5171 History of Theatre**
476457 1335-1520 MW, BlegH 115, Gadberry,
4 cr
- r5191 Myth and the Performance of Modern Drama I** (prereq 5173 or 5178 or #)
276458 1535-1730 TTh, RarigC 75, Neely, 4 cr
- r5334 Acting for Music-Theatre** (prereq 5313, 8313 or equiv singing training, #)
803831 1010-1205 TTh, RarigC 185, Kanee, 4 cr
- r5510 Drawing and Rendering for Theatre Designers** (prereq 3513 or 3515 or grad student, #)
505234 0905-1100 TTh, RarigC 275, Brockman,
2 cr
- 5511 Scenographic Techniques** (prereq 5513, #)
108346 0905-1100 MW, RarigC 275, Brockman,
Gwinup, Montgomery, 4 cr
- r5514 Advanced Problems in Scene Design** (prereq 3513 or #)
176459 1325-1520 TTh, RarigC 275, Brockman,
4 cr
- r5712 Advanced Stage Direction** (prereq 3711 or 5711)
109416 1325-1520 MW, RarigC 185, Adey, 4 cr
- r5716 Stage Management for the Theatre** (prereq 3711 or 1 or 5711 or 1)
306319 1535-1730 MW, RarigC 275, Montgomery,
4 cr
- r5720 Plays in Production and Performance** (max 6 cr for undergrads; prereq 5712, #, written permission)
111263 2-4 cr
- r5734 Directing the Singer Actor** (prereq 5712, #, 15334-5335-5336 not permitted)
708469 1010-1205 TTh, RarigC 185, Kanee, 4 cr
- 5760 Advanced Stage Management** (max 6 cr for undergrads; prereq 5718 or 1, #, written permission)
009577 Montgomery, 1-3 cr
- r5950 Topics in Theatre** (max 12 cr)
476460 -1 1535-1730 TTh, RarigC 275,
Brockman, Kanee, 4 cr
877024 -2 1815-1845 W, LindH 340, 4 cr
- 5970 Directed Readings** (prereq 9 cr in theatre, #, Δ, CLA approval)
310337 -1 1-6 cr
104037 -2 1-6 cr
- r8114 History/Theory of Western Theatre: Rise of National Theatres**
276461 1335-1520 TTh, RarigC 75, Kobialka, 4 cr
- r8321 Problems in Acting** (prereq first yr MFA actor or by audition and written instr perm)
505962 1325-1520 MTWTh, RarigC 210, Balk,
Reid, 4 cr

- 8834 Performance Theory and Technique** (prereq M.F.A. in acting program) (A-F only)
176462 -1 LECT 7 cr
♦**976463** -1 LAB 0845-0925 MTWTh, RarigC 10, Nash, (Energizing)
♦**776464** -2 LAB 0930-1020 MTWTh, RarigC 20, Nash, (Voice I)
♦**576465** -3 LAB 1025-1115 MTWTh, RarigC 10, (Movement I)
♦**376466** -4 LAB 0930-1020 MTWTh, RarigC 10, (Movement II)
♦**876469** -5 LAB 1025-1115 MTWTh, RarigC 20, Nash, (Voice II)
♦**076471** -6 LAB 1125-1215 MTWTh, RarigC 20, Norwood, (Text: Shakespeare)
♦**476474** -7 LAB 1535-1730 MTWTh, RarigC 90, Balk, (3rd Year Workshop)

8777 Thesis Credits: Masters
803070 1-16 cr

8888 Thesis Credits: Doctoral (max 18 cr per qtr)
712554 1-36 cr

8980 Directed Instruction (prereq Δ)
412502 1-3 cr

8990 Research (prereq #, Δ)
510496 ar cr

THERAPEUTIC RADIOLOGY (TRad)

Medical School

- r3172 Radiobiology** (prereq #)
403959 3 cr
- r3190 Introduction and Ethic in Radiation Therapy Technology** (prereq #)
812626 1 cr
- r3201 Clinical Radiation Therapy** (prereq #)
101907 4 cr
- r3202 Clinical Radiation Therapy** (prereq 3201)
905439 5 cr
- 5170 Basic Radiological Physics** (§Rad 5170, BPhy 5170; prereq #)
704891 1600-1715 MF, UHosp 1243, Khan, others, 3 cr
- 5340 Special Problems in Radiation Therapy**
202473 ar cr
- 5505 Externship in Radiation Therapy** (prereq regis med)
109402 Levitt, others, ar cr
- 5507 Advanced Externship in Radiation Therapy** (prereq regis med)
912231 Levitt, others, ar cr
- 5508 Special Problems in Radiation Biology**
008977 Song, others, ar cr
- r5509 Radiobiological Basis of Radiotherapy** (prereq medical school sr)
809340 Song, others, 9 cr
- 5512 Dosimetry of Internal and External Radiation Emitters**
102174 1200-1300 M, Mayo B141, Khan, others, 1 cr
- 5540 Special Problems in Radiological Physics** (prereq regis med)
404271 Khan, others, ar cr
- 8300 Radiation Therapy**
206975 ar cr
- 8310 Fundamentals of Radiation Therapy**
609839 1630-1730 M, UHosp 1243, 1 cr
- 8315 Radiation Therapy Pathology**
909314 1 cr
- 8320 Radiation Therapy Treatment Planning Problems**
001883 1 cr
- 8325 Radiation Therapy Pediatrics Oncology**
508523 1 cr
- 8350 Research in Radiation Therapy**
308250 ar cr
- 8410 Seminar: Radiation Biology**
606150 Song, others, 1 cr
- 8450 Research in Radiation Biology**
602020 Song, others, ar cr
- 8550 Research of Radiation Physics**
110154 Khan, Loken, ar cr

8777 Thesis Credits: Masters
508358 1-16 cr

THERIOGENOLOGY (Tgen)

8777 Thesis Credits: Masters
708147 1-16 cr

8888 Thesis Credits: Doctoral (max 18 cr per qtr)
106015 1-36 cr

TOXICOLOGY (Txl)

Veterinary and Diagnostic Investigation Veterinary Medicine

5164 Toxicology of Poisonous Plants (§VDI 5164; prereq VB 5401 or #)
176386 0900-1150 T, VetTchHos A325, Murphy, 1 cr (1st 5 weeks)

8777 Thesis Credits: Masters
577132 1-16 cr

8888 Thesis Credits: Doctoral (max 18 cr per qtr)
377133 1-36 cr

UNIVERSITY COLLEGE (UC)

- r3075 Independent Study** (prereq Δ)
504441 ar cr
- 3211 Degree Planning** (prereq student in program for individualized learning, Δ) (S-N only)
106931 12 cr
- 3251 Directed Individualized Study** (prereq student in program for individualized learning, Δ) (S-N only)
112177 6 cr
- 3281 Major Project** (prereq student in program for individualized learning, Δ) (S-N only)
603894 12 cr
- 3291 Graduation Dossier Preparation** (prereq student in program for individualized learning, Δ) (S-N only)
404450 12 cr
- 3299 Graduation Review** (prereq student in program for individualized learning, Δ) (S-N only)
008929 6 cr

URBAN STUDIES (Urbs)

Liberal Arts

- r3101 Urban Studies Colloquia** (prereq #) (A-F only)
711503 1300-1500 M, Law 1, 2 cr
- r3104 Introduction to Urban Studies**
902623 1430-1545 TTh, BlegH 105, Martin, 4 cr
- r3301 American Cities: Settings for Cultural Pluralism** (A-F only)
108854 1245-1400 TTh, BlegH 105, 4 cr
- r3500 Workshops** (prereq jr or sr, #)
103110 1515-1800 W, Law 1, 4 cr
- r3900 Internship** (max 12 cr; prereq jr, sr, #) (A-F only)
301816 1800-2000 T, BlegH 350, DeMontille, 1-6 cr
- r3970 Directed Studies** (prereq #, Δ, □)
305848 -1 2-6 cr

URDU (Urdu)

South Asian & Middle Eastern Studies Liberal Arts

- 1101 Beginning Urdu** (§Hndi 1101, 5101)
101776 1010-1100 MTWThF, KlaCt 190, Barker, 5 cr
- 5131 Intermediate Urdu** (§3031; prereq 1103 or Hndi 1103, 5103 or #)
003875 1115-1205 MWF, KlaCt 190, Barker, 5 cr
- 5161 Advanced Urdu** (prereq 3133 or 5133 or #)
709248 1220-1310 MWF, KlaCt 190, Barker, 4 cr

UROLOGIC SURGERY (Urol) Medical School

- 5180 Externship in Urology** (prereq regis med)
211111 ar cr
- 5503 Research Problems in Urology** (prereq regis 3rd or 4th yr med stu)
207012 9-18 cr
- 8250 Urological Surgery**
901911 0800-1200 MWF, Fraley, 4 cr (Mayo OR Room H)
- 8251 Cystoscopy and Urological Diagnosis**
611140 0800-1200 MTWThF, Fraley, 4 cr (Cysto Suite)
- 8252 Urological Conference**
908129 0800-0900 S, Fraley, 4 cr (Sta 57 Conf Room)
- 8253 Research in Urology**
909328 Fraley, 4 cr
- 8254 Urological Seminar**
710836 1300-1400 MWF, Mayo A503, Fraley, 3 cr
- 8255 Urological Radiological Conference**
205342 1300-1400 MTWThF, Mayo A503, Fraley, 3 cr
- 8256 Urological Pathological Conference**
203347 1600-1700 W, Mayo A503, Fraley, 3 cr
- 8257 Selected Topics on the Genitourinary System** (prereq MD or PhD degree, PhD with #)
103485 LI, others, 2 cr
- 8777 Thesis Credits: Masters**
603359 1-16 cr

VETERINARY BIOLOGY (VB) Veterinary Medicine

- 5100 Veterinary Anatomy I** (prereq #) (A-F only)
★LECT 1100-1150 TTh, AnScVM 135, Cox, Fletcher, others, 6 cr
505198 -1 LAB 1300-1550 TTh, 0800-1050 WF, AnScVM 40
- 5103 Veterinary Developmental Anatomy** (prereq #)
★LECT 1300-1350 M, 1300-1600 W, AnScVM 125, Cox, Weber, 3 cr
505458 -1 LAB 1400-1650 W, AnScVM 104
- 5104 Microscopic Anatomy of Domestic Animals** (prereq #)
★LECT 0800-0850 MTTh, AnScVM 125, Czarniecki, Beitz, 5 cr
810424 -1 LAB 0900-1050 MTTh, AnScVM 104, 0900-0950 MTTh, AnScVM 125
- 5149 Topics of Organology** (prereq 5104, #)
709329 1-5 cr
- 5210 Veterinary Biochemistry** (prereq 1st yr vet med or #) (A-F only)
411950 1100-1150 MWF, AnScVM 135, Lampe, Jorgensen, others, 3 cr
- 5310 Animal Physiology** (prereq 5308 or #)
905019 0800-0850 MWF, AnScVM 135, Duke, Redig, 3 cr
- 5330 Wild Bird Medicine** (prereq regis 3rd or 4th yr vet med or grad student or #) (A-F only)
109828 1500-1650 M, AnScVM 164, 168, Duke, Redig, 2 cr
- 5400 Veterinary Pharmacology and Therapeutics I** (§NSc 5400; prereq 5310 or equiv or #) (A-F only)
507436 0900-0950 M, 1000-1050 Th, AnScVM 135, 0900-0950 WF, AnScVM 125, Larson A., 4 cr
- 5460 Neurochemical Communication** (§GCB 5460, MdBc 5460, NSc 5460, Phcl 5460; prereq biochemistry)
105052 1010-1100 MTWThF, MoosT 2580, Larson A., 4 cr (Mpls)
- 5920 Independent Research in Veterinary Biology** (prereq #)
606293 ar cr
- 5950 Directed Studies** (prereq #, Δ)
103382 1-5 cr
- 8112 Research Propositions in Morphology** (prereq #)
504164 2 cr

- 8113 **Research Propositions in Morphology** (prereq #)
102126 2 cr
- 8114 **Research Propositions in Morphology** (prereq #)
802033 2 cr
- 8134 **Comparative Veterinary Neurology** (prereq 5100, #)
801822 Beitz, Fletcher, 4 cr
- 8135 **Comparative Veterinary Neurology** (prereq 5100, #)
408286 Beitz, Fletcher, 4 cr
- 8136 **Experimental Comparative Veterinary Neurology** (SNSc 6136; prereq 8135, #)
603457 Beitz, Fletcher, 3 cr
- 8149 **Research in Veterinary Anatomy** (prereq 5149, #)
605340 2-5 cr
- 8150 **Research Problems in Veterinary Anatomy** (prereq 8149, #)
906493 Cox, 1 cr
- 8349 **Research in Physiology** (prereq #)
712165 ar cr
- 8448 **Problems in Veterinary Pharmacology** (prereq 5401, #)
606584 ar cr
- 8550 **Seminar: Veterinary Biology** (prereq #) (A-F only)
103833 1 cr
- 8777 **Thesis Credits: Masters**
110512 1-16 cr
- 8888 **Thesis Credits: Doctoral** (max 18 cr per qtr)
706365 1-36 cr

VETERINARY DIAGNOSTIC INVESTIGATION (VDI) Veterinary Medicine

- 5000 **Diagnostic Medicine** (prereq #) (S-N only)
007862 2 cr
- 5164 **Toxicology of Poisonous Plants** (STxcl 5164; prereq VB 5401 or #) (A-F only)
209214 0900-1150 T, VetTchHos A325, Murphy, 1 cr (1st 5 weeks)
- 5521 **Surgical Pathology** (prereq #) (A-F only)
105446 Barnes D., 3 cr
- 5522 **Diagnostic Pathology** (prereq #) (A-F only)
003455 Barnes D., 5 cr
- 5524 **Problems in Diagnostic Pathology** (prereq #) (A-F only)
212100 1-4 cr
- 5622 **Problems in Diagnostic Virology** (prereq #) (A-F only)
712067 Goyal, 1-4 cr
- 8792 **Seminar in Veterinary Toxicology** (prereq grad or #) (A-F only)
309253 2 cr

VETERINARY MEDICINE (CVM) Veterinary Medicine

- 1100 **Orientation to Veterinary Medicine** (S-N only)
106153 1040-1130 T, AnScVM 125, O'Leary, 1 cr
- 5100 **Introduction to Veterinary Medicine** (prereq regis vet med, 1st yr) (S-N only)
807975 0800-1650 WThF, 1200-1250 F, AnScVM 135, DeBoer, 2 cr (0800-1650 WThF, Sept 18-20, 1200-1250 F, Sept 27, Oct 11, Nov 8, AnScVM 135)
- 5150 **Diagnostic and Therapeutic Techniques** (prereq #) (S-N only)
407218 1400-1650 M, HckrH 100, AnScVM 125, Larson V., Polzin, others, 1 cr
- 5350 **Principles of Veterinary Surgery** (prereq VB 5125 or #)
★LECT 1300-1350 M, AnScVM 135, 1100-1150 WThF, AnScVM 125, Wallace, Caywood, others, 5 cr
709315 -1 LAB 1300-1550 T, VetTchHos C254
109268 -2 LAB 1300-1550 W, VetTchHos C254
- 5800 **Problems in Veterinary Research** (prereq #) (A-F only)
776402 5 cr

- 5801 **Veterinary Research Survey Seminar** (prereq #) (A-F only)
576403 Pijon, 1 cr

VETERINARY MEDICINE, GRADUATE (VMed)

- 8777 **Thesis Credits: Masters**
509218 1-16 cr
- 8888 **Thesis Credits: Doctoral** (max 18 cr per qtr)
010065 1-36 cr

VETERINARY MICROBIOLOGY (VMic)

- 8777 **Thesis Credits: Masters**
001785 1-16 cr
- 8888 **Thesis Credits: Doctoral** (max 18 cr per qtr)
501717 1-36 cr

VETERINARY PARASITOLOGY (VPar)

- 8777 **Thesis Credits: Masters**
110803 1-16 cr
- 8888 **Thesis Credits: Doctoral** (max 18 cr per qtr)
010437 1-36 cr

VETERINARY PATHOBIOLOGY (VPB)

Veterinary Medicine

- 83103 **General Microbiology** (not open to vet med students; prereq 10 cr chemistry, 4 cr biological sciences)
★LECT 0830-0945 TTh, AnScVM 135, Bay 307079 -1 LAB 0950-1215 TTh, VetS 325, 5 cr
- 5000 **Veterinary Hospital Necropsy** (prereq #) (S-N only)
707841 O'Leary, Johnson K., others, 2 cr
- 5001 **Clinical Hematology and Cytology** (prereq #) (S-N only)
106427 Perman, Weiss, 2 cr
- 5002 **Clinical Microbiology** (prereq #) (S-N only)
012379 Ward, 2 cr
- 5502 **Systemic Veterinary Pathology** (prereq 5501 or #) (A-F only)
★LECT 1000-1050 MWF, 1300-1350 Th, VetS 145, Hayden, O'Leary, others, 6 cr
303811 -1 LAB 1400-1450 Th, VetS 145, 1400-1650 Th, 1300-1550 F, VetS 215, 225, 229, Hayden, O'Leary, others
- 5533 **Directed Studies in Veterinary Pathobiology** (prereq regis vet med, 4th yr, #)
104345 Johnson K.H., Hayden, others, ar cr
- 5601 **Veterinary Parasitology I** (prereq 5501 or #)
★LECT 1300-1350 MW, 1000-1050 T, VetS 145, Schlotthauer, Stromberg, 4 cr
601739 -1 LAB 1400-1450 M, VetS 145, 1400-1650 M, VetS 225, 227, 229
805319 -2 LAB 1400-1450 W, VetS 145, 1400-1650 W, VetS 225, 227, 229
- 5703 **Veterinary Virology** (prereq 5701 or equiv or #)
★LECT 1100-1150 MWF, VetS 145, Shope, 4 cr
106847 -1 LAB 0800-0950 T, 0900-0950 Th, VetS 325
- 5748 **Problems in Veterinary Microbiology and Public Health** (prereq 5703 or equiv, #)
805358 ar cr
- 8502 **Advanced Systemic Pathology** (prereq 8501 or Path 5101, #)
★LECT 1000-1050 MWF, 1300-1350 Th, VetS 145, Hayden, O'Leary, others
676408 -1 LAB 1400-1450 Th, VetS 145, 1400-1650 Th, 1300-1550 F, VetS 215, 225, 229, Hayden, Martin, others, 4-6 cr
- 8504 **Seminar: Advanced Veterinary Histopathology** (prereq 5502, 5503, #)
103342 1600-1700 M, VetS 215, Hayden, 1 cr
- 8531 **Hospital Pathology** (prereq 5501, 5502, 5503, #)
009319 O'Leary, Hayden, others, 1-2 cr

- 8533 **Problems: Pathology** (prereq #)
306028 Johnson K.H., Hayden, others, ar cr
- 8534 **Problems: Clinical Pathology** (prereq #)
809418 Perman, Weiss, ar cr
- 8648 **Problems in Veterinary Parasitology** (prereq 5602, #)
811069 Stromberg, Schlotthauer, ar cr
- 8700 **Seminar: Veterinary Microbiology** (prereq #)
109190 Sharma J., 1 cr
- 8720 **Advanced Veterinary Microbiology** (prereq #)
603880 ar cr
- 8721 **Immunodiagnostic Techniques for Avian Diseases** (prereq MicB 5216) (A-F only)
809287 Nagaraja, Sivnandan, 2 cr
- 8724 **Advanced Veterinary Diagnostic Microbiology** (prereq #)
706172 Ward, ar cr
- 8726 **Colloquium in Immunology** (prereq MicB 5216, grad student)
203395 Maheswaran, 2 cr

VETERINARY PATHOLOGY (VPth)

- 8777 **Thesis Credits: Masters**
401922 1-16 cr
- 8888 **Thesis Credits: Doctoral** (max 18 cr per qtr)
508862 1-36 cr

VETERINARY SURGERY, RADIOLOGY, AND ANESTHESIOLOGY (VSRA)

- 8777 **Thesis Credits: Masters**
704373 1-16 cr
- 8888 **Thesis Credits: Doctoral** (max 18 cr per qtr)
904081 1-36 cr

VOCATIONAL EDUCATION (VoEd)

Vocational And Technical Education Education

- 5200 **Evaluation of Local Vocational Education Programs** (A-F only)
411916 1515-1800 M, VoTech R385, Krueger, 3 cr
- 85340 **Principles of Supervisory Management** (A-F only)
175229 1605-1850 Th, VoTech R375, Rossmann, 3 cr
- 85750 **Training in Industry and Business** (A-F only)
906387 1830-2205 Th, VoTech R285, Swanson R., 4 cr
- 85770 **Training and Development** (S-N optional)
475230 1830-2115 T, VoTech R380, Zurcher, 3 cr
- 85780 **Internship: Training and Development** (max 15 cr; prereq 5750) (S-N optional)
902105 -1 Swanson R., ar cr
605290 -2 McLean, ar cr
- 88110 **Comparative Systems in Vocational Education** (prereq admission to grad level prog in Voc Tech Educ or #)
112423 -1 0935-1220 T, VoTech R385, Lewis, 3 cr
812478 -2 1605-1850 W, VoTech R385, Lewis, 3 cr
- 8810 **Internship in Vocational Education** (prereq Δ) (S-N only)
705426 1-15 cr
- 8888 **Thesis Credits: Doctoral** (max 18 cr per qtr)
710884 1-36 cr
- 88910 **Positivistic Research in Vocational Education** (prereq 5900 or equiv, 8110 or equiv) (A-F only)
702364 1815-2100 M, VoTech R385, Wardlow, 3 cr

WOMEN'S STUDIES (WoSt) Liberal Arts

- r1001 Introduction to Women's Studies**
★LECT 0945-1100 TTh, FordH 155, Zita,
(registration in REC sections may be
adjusted during the first week of class)
- 103812 -1 REC 0905-0955 T, CivMinE 212, 4 cr
609890 -2 REC 1115-1205 T, FordH 160, 4 cr
007215 -3 REC 1220-1310 T, FordH 60, 4 cr
307518 -4 REC 1015-1105 W, LindH 305, 4 cr
208015 -5 REC 1115-1205 W, CivMinE 214, 4 cr
005920 -6 REC 1220-1310 W, LindH 320, 4 cr
603684 -7 REC 1325-1415 W, FordH 60, 4 cr
703868 -8 REC 0905-0955 Th, LindH 216, 4 cr
208998 -9 REC 1115-1205 Th, Phys 210, 4 cr
110983 -10 REC 1325-1415 Th, FordH 160, 4 cr
- r3102 Feminist Thought and Theory**
875676 1820-2050 T, FordH 155, Scheman, 4 cr
- r3103H Feminist Approaches to History**
476619 1115-1230 MW, BlegH 440, Evans, 4 cr
- r3303 Women and Literature** (prereq introductory
work in literature)
875680 0945-1100 MW, FordH 175, Hoy, 4 cr
- 3970 Directed Studies** (prereq #, Δ, □)
009224 1-15 cr
- 3980 Directed Instruction** (prereq #, Δ, □)
204143, 1600-1800 Th, FordH 70, Zita, 1-5 cr

- r5100 Topics in Women's Studies: The History of
Women and Science** (max 12 cr; SHSci 8941;
prereq grad stu or advanced undergrad with #)
275682 -1 1300-1530 F, FordH 348, Kohlstedt,
4 cr
- r5106 The Cultural Construction of Sex, Gender,
and Sexuality** (prereq grad stu or advanced
undergrad with #)
875684 1245-1400 TTh, FordH 70, Zita, 4 cr
- r5202 Feminist Therapies**
377116 1330-1600 Th, FordH 175, Faunce, 4 cr
- r5300 Topics: Language and Gender** (max 12 cr;
§Ling 5910)
177117 1545-1700 TTh, FolH 312, Sheldon, 4 cr
- 5970 Directed Studies** (max 12 cr; prereq #, Δ, CLA
approval)
810276 1-5 cr
- r8510 Feminist Theory and Methods** (prereq #)
401984 1330-1600 M, FordH 447; Rabinowitz,
4 cr (CAFS minors only)
- r8610 Topics in Feminist Studies: Intellectual
History of Feminism** (prereq substantial work
in women's studies or history)
710898 1330-1600 W, FordH 447, Waltner, 4 cr
- 8970 Directed Study** (prereq completion of courses
approved by faculty supervisor and director of
grad studies)
703180 1-8 cr

YOUTH DEVELOPMENT AND RESEARCH (YoSt) Human Ecology

- 5120 Independent Study in Youth Studies** (max 12
cr; prereq #)
209282 Baizerman, Beker, others, ar cr
- r5201 Youthwork Practice: Internship and Seminar**
(prereq acceptance into youth studies collateral)
407137 0900-1100 T, McNH 386A, Burnison, 4 cr
- r5330 Child and Adolescent Psychology for
Practitioners** (prereq courses in educational
psychology, child or adolescent psychology)
104192 0900-1130 Th, McNH 386A, Olson, 3 cr
- 8001 Advanced Seminar in Youth** (prereq #)
002970 Baizerman, Beker, 3 cr

ZOOLOGY (Zool) Biological Sciences

- 8777 Thesis Credits: Masters**
707225 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
512555 1-36 cr
- 8970 Seminar**
303484 0 cr
- 8980 Special Research**
511129 ar cr
- 8990 Research**
506092 ar cr

COURSES OPEN TO EXTENSION STUDENTS

General Information—The following two lists indicate those day school courses which are open to Extension students. You should use these lists with the course listings which start on page 29.

Currently enrolled day school students may not register through Extension for day school courses.

Extension students must meet the same prerequisites as day school students.

No 8000-level courses are available under this program.

Occasionally, courses not on these lists are also open to Extension students with written permission from the instructor and department office.

Registration—If you wish to enroll in these courses through Extension Classes, you must follow the steps outlined in the brochure "A Guide for Registering Through Extension for Day School Classes" or the section on registration procedures in the 1991-92 *Extension Classes Bulletin*. Call 624-2388 for a bulletin, registration forms, and permission slips. The general Extension Classes information number is 625-3333. Information on counseling and program advising is available at 625-2500.

A few spaces are available without written permission in any of the courses listed below which are limited. (Limited-enrollment courses have R before the course number in Section 3 of this *Class Schedule*.) After those spaces are taken, written permission from the instructor is required. Courses which are not limited require written permission only after the first week. Call 626-1883 if you have any questions about permission requirements.

Aerospace Studies: All courses
 Afro-American Studies: All courses
 Agricultural and Applied Economics: All courses
 Agricultural Education: All courses except 3031, 5090, 5095
 Agricultural Engineering Technology: 5027
 Agronomy and Plant Genetics: All courses
 American Indian Studies: All courses
 Ancient Near Eastern: All courses except 3790, 3970, 5790, 5970
 Ancient Studies: 5100
 Animal Science: All courses
 Anthropology: All courses
 Arabic: All courses
 Astronomy: All 1000-level courses
 Biochemistry: All courses
 Biology: 1008, 1009, 1101 (See other list also.)
 Business and Marketing Education: All courses except 5600, 5603, 5604, 5605, 5900
 Chicano Studies: All courses
 Chinese: All courses
 Classics: All courses except 3790, 3970, 5790, 5794, 5970
 Comparative Literature: All courses
 Dance: All courses except 3901
 Danish: All courses
 Dutch: All courses
 East Asian Studies: All courses
 Ecology, Evolution, and Behavior: All courses
 Economics: All courses except 3201, 3031, 3041, 3101, 3102, 3103, 3105, 3501, 3601, 3701, 3801, 5021, 5031, 5041, 5301, 5307, 5331, 5337, 6401, 5429, 5531, 5631, 5701, 5721, 5821
 Educational Policy and Administration: All courses
 English Language & Literature: All courses except 3960 and all courses reserved for English majors only (See other list also.)
 Entomology: All courses
 Family Practice and Community Health: 5516, 5585
 Family Social Science: All courses except 3600, 5202, 5231, 5249
 Finnish: All courses
 Fisheries and Wildlife: All courses
 Food Science and Nutrition: All courses
 Forest Resources: All courses except those offered at Cloquet or Itasca
 French: All courses

Geography: All courses
 German: All courses
 Greek: All courses except 3790, 3970, 5790, 5970
 Hebrew: All courses except 3790, 3970, 5790, 5970
 History: All courses except 3955, 3961, 5500 and above
 History of Medicine: All courses
 Home Economics Education: All courses except 5320, 5406, 5600
 Humanities: All courses
 Industrial Education: 1110, 1120, 1130, 5300, 5301, 5303, 5330, 5360
 Industrial Engineering/Operations Research: All 3000-level courses (See other list for 5000-level courses.)
 Italian: All courses
 Japanese: All courses
 Jewish Studies: All courses except 3790, 3970, 5790, 5970
 Landscape Architecture: 1021, 1031, 3067, 5265
 Latin: All courses except 3790, 3970, 5790, 5970
 Latin American Studies: All courses
 Learning and Academic Skills: All courses
 Linguistics: All courses
 Mechanical Engineering: All 3000-level courses (See other list for 5000-level courses.)
 Middle Eastern Studies: All courses
 Military Science: All courses
 Modern Greek: All courses except 3790, 3970, 5790, 5970
 Naval Science: All courses except 1201. (See other list for 1201.)
 Norwegian: All courses
 Persian: All courses
 Philosophy: All courses
 Plant Biology: All courses
 Political Science: All courses
 Portuguese: All courses except 3970 and above
 Psychology: All courses except 1004, 1005, and all Honors courses
 Religious Studies: All courses
 Russian: All courses
 Scandinavian: All courses
 Slavic: All courses
 Social Work: All courses except 5601
 South Asian Studies: All courses
 Soviet Central Asian Studies: All courses
 Spanish: All courses except 3970 and above
 Spanish-Portuguese: All courses except 3801 and above
 Statistics: All courses
 Swedish: All courses
 Turkish: All courses
 Urban Studies: All courses
 Vocational Education: All courses except 5750, 5760, 5790

A Joint Day/Extension Special Permission slip, signed by the instructor and department office, is required in any of the courses listed below which are limited. (Limited-enrollment courses have R before the course number in Section 3 of this *Class Schedule*.) Courses which are not limited require written permission only after the first week. Call 626-1883 if you have any questions about permission requirements.

Aerospace Engineering and Mechanics: All courses
 American Studies: All courses
 Architecture: All courses except 3060-3066, 3081-3083, 3091-3093, 3511, 5111-5113, 5121-5123, 5800 and above
 Art History: All courses
 Biology: All courses except 1008, 1009, 1101, 3011, 3051, 3111 (See other list for 1008, 1009, 1101.)
 Civil Engineering: All courses
 Clinical Laboratory Science: All courses
 Communication Disorders: All courses
 Comparative Studies in Discourse and Society: All courses
 Design: All courses
 English Creative and Professional Writing: All 5000-level courses
 English Language and Literature: 3960 and all courses reserved for English majors only (See other list also.)
 General College: All courses except 0401, 0615-0618, 0643, 1051, 1086, 1235, 1331, 1374, 1454, 1461, 1511, 1534, 1537, 1551, 1812
 Genetics and Cell Biology: All courses except 3002
 Geology: All courses
 Horticultural Science: All courses
 Housing: All courses
 Industrial Engineering/Operations Research: All 5000-level courses (See other list for 3000-level courses.)
 International Relations: All courses except 3101, 3981
 Journalism and Mass Communication: 5316, 5611
 Mathematics: All courses
 Mechanical Engineering: All 5000-level courses (See other list for 3000-level courses.)
 Microbiology: All courses
 Music: All courses (Does not include Applied Music courses.)
 Music Education: All courses
 Naval Science: 1201 (See other list also.)
 Plant Biology: All courses
 Public Affairs: All courses except 5001, 5011
 Public Health: All courses except 5054, 5086, 5150, 5605, 5607, 5614, 5621, 5624, 5649, 5703, 5704, 5707, 5713, 5723, 5734, 5738, 5739, 5742, 5756, 5758, 5772, 5792, 5793, 5900, 5906
 Rhetoric: All courses
 Sociology: All courses except 3401, 3801
 Speech-Communication: All courses
 Textiles and Clothing: All courses
 Theatre Arts: All 1000- and 3000-level courses
 Women's Studies: All courses except 5000-level courses
 Youth Development and Research: 5120

TWIN CITIES COURSE DESIGNATORS

Acct	Accounting	FIMe	Fluid Mechanics	NSc	Neuroscience
AdEd	Adult and Teacher Education	ForP	Forest Products	NSu	Neurosurgery
AdPy	Adult Psychiatry	Fors	Forestry	Nurs	School of Nursing
AEM	Aerospace Engineering and Mechanics	FoSt	Foreign Study	Nutr	Nutrition
Afro	Afro-American Studies	FPAd	Family Planning Administration	OBio	Oral Biology
AgEc	Agricultural and Applied Economics	FPCH	Family Practice and Community Health	Obst	Obstetrics and Gynecology
AgEd	Agricultural Education	FR	Forest Resources	OMS	Operations and Management Science
AgEn	Agricultural Engineering	FrEn	French	OPat	Oral Pathology
AgET	Agricultural Engineering Technology	Frit	French and Italian	Oph	Ophthalmology
Agri	Agriculture	FScN	Food Science and Nutrition	ORad	Oral Radiology
Agro	Agronomy and Plant Genetics	FSMg	Foreign Studies Management	OrSu	Orthopaedic Surgery
AIM	Agricultural Industries and Marketing	FSoS	Family Social Science	OSur	Oral and Maxillofacial Surgery
Air	Aerospace Studies	FSSP	Foreign Study—SPAN	Otho	Orthodontics
Akka	Akkadian	FW	Fisheries and Wildlife	Otol	Otolaryngology
Alb	Albanian	GC	General College	PA	Public Affairs
AmIn	American-Indian Studies	GCB	Genetics and Cell Biology	Path	Pathobiology
AmSt	American Studies	Gene	Genetics	PBio	Plant Biology
ANE	Ancient Near Eastern	Geo	Geology and Geophysics	PE	Physical Education
Anes	Anesthesiology	GeoE	Geo-Engineering	Ped	Pediatrics
AnPh	Animal Physiology	Geog	Geography	Pedo	Pediatric Dentistry
AnPl	Animal and Plant Systems	Ger	German	Per	Persian
AnSc	Animal Science	GPHI	Germanic Philology	Pero	Periodontics
AnSt	Ancient Studies	GRAD	Graduate School	Phar	Pharmacy Practice
Anth	Anthropology	Grk	Greek	Phcg	Pharmacognosy
Arab	Arabic	HCol	Honors Colloquia	Phcl	Pharmacology
Arch	Architecture	HE	Home Economics	Phil	Philosophy
ArEd	Art Education	Hebr	Hebrew	Phm	Pharmaceutics
Arm	Aramaic	HEEd	Home Economics Education	Phmc	Pharmaceutics, Undergraduate
ArtH	Art History	HInf	Health Informatics	Phsi	Physiology
ArtS	Studio Arts	Hist	History	Phys	Physics
Ast	Astronomy	HItH	School Health Education	PIBr	Plant Breeding
BA	Business Administration	HMed	History of Medicine	PIPA	Plant Pathology
Ben	Bengali	Hndi	Hindi	PIPh	Plant Physiology
BFin	Finance	Hort	Horticultural Science	Pish	Polish
BGS	Business, Government, and Society	HScI	History of Science and Technology	PMed	Physical Medicine and Rehabilitation
BioC	Biochemistry (College of Biological Sciences)	HSem	Honors Seminar	Pol	Political Science
Biol	Biology	Hsg	Housing	Port	Portuguese
BLaw	Business Law	HSU	Health Science Units	Pros	Prosthodontics
BME	Business and Marketing Education	Hum	Humanities	Psy	Psychology
BMEEn	Biomedical Engineering	ID	Interdepartmental Study	PubH	Public Health
BMSc	Biomedical Science	IDSc	Information and Decision Science	Rad	Radiology
BPhy	Biophysical Sciences	IEOR	Industrial Engineering/Operations Research	Rec-	Recreation, Park, and Leisure Studies
CAPS	Clinical and Population Sciences	Ind	Industrial Education	RelS	Religious Studies
CAPy	Child and Adolescent Psychiatry	InMd	Interdisciplinary Medicine	Rhet	Rhetoric
CBio	Conservation Biology	Ins	Insurance	Russ	Russian
CBN	Cell Biology and Neuroanatomy	IntR	International Relations	SACS	Small Animal Clinical Sciences
CDB	Cell and Developmental Biology	IoT	Institute of Technology	SAHP	Social, Administrative, and Hospital Pharmacy
CDis	Communication Disorders	IR	Industrial Relations	SALL	South Asian Languages and Literature
CE	Civil Engineering	Ital	Italian	SAPh	Social and Administrative Pharmacy
CgSc	Cognitive Science	Jour	Journalism and Mass Communication	ScAg	Science in Agriculture
Chem	Chemistry	Jpn	Japanese	Scan	Scandinavian
ChEn	Chemical Engineering	JwSt	Jewish Studies	SCAS	Soviet Central Asian Studies
Chic	Chicano Studies	Kin	Kinesiology	SeEd	Secondary Education
Chn	Chinese	LA	Landscape Architecture	Serb	Serbo-Croatian
ChPh	Chemical Physics	LACS	Large Animal Clinical Sciences	Skt	Sanskrit
CISy	Curriculum and Instructional Systems	LaMP	Laboratory Medicine and Pathology	Slav	Slavic
Clas	Classics	LAS	Latin American Studies	SoAS	South Asian Studies
CICv	Classical Civilization	LASk	Learning and Academic Skills	Soc	Sociology
CLit	Comparative Literature	Lat	Latin	Soil	Soil Science
CLS	Clinical Laboratory Science	Law	Law School	Span	Spanish
Comp	Composition and Communication	Ling	Linguistics	Soch	Speech-Communication
Copt	Coptic	LM	Logistics Management	SPFE	Social and Philosophical Foundations of Education
CPsy	Child Psychology	Mar	Marathi	SpPt	Spanish-Portuguese
CScI	Computer Science	Math	Mathematics	Stat	Statistics
CSDS	Comparative Studies in Discourse and Society	MatS	Materials Science	Sum	Sumerian
CSDY	Control Science and Dynamical Systems	MBA	Master of Business Administration	Surg	Surgery
CVM	Veterinary Medicine	MChm	Medicinal Chemistry, Undergraduate	SW	Social Work
Dan	Danish	MdBc	Biochemistry (Medical School)	Swed	Swedish
Dent	Dentistry	MdGk	Modern Greek	TexC	Textiles and Clothing
Derm	Dermatology	ME	Mechanical Engineering	Tgen	Therogenology
DH	Dental Hygiene	Med	Medicine	Th	Theatre Arts
DHA	Design, Housing, and Apparel	MedC	Medicinal Chemistry	TRad	Therapeutic Radiology
Dnce	Dance	MedT	Medical Technology	Turk	Turkish
Dsgn	Design	MeSt	Medieval Studies	Txd	Toxicology
Dtch	Dutch	MetE	Metallurgical Engineering	UC	University College
EAS	East Asian Studies	Mgmt	Management	UrbS	Urban Studies
Econ	Economics	MicB	Microbiology	Urdu	Urdu
EdAd	Educational Administration	MicE	Microbial Engineering	Urol	Urologic Surgery
EdPA	Educational Policy and Administration	MidE	Middle Eastern Studies	VB	Veterinary Biology
Educ	Education	Mil	Military Science	VDI	Veterinary Diagnostic Investigation
EE	Electrical Engineering	MinE	Mining Engineering	VMed	Veterinary Medicine, Graduate
EEB	Ecology, Evolution, and Behavior	Mktg	Marketing	VMic	Veterinary Microbiology
EEur	East European Studies	Mort	Mortuary Science	VoEd	Vocational Education
Elem	Elementary Education	MSt	Museum Studies	VPar	Veterinary Parasitology
Endo	Endodontics	MthE	Mathematics Education	VPB	Veterinary Pathobiology
Engl	English Language and Literature	MuEd	Music Education	VPth	Veterinary Pathology
EngW	English: Creative and Professional Writing	Mus	Music	VSRA	Veterinary Surgery, Radiology, and Anesthesiology
Ent	Entomology	MusA	Music Applied	WoSt	Women's Studies
EPsy	Educational Psychology	Nav	Naval Science	YoSt	Youth Development and Research
ESL	English as a Second Language	Neur	Neurology	Zool	Zoology
Fin	Finnish	Nor	Norwegian		
		NRES	Natural Resources and Environmental Studies		

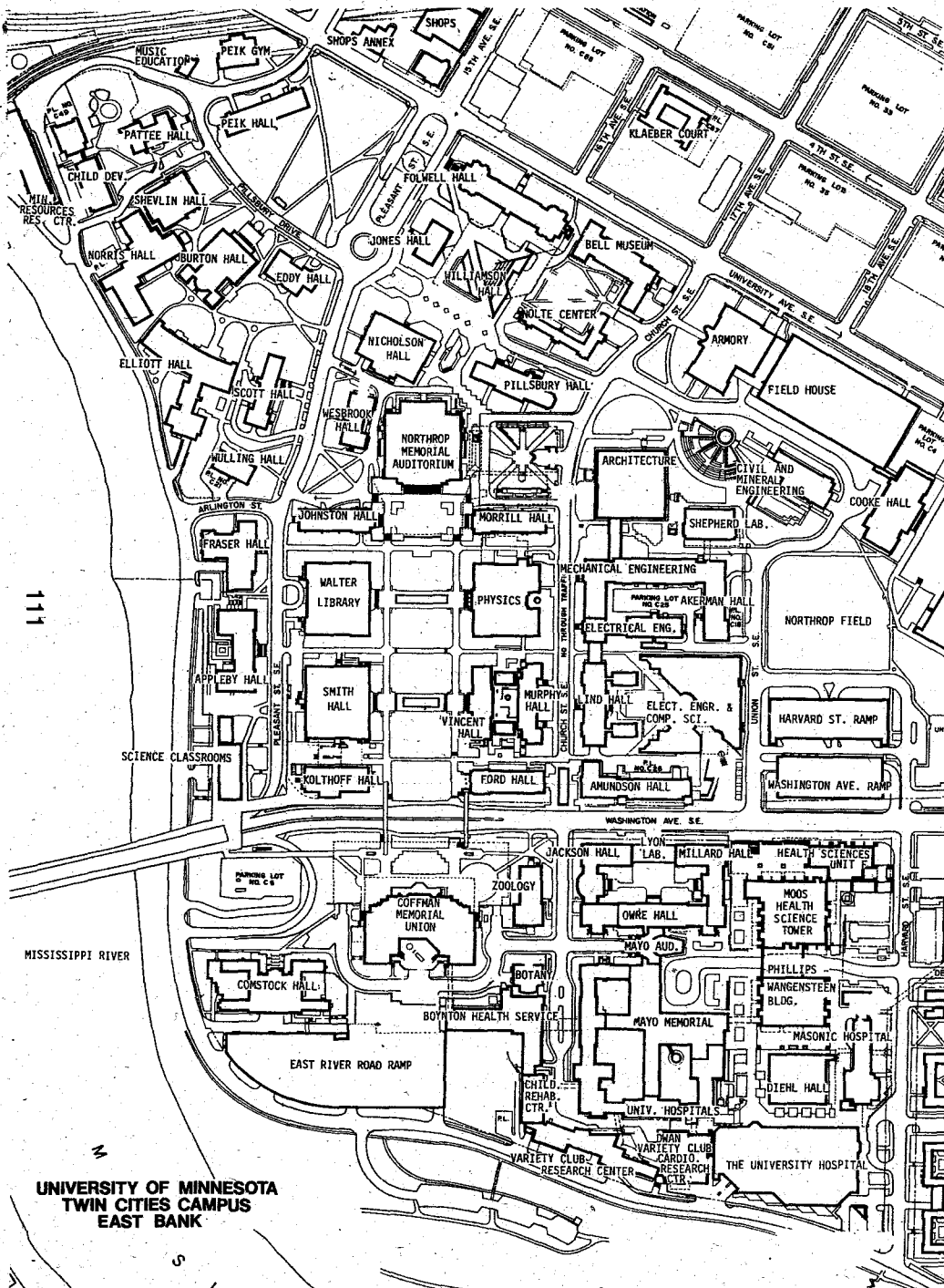
DIRECTORY FOR DEPARTMENT OFFICES

Adult and Teacher Education	PeikH 175 (625-5524)	Journalism, Mass Communication	MurH 111 (625-9824)
Aerospace Engineering and Mechanics	AkerH 107 (625-8000)	Laboratory Medicine	Mayo D242 (625-9171)
Aerospace Studies	Armory 3 (624-2884)	Large Animal Clinical Sciences	VetTchHos 225 (625-7755)
Afro-American Studies	SocSci 808 (624-9847)	Latin American Studies	SocSci 232 (624-8543)
Agricultural and Applied Economics	ClaOff 231 (625-1222)	Law School	Law 285 (625-1000)
Agricultural Education	VoTech 320 (624-2221)	Linguistics	KlaCt 142 (624-3528)
Agricultural Engineering	AgEng 213 (625-7733)	Management, Carlson School of	HHHCtr 290 (624-3313)
Agronomy	BorH 411 (625-7773)	Mathematics	VinH 127 (625-7575)
American Indian Studies	ScottH 102 (624-1338)	Mathematics Education	PeikH 125 (625-6372)
American Studies	ScottH 104 (624-4190)	MBA Program, Carlson School	HHH 295 (624-0006)
Ancient Near Eastern & Jewish Studies	KlaCt 178 (624-0060)	Mechanical Engineering	MechE 125 (625-0705)
Anesthesiology	Mayo B515 (624-9990)	Medical Technology	PWB 15-170 (625-9490)
Animal Science	PetH 120 (624-2722)	Medicine	PWB 14-110 (625-3220)
Anthropology	FordH 215 (625-3400)	Microbiology	Mayo 1460 (624-6190)
Architecture	Arch 110 (624-7866)	Middle Eastern Studies	KiCt 192 (624-7802)
Art Education	WullH 135 (625-8021)	Military Science	Armory 108 (624-7300)
Art History	JonesH 107 (624-4500)	Mining Engineering	CivMinE 122 (625-5522)
Astronomy	Phys 356 (624-0211)	Mortuary Science	Mayo A275 (624-6464)
Biochemistry (BioC)	GortL 140 (624-7755)	Music	FergH 100 (624-5740)
Biochemistry (Med)	MirdH 4-225 (625-6100)	Music Education	FergH 100 (624-0071)
Biological Sciences	SnH 123 (624-9717)	Naval Science	Armory 203 (625-6677)
Biology	KoltH P180 (625-6636)	Neurology	PWB 12-100 (625-9900)
Business and Marketing Education	VoTech 420 (624-7799)	Nursing	HSUnitF 5-140 (624-9600)
Cell Biology and Neuroanatomy	Jach 4-135 (624-1123)	Obstetrics and Gynecology	MoosT 12-211 (626-3111)
Chemical Engineering and Materials Science	AmundH 151 (625-1313)	Ophthalmology	PWB 9th floor (625-4400)
Chemistry	SmithH 115 (624-0026)	Otolaryngology	PWB 8-240 (625-3200)
Chicano Studies	ScottH 102 (624-6309)	Pediatrics	PWB 13-107 (624-4477)
Child Psychology	ChDev 104 (624-6599)	Pharmacology	MirdH 3-260 (625-9997)
Civil and Mineral Engineering	CivMinE 122 (625-5522)	Pharmacy	HSUnitF 5-110 (624-9490)
Classical and Near Eastern Studies	FolH 331 (625-5353)	Philosophy	FordH 355 (625-6563)
Communication Disorders	ShevH 115 (624-3322)	Physical Education	CookeH 224 (625-1007)
Comparative Literature	FolH 350 (624-8099)	Physical Medicine and Rehabilitation	Mayo 860 (626-5961)
Composition and Communication	LindH 209 (625-2888)	Physics	Phys 148 (624-7375)
Computer Science	EE/CSci 4-192 (625-4002)	Physiology	MirdH 6-255 (625-5902)
Curriculum and Instruction	PeikH 125 (625-6372)	Plant Biology	BioSci 220 (625-1234)
Dance	NorrisH 106 (624-5060)	Plant Pathology	StakH 304 (625-8299)
Dental Hygiene	MoosT 5-164 (625-9121)	Plant Physiology	BioSci 220 (625-4222)
Dentistry	MoosT 15-209 (625-9982)	Political Science	SocSci 1414 (624-4144)
Dermatology	PWB 4-240 (625-8625)	Psychiatry	Mayo A605 (626-5400)
Design, Housing, and Apparel	McNH 240 (624-9700)	Psychology	EitH 106 (625-4394)
East Asian Studies	FolH 105 (624-0007)	Public Affairs	HHHCtr 254 (625-9505)
Ecology, Evolution, and Behavior	Zoology 109 (625-4466)	Public Health	Mayo A302 (624-6669)
Economics	Mgmt/Econ 1035 (625-6353)	Radiology	Mayo B238 (626-5529)
Educational Administration	PeikH 275 (624-1006)	Recreation, Park, and Leisure Studies	CookeH 203 (625-5300)
Educational Psychology	BuH 202 (624-3543)	Rhetoric	HckrH 202 (624-3445)
Electrical Engineering	EE/CSci 4-178 (625-3300)	Russian & East European Studies	EitH 253 (625-9870)
Elementary Education	PeikH 125 (625-6372)	Scandinavian Studies	FolH 200 (625-9887)
English	LindH 207 (625-3363)	Secondary Education	PeikH 125 (625-6372)
Entomology	HodsonH 219 (624-3636)	Small Animal Clinical Sciences	VetTchHos C339 (625-7744)
Family Practice, Community Health	PWB 6-240 (624-2622)	Social, Philosophical Foundations of Educ	PeikH 275 (624-1006)
Family Social Science	McNH 290 (625-1900)	Social Work	FordH 400 (624-5888)
Fisheries and Wildlife	HodsonH 200 (624-3600)	Sociology	SocSci 909 (624-4300)
Food Science and Nutrition	FScN 225 (624-1290)	Soil Science	BorH 439 (625-1244)
Forest Products	KaufL 203 (624-9219)	South Asian Studies	KiCt 192 (624-7802)
Forest Resources	GrnH 115 (624-3400)	Spanish and Portuguese	FolH 34 (625-5858)
French and Italian	FolH 260 (624-4308)	Speech-Communication	FolH 460 (624-5800)
General College	ApH 41 (625-3339)	Statistics	VinH 270 (625-8046)
Genetics and Cell Biology	BioSci 250 (624-3003)	Studio Arts	ArtB 208 (625-8096)
Geography	SocSci 414 (625-6080)	Surgery	PWB 11-100 (625-1400)
Geology and Geophysics	PillH 106 (624-1333)	Textiles and Clothing	McNH 364 (624-9700)
German	FolH 231 (625-2080)	Theatre Arts	MdbH 208 (625-6699)
Higher Education	PeikH 275 (624-1006)	University College	
History	SocSci 614 (624-2800)	Intercollege Program (ICP)	WullH7 (624-2004)
History of Medicine	DieH 510 (624-4416)	Program for Individualized Learning	WesH 201 (624-4020)
History of Science & Technology	Phys 430 (624-7069)	Veterinary Biology	AnScVM 295K (624-2700)
Home Economics	McNH 32 (624-1717)	Veterinary Pathobiology	VetS 205g (625-5255)
Home Economics Education	VoTech 325 (624-3010)	Vocational and Technical Education	VoTech 210 (624-1221)
Horticultural Science	AlderH 305 (624-5300)	Women's Studies	FordH 492 (624-6006)
Humanities	FordH 314 (624-5553)	Youth Development and Research	McNH 386 (624-3700)
Industrial Education	VoTech 425 (624-3004)		
Interdepartmental Study (CLA)	JohH 220 (624-7577)		
International Relations	SocSci 214 (624-9007)		

BUILDING ABBREVIATIONS AND BUILDING ACCESSIBILITY INFORMATION

MINNEAPOLIS

East Bank



- AkerH, Akerman Hall □
 AmundH, Amundson Hall ◊ * L
 ApH, Appleby Hall ■ *
 Arch, Architecture ◊ * L
 Armory □
 BellMus, Museum of Natural History ◊ * L
 BFAB, Bierman Field Athletic Building □ * L
 Botany □
 BoynHS, Boynton Health Service ◊ * L
 BuH, Burton Hall ◊ * L
 CenH, Centennial Hall
 ChDev, Child Development ◊ *
 ChRC, Children's Rehabilitation Center ◊ *
 CivMinE, Civil and Mineral Engineering ◊ *
 CMU Coffman Memorial Union ◊ * L
 ComH, Comstock Hall □
 CookeH, Cooke Hall ■
 DieH, Diehl Hall ◊ *
 DVCCRC, Dwan Variety Club
 Cardiovascular
 Research Center ◊ * L
 EddyH, Eddy Hall ■
 EdHAN, Eddy Hall Annex
 EE/CSci, Electrical Engineering/Computer
 Science Building ◊ * L
 ElectE, Electrical Engineering □
 EliH, Elliott Hall ◊ * L
 FieldHse, University Field House
 FolH, Folwell Hall ◊ * L
 FordH, Ford Hall ◊ * L
 FraserH, Fraser Hall □
 FronH, Frontier Hall ◊ *
 HL, St. Anthony Falls Hydraulic Laboratory
 (Hennepin Island)
 HSUnitF, Health Sciences Unit F ◊ * L
 Jach, Jackson Hall ◊ *
 JOAd, Jackson-Owre Addition ◊ *
 JohH, Johnston Hall ◊ * L
 JonesH, Jones Hall ■
 KlaCt, Klaeber Court □
 Kolth, Kolthoff Hall ◊ * L
 LindH, Lind Hall ◊ * L
 LyonL, Lyon Laboratories
 Mayo, Mayo Memorial ◊ * L
 MechE, Mechanical Engineering □
 MirdH, Millard Hall ◊ *
 MMA, Mayo Memorial Auditorium □
 MoosT, Moos Health Sciences Tower ◊ * L
 MorH, Morrill Hall ◊ * L
 MRRC, Mineral Resources Research
 Center ■
 MurH, Murphy Hall ■
 MusEd, Music Education ■
 NichH, Nicholson Hall ◊ * L
 NMA, Northrop Memorial Auditorium ◊ * L
 NorriH, Norris Hall □ L
 OwreH, Owre Hall ◊ * L
 PeikG, Peik Gym □
 PeikH, Peik Hall □ *
 Phys, Tate Laboratory of Physics ◊ *
 PiH, Pioneer Hall □
 PillsH, Pillsbury Hall □
 PTH, Pattee ◊ *
 PWB, Phillips Wangensteen Building ◊ * L
 SaH, Sanford Hall ■
 SciCB, Science Classroom Building □ *
 ScottH, Scott Hall ■
 ShepLab, Shepherd Laboratories ◊ *
 ShevH, Shevlin Hall ◊
 SmithH, Smith Hall ◊ *
 Stad, Stadium □ L
 TerH, Territorial Hall ■
 UAqCtr, University Aquatic Center □
 UHosp, University Hospital ◊ * L
 VinH, Vincent Hall ◊ *
 WaLib, Walter Library ◊ * L
 WesH, Wesbrook Hall ■
 WmsA, Williams Arena □ L
 WmsnH, Williamson Hall ◊ * L
 WullH, Wulling Hall □ *
 Zoology ◊ * L

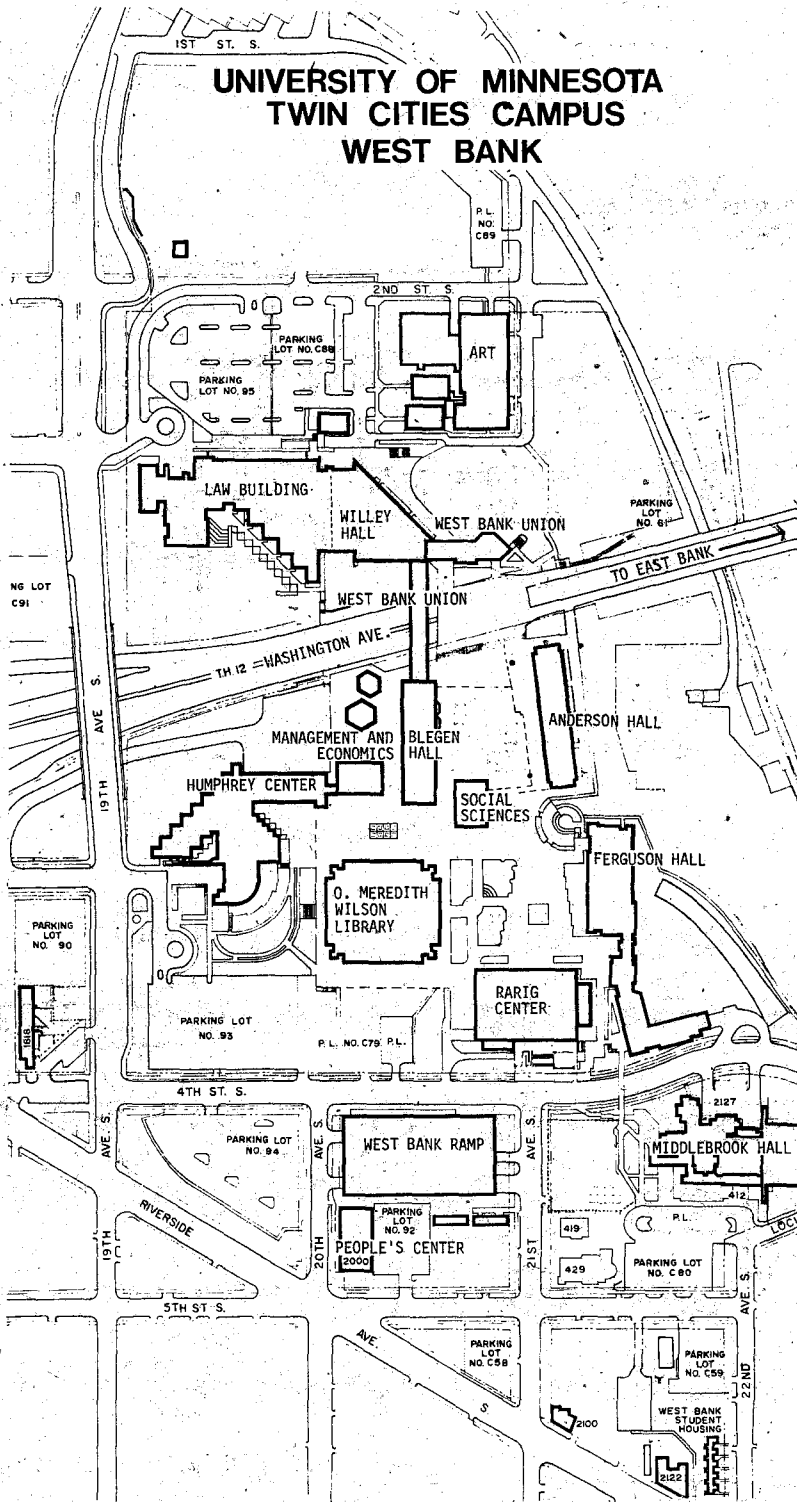
CODES:

- ◊ = accessible building
- = partially accessible
- = inaccessible building
- * = elevator
- L = adapted restroom

UNIVERSITY OF MINNESOTA
TWIN CITIES CAMPUS
EAST BANK

For a map, *Guide for the Handicapped*, and further information, contact the Office for Students with Disabilities at 624-4037.

**UNIVERSITY OF MINNESOTA
TWIN CITIES CAMPUS
WEST BANK**



**BUILDING ABBREVIATIONS AND
BUILDING ACCESSIBILITY INFORMATION**

**MINNEAPOLIS
West Bank**

- AndH, Anderson Hall $\text{\textcircled{/}}$ *
- ArtB, Art Building (2020 Washington Ave S) \square
- BlegH, Blegen Hall $\text{\textcircled{/}}$ * L
- FergH, Ferguson Hall $\text{\textcircled{/}}$ * L
- HHH Ctr, Humphrey Center $\text{\textcircled{/}}$ * L
- Law, Law Building $\text{\textcircled{/}}$ * L
- MdbH, Middlebrook Hall $\text{\textcircled{/}}$ * L
- Mgmt/Econ, Management/Economics Building $\text{\textcircled{/}}$ *
- OMWL, O Meredith Wilson Library $\text{\textcircled{/}}$ * L
- RarigC, Rarig Center $\text{\textcircled{/}}$ * L
- SocSci, Social Sciences Building $\text{\textcircled{/}}$ *
- WBU, West Bank Union $\text{\textcircled{/}}$ L
- WilleyH, Willey Hall $\text{\textcircled{/}}$ * L

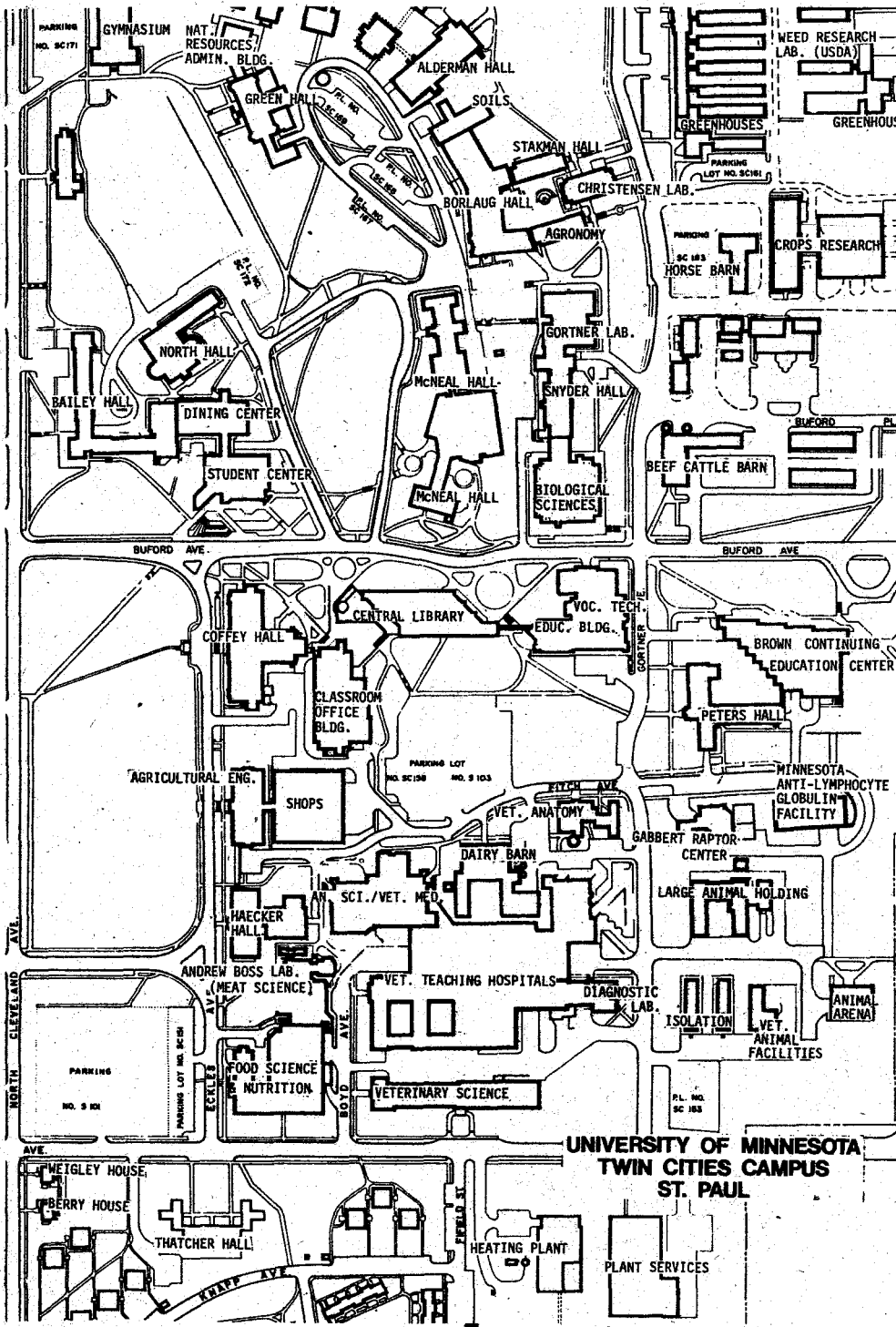
CODES:

- $\text{\textcircled{/}}$ = accessible building
- \square = partially accessible
- \blacksquare = inaccessible building
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BUILDING ABBREVIATIONS AND BUILDING ACCESSIBILITY INFORMATION

ST PAUL



- ABLMS, Andrew Boss Laboratory-Meat Science ⚡*
- AgEng, Agricultural Engineering □*
- AgEngShop, Agriculture Engineering Shop ⚡
- Agr, Agronomy ■
- AgGhCl, Agronomy Greenhouse Classroom ⚡
- AgrPGGh, Agronomy/Plant Genetics Greenhouse
- AlderH, Alderman Hall ⚡*
- AnAren, Animal Arena
- AnScVM, Animal Science, Veterinary Medicine □*
- BCB, Beef Cattle Barn ⚡
- Berry, Berry House (1304 Cleveland Ave N) □
- BioSci, Biological Sciences Center □*
- BorH, Borlaug Hall ⚡* L
- CentLib, St. Paul Campus Central Library ⚡*
- ClaOff, Classroom Office Bldg ⚡*
- CoffH, Coffey Hall ⚡*
- DinC, Dining Center ⚡*
- EBCEC, Earle Brown Continuing Education Center ⚡* L
- FScN, Food Science and Nutrition ⚡*
- GorL, Gortner Laboratory of Biochemistry ⚡*
- GrnH, Green Hall ⚡* L
- Gym, Gymnasium ■
- HckrH, Haecker Hall □
- HodsonH, Hodson Hall ⚡*
- HrG, Horticulture Greenhouse
- KaufL, Kaufert Laboratory ⚡*
- McNH, McNeal Hall ⚡* L
- NatResAd, Natural Resources Administration Building ⚡* L
- NorH, North Hall ■
- PetH, Peters Hall □
- PISci, Plant Sciences ■
- SnH, Snyder Hall
- Soils ⚡*
- StakH, Stakman Hall of Plant Pathology ■
- StCen, Student Center ⚡* L
- VetA, Veterinary Anatomy □
- VetDL, Veterinary Diagnostic Laboratories ■
- VetS, Veterinary Science ■
- VetTchHos, Veterinary Teaching Hospitals □
- VoTech, Vocational-Technical Education ⚡* L
- Weigley, Weigley House (1316 Cleveland Ave N)

CODES:

- ⚡ = accessible building
- = partially accessible
- = inaccessible building
- * = elevator
- L = adapted restroom

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FINAL EXAMINATION SCHEDULES

To find when the final exam for each of your courses is scheduled, do the following:

1. Determine the college through which each of your courses is offered. (To determine the college, see the last line under the department heading in the course offerings). Remember: It is the college offering the course that is important, not your college of enrollment. Schedule A, on this page, is for all courses offered through Education, Liberal Arts, Health Sciences, Dentistry, and Public Affairs. All other courses use Schedule B, on the next page.
2. Determine the beginning time for each of your courses using the following guidelines:
 - Use the lecture beginning time for your course rather than the lab or recitation times.
 - Each range of beginning times (0800-0859, 0900-0959, etc.) is subdivided into MWF and TTh exam times. Use MWF if your course meets for more than three days per week or if it meets on unusual days. For example, courses that meet MWThF or TWTh or TF would all follow the MWF exam time.

- If your course meets at different times on different days, use the day earliest in the week. A course meeting 0905-1100 T, 0800-0850 Th, for example, would follow the 0900-0959 TTh exam time.

3. Read across to find the time and day for your final examination using the beginning time for the course and the correct schedule (A or B).
4. Check the list of common exams on the next page to see if any of your courses are listed there. Common examination times *always* take precedence over schedules A and B.
5. Ask your instructor for confirmation of your exam time. Instructors may schedule 3-hour examinations for courses meeting four or more days a week. Instructors may also, with college approval in a very limited number of circumstances, request a change in exam time. See Examination Conflicts, on the next page, for information on conflicts in your final exam schedule.

NOTE: These final examination schedules do not apply to courses offered primarily to students registered in the colleges of Dentistry, Pharmacy, and Veterinary Medicine, Law School, and Medical School, or to 8000-level courses that have no regularly scheduled classrooms.

Schedule A
Courses Offered in Colleges of Education and Liberal Arts,
†Health Sciences, †Dentistry, and Public Affairs

Class Begins:	Exam Time:	S	December 7	Class Begins:	Exam Time:	T	December 10		
0800-0859	MWF	1300-1530	S	December 7	1200-1259	TTh	1030-1230	T	December 10
0800-0859	TTh	1600-1800	S	December 7	1300-1359	MWF	1030-1230	S	December 7
0900-0959	MWF	1600-1800	T	December 10	1300-1359	TTh	1600-1800	W	December 11
0900-0959	TTh	0800-1000	F	December 6	1400-1459	MWF	1600-1800	M	December 9
1000-1059	MWF	1030-1230	W	December 11	1400-1459	TTh	1330-1530	M	December 9
1000-1059	TTh	1330-1530	W	December 11	1500-1559	MWF	1030-1230	M	December 9
1100-1159	MWF	1600-1800	F	December 6	1500-1559	TTh	0800-1000	M	December 9
1100-1159	TTh	1030-1230	F	December 6	0800-0859	S	0800-1000	S	December 7
1200-1259	MWF	0800-1000	T	December 10	1000-1059	S	1030-1230	S	December 7

†Courses offered primarily to students other than medical or dental students.
 Courses which begin anytime from 1730 to 1800 will start at 1815 during exam week.

Schedule B

Courses Offered in Colleges of Agriculture, Architecture and Landscape Architecture, Biological Sciences, Human Ecology, and Natural Resources, General College, Carlson School of Management, and Institute of Technology

Class Begins:		Exam Time:		Class Begins:		Exam Time:			
0800-0859	MWF	1330-1530	S	December 7	1200-1259	TTh	1030-1230	T	December 10
0800-0859	TTh	1600-1800	S	December 7	1300-1359	MWF	0800-1000	S	December 7
0900-0959	MWF	1330-1530	T	December 10	1300-1359	TTh	1600-1800	W	December 11
0900-0959	TTh	0800-1000	F	December 6	1400-1459	MWF	1600-1800	M	December 9
1000-1059	MWF	0800-1000	W	December 11	1400-1459	TTh	1330-1530	M	December 9
1000-1059	TTh	1330-1530	W	December 11	1500-1559	MWF	1030-1230	M	December 9
1100-1159	MWF	1330-1530	F	December 6	1500-1559	TTh	0800-1000	M	December 9
1100-1159	TTh	1030-1230	F	December 6	0800-0859	S	0800-1000	S	December 7
1200-1259	MWF	0800-1000	T	December 10	1000-1059	S	1030-1230	S	December 7

Courses which begin anytime from 1730 to 1800 will start at 1815 during exam week.

Common Examinations—All sections of the following courses are examined together at the time indicated.

Thursday, December 5

Acct 1050—1030-1230
 BFin 3000—1030-1230
 Biol 1009, 1009H, 1101—1030-1230
 BLaw 3058—0800-1000
 GC—0611, 0615, 0616, 0617, 0618, 0621, 0625, 0631, 0641,
 0643—1030-1230
 IDSc 1010, 3030—0800-1000
 Math 1008—1330-1530
 Math 1111, 1131, 1142, 1201, 1211, 1221, 1241, 1411H,
 3213, 3311, 3321, 3331, 3511H, 3521H—1330-1630
 Psy 1001—1900-2100
 PubH 3001, 3003, 3004, 5003, 5022, 5023—1830-2130

Friday, December 6

CSci 3101, 3102—1830-2130
 Econ 1101, 1101H—1830-2130

Saturday, December 7

Econ 1102, 1102H—1830-2130
 Ger 1101, 1102, 1103—1830-2030
 Span 1101, 1102, 1103, 1104, 1105, 1106—1830-2030

Rooms—Examinations except common examinations are given in the regularly scheduled classroom unless your instructor arranges for and announces a different room. Note to instructors: See Regulations Regarding Examinations, below.

Examination Scheduling Conflicts—You are required to take final examinations at the times shown. However, if you have examination conflicts or three exams within a 16-hour period, you may request adjustment with your college office and with your instructor. Such a request must be presented at least two weeks before the examination period begins.

If you miss a final, an I, an F, or an N is recorded, depending upon your standing at the time. To make up the exam, you must obtain the instructor's permission.

SCHEDULE COMMITTEE REGULATIONS REGARDING EXAMINATIONS

1. There shall be no variations from the University final examination schedule except by concurrence of the dean of the college and the director of scheduling. **This prohibition also precludes moving a final examination from a scheduled time to study day or to the last or earlier meetings of the class**, except laboratory final examinations which cannot be held in accordance with the regular final examination schedule.
 All department requests for adjustment of final examination hours should be made on Form A163 by November 8 to permit publication of the change and orderly consideration of hardships. Additional common examinations may be requested on the same form, which is available in department offices.
2. Instructors requesting any variation from the official examination schedule must agree to give a special make-up examination to any student having examination conflicts or three examinations in one calendar day because of the change in hours.
3. Arranged examinations and authorized variations in published hours shall conform with the hour-periods shown in the examination schedules.
4. **No variations from the University final examination schedule will be considered official until published in the Official Daily Bulletin in the *Minnesota Daily*.**
5. Each college shall assume responsibility for making arrangements to spread out examinations for students who have more than two examinations scheduled in one day.
6. Since providing adequate seating for final examinations is a continuing problem, departments are encouraged to limit final examinations to 2 hours. Courses meeting four or more days a week may give 3-hour examinations, however, *provided the instructor notifies the Scheduling Office of her or*

his intention to do so on an A123 form. Three-hour examinations will be scheduled on the respective day the examinations would be given: December 6 (1330-1630), December 7 (0830-1130; 1330-1630), December 9 (0830-1130, 1330-1630), December 10 (0830-1130; 1330-1630), December 11 (0830-1130).

Departments are also encouraged to request alternate seating only when it is necessary for proper administration of the exam. Requests for rooms for alternate seating must be submitted by the department office on an A123 form.

Exam times and rooms for courses which begin from 0700-0759 or anytime after 1600 will not be scheduled unless they are requested on an A123 form.

All A123 forms must be received in the Scheduling Office (150 Williamson Hall for Minneapolis rooms, 130 Coffey Hall for St. Paul rooms) on or before October 25. Notification of room assignments for all A123 forms received by October 25 will be sent to departments on or before November 20.

7. University Senate policy decrees that no extracurricular events which *require* the participation of students may be scheduled from the beginning of study day to the end of finals week. Exceptions to this policy may be granted by the Senate Committee on Educational Policy. The Senate advises all faculty members that students who are unable to complete course requirements during finals week shall be provided an alternative and timely opportunity to do so.

FALL QUARTER GRADES

Academic Staff—Grades are due in the Office of the Registrar, 150 Williamson Hall (130 Coffey Hall for St. Paul units) within 72 hours after the examination. Grades for this quarter are due beginning Monday, December 9; the grades for the last examinations are due by 8:30 a.m. on Monday, December 16. Messenger service is provided in Minneapolis. Please call 625-3030 when grades are ready. *Do not send grades by mail.*

Students—Fall quarter grades will be available beginning January 6 from 8 a.m. to 4 p.m. in the Great Hall Annex of Coffman Memorial Union for students registered in the College of Liberal Arts, College of Education, General College, University College, School of Nursing, Graduate School, Institute of Technology, and College of Architecture and Landscape Architecture. Grades not picked up the first week of classes will be available in 202 Fraser Hall beginning January 13. Grades for students in St. Paul colleges will be available in 130 Coffey Hall beginning January 6. Grades for students in all remaining colleges will be distributed through college offices. You must show identification to receive grades.

GRADUATION

For fall quarter graduation, most undergraduates and students in professional programs (e.g., MEd.) must submit an Application for Degree form to the Student Relations Unit, 150 Williamson Hall (130 Coffey Hall for St. Paul-based students) by October 14. Your application *must* include a \$25 graduation fee (check or money order only). If you fail to apply by October 14, you will not be able to graduate until the following quarter. However, most colleges expect their students to apply at least two quarters before graduation. Check with your college office for college deadlines.

For information on Graduate School graduation application and commencement deadlines, see page 8.

GRADING POLICIES AND PRACTICES

1. There are two grading systems, A-B-C-D-F and S-N. Each college (meaning also each separate school or institute) will determine to what extent and under what conditions each system may be available to its students and faculty. Any college may specify what courses or what proportion of courses taken by its students or by its prospective students must be on a particular grading system.
2. The S-N system represents a self-contained alternative to the A-B-C-D-F system, and the two may not be combined for a particular student in a particular course. Students may receive symbols only from the grading system under which they are registered.
3. When the two grading systems are available, students must declare a choice of systems as part of their initial registration. The choice may not be changed after the end of the second week of classes (first week in summer session).
4. The following symbols, as defined, may be used on the University's official transcript, the chronological quarterly record of the student's registrations, after the end of the second week of classes (end of first five days of classes for summer sessions). The official transcript is released by the University only at the student's request and is certified and signed by the University Registrar.
 - A— Represents achievement that is outstanding relative to the level necessary to meet course requirements.
 - B— Represents achievement that is significantly above the level necessary to meet course requirements.
 - C— Represents achievement that meets the basic course requirements in every respect.
 - D— Represents achievement that is worthy of credit even though it does not fully meet the basic course requirements in every respect.
 - F— Represents performance that fails to meet basic course requirements and is unworthy of credit.

S— Represents achievement that is deemed by the instructor to be satisfactory for the course in which the student is registered. This definition is intended to imply that the standards for S may vary from one course to another.

N— Assigned when the student does not earn an S and is not assigned an I. It stands for no credit.

W— Entered by the Office of the Registrar when a student officially withdraws from a course, in accordance with procedures established by the student's college.

I— Assigned by an instructor to indicate Incomplete, in accordance with provisions announced in class at the beginning of the quarter, when in the instructor's opinion there is a reasonable expectation that the student can complete successfully the work of the course. An I that is not made up by the end of the next quarter of residence becomes an F if the course was taken under the A-F grading system or an N if the course was taken under the S-N grading system. Instructors may set dates within the quarter for make-up examinations. In the Graduate School, in master's degree programs in undergraduate colleges, and in the doctor of medicine programs, an I remains until changed by the instructor. When an I is changed to another symbol, the I is removed from the record.

X— Reported to indicate that a student may continue in a sequence course in which a grade cannot be determined until the full sequence of quarters is completed. The instructor will submit a grade for each X when the student has completed the sequence.

In connection with all achievement symbols, but especially in connection with S, the instructor is obligated to define to a class as explicitly as possible in its early meetings the performance that will be necessary to earn each.

V— Indicates registration as an auditor or visitor, a no credit, no grade registration.

T— Posted (in front of the original grade, if any) to indicate credits transferred from another institution. Credits and grades for courses transferred from another institution are *not* included in the calculation of the University grade point average. On occasion, credits transferred from one campus or college of the University to another may be placed in parenthesis—such bracketing indicates the course is not included in the calculation of the grade point average.

In the doctor of medicine program, O (Outstanding) and E (Excellent) may be used with S-N. In the doctor of veterinary medicine program, O (Outstanding) may be used with S-N.

5. If a student is permitted by the college to repeat a course, all grades are reported on the official transcript.

6. Any college may set special scholastic or other standards for registration in a particular course, for scholastic probation, for admission, for honors, for continued residence, for degrees, etc.

7. The grading system described here became effective fall quarter 1986, thereby replacing all previous University systems, but its definitions and provisions may not be applied retroactively to any grades or symbols recorded before that time.

8. Each transcript will be clearly identified as to the procedures under which it was produced and will be maintained and released under policies in effect during the time of registration.

9. The Assembly Committee on Student Academic Services has authority to grant to individual colleges permission to use experimental grading methods outside the provisions of this official University system, for a specified period, provided that the proposals do not interfere significantly with the registration options of students from other colleges and programs. Such experimental systems shall be reported for information to the Twin Cities Campus Assembly as soon as permitted and, after the specified period, shall be re-evaluated, to be either extended, discontinued, or, with Assembly approval, made a regular system for the unit concerned.

10. The Assembly Committee on Student Academic Services is charged with resolving disputes between and among colleges should procedures developed under this grading system result in unacceptable complications for students registering across college lines. The committee may bring to the Assembly issues it is unable to resolve informally through negotiation, with recommendations for resolution.

COMPLETING YOUR COURSE REQUEST FORM

1 Student, Chris H.
1234567
Print name (last, first, middle) and ID number or Social Security number.



2 College of Enrollment CLA			4 Street Address 4312 Main Street			Telephone Number 373-4343			
3 Major Anthropology			City			State		Zip Code	
5 Term and Year <input checked="" type="checkbox"/> Fall <input type="checkbox"/> Winter <input type="checkbox"/> Spring <input type="checkbox"/> Summer Session I <input type="checkbox"/> Summer Session II 1991									
6 <input checked="" type="checkbox"/> Registration: Number of credits 14 <input type="checkbox"/> Cancel/Add: Number of credits after change <input type="checkbox"/> Complete Cancellation									
NOTE: Fill in VARIABLE CREDITS only if credits are listed as "ar cr" in the Class Schedule. Fill in GRADE OPTION if mandatory grading is not listed in the Class Schedule. To change grade option or variable credits, list course as both cancellation and addition.									
COURSE(S)—First Choice (original registration)				COURSE(S)—Second Choice (or cancel/add additions)				CANCELLATIONS	
CALL NUMBER	GRADE OPTION	VARIABLE CREDITS	DESIGNATOR, COURSE NUMBER, AND SECTION	CALL NUMBER	GRADE OPTION	VARIABLE CREDITS	DESIGNATOR, COURSE NUMBER, AND SECTION	CALL NUMBER	DESIGNATOR, COURSE NUMBER, AND SECTION
7 (A) 938747	(B)	(C)	(D) Anth 518	(8) 436587 S-N			Wof 3400-2	(9)	
724414		2	Engl 5970	136406			Anth 5131		
132941			Wof 5300						
541392			Anth 5960-2						
10 MPIRG (optional) Minnesota Public Interest Research Group is described in the Class Schedule. The MPIRG fee is \$2.50 per quarter (or \$1.25 per summer term) for those who pay the student services fee. Payment is refundable through MPIRG. If you choose NOT to pay, initial here _____				11 ADVISER APPROVAL (if needed) J. Stade				12 ADDITIONAL APPROVAL (if needed)	

- 1 Print your name and student ID number (or Social Security Number).
- 2 Print the college in which you are enrolled.
- 3 Print your major.
- 4 Print your complete address and phone number.
- 5 Indicate the term (fall, winter, spring, summer I, or summer II) and year for which you are registering.
- 6 Check the box for registration if this is your first registration for the quarter or term and fill in the number of credits for which you are registering. If you are making changes in your original registration (cancel/ adding), check the cancel/add box and fill in the number of credits you will have after completing those changes. Check the "Complete Cancel" box if you are cancelling all courses.
- 7 This section is for your first choice course requests:
 - A Print the six digit call number. (The call number is to the left of each course listing or each section of a course.)
 - B Mark the grading system you are requesting, only if the course is offered for both A-F and S-N. See example above and read the paragraph on Grading Option on page 28 of this Class Schedule for further information.
 - C Print the number of credits only if you are registering for a variable credit course (i.e., 1-4 cr.) or an arranged credit course (ar cr). See example above.
- 8 This section is for your second choice course requests. Plan alternatives for all parts of the course (e.g., lecture, lab, recitation) in case your first choice requests are closed or otherwise unavailable. If you are cancel/ adding, list any course additions here.
- 9 Provide the call number, designator, course, and section numbers for any courses you are cancelling. Remember to indicate your credit total in section 6.
- 10 MPIRG—see instructions on form. The Minnesota Public Interest Research Group (MPIRG) is a nonprofit, nonpartisan, student-run organization funded at the Twin Cities campus by an optional quarterly fee of \$2.50. A statewide advocacy group, MPIRG gives students the opportunity to speak out on public issues and work for social change. The fee supports a professional staff for lobbying, litigation, organizing, and research.
- 11 College, department, and/or adviser approval, as required.
- 12 Additional approval, as required.


COURSE REQUEST
 University of Minnesota

Print name (last, first, middle) and ID number or Social Security number.

College of Enrollment				Street Address				Telephone Number	
Major				City				State	Zip Code
Term and Year				<input type="checkbox"/> Fall <input type="checkbox"/> Winter <input type="checkbox"/> Spring <input type="checkbox"/> Summer Session I <input type="checkbox"/> Summer Session II				19__	
<input type="checkbox"/> Registration: Number of credits ____				<input type="checkbox"/> Cancel/Add: Number of credits after change ____				<input type="checkbox"/> Complete Cancellation	
NOTE: Fill in VARIABLE CREDITS only if credits are listed as "ar cr" in the Class Schedule. Fill in GRADE OPTION if mandatory grading is not listed in the Class Schedule. To change grade option or variable credits, list course as both cancellation and addition.									
COURSE(S)—First Choice (original registration)				COURSE(S)—Second Choice (or cancel/add additions)				CANCELLATIONS	
CALL NUMBER	GRADE OPTION	VARIABLE CREDITS	DESIGNATOR, COURSE NUMBER, AND SECTION	CALL NUMBER	GRADE OPTION	VARIABLE CREDITS	DESIGNATOR, COURSE NUMBER, AND SECTION	CALL NUMBER	DESIGNATOR, COURSE NUMBER, AND SECTION
MPIRG (optional) Minnesota Public Interest Research Group is described in the Class Schedule. The MPIRG fee is \$2.50 per quarter (or \$1.25 per summer term) for those who pay the student services fee. Payment is refundable through MPIRG. If you choose NOT to pay, initial here.				ADVISER APPROVAL (if needed)				ADDITIONAL APPROVAL (if needed)	

A22-otr 9/88


COURSE REQUEST
 University of Minnesota

Print name (last, first, middle) and ID number or Social Security number.

College of Enrollment				Street Address				Telephone Number	
Major				City				State	Zip Code
Term and Year				<input type="checkbox"/> Fall <input type="checkbox"/> Winter <input type="checkbox"/> Spring <input type="checkbox"/> Summer Session I <input type="checkbox"/> Summer Session II				19__	
<input type="checkbox"/> Registration: Number of credits ____				<input type="checkbox"/> Cancel/Add: Number of credits after change ____				<input type="checkbox"/> Complete Cancellation	
NOTE: Fill in VARIABLE CREDITS only if credits are listed as "ar cr" in the Class Schedule. Fill in GRADE OPTION if mandatory grading is not listed in the Class Schedule. To change grade option or variable credits, list course as both cancellation and addition.									
COURSE(S)—First Choice (original registration)				COURSE(S)—Second Choice (or cancel/add additions)				CANCELLATIONS	
CALL NUMBER	GRADE OPTION	VARIABLE CREDITS	DESIGNATOR, COURSE NUMBER, AND SECTION	CALL NUMBER	GRADE OPTION	VARIABLE CREDITS	DESIGNATOR, COURSE NUMBER, AND SECTION	CALL NUMBER	DESIGNATOR, COURSE NUMBER, AND SECTION
MPIRG (optional) Minnesota Public Interest Research Group is described in the Class Schedule. The MPIRG fee is \$2.50 per quarter (or \$1.25 per summer term) for those who pay the student services fee. Payment is refundable through MPIRG. If you choose NOT to pay, initial here.				ADVISER APPROVAL (if needed)				ADDITIONAL APPROVAL (if needed)	

A22-otr 9/88


STUDENT HOSPITALIZATION INSURANCE
 University of Minnesota

<input type="checkbox"/> Fall Quarter	<input type="checkbox"/> Winter Quarter	<input type="checkbox"/> Spring Quarter
<input type="checkbox"/> Fall Semester	<input type="checkbox"/> Spring Semester	
Student Name (Last, first, middle initial)		Student ID Number
<p>If you are taking 6 or more credits, you will automatically be charged for University-sponsored hospitalization insurance unless you check the first box below, fill in the name of your insurance company and policy number, and sign the bottom of this form. (If you are taking 6 or more credits and do not have hospitalization insurance, you do not have to fill out this card.)</p> <p><input type="checkbox"/> I am adequately covered by the hospitalization insurance indicated below. (If you do not provide complete information, you will be charged for insurance.) You may receive a full refund by returning to the Registration Center with your insurance information by the end of the first week of classes.</p>		
Name of Insurance Company or HMO		Policy Number
<p><input type="checkbox"/> Although I am taking fewer than 6 credits, I would like to purchase University-sponsored hospitalization insurance. I understand that I will also be charged the entire student services fee.</p>		
Signature		Date

A230-cr 6/90


STUDENT HOSPITALIZATION INSURANCE
 University of Minnesota

<input type="checkbox"/> Fall Quarter	<input type="checkbox"/> Winter Quarter	<input type="checkbox"/> Spring Quarter
<input type="checkbox"/> Fall Semester	<input type="checkbox"/> Spring Semester	
Student Name (Last, first, middle initial)		Student ID Number
<p>If you are taking 6 or more credits, you will automatically be charged for University-sponsored hospitalization insurance unless you check the first box below, fill in the name of your insurance company and policy number, and sign the bottom of this form. (If you are taking 6 or more credits and do not have hospitalization insurance, you do not have to fill out this card.)</p> <p><input type="checkbox"/> I am adequately covered by the hospitalization insurance indicated below. (If you do not provide complete information, you will be charged for insurance.) You may receive a full refund by returning to the Registration Center with your insurance information by the end of the first week of classes.</p>		
Name of Insurance Company or HMO		Policy Number
<p><input type="checkbox"/> Although I am taking fewer than 6 credits, I would like to purchase University-sponsored hospitalization insurance. I understand that I will also be charged the entire student services fee.</p>		
Signature		Date

A230-cr 6/90

University of Minnesota Twin Cities

Fall 1991 Class Schedule

Twin Cities Campus Class Schedule

UNIVERSITY OF MINNESOTA

PRE-WINTER/SPRING

1992



Pre-Winter/Spring 1992 | **Class Schedule**

This preliminary winter/spring schedule lists the courses that will be offered during the coming 1992 winter and spring quarters. These winter and spring sections are provided to help you plan a tentative schedule for the coming academic year while you are planning your fall quarter registration. You should not use these listing for actual winter and spring registration because all course offerings are subject to change.

ACCOUNTING (Acct) Management

Winter Quarter

- 1050 Introduction to Financial Reporting
- r3101 Intermediate Financial Reporting
- r3199 Internship in Public Accounting
- r3201 Intermediate Management Accounting
- r3299 Internship in Management Accounting
- r5102 Advanced Financial Reporting I
- r5126 Internal Auditing
- r5135 Income Tax Accounting
- r5160 Financial Statement Analysis
- r5180 Advanced Financial Reporting II
- r8810 Seminar II
- r8990 Readings in Accounting

Spring Quarter

- 1050 Introduction to Financial Reporting
- 3001 Introduction to Management Accounting
- r3101 Intermediate Financial Reporting
- r3199 Internship in Public Accounting
- r3201 Intermediate Management Accounting
- r3299 Internship in Management Accounting
- r5102 Advanced Financial Reporting I
- r5125 Auditing Principles and Procedures
- r5135 Income Tax Accounting
- r5180 Advanced Financial Reporting II
- r5201 Advanced Management Accounting
- r5236 Taxation II
- r5271 Accounting Systems
- r8820 Seminar III
- r8990 Readings in Accounting

ADULT AND TEACHER EDUCATION (AdEd) Curriculum And Instruction Education

Winter Quarter

- 5103 Adult Education Workshop
- 5202 Adult Literacy: Diagnosis and Prescription
- 5205 Field Experience in Adult Education
- 5401 Adult Learning and Development through the Life Span
- 5605 Research Topics: International Development Education
- 5901 Introduction to Community Education
- 8302 Problems: Adult Education
- 8603 Seminar: International Development Education

Spring Quarter

- 5103 Adult Education Workshop
- 5203 Adult Literacy: Methods and Materials
- 5205 Field Experience in Adult Education
- 5301 Designing the Adult Education Program

- 5401 Adult Learning and Development through the Life Span
- 5411 Strategies for Teaching Adults
- 5501 Continuing Education and the Professions
- 5607 Applied International Development Education
- 8302 Problems: Adult Education
- 8605 Problems: International Education Research

AEROSPACE ENGINEERING AND MECHANICS (AEM) Institute of Technology

Winter Quarter

- 1005 Introduction to Aerospace Engineering
- 1015 Statics
- 3016 Deformable Body Mechanics
- 3036 Dynamics
- r5200 Kinematics and Dynamics of Fluid Flow
- r5202 Incompressible Boundary Layer Theory
- r5206 Aerodynamics of Lifting Surfaces
- r5240 Rarefied Gas Dynamics
- r5243 Advanced Aerodynamics
- r5319 Dynamics and Control of Aerospace Vehicles
- r5321 Automatic Flight Control Systems
- r5330 Design of Aerospace Elements and Systems

- r5515 Aerospace Structures I
- r5518 Mechanics of Composite Materials
- r5581 Thermodynamics and Mechanics of Solids
- 5646 Aeromechanics Laboratory II
- 5801 Problems in Mechanics and Materials
- 5811 Problems in Fluid Mechanics
- r5822H Aerospace Engineering and Mechanics Honors Thesis II
- 5838 Summer Engineering Employment
- 5839 Summer Engineering Employment
- 5840 Industrial Assignment
- 5841 Industrial Assignment
- 5842 Industrial Assignment
- 5843 Industrial Assignment
- 8002 Seminar: Aerospace Engineering and Mechanics

- r8202 Fluid Mechanics II
- 8209 Rotating Fluids
- 8240 Perturbation Methods in Fluid Mechanics
- r8411 Linear Systems
- 8414 Advanced Topics: Dynamical Systems V
- 8502 Research Seminar in the Mechanics of Materials
- r8511 Continuum Mechanics II
- 8596 Elastodynamics
- 8602 Finite Element Methods in Computational Fluid Dynamics
- 8777 Thesis Credits: Masters

- 8801 Selected Topics in Mechanics and Materials
- 8811 Selected Topics in Fluid Mechanics
- 8880 Plan B Project
- 8888 Thesis Credits: Doctoral

Spring Quarter

- 1015 Statics
- 3016 Deformable Body Mechanics
- 3036 Dynamics
- r5201 Shock Waves and Compressible Fluid Flow
- r5206 Aerodynamics of Lifting Surfaces
- r5250 Computational Fluid Mechanics
- r5300 Flight Mechanics
- r5322 Aerospace Vehicle Control
- r5331 Design of Aerospace Elements and Systems

- r5359 Deceleration of Aerospace Craft
- r5370 Aerodynamics of V/Stol Flight
- r5435 Introduction to Random Vibrations
- r5642 Elementary Aeromechanics Laboratory
- 5647 Aeromechanics Laboratory III
- r5650 Aeroelasticity I
- 5802 Problems in Mechanics and Materials
- 5812 Problems in Fluid Mechanics
- 5840 Industrial Assignment
- 5841 Industrial Assignment
- 5842 Industrial Assignment
- 5843 Industrial Assignment
- 8003 Seminar: Aerospace Engineering and Mechanics
- r8203 Fluid Mechanics III
- r8260 Nonlinear Waves in Mechanics I
- 8412 Nonlinear Systems
- 8415 Advanced Topics: Dynamical Systems VI
- 8503 Research Seminar in the Mechanics of Materials
- r8512 Continuum Mechanics III
- 8777 Thesis Credits: Masters
- 8802 Selected Topics in Mechanics and Materials
- 8812 Selected Topics in Fluid Mechanics
- 8880 Plan B Project
- 8888 Thesis Credits: Doctoral

AEROSPACE STUDIES (Air)

Winter Quarter

- 1105 Air Force Combat Commands
- r1205 Allied Airpower in World War II and the Berlin Airlift
- r3302 Air Force Leadership Communication
- r3402 Seminar: Formulation and Implementation of U.S. Defense Policy

Spring Quarter

- 1106 U.S. Support Forces
- 1206 Modern Employment of Airpower

R3303 Contemporary Problems: Air Force Management
R3403 Military Law and Service Orientation

AFRO-AMERICAN STUDIES

(Afro)

Afro-American & African Studies
Liberal Arts

Winter Quarter

R3002 Introduction to West African History: 1800 to Present
R3072 Racism: Social and Psychological Consequences for Black Americans
R3108 Black Music: A History of Jazz
R3141 Africa
R3226 Intermediate Swahili
R3864 Afro-American History, from 1619 through Reconstruction
R3910 Topics in Afro-American/African Studies
3970 Directed Studies
3991 Senior Project in Afro-American and African Studies
3992 Senior Project in Afro-American and African Studies
3993 Senior Project in Afro-American and African Studies
R5072 Racism: Social and Psychological Consequences for Black Americans
R5142 Geography of East Africa
R5143 Geography of West Africa
R5182 Blacks in American Theatre 1820-1960's
R5301 African Literature: The Novel
R5352 Black Families in Comparative Perspectives
R5597 Harlem Renaissance
R5701 Proseminar: Afro-American Studies
R5910 Topics: Afro-American/African Studies
5970 Directed Studies

Spring Quarter

R1025 Black Americans: Socialization, Personality, and Behavior
R3013 Cities in Africa: African, Islamic, European Traditions
R3105 Afro-American Music Through the 1920's
R3141 Africa
R3227 Intermediate Swahili
R3865 Afro-American History
3970 Directed Studies
3991 Senior Project in Afro-American and African Studies
3992 Senior Project in Afro-American and African Studies
3993 Senior Project in Afro-American and African Studies
R5145 Development in Africa
R5181 Contemporary Black Theatre, 1960-Present
R5341 Seminar in Contemporary Kenyan Literature
R5876 Seminar: Approaches to African Development
R5910 Topics: Afro-American/African Studies
5970 Directed Studies

AGRICULTURAL AND APPLIED ECONOMICS (AgEc)

Agriculture

Winter Quarter

R1101 Principles of Microeconomics
R1102 Principles of Macroeconomics
3002 Applied Microeconomics: Managerial Economics

3006 Applied Macroeconomics: Government and the Economy
3240 Strategic Management of Farms and Agribusinesses
3430 Dairy Marketing Economics
3990 Independent Study in Agricultural and Applied Economics
5400 Intermediate Market and Price Analysis
R5480 Futures Markets and Prices
R5500 Financial Markets and Agricultural Credit Institutions
5550 Food Marketing Economics
5600 Land Economics
5630 Regional Development Systems
5730 European Agriculture: Farm, Food and Environmental Policy
5890 Independent Study: Advanced Topics in Farm Management
5990 Special Topics and Independent Study in Agricultural and Applied Economics
8200 Advanced Topics in Agricultural and Applied Economics
8231 Agricultural Prices
8264 Resource Economics
8278 Agricultural and Economic Development
8360 Seminar: Land and Institutional Economics
8382 Seminar: Farm Management and Production Economics
8777 Thesis Credits: Masters
8888 Thesis Credits: Doctoral

Spring Quarter

R1102 Principles of Macroeconomics
3003 Applied Microeconomics: Markets and Prices
3007 Applied Macroeconomics: Policy, Trade and Development
3260 Agribusiness Operations Management
3410 Economic Organization of the Hospitality Industry
3440 Livestock Marketing Economics
3860 Farm Operations Management
3920 Agricultural Law
3990 Independent Study in Agricultural and Applied Economics
5020 Applied Linear Programming
5030 Methods of Economic Data Analysis
5440 Cooperatives and Agribusiness Organization
5650 Economics of Natural Resource Policy
5720 Economics of World Agriculture
5890 Independent Study: Advanced Topics in Farm Management
5990 Special Topics and Independent Study in Agricultural and Applied Economics
8200 Advanced Topics in Agricultural and Applied Economics
8210 Applied Econometrics
8220 Applied Mathematical Programming
8287 Production and Supply
8345 Seminar: Agricultural Marketing
8364 Seminar: Resource Economics and Policy
8366 Seminar: Applied Regional Economics
8370 Agricultural and Trade Policy in Developed Countries
8378 Seminar: Agricultural Development
8590 Economics of Food and Consumer Policy
8777 Thesis Credits: Masters
8888 Thesis Credits: Doctoral

AGRICULTURAL EDUCATION

(AgEd)

Vocational And Technical Education
Education

Winter Quarter

3029 Directed Experience in Agricultural Education
3031 Student Teaching in Agriculture
3041 Practicum: Agricultural Education Technology
5023 Extension Methods for Agricultural Production in Developing Countries
5024 Extension History and Philosophy
5027 Practicum: Placement for Extension Experiences
5055 Methods in Farming Systems Research and Extension
5072 Practicum: Agricultural Business and Industry
5078 FFA Organization and Management
5090 Independent Study
5095 Integrating Paper: Master of Education
8001 Research in Agricultural Education
8091 Field Problems
8303 Seminar: Graduate Studies Review
8777 Thesis Credits: Masters

Spring Quarter

3029 Directed Experience in Agricultural Education
3041 Practicum: Agricultural Education Technology
5010 Rural Education: Philosophy and Leadership
5021 Education Through Extension Methods
5025 Extension Program Development
5027 Practicum: Placement for Extension Experiences
5056 Application of Farming Systems Research and Extension
5061 Program Planning and Evaluation
5071 Supervised Occupational Experiences in Agriculture
5090 Independent Study
5095 Integrating Paper: Master of Education
8001 Research in Agricultural Education
8020 Seminar: Agricultural Education
8091 Field Problems
8777 Thesis Credits: Masters

AGRICULTURAL ENGINEERING

(AgEn)

Institute of Technology

Winter Quarter

3970 Directed Studies in Agricultural Engineering
5050 Intern Reports
5140 Thermal Processes for Food
5191 Special Problems
5192 Special Problems
5550 Water Management Engineering
5892 Senior Design II
5910 Agricultural Waste Management Engineering
8190 Advanced Problems and Research
8191 Advanced Problems and Research
8192 Advanced Problems and Research

- 8777 Thesis Credits: Masters
- 8888 Thesis Credits: Doctoral

Spring Quarter

- 1060 Agricultural Engineering Orientation
- 3031 Computations in Agricultural Engineering
- 3970 Directed Studies in Agricultural Engineering
- 5050 Intern Reports
- 5070 Automatic Control and Instrumentation
- r5072 Finite Element Method: Fundamentals and Applications
- 5150 Biological Process Engineering
- 5191 Special Problems
- 5192 Special Problems
- 8100 Seminar
- 8190 Advanced Problems and Research
- 8191 Advanced Problems and Research
- 8192 Advanced Problems and Research
- 8500 Hydrologic Modeling: Small Watersheds
- 8777 Thesis Credits: Masters
- 8888 Thesis Credits: Doctoral

AGRICULTURAL ENGINEERING TECHNOLOGY (AgET)

Agriculture

Winter Quarter

- 1090 Directed Studies
- 3030 Introduction to Problem Solving with Computers
- 3091 Special Problems in Agricultural Engineering
- 5035 Problems and Field Studies in Advanced Agriculture: Metal Fabrication Materials and Techniques
- 5091 Special Problems in Agricultural Engineering
- 5092 Special Problems in Agricultural Engineering
- 5410 Hydrology and Water Quality

Spring Quarter

- 1090 Directed Studies
- r3025 Engineering Principles and Applications
- 3091 Special Problems in Agricultural Engineering
- 3606 Farm Building Design, Layout, Systems
- 5030 Problems and Field Studies in Advanced Agriculture: Agricultural Tractor and Engine Power
- 5091 Special Problems in Agricultural Engineering
- 5092 Special Problems in Agricultural Engineering
- 5400 Drainage and Irrigation

AGRICULTURAL INDUSTRIES AND MARKETING (AIM)

Agriculture

Winter Quarter

- 5001 Marketing Practicum

AGRICULTURE (Agri)

Agriculture

Winter Quarter

- 1000H Honors Colloquium: Things That Plague Us
- r1200 Computer Applications in Your Profession
- 3000 Seminar in International Agriculture

- 3100H Honors Experience

Spring Quarter

- r1000H Honors Colloquium: You Are What You Eat
- r1200 Computer Applications in Your Profession
- 3100H Honors Experience

AGRONOMY AND PLANT GENETICS (Agro)

Agriculture

Winter Quarter

- 1010 Principles of Agronomy
- 1020 Special Problems
- 1500 Biotechnology: Basic Concepts and Applications
- 3000 Seminar in International Agriculture
- 3010 Adaptation, Distribution, and Ecology of Field Crops
- 3130 Seed Technology
- r3200 Seminar
- 5001 Problems in Agronomy for Advanced Students
- r5020 Introduction to Plant Breeding
- r5040 Corn and Soybean Management
- 5055 Methods in Farming Systems Research and Extension
- 5070 Ecology of Field Crops
- 5110 Adaptation, Distribution, and Ecology of Field Crops
- 8010 Research in Agronomy
- 8020 Seminar: Agronomy
- 8100 Forage Research Techniques and Topics
- 8200 Plant Breeding Principles and Methods I
- r8240 Cellular and Molecular Genetics of Plant Improvement
- 8270 Seminar: Plant Breeding
- 8330 Research in Plant Genetics
- 8777 Thesis Credits: Masters
- 8888 Thesis Credits: Doctoral

Spring Quarter

- 1020 Special Problems
- 3020 Growth, Development, and Culture of Field Crops
- 3060 Field Plot Design in Agronomy
- r3200 Seminar
- 5001 Problems in Agronomy for Advanced Students
- 5120 Growth, Development, and Culture of Field Crops
- r8000 Supervised Teaching Experience
- 8010 Research in Agronomy
- 8080 Current Topics in Agronomy
- 8210 Plant Breeding Principles and Methods II
- r8250 Advanced Plant Genetics
- 8280 Statistical Topics in Plant Sciences
- 8280 Current Topics in Plant Breeding
- 8330 Research in Plant Genetics
- 8777 Thesis Credits: Masters
- 8888 Thesis Credits: Doctoral

AMERICAN INDIAN STUDIES (AmIn)

Liberal Arts

Winter Quarter

- 1022 Beginning Ojibwe
- 1032 Beginning Dakota

- 3025 Intermediate Ojibwe
- 3035 Intermediate Dakota
- r3111 American Indian History from Mid-15th Century to 1850
- r3211 American Indian Philosophies
- 3810 Field Practice: Indian Studies
- r3960 Topics in American Indian Studies
- 3970 Directed Studies
- 3980 Directed Instruction
- r5341 Contemporary Indian Movements
- r5960 Topics in American Indian Studies
- 5990 Directed Research

Spring Quarter

- 1023 Beginning Ojibwe
- 1033 Beginning Dakota
- 3026 Ojibwe History and Culture
- 3028 Intermediate Ojibwe
- 3038 Intermediate Dakota
- r3112 American Indian History: 1850 to the Present
- 3116 American Indian Literature
- r3211 American Indian Philosophies
- 3810 Field Practice: Indian Studies
- 3970 Directed Studies
- 3980 Directed Instruction
- 5990 Directed Research

AMERICAN STUDIES (AmSt)

Liberal Arts

Winter Quarter

- r1001 American Cultures
- r1002 American Cultures
- 1002H American Cultures
- 1003 American Cultures
- r3107 Introduction to Chicano Studies
- r3111 Creative Americans and Their Worlds
- r3112 American Everyday Life
- r3299 American Studies Proseminar
- r3302 Proseminar: American Studies
- r3920 Topics in American Studies
- 3970 Directed Studies
- r5102 Religion and American Culture
- r5920 Topics in American Studies
- r8202 Introduction to American Studies: Current Research and Practice
- r8239 Gender, Race, Class and/or Ethnicity in America: History of the Family in the United States
- r8240 Gender, Race, Class and/or Ethnicity in America: Understanding Ethnicity through Cultural Images of Intimacy
- r8249 Material Culture and/or Popular Culture: Seminar in American Art: Disneyland
- r8259 American Literature, History and Culture
- 8401 Practicum in American Studies
- 8777 Thesis Credits: Masters
- 8802 Dissertation Seminar
- 8888 Thesis Credits: Doctoral
- 8970 Readings in American Civilization

Spring Quarter

- 1001 American Cultures
- 1002 American Cultures
- 1003 American Cultures
- 1003H American Cultures

- r3105 Introduction to Chicano Studies
- r3111 Creative Americans and Their Worlds
- r3113 American Cultural Diversity
- r3303 Proseminar: American Studies
- r3401 Japanese Americans and World War II: Racism, War and the Constitution
- r3920 Topics in American Studies
- 3970 Directed Studies
- r5920 Topics in American Studies
- r8203 Introduction to American Studies: Field Learning
- r8240 Gender, Race, Class and/or Ethnicity in America
- r8260 Literature, History and Culture
- r8270 Politics, Economics and/or the Law
- 8777 Thesis Credits: Masters
- 8888 Thesis Credits: Doctoral
- 8970 Readings in American Civilization

**ANCIENT NEAR EASTERN (ANE)
Classical & Near Eastern Studies
Liberal Arts**

Winter Quarter

- 1002 The Bible: Prophecy
- 3002 The Bible: Prophecy
- 5970 Directed Studies

Spring Quarter

- 1003 The Bible: Wisdom, Poetry and Apocalyptic
- 3003 The Bible: Wisdom, Poetry and Apocalyptic
- 3251 Modern Study of the Old Testament

**ANCIENT STUDIES (AnSt)
Liberal Arts**

Winter Quarter

- 5100 Topics in Ancient Studies
- r5120 Archaeology of Prehistoric Europe
- 8002 Basic Seminar: Understanding the Past: Approaches to Ancient Texts
- 8120 Interdisciplinary Seminar
- 8200 Directed Readings
- 8300 Directed Research
- 8777 Thesis Credits: Masters
- 8888 Thesis Credits: Doctoral

Spring Quarter

- 5100 Topics in Ancient Studies
- 8003 Basic Seminar: Understanding the Past: Natural Scientific Approaches
- 8120 Interdisciplinary Seminar
- 8200 Directed Readings
- 8300 Directed Research
- 8777 Thesis Credits: Masters
- 8888 Thesis Credits: Doctoral

**ANIMAL AND PLANT SYSTEMS
(AnPl)**

Agriculture

Spring Quarter

- r5060 Integrated Management of Cropping Systems

ANIMAL PHYSIOLOGY (AnPh)

Winter Quarter

- 8777 Thesis Credits: Masters
- 8888 Thesis Credits: Doctoral

Spring Quarter

- 8777 Thesis Credits: Masters
- 8888 Thesis Credits: Doctoral

**ANIMAL SCIENCE (AnSc)
Agriculture**

Winter Quarter

- 1100 Introductory Animal Science
- 1302 Management Techniques: Sheep
- 1500 Biotechnology: Basic Concepts and Applications
- 1520 Milk Production
- 3113 Animal Welfare
- 3120 Advanced Meat Animal, Carcass Evaluation
- 5104 Agricultural Systems Analysis and Modeling
- 5231 Dairy Cattle Breeding
- 5280 Livestock Entomology
- 5327 General Endocrine Physiology
- 5403 Ruminant Nutrition
- 5405 Poultry Nutrition
- 5609 Principles of Farm Animal Environment
- r5703 Literature and Seminar
- 5710 Special Problems
- 5715 Tutorial
- 8081 Neuroethology
- 8221 Quantitative Inheritance
- r8325 Physiology of Fertilization and Gestation
- 8440 Ruminant Nutrition
- 8603 Graduate Seminar
- 8740 Concepts and Developments in Ruminant Nutrition
- 8750 Concepts and Developments in Meat Science and Technology
- 8777 Thesis Credits: Masters
- 8810 Research in Animal Science
- 8820 Research in Animal Genetics
- 8830 Research in Animal Physiology
- 8840 Research in Animal Nutrition
- 8850 Research in Muscle Chemistry and Physiology
- 8888 Thesis Credits: Doctoral

Spring Quarter

- 1301 Management Techniques: Swine
- 1303 Management Techniques: Beef
- 1304 Management Techniques: Dairy
- 1305 Management Techniques: Poultry
- 1510 Consumer Meat Science
- 3111 Introduction to Animal Behavior
- 3131 Live Animal Performance and Selection
- 3141 Advanced Dairy Judging
- 3305 Reproductive Physiology, Artificial Insemination, and Lactation
- 3402 Feeding Farm Animals
- 3510 Growth and Development of Animal Tissues
- 5330 Current Topics in Endocrinology
- 5404 Applied Animal Nutrition
- r5407 Laboratory Analysis of Feedstuffs

- 5603 Beef Cattle Production
- 5604 Dairy Farm Management
- r5703 Literature and Seminar
- 5710 Special Problems
- 5715 Tutorial
- 8230 Linear Model Methods
- r8326 Immunoreproduction
- 8332 Preservation of Spermatozoa and Embryo
- 8335 Molecular Biology Techniques in Animal Science
- 8750 Concepts and Developments in Meat Science and Technology
- 8777 Thesis Credits: Masters
- 8810 Research in Animal Science
- 8820 Research in Animal Genetics
- 8830 Research in Animal Physiology
- 8840 Research in Animal Nutrition
- 8850 Research in Muscle Chemistry and Physiology
- 8888 Thesis Credits: Doctoral

**ANTHROPOLOGY (Anth)
Liberal Arts**

Winter Quarter

- 1101 Human Origins
 - 1101H Honors Course: Human Origins
 - 1102 Introduction to Social and Cultural Anthropology
 - 1102H Introduction to Social and Cultural Anthropology
 - r3211 Native Peoples of North America
 - r3261 Indian Culture and Society
 - r3293 Peoples and Cultures of the Pacific Islands
 - r3371 Archaeology of Prehistoric Europe
 - 3970 Directed Studies
 - 3992H Honors Tutorial
 - r5132 Symbolic Anthropology
 - 5145 Anthropology and Education
 - r5154 Anthropology of Colonialism
 - r5156 Culture and Comparative Politics
 - r5161 Language, Culture, and Cognition
 - r5301 Advanced Methods and Theory in Archaeology
 - r5331 Culture Theory: An Introduction
 - r5910 Topics in Anthropology
 - 5920 Topics in Anthropology
 - r5960 Senior Seminar
 - 5961 Senior Research Project
 - 5970 Directed Readings
 - 8002 Contemporary Anthropology
 - 8320 Seminar: Social Anthropology
 - 8510 Seminar: Archaeology
 - 8777 Thesis Credits: Masters
 - 8888 Thesis Credits: Doctoral
 - 8950 Directed Studies
- Spring Quarter**
- 1101 Human Origins
 - 1101H Honors Course: Human Origins
 - 1102 Introduction to Social and Cultural Anthropology
 - 1102H Introduction to Social and Cultural Anthropology
 - r3201 Approaches in Cultural Anthropology
 - r3212 Indians of the Greater Southwest

r3511 Archaeology of Native Americans
 3970 Directed Studies
 3992H Honors Tutorial
 r5117 Anthropology of Resource Management
 r5131 Anthropology of Religion
 r5141 Culture and Personality
 r5151 Cultural Change and Development
 r5258 Anthropological Analysis of American Culture
 r5325 Gender and Power in South Asia
 r5592 Hist of Archaeology
 r5960 Senior Seminar
 5961 Senior Research Project
 5970 Directed Readings
 8390 Seminar: Philosophical Anthropology
 8777 Thesis Credits: Masters
 8810 Seminar: Special Topics: Latin America: Anthropology's Perspective
 8888 Thesis Credits: Doctoral
 8950 Directed Studies

ARABIC (Arab)
Afro-American & African Studies
Liberal Arts

Winter Quarter

r1102 Beginning Arabic
 r3102 Intermediate Arabic
 r3301 Modern Arabic Poetry in Translation
 r5970 Directed Readings

Spring Quarter

r1103 Beginning Arabic
 r3103 Intermediate Arabic
 r5970 Directed Readings

ARAMAIC (Arm)
Classical & Near Eastern Studies
Liberal Arts

Winter Quarter

5011 Aramaic

ARCHITECTURE (Arch)
Arch & Landscape Arch

Winter Quarter

r1010 Introduction to Architecture, Drawing
 r1023 History of Cities
 r1042 Architectural Graphics
 r3001 Environmental Design: Theory and Process
 3081 Building Systems
 3085 Environmental Management and Control
 3086 Building Energy Systems
 3082 Architectural Design
 3091 Architectural Design
 3092 Architectural Design
 3093 Architectural Design
 r3970 Directed Study
 r5056 Modern Architecture
 r5064 Baroque Architecture in Italy
 5111 Architectural Design
 5112 Architectural Design
 5113 Architectural Design
 r5116 Structure and Form in Architecture
 5121 Architectural Design

5122 Architectural Design
 r5123 Architectural Thesis
 r5126 Professional Practice
 r5138 Planning: Theory and Methodology
 5142 Historic Building Conservation
 r5850 Topics in Theory
 r5852 Architecture as Thought-Design Process
 r5855 Typology and Architecture: Theories of Analysis and Synthesis
 r5952 Architectural Programming
 r5962 Computer Aided Architectural Design
 r5970 Directed Study
 r8202 Special Research: Architectural History
 8251 Architectural Design
 8252 Architectural Design
 8253 Architectural Design
 8254 Architectural Design
 8255 Architectural Design
 8256 Architectural Design
 r8261 Selected Problems in Architecture
 r8262 Selected Problems in Architecture
 r8263 Selected Problems in Architecture
 r8272 Problems in City and Community Design
 r8276 Problems in City and Community Design
 8777 Thesis Credits: Masters

Spring Quarter

r1022 History of Landscape Architecture
 r1043 Architectural Graphics
 r3002 Environmental Design: People and Environment
 3082 Architectural Design
 3083 Architectural Design
 3091 Architectural Design
 3092 Architectural Design
 3093 Architectural Design
 r3511 Introduction to Architectural Structures
 r3970 Directed Study
 r5061 Contemporary Architecture
 5111 Architectural Design
 5112 Architectural Design
 5113 Architectural Design
 5121 Architectural Design
 5122 Architectural Design
 5123 Architectural Thesis
 r5127 Law for Architects
 r5143 Historic Building Research and Documentation
 r5850 Topics in Theory
 r5853 Architecture: Form and Meaning
 r5950 Topics in Architecture
 r5956 The Meanings and Messages of Place: City, Town and Countryside
 5959 Lighting and Architectural Design
 r5963 Advanced Computer Aided Architectural Design
 r5970 Directed Study
 r8203 Special Research: Architectural History
 8251 Architectural Design
 8252 Architectural Design
 8253 Architectural Design
 8254 Architectural Design
 8255 Architectural Design
 8256 Architectural Design

8261 Selected Problems in Architecture
 8262 Selected Problems in Architecture
 8263 Selected Problems in Architecture
 r8273 Problems in City and Community Design
 8777 Thesis Credits: Masters

ART EDUCATION (ArEd)
Curriculum And Instruction
Education

Winter Quarter

r3000 Art of Children
 r3001 Survey of Art Activities
 r3020 Contemporary Crafts
 r3120 Newer Media in Art Curriculum
 3200 Field Experiences in Art Education
 3309 Independent Study
 3800 Current Trends in Art Education
 r5020 Advanced Contemporary Crafts
 5386 Improving Art Programs in the Schools
 5600 Internship
 5605 Practicum
 5900 Professional Problems
 8900 Problems: Art Education

Spring Quarter

r3000 Art of Children
 r3001 Survey of Art Activities
 r3020 Contemporary Crafts
 3130 Community and School Resources in Art Curriculum
 3309 Independent Study
 3600 Student Teaching and Supervision of Art
 r5020 Advanced Contemporary Crafts
 5310 History of American Art Education
 5600 Internship
 5605 Practicum
 5900 Professional Problems
 8306 Seminar: Art Education
 8900 Problems: Art Education

ART HISTORY (ArH)
Liberal Arts

Winter Quarter

3008 History of Ancient Art
 r3012 History of 19th, 20th Century Art
 r3013 Introduction to Far Eastern Art
 r3015 Survey of Islamic Art
 r3325 Michelangelo: His Work in Its Times
 r3484 The Art of Picasso
 r3575 The Art of Walt Disney in American Culture
 r3921 Art of the Film
 r3930 Junior-Senior Seminar
 3970 Directed Studies
 3971 Major Project
 3975 Directed Museum Experience
 r5056 Modern Architecture
 r5252 History of Early Christian and Byzantine Art
 r5313 Italian High Renaissance Architecture, Sculpture, and Painting
 r5347 Baroque Art in France, England, and Lowlands
 r5521 20th Century Art in the United States
 r5643 Prehistoric Art of Northern Europe

R5711 Japonisme: The Japanese Influence on Western Art, 1854-1901
 R5725 Ceramics in the Far East
 R5776 The Art and Architecture of Hindu India
 R5783 Art of Islamic India
 R5950 Topics in Art History
 5970 Directed Readings
 5990 Directed Research
 R8440 Seminar: 20th-Century Art
 8520 Seminar: American Art
 8888 Thesis Credits: Doctoral
 R8910 Seminar: Problems in Classical Archaeology
 8970 Directed Studies

Spring Quarter

R1002 Introduction to the History of Art
 R3009 History of Medieval Art
 R3011 History of Renaissance and Baroque Art
 R3012 History of 19th, 20th Century Art
 R3162 Roman Art and Archaeology
 R3577 The Arts in America: Colonial Era Through Civil War
 R3922 Art of the Film
 3970 Directed Studies
 3971 Major Project
 3975 Directed Museum Experience
 R5052 Early Medieval Architecture
 R5061 Contemporary Architecture
 R5113 Archaic and Classical Greek Art and Archaeology
 R5315 Drawings and Graphics of the Renaissance
 R5358 18th-Century Art in Italy, Germany, Austria
 R5472 Art in Central Europe Between the World Wars
 R5645 Folk Arts of Scandinavia
 R5785 Eastern Islamic World: Iran to India
 R5950 Topics in Art History
 R5960 Topics in Art History
 5970 Directed Readings
 5990 Directed Research
 R8190 Seminar: Problems in Ancient Art
 R8200 Seminar: Problems in Medieval Sculpture
 R8230 Seminar: Problems in Medieval Art
 R8400 Seminar: Problems in 19th Century Art
 R8720 Seminar: Oriental Art
 8888 Thesis Credits: Doctoral
 8970 Directed Studies
 8975 Directed Museum Studies

ART, STUDIO (Arts)

Liberal Arts

Winter Quarter

R1101 Drawing I
 R1102 Drawing II
 R1301 Sculpture
 R1302 Sculpture
 R1401 Introduction to Studio Arts
 R1404 Color
 R1510 Printmaking: Intaglio
 R1520 Printmaking: Lithography
 R1701 Photo Medium
 R1811 Ceramics: Handbuilding
 R1812 Ceramics: Wheel Throwing
 R3105 Introduction to Painting

R3110 Drawing
 R3120 Painting
 R3160 Watercolor
 3411H Honors: Tutorial
 3412H Honors: Tutorial
 3413H Honors: Cross-Media Project
 3414H Honors: Cross-Media Project
 3415H Honors: Thesis
 3416H Honors: Thesis
 3444 Senior Project
 R3520 Printmaking: Lithography
 R3530 Printmaking: Relief
 R3710 Photography
 R3820 Glassworking
 R3830 Glass: Introduction to Neon
 3970 Directed Study
 3980 Directed Instruction
 R5110 Drawing
 R5120 Painting
 R5160 Watercolor
 5190 Advanced Entry: Drawing and Painting
 R5310 Sculpture: Direct Metal
 R5320 Sculpture: Spatial Projects and Problems
 5390 Advanced Entry: Sculpture
 R5420 Studio Arts Workshop
 R5520 Printmaking: Lithography
 R5530 Printmaking: Relief
 5590 Advanced Entry: Printmaking
 R5710 Photography
 5790 Advanced Entry: Photography
 R5820 Glass Working
 R5830 Glass: Neon
 5890 Advanced Entry: Ceramics/Glass
 5970 Directed Studies
 R8110 Drawing
 8120 Painting
 R8300 20th Century Art Theories in Sculpture
 R8400 Concepts in Contemporary Art
 8510 Printmaking
 8710 Photography
 R8810 Ceramics
 8820 Glassworking

Spring Quarter

R1101 Drawing I
 R1102 Drawing II
 R1301 Sculpture
 R1302 Sculpture
 R1404 Color
 R1510 Printmaking: Intaglio
 R1540 Printmaking: Screen
 R1701 Photo Medium
 R1811 Ceramics: Handbuilding
 R1812 Ceramics: Wheel Throwing
 R3105 Introduction to Painting
 R3110 Drawing
 R3120 Painting
 R3303 Sculpture: Cast Metal
 3411H Honors: Tutorial
 3412H Honors: Tutorial
 3413H Honors: Cross-Media Project
 3414H Honors: Cross-Media Project

3415H Honors: Thesis
 3416H Honors: Thesis
 R3420 Studio Arts Workshop
 3444 Senior Project
 R3510 Printmaking: Intaglio
 R3710 Photography
 R3810 Intermediate Ceramics
 R3820 Glassworking
 R3830 Glass: Introduction to Neon
 3970 Directed Study
 3980 Directed Instruction
 R5110 Drawing
 R5120 Painting
 5190 Advanced Entry: Drawing and Painting
 R5330 Sculpture: Cast Metal
 R5350 Sculpture: Kinetics
 5390 Advanced Entry: Sculpture
 R5400 Concepts in Contemporary Art
 R5510 Printmaking: Intaglio
 5590 Advanced Entry: Printmaking
 R5710 Photography
 5790 Advanced Entry: Photography
 R5810 Advanced Ceramics
 R5820 Glass Working
 R5830 Glass: Neon
 5890 Advanced Entry: Ceramics/Glass
 5970 Directed Studies
 R8100 20th Century Art Theories in Painting
 R8110 Drawing
 8120 Painting
 R8300 20th Century Art Theories in Sculpture
 8510 Printmaking
 8710 Photography
 R8810 Ceramics
 8820 Glassworking

ASTRONOMY (Ast)

Institute of Technology

Winter Quarter

R1011 Descriptive Astronomy
 R1015 Descriptive Astronomy Laboratories
 R1201 Topics in Modern Astrophysics
 3970 Directed Studies
 R5062 Computational Methods in the Physical Sciences II
 5161 Astrophysics of Diffuse Matter
 5299H Senior Honors Astrophysics Research Seminar
 5970 Directed Studies
 5990 Directed Research
 8200 Seminar
 8482 Topics in Astrophysics
 8777 Thesis Credits: Masters
 8888 Thesis Credits: Doctoral
 8990 Research in Astronomy and Astrophysics

Spring Quarter

R1011 Descriptive Astronomy
 R1015 Descriptive Astronomy Laboratories
 3051 Introduction to Astrophysics
 3970 Directed Studies
 5299H Senior Honors Astrophysics Research Seminar

- r5321 Radiation Processes in Astrophysics
- 5970 Directed Studies
- 5990 Directed Research
- 8200 Seminar
- 8777 Thesis Credits: Masters
- 8888 Thesis Credits: Doctoral
- 8990 Research in Astronomy and Astrophysics

**BIOCHEMISTRY (BioC)
Biological Sciences**

Winter Quarter

- 3001 Elementary Biological Chemistry
- 3960 Research Topics in Biochemistry
- 5002 Biochemistry Topics
- 5025 Laboratory in Biochemistry
- 5744 Analytical Biochemistry
- 5752 General Biochemistry
- 5970 Directed Studies
- 5990 Directed Research
- 8094 Research and Literature Reports
- 8194 Graduate Seminar
- r8214 Advanced Molecular Biology II
- 8290 Current Research Techniques
- 8777 Thesis Credit: Masters
- 8888 Thesis Credits: Doctoral
- 8990 Graduate Research

Spring Quarter

- 3031 Survey of Biochemistry
- 3960 Research Topics in Biochemistry
- 5002 Biochemistry Topics
- 5025 Laboratory in Biochemistry
- 5527 Physical Biochemistry: Spectroscopic Methods II
- 5529 Protein Structure and Folding
- 5753 General Biochemistry
- 5990 Directed Research
- 8094 Research and Literature Reports
- 8194 Graduate Seminar
- 8225 Tracer Techniques
- 8290 Current Research Techniques
- 8777 Thesis Credit: Masters
- 8888 Thesis Credits: Doctoral
- 8990 Graduate Research

**BIOCHEMISTRY, MEDICAL
(MdBc)**

Medical School

Winter Quarter

- 5053 Problems in Biochemistry
- 5101 Human Nutrition
- 5301 Biochemistry
- 5526 Physical Biochemistry: Spectroscopic Methods I
- 5528 Physical Biochemistry: Enzyme Kinetics
- 5752 General Biochemistry
- 8150 Seminar: Biochemistry
- r8214 Advanced Molecular Biology II
- 8290 Current Research Techniques
- 8300 Research

Spring Quarter

- 5053 Problems in Biochemistry

- 5444 Muscle Contraction
- 5527 Physical Biochemistry: Spectroscopic Methods II
- 5529 Protein Structure and Folding
- 5753 General Biochemistry
- 8150 Seminar: Biochemistry
- 8290 Current Research Techniques
- 8300 Research

**BIOLOGY (BioI)
Biological Sciences**

Winter Quarter

- 1008 Introductory Biology: An Evolutionary Approach
- 1009 General Biology
- 1009H General Biology
- r1101 Heredity and Human Society
- 1103 General Botany
- 1106 General Zoology
- 1301 Human Reproduction and Development
- r1952 Biology Colloquium
- 3011 Animal Biology
- 3012 Plant Biology
- 3111 Animal Biology
- r3950H Undergraduate Seminar
- 3980 Directed Instruction
- r5001 Biochemistry
- 5003 Genetics
- 5004 Cell Biology
- 5013 Microbiology
- 5041 Ecology
- r5125 Recombinant DNA Laboratory

Spring Quarter

- 1008 Introductory Biology: An Evolutionary Approach
- 1008H Introductory Biology: An Evolutionary Approach
- 1009 General Biology
- 1009H General Biology
- r1101 Heredity and Human Society
- 1103 General Botany
- 1106 General Zoology
- r1953 Biology Colloquium
- 3009H General Biology: A Quantitative Approach
- 3011 Animal Biology
- 3012 Plant Biology
- 3111 Animal Biology
- r3950H Undergraduate Seminar
- 3960H Honors Seminar
- 3980 Directed Instruction
- r5001 Biochemistry
- 5003 Genetics
- 5004 Cell Biology
- 5013 Microbiology
- r5125 Recombinant DNA Laboratory
- r5951 Social Uses of Biology

**BIOMEDICAL ENGINEERING
(BMEn)**

**Mechanical Engineering
Institute of Technology**

Winter Quarter

- r5002 Biomaterials II

- 8002 Internship in Biomedical Engineering
- 8100 Biomedical Engineering Seminar
- 8200 Biomedical Engineering Seminar
- 8300 Biomedical Engineering Seminar
- 8770 Plan B Project
- 8777 Thesis Credit: Masters
- 8888 Thesis Credits: Doctoral
- 8970 Independent Study
- 8990 Directed Research

Spring Quarter

- 5003 Artificial Internal Organ Design
- 8002 Internship in Biomedical Engineering
- 8100 Biomedical Engineering Seminar
- 8200 Biomedical Engineering Seminar
- 8300 Biomedical Engineering Seminar
- 8770 Plan B Project
- 8777 Thesis Credit: Masters
- 8888 Thesis Credits: Doctoral
- 8970 Independent Study
- 8990 Directed Research

**BIOMEDICAL SCIENCE
(BMSc)**

Winter Quarter

- 8888 Thesis Credits: Doctoral

Spring Quarter

- 8888 Thesis Credits: Doctoral

**BIOPHYSICAL SCIENCES
(BPhy)**

Medical School

Winter Quarter

- 5138 Seminar: Biophysical Sciences
- 5156 Biophysics
- 5171 Physics of Nuclear Medicine
- 5173 Physics of Radiation Therapy
- 8222 Research
- 8297 Seminar
- 8777 Thesis Credits: Masters
- 8888 Thesis Credits: Doctoral

Spring Quarter

- 5138 Seminar: Biophysical Sciences
- 5157 Biophysics
- 5172 Radiation Biology
- 8223 Research
- 8298 Seminar
- 8777 Thesis Credits: Masters
- 8888 Thesis Credits: Doctoral

**BUSINESS ADMINISTRATION
(BA)**

Management

Winter Quarter

- r3998 Independent Study
- 8888 Thesis Credits: Doctoral

Spring Quarter

- r3998 Independent Study
- 8888 Thesis Credits: Doctoral

**BUSINESS AND MARKETING
EDUCATION (BME)
Vocational And Technical Education
Education**

Winter Quarter

- 3260 Professional Sales Education
- 3303 Teaching Accounting and Data Processing
- R3310 Introduction to Microcomputer Applications in Business and Marketing Education
- R5160 Advanced Word Processing Practicum
- 5162 Research and Methods in Teaching Accounting and Data Processing
- R5330 Spreadsheet Analysis Using Microcomputers in Business and Marketing Education
- 5355 Adult Business and Marketing Education Programs
- R5370 Special Topics in Instruction
- 5380 Special Topics in Curriculum
- R5600 Field-Based Projects in Business and Marketing Education
- R5604 Clinical Experience in Business or Marketing Education
- R5605 Clinical Experience in Business or Marketing Education
- R5606 Clinical Experience in Business or Marketing Education
- R5900 Directed Study in Business and Marketing Education
- 8300 Seminar: Research in Business, Marketing, and Economic Education
- R8600 Internship: Business and Marketing Education
- 8777 Thesis Credits: Masters
- R8900 Problems: Business and Marketing Education

Spring Quarter

- 3159 Word/Information Processing Concepts and Management
- 3300 Teaching Typewriting/Keyboarding
- R3310 Introduction to Microcomputer Applications in Business and Marketing Education
- 5151 Research and Methods in Teaching Typewriting/Keyboarding
- R5252 Teaching Promotion
- 5261 Sales Training
- 5305 Methods in Business and Marketing Education
- R5345 Data Base Microcomputer Applications
- R5365 Integrated Microcomputer Applications in Business and Marketing Education
- R5600 Field-Based Projects in Business and Marketing Education
- 8300 Seminar: Research in Business, Marketing, and Economic Education
- R8600 Internship: Business and Marketing Education
- 8777 Thesis Credits: Masters
- R8900 Problems: Business and Marketing Education

**BUSINESS LAW (BLaw)
Management**

Winter Quarter

- R3058 Introduction to Law, the Law of Contracts and Sales Contracts
- R3078 Agency, Partnerships, Corporations and Commercial Paper

Spring Quarter

- R3058 Introduction to Law, the Law of Contracts and Sales Contracts

- R3088 Law of Personal Property, Real Property, Wills and Estates
- R8158 Introduction to Law, the Law of Contracts and Sales Contracts

**BUSINESS, GOVERNMENT AND
SOCIETY (BGS)
Management**

Winter Quarter

- R3004 International Business
- R3019 Topics in Business, Government and Society
- R8017 Organizational Politics and Management

Spring Quarter

- R3004 International Business

**CELL AND DEVELOPMENTAL
BIOLOGY (CDB)**

Winter Quarter

- 8777 Thesis Credits: Masters
- 8888 Thesis Credits: Doctoral

Spring Quarter

- 8777 Thesis Credits: Masters
- 8888 Thesis Credits: Doctoral

**CELL BIOLOGY AND
NEUROANATOMY (CBN)
Medical School**

Winter Quarter

- 3970 Special Problems
- 5100 Gross Human Anatomy
- 5111 Human Neuroscience A
- 5190 Advanced Anatomy
- 5500 General Gross Anatomy
- 5501 The Extremities
- 5502 Head and Neck
- 5504 The Endocrine System
- 5508 The Thorax
- 5509 The Abdomen
- 5510 Perineum, Genital-Urinary System and Pelvis
- 8135 Biological Electron Microscopy: Technics
- 8148 Advanced Cell Biology I
- 8154 Advanced Anatomy
- 8166 Seminar: Pancreatic Islet Biology
- 8202 Research in Anatomy
- 8206 Seminar: Cell Biology and Neuroanatomy
- 8777 Thesis Credits: Masters
- 8888 Thesis Credits: Doctoral

Spring Quarter

- 1027 Anatomy for Physical Education Students
- 3001 Elementary Anatomy
- 3970 Special Problems
- 5110 Neuroscience for Dental Students
- 5190 Advanced Anatomy
- 5500 General Gross Anatomy
- 5501 The Extremities
- 5502 Head and Neck
- 5504 The Endocrine System
- 5508 The Thorax
- 5509 The Abdomen

- 5510 Perineum, Genital-Urinary System and Pelvis
- 8136 Biological Electron Microscopy: Technics
- 8137 Biological Electron Microscopy: Interpretation
- 8155 Advanced Anatomy
- 8203 Research in Anatomy
- 8207 Seminar: Cell Biology and Neuroanatomy
- 8210 Developmental Neurobiology
- 8221 Neurobiology of Pain and Analgesia
- 8777 Thesis Credits: Masters
- 8888 Thesis Credits: Doctoral

**CHEMICAL ENGINEERING
(ChEn)**

**Chemical Engineering & Materials
Science**

Institute of Technology

Winter Quarter

- R3091 Industrial Employment
- 5102 Principles of Chemical Engineering II
- 5201 Thermodynamics and Materials States
- 5501 Process Evaluation and Design
- 5601 Process Control
- R5753 Biochemical Engineering III
- R5754 Food Processing Technology
- R5780 Principles of Mass Transfer in Engineering and Biological Engineering
- R5810 Processing of Electronic Materials
- R5902 Special Topics
- R5903 Special Topics
- R8004 Physical Rate Processes
- R8105 Principles, Applications of Rheology
- R8202 Advanced Mathematics for Chemical Engineers
- R8301 Physical and Chemical Thermodynamics
- R8402 Chemical Reaction Kinetics-Surface Chemistry
- R8602 Molecular Theory of Equilibrium and Nonequilibrium Processes
- R8702 Advanced Topics in Chemical Engineering
- 8777 Thesis Credits: Masters
- 8802 Seminar
- R8810 Processing of Electronic Materials
- 8888 Thesis Credits: Doctoral
- 8901 Research in Chemical Engineering
- 8902 Research in Chemical Engineering

Spring Quarter

- R3092 Industrial Employment
- 5001 Computational Methods in Chemical Engineering and Material Science
- 5103 Principles of Chemical Engineering III
- R5105 Scientific Models for Chemical Engineering Processes
- 5202 Chemical Engineering Thermodynamics and Kinetics
- 5401 Chemical Engineering Laboratory
- 5502 Process Evaluation and Design
- R5604 Process Control Laboratory
- 5620 Processing of Polymers and Their Composites
- R5752 Biochemical Engineering II
- R5756 Biochemical Engineering Laboratory
- R5757 Principles of Artificial Internal Organ Design
- R5771 Colloids and Dispersions

- r5904 Special Topics
- r5905 Special Topics
- r8005 Physical Rate Processes
- r8104 Interfaces and Interfacial Phenomena
- r8401 Chemical Reaction Kinetics-Kinetics of Homogeneous Reactions
- 8777 Thesis Credits: Masters
- 8803 Seminar
- 8888 Thesis Credits: Doctoral
- r8902 Research in Chemical Engineering
- r8903 Research in Chemical Engineering

CHEMICAL PHYSICS (ChPh)

Winter Quarter

- 8777 Thesis Credits: Masters
- 8888 Thesis Credits: Doctoral

Spring Quarter

- 8777 Thesis Credits: Masters
- 8888 Thesis Credits: Doctoral

CHEMISTRY (Chem) Institute of Technology

Winter Quarter

- 1001 Chemical Principles and Covalent Systems
- r1004 General Principles of Chemistry
- r1005 General Principles of Chemistry
- 1032 Chemical Principles II
- r1032H Honors Chemical Principles II Laboratory
- 1041 Honors Chemistry I
- r3301 Elementary Organic Chemistry I
- r3302 Elementary Organic Chemistry II
- 3305 Elementary Organic Chemistry Laboratory I
- r3306 Elementary Organic Chemistry Laboratory II
- r3332 Introductory Organic Chemistry II
- 3335 Introductory Organic Chemistry II Laboratory
- r3335H Honors Introductory Organic Chemistry II Laboratory
- r3336H Honors Introductory Organic Chemistry II Laboratory
- 3499 Senior Thesis
- 3970 Directed Studies
- r5127 Analog Instrumentation
- 5140 Chemical Instrumentation and Analysis Laboratory
- r5344 Heterocyclic Compounds
- r5521 Elementary Physical Chemistry
- 5526 Physical Biochemistry: Spectroscopic Methods I
- r5534 Chemical Thermodynamics
- r5535 Statistical Mechanics and Reaction Kinetics
- r5538 Physical Chemistry Laboratory
- 5732 Transition Metal Inorganic Chemistry
- 5900 Studies in Chemistry
- 8133 Modern Electroanalytical Techniques, Principles and Practice
- 8190 Seminar: Modern Problems in Chemical Instrumentation and Analysis
- 8290 Seminar: Materials Chemistry
- 8304 Advanced Organic Chemistry II
- 8390 Seminar: Organic Chemistry
- 8403 Bioorganic Chemistry III
- 8532 Introductory Quantum Mechanics and Spectroscopy

- 8545 Reaction Dynamics
- 8547 Elements of Statistical Mechanics
- 8560 Seminar: Biological Systems
- 8590 Seminar: Physical Chemistry
- 8611 Introduction To Polymer Properties
- 8777 Thesis Credits: Masters
- 8790 Seminar: Modern Problems in Inorganic Chemistry
- 8881 M.S. Plan B Project I
- 8882 M.S. Plan B Project II
- 8883 M.S. Plan B Project III
- 8888 Thesis Credits: Doctoral
- 8990 Research In Chemistry
- 8992 Special Topics In Chemistry

Spring Quarter

- 1002 Chemical Principles and Covalent Systems
- 1003 Physical World, Chemistry
- r1005 General Principles of Chemistry
- 1006 Principles of Solution Chemistry
- r1008 Physical World, Chemistry
- 1042 Honors Chemistry II
- 1133 Elementary Quantitative Analysis
- r3302 Elementary Organic Chemistry II
- r3303 Elementary Organic Chemistry III
- r3304 Elementary Bioorganic Chemistry
- 3305 Elementary Organic Chemistry Laboratory I
- 3306 Elementary Organic Chemistry Laboratory II
- r3333 Introductory Organic Chemistry III
- 3336 Introductory Organic Chemistry III Laboratory
- 3499 Senior Thesis
- 3970 Directed Studies
- 3993 Special Topics in Chemistry
- 5126 Modern Analytical Chemistry
- r5139 Chromatography and Separation Science
- 5527 Physical Biochemistry: Spectroscopic Methods II
- 5529 Protein Structure and Folding
- r5533 Quantum Chemistry
- r5540 Physical Chemistry Laboratory
- 5740 Inorganic Chemistry Laboratory
- 5803 Chemistry of Industry
- 5900 Studies in Chemistry
- 8136 Surface and Thin Film Analysis
- 8190 Seminar: Modern Problems in Chemical Instrumentation and Analysis
- 8290 Seminar: Materials Chemistry
- 8302 Interpretation of Organic Spectra
- 8305 Advanced Organic Chemistry III
- 8390 Seminar: Organic Chemistry
- 8533 Introductory Quantum Mechanics and Spectroscopy
- 8548 Advanced Statistical Mechanics
- 8560 Seminar: Biological Systems
- 8590 Seminar: Physical Chemistry
- 8777 Thesis Credits: Masters
- 8790 Seminar: Modern Problems in Inorganic Chemistry
- 8881 M.S. Plan B Project I
- 8882 M.S. Plan B Project II
- 8883 M.S. Plan B Project III
- 8888 Thesis Credits: Doctoral
- 8990 Research in Chemistry

CHICANO STUDIES (Chic) Liberal Arts

Winter Quarter

- r3107 Introduction to Chicano Studies: Chicano in Contemporary Society
- r3442 Chicano History Since 1900
- 3712 Chicanos: Psychological Perspectives
- 3970 Directed Studies
- r5920 Topics in Chicano Studies
- 5970 Directed Studies

Spring Quarter

- r3105 Introduction to Chicano Studies: The Beginnings
- r3212 La Chicana
- 3213 Chicano Music and Art
- r3508 Introduction to Chicano Literature: Text, Context
- 3970 Directed Studies
- 5970 Directed Studies

CHILD PSYCHOLOGY (CPsy) Education

Winter Quarter

- 1301 Introductory Child Psychology
- r1970 Directed Study
- 3303 Adolescent Psychology
- r3308 Research Methods in Child Psychology
- 3309 Introductory Child Psychology for the Social Sciences
- r3330 Directed Experiences
- 3331 Introduction to Social Development
- 3960 Senior Project in Child Psychology
- r3980 Directed Instruction
- 5301 Advanced Child Development
- r5302 Infancy
- 5303 Adolescent Psychology
- 5315 Introduction to Mental Retardation
- 5319 Introduction to Clinical Child Psychology
- 5331 Processes of Social Development
- 5343 Cognitive Development
- r5970 Directed Study
- r5990 Directed Research
- 8310 Seminar: History of Child Development
- 8333 Advanced Social Development I
- 8341 Advanced Perceptual Development
- 8360 Seminar: Developmental Psychology
- r8606 New Approaches to Psychopathology in Children and Adolescents
- 8777 Thesis Credit: Masters
- 8888 Thesis Credits: Doctoral
- 8970 Independent Study
- 8990 Research Problems

Spring Quarter

- 1301 Introductory Child Psychology
- r1970 Directed Study
- 3303 Adolescent Psychology
- r3308 Research Methods in Child Psychology
- 3309 Introductory Child Psychology for the Social Sciences
- r3330 Directed Experiences
- 3331 Introduction to Social Development
- 3343 Introduction to Cognitive Development

- 3960 Senior Project in Child Psychology
- r3980 Directed Instruction
- 5303 Adolescent Psychology
- 5311 Introduction to Developmental Psychopathology
- 5336 Development and Interpersonal Relations
- 5345 Language Development
- r5970 Directed Study
- r5990 Directed Research
- 8320 Seminar: Current Issues in Teaching Developmental Psychology
- 8327 Ethology of Child Behavior
- 8343 Advanced Cognitive Development I
- 8360 Seminar: Developmental Psychology
- 8777 Thesis Credit: Masters
- 8888 Thesis Credits: Doctoral
- 8970 Independent Study
- 8990 Research Problems

CHINESE (Chn)
East Asian Studies
Liberal Arts

Winter Quarter

- 1012 Beginning Modern Chinese
- 3022 Intermediate Modern Chinese
- 3032 Introductory Classical Chinese
- 3042 Third Year Modern Chinese
- 3090H Honors Tutorial
- r3162 Chinese Fiction in English Translation
- 3970 Directed Studies
- 5042 Third Year Modern Chinese
- 5252 History of the Chinese Language
- 5970 Directed Studies
- 8777 Thesis Credits: Masters
- 8888 Thesis Credits: Doctoral
- 8960 Seminar in Chinese Literature

Spring Quarter

- 1013 Beginning Modern Chinese
- r3023 Intermediate Modern Chinese
- 3033 Introductory Classical Chinese
- 3043 Third Year Modern Chinese
- 3090H Honors Tutorial
- r3163 20th Century Literature in English
- 3970 Directed Studies
- 5043 Third Year Modern Chinese
- 5105 Readings in Chinese Vernacular Fiction
- 5451 Studies in Chinese Linguistics
- 5970 Directed Studies
- 8660 Seminar: Vernacular Chinese Literature
- 8777 Thesis Credits: Masters
- 8888 Thesis Credits: Doctoral

CIVIL ENGINEERING (CE)
Civil And Mineral Engineering
Institute of Technology

Winter Quarter

- r3200 Introduction to Transportation Engineering
- r3301 Soil Mechanics Laboratory
- 3400 Fluid Mechanics
- 3601 Structural Design for Architects
- 5010 Senior Design Project
- 5021 Computer Applications in Civil Engineering II

- 5055 Engineering Geostatistics
- 5098 Advanced Design, Analysis, Research or Tutorial in Civil Engineering
- 5102 Site and Route Engineering
- 5301 Foundation Engineering
- 5401 Water Resources Engineering
- 5426 Computer Modelling of Groundwater Flow
- r5515 Water and Wastewater Microbiology
- 5540 Analysis of Groundwater-Soil Pollution Abatement Technology
- 5600 Linear Structural Systems
- r5601 Matrix Analysis of Structures
- 5603 Introduction to Construction Materials
- 5611 Design of Reinforced Concrete Structures
- 5612 Design of Metal Structures: Intermediate
- r5700 Systems Analysis for Civil Engineers
- 5701 Cemented Materials: Properties, Evaluation and Mixture Design
- 8098 Civil Engineering Research
- 8214 Transportation Systems Dynamics and Control
- 8401 Intermediate Fluid Mechanics II
- 8407 Stochastic Hydrology
- 8416 Hydraulic Measurements
- 8550 Analysis and Modeling of Aquatic Environments
- 8606 Approximate Methods of Structural Analysis
- 8620 Structural Dynamics I
- 8626 Behavior of Reinforced Concrete Structures II
- 8698 Seminar: Structures
- 8777 Thesis Credits: Masters
- 8888 Thesis Credits: Doctoral

Spring Quarter

- 3020 Computer Applications in Civil Engineering I
- 3050 Engineering Intern Work Assignment
- 3100 Introduction to Surveying and Mapping
- r3301 Soil Mechanics Laboratory
- 3400 Fluid Mechanics
- 3602 Structural Design for Architects
- r5002 Engineering Economics
- 5099 Advanced Design, Analysis, Research or Tutorial in Civil Engineering
- 5401 Water Resources Engineering
- 5403 Hydraulic Structures
- 5405 Hydrology and Hydrologic Design
- 5501 Analysis and Design of Wastewater Systems
- 5505 Water Quality Engineering
- 5610 Design of Metal Structures: Introduction
- 5611 Design of Reinforced Concrete Structures
- 5615 Prestressed Concrete
- 5617 Design of Masonry Structures
- 8099 Civil Engineering Research
- 8201 Urban Traffic Operations
- 8211 Travel Demand Forecasting
- 8402 Intermediate Fluid Mechanics III
- 8419 Computational Hydrodynamics II
- 8610 Shell Structures
- 8616 Non-Linear Structural Systems
- 8621 Structural Dynamics II
- 8699 Seminar: Structures
- 8777 Thesis Credits: Masters
- 8888 Thesis Credits: Doctoral

CLASSICAL CIVILIZATION
(CICv)

Liberal Arts

Winter Quarter

- 3940 Proseminar: Classical Traditions in Western Culture
- r3950 Topics in Classical Civilization
- 3970 Directed Studies
- 3980 Directed Instruction
- 3990 Directed Research

Spring Quarter

- 3201 The Olympic Games
- r3340 Practicum in Archaeological Field Techniques
- 3970 Directed Studies
- 3980 Directed Instruction
- 3990 Directed Research
- 5950 Topics in Classical Civilization

CLASSICS (Clas)

Classical & Near Eastern Studies
Liberal Arts

Winter Quarter

- r1042 Greek and Roman Mythology
- 1043 Introduction to Greek and Roman Archaeology
- 1045 Basic Program in Technical Terminology and Word Study
- 1048 Greek and Latin Terminology in the Medical and Biological Sciences
- 1141 Greek and Latin Terminology for Nursing
- r3008 History of Ancient Art
- 3046 Advanced Etymology: Vocabulary of the Sciences and Humanities
- r3072 The New Testament
- 3970 Directed Studies
- 5004 Eroticism and Family Life in the Graeco-Roman World
- 5072 The New Testament
- 5252 History of Early Christian and Byzantine Art
- 5970 Directed Studies
- 5980 Directed Instruction
- 5990 Directed Research
- 8777 Thesis Credits: Masters
- 8888 Thesis Credits: Doctoral
- 8910 Seminar: Problems in Classical Archaeology

Spring Quarter

- 1001 Age of Homer
- 1005 Age of Augustus
- 1045 Basic Program in Technical Terminology and Word Study
- 1048 Greek and Latin Terminology in the Medical and Biological Sciences
- 1141 Greek and Latin Terminology for Nursing
- 1201 The Olympic Games
- 3046 Advanced Etymology: Vocabulary of the Sciences and Humanities
- r3073 Roman Religion and Early Christianity
- r3162 Roman Art and Archaeology
- 3201 The Olympic Games
- 3970 Directed Studies
- 5073 Greek and Hellenistic Religions: Roman Religion and Early Christianity
- r5113 Archaic Greek Art

- 5960 Topics in the Literature of Classical Antiquity
- 5970 Directed Studies
- 5980 Directed Instruction
- 5990 Directed Research
- 8777 Thesis Credits: Masters
- 8888 Thesis Credits: Doctoral
- 8910 Seminar: Problems in Classical Archaeology

**CLINICAL AND POPULATION SCIENCES (CAPS)
Veterinary Medicine**

Winter Quarter

- 3502 Animal Health and Disease

**COGNITIVE SCIENCE (CgSc)
Liberal Arts**

Winter Quarter

- 8001 Proseminar in Cognitive Science

Spring Quarter

- 8001 Proseminar in Cognitive Science

**COMMUNICATION DISORDERS (CDIs)
Liberal Arts**

Winter Quarter

- r3100 Clinical and Research Observation
- 5304 Speech Science
- 5504 Normal and Disordered Child Phonology
- 5508 Voice Disorders
- 5606 Language Assessment, Intervention: Early Stages
- 5701 Hearing Loss and Audiometry
- 5703 Communication Problems of the Hearing-Impaired
- 5900 Topics in Communication Disorders
- 5970 Directed Studies
- r8507 Seminar: Cleft Palate
- 8520 Clinical Education in Speech-Language Pathology
- 8521 Clinical Education in Speech-Language Pathology
- 8605 Seminar: Language Disorders
- 8607 Seminar: Language Disorders
- 8720 Clinical Education in Audiology
- 8721 Clinical Education in Audiology
- 8777 Thesis Credits: Masters
- 8888 Thesis Credits: Doctoral
- 8990 Research

Spring Quarter

- r3100 Clinical and Research Observation
- 3101 Introduction to Communication Disorders
- 5306 Hearing Science
- 5502 Stuttering
- 5607 Language Assessment, Intervention: Later Stages
- 5608 Language Assessment, Intervention: Adults
- 5707 Audiology in Educational Settings
- 5970 Directed Studies
- 8305 Laboratory Instrumentation
- r8507 Seminar: Cleft Palate
- 8508 Seminar: Voice

- 8520 Clinical Education in Speech-Language Pathology
- 8521 Clinical Education in Speech-Language Pathology
- 8590 Seminar: Current Issues in Speech-Language Pathology
- 8606 Seminar: Language Disorders
- 8718 Seminar: Hearing
- 8720 Clinical Education in Audiology
- 8721 Clinical Education in Audiology
- 8777 Thesis Credits: Masters
- 8888 Thesis Credits: Doctoral
- 8990 Research

**COMPARATIVE LITERATURE (CLit)
Liberal Arts**

Winter Quarter

- 3910 Issues in the Study of Literature
- r5910 Topics in Comparative Literature
- r8002 Seminar in Comparative Literature
- 8125 On Discourse and Language
- 8888 Thesis Credits: Doctoral
- r8910 Advanced Comparative Literature Seminar
- 8970 Directed Reading

Spring Quarter

- r3910 Issues in the Study of Literature
- r5221 Basic Concepts of Cinema
- r5910 Topics in Comparative Literature
- 5970 Directed Readings
- r8003 Seminar in Comparative Literature
- 8888 Thesis Credits: Doctoral
- r8910 Advanced Comparative Literature Seminar
- 8920 Advanced Comparative Literature Seminar
- 8970 Directed Reading

**COMPARATIVE STUDIES IN DISCOURSE AND SOCIETY (CSDS)
Humanities
Liberal Arts**

Winter Quarter

- r5711 Interpretation of Myth
- r5910 Topics in Comparative Studies in Discourse and Society: Popular Narratives, Popular Images
- 5970 Directed Studies
- r8002 Basic Research Seminar in Comparative Studies in Discourse and Society
- 8888 Thesis Credits: Doctoral
- r8910 Advanced Topics in the Comparative Study of Discourse and Society
- 8970 Directed Studies

Spring Quarter

- r5301 Society, Ideology and the Production of Art
- r5910 Topics in Comparative Studies in Discourse and Society: The Self Made Man
- 5970 Directed Studies
- r8003 Basic Research Seminar in Comparative Studies in Discourse and Society
- 8888 Thesis Credits: Doctoral
- 8970 Directed Studies

**COMPOSITION AND COMMUNICATION (Comp)
Liberal Arts**

Winter Quarter

- r0011 Preparation for Writing Practice
- r1011 Writing Practice I
- r1011H Writing Practice I
- 1013 Writing Practice II
- r1027 Intermediate Expository Writing
- r3011 Writing about Literature
- r3012 Writing in the Humanities
- r3013 Writing for the Arts
- r3014 Writing in the Social Sciences
- r3015 Writing about Science
- r3022 Critical Reading and Writing for Management
- r3027 Advanced Expository Writing
- r3031 Technical Writing for Engineers
- r3032 Preprofessional Writing for Business
- r3033 Writing for the Health Sciences
- r3051 Feminist Expository Writing
- 3080 Special Projects in Advanced Composition
- 3085 Conference Course in Advanced Composition

Spring Quarter

- r1011 Writing Practice I
- 1013 Writing Practice II
- r1027 Intermediate Expository Writing
- r3011 Writing about Literature
- r3012 Writing in the Humanities
- r3013 Writing for the Arts
- r3014 Writing in the Social Sciences
- r3015 Writing about Science
- r3022 Critical Reading and Writing for Management
- r3027 Advanced Expository Writing
- r3031 Technical Writing for Engineers
- r3032 Preprofessional Writing for Business
- r3033 Writing for the Health Sciences
- r3050 Topics in Advanced Composition
- r3051 Feminist Expository Writing
- 3080 Special Projects in Advanced Composition
- 3085 Conference Course in Advanced Composition

**COMPUTER SCIENCE (CSci)
Institute of Technology**

Winter Quarter

- r3101 A FORTRAN Introduction to Computer Programming
- r3102 Introduction to Pascal Programming
- r3113 Introduction to Programming in C
- r3121 Survey of Data Structures and Algorithms
- r3204H Introduction to Programming and Problem Solving in Science and Engineering, Part I
- 3311 Discrete Structures of Computer Science
- 3316 Introduction to the Science of Computer Programming
- 3321 Algorithms and Data Structures I
- 3322 Algorithms and Data Structures II
- 3327 Introduction to the Organization of Computer Systems

R5102 Structure and Programming of Software Systems II
 R5107 Computer Graphics I
 R5117 Computer Graphics II
 R5121 Algorithms and Data Structures II
 R5151 Introduction to Parallel Computing I
 R5181 Software Engineering II
 R5205 Parallel Computer Architecture
 R5279 Introduction to Computer Aided Design of Computers
 R5281 Computer Aided Design of VLSI
 R5301 Numerical Analysis
 R5305 Numerical Methods for Ordinary Differential Equations
 R5400 Introduction to Automata Theory
 R5502 Introduction to Operating Systems
 R5505 Introduction to Compilers
 R5512 Artificial Intelligence II
 R5599 Problems: Artificial Intelligence
 R5702 The Principles of Database Systems
 R8102 Computer Operating Systems: Modeling and Analysis
 R8199 Seminar: Languages and Systems
 R8399 Seminar: Numerical Analysis
 R8402 Algorithms-Techniques and Theory
 R8499 Seminar: Computational Theory and Logic
 R8502 Expert Systems
 8777 Thesis Credits: Masters
 8888 Thesis Credits: Doctoral
 R8899 Computer Science Colloquium
Spring Quarter
 R3101 A FORTRAN Introduction to Computer Programming
 R3102 Introduction to Pascal Programming
 R3113 Introduction to Programming in C
 R3121 Survey of Data Structures and Algorithms
 R3205H Introduction to Programming and Problem Solving in Science and Engineering, Part II
 3311 Discrete Structures of Computer Science
 3321 Algorithms and Data Structures I
 3322 Algorithms and Data Structures II
 3327 Introduction to the Organization of Computer Systems
 R5001 Theory and Application of Linear Programming Algorithms
 R5102 Structure and Programming of Software Systems II
 R5106 Structure of High Level Languages
 R5122 Advanced Data Structures
 R5152 Introduction to Parallel Computing II
 R5199 Problems in Languages and Systems
 R5201 Computer Architecture
 R5211 Data Communications and Computer Networks
 R5301 Numerical Analysis
 R5302 Numerical Analysis
 R5306 Numerical Methods for Partial Differential Equations
 R5400 Introduction to Automata Theory
 R5502 Introduction to Operating Systems
 R5521 Pattern Recognition
 R5531 Artificial Intelligence Programming Techniques
 R5702 The Principles of Database Systems
 R5703 Database System Design

R8103 Distributed Systems
 R8199 Seminar: Languages and Systems
 R8299 Seminar: Machine Design
 R8399 Seminar: Numerical Analysis
 R8499 Seminar: Computational Theory and Logic
 R8505 Optimization of Compilers
 R8551 Artificial Intelligence Techniques in Robotics
 8777 Thesis Credits: Masters
 8888 Thesis Credits: Doctoral
 R8899 Computer Science Colloquium

CONSERVATION BIOLOGY (CBio)

Winter Quarter

8777 Thesis Credits: Masters
 8888 Thesis Credits: Doctoral

Spring Quarter

8777 Thesis Credits: Masters
 8888 Thesis Credits: Doctoral

CONTROL SCIENCE AND DYNAMICAL SYSTEMS (CSDy)

Winter Quarter

8888 Thesis Credits: Doctoral

Spring Quarter

8888 Thesis Credits: Doctoral

CURRICULUM AND INSTRUCTIONAL SYSTEMS (CISy)

Curriculum And Instruction Education

Winter Quarter

R5003 Introduction to Computers and Their Uses
 R5004 Introduction to Interactive Video Instruction
 R5006 Introduction to Instructional Computer Programming
 R5205 Computer-Based Instruction: Introduction to Design
 R5206 Microcomputer Uses in Elementary Classrooms
 5209 Principles and Procedures in Designing Instruction
 5216 Computer-Based Instructional Simulations
 5509 Directed Individual Study
 R5605 Principles and Procedures in Designing Curriculum
 5800 Supervision of Secondary and Post-Secondary Instruction
 8305 Instructional Delivery Systems
 8501 Problems: Curriculum and Instructional Systems
 8600 Seminar: Curriculum Implementation and Change
 8620 The Domain of Curriculum Theory: Alternative Paradigms for Curriculum Research
 8700 Curriculum and Instructional Systems Field Experience
 8800 Problems: Secondary School Supervision

Spring Quarter

R5003 Introduction to Computers and Their Uses
 5004 Introduction to Interactive Video Instruction

5100 Curriculum and Instructional Systems Workshop
 5201 Systems Approach to Design of Instruction
 R5205 Computer-Based Instruction: Introduction to Design
 5207 Interactive Video Instruction
 5208 Computer-Based Tools for Teachers
 5509 Directed Individual Study
 5600 Introduction to Curriculum Systems
 5700 Curriculum Planning Processes
 R8102 Curriculum and Instruction Core: Teaching and Theory
 8307 Designing Instructional Materials: Research and Theory
 8501 Problems: Curriculum and Instructional Systems
 8600 Seminar: Curriculum Implementation and Change
 8620 The Domain of Curriculum Theory: Alternative Paradigms for Curriculum Research
 8700 Curriculum and Instructional Systems Field Experience
 8800 Problems: Secondary School Supervision

DANCE (Dnce)

Theatre Arts

Liberal Arts

Winter Quarter

R1001 Fundamentals of Modern Dance I
 R1002 Fundamentals of Modern Dance II
 R1005 Fundamentals of Ballet II
 R1020 Beginning Modern Technique II
 R1031 Ballroom Dance I
 R1032 Ballroom Dance II
 1034 International Folk Dance I
 R1050 Beginning Ballet Technique II
 R1078 Tap II
 R1080 Beginning Jazz II
 R1110 Topics in Dance Theory
 R1111 The Articulate Body
 R3020 Intermediate Modern Technique II
 R3050 Intermediate Ballet Technique II
 R3078 Intermediate Tap II
 R3080 Intermediate Jazz II
 3312 Dance Composition II
 R3330 Topics in Dance Theory
 R3333 The Articulate Body
 3401 Dance History I
 R3700 Dance Repertory Theatre and Reconstruction
 R3901 Theatre Arts/Dance Senior Seminar
 5020 Advanced Modern Technique II
 R5080 Advanced Jazz II
 5100 Dance Practicum
 5313 Advanced Composition V
 R5487 World Dance Studies
 R5700 Workshop: Dance Performance
 R5950 Topics in Dance
 5970 Directed Studies

Spring Quarter

R1001 Fundamentals of Modern Dance I
 R1003 Fundamentals of Modern Dance III
 R1006 Fundamentals of Ballet III
 R1030 Beginning Modern Technique III

- R1032 Ballroom Dance II
- R1033 Ballroom Dance III
- R1035 International Folk Dance II
- R1060 Beginning Ballet Technique III
- R1079 Tap III
- R1090 Beginning Jazz III
- R1110 Topics in Dance Theory
- R1111 The Articulate Body
- R3030 Intermediate Modern Technique III
- R3060 Intermediate Ballet Technique III
- R3079 Intermediate Tap III
- R3090 Intermediate Jazz III
- R3313 Dance Composition III
- R3330 Topics in Dance Theory
- R3333 The Articulate Body
- R3486 Ethnic Dance Tradition in American Society
- R3511 Music for Dance
- R3700 Dance Repertory Theatre and Reconstruction
- R3901 Theatre Arts/Dance Senior Seminar
- 5030 Advanced Modern Technique III
- R5090 Advanced Jazz III
- R5100 Dance Practicum
- R5700 Workshop: Dance Performance
- R5910 Topics in Dance
- R5970 Directed Studies

**DANISH (Dan)
Scandinavian Studies
Liberal Arts**

Winter Quarter

- R1102 Beginning Danish
- R1105 Intermediate Danish
- 3670 Readings in Danish Literary Texts

Spring Quarter

- R1103 Beginning Danish
- R1106 Intermediate Danish
- 3670 Readings in Danish Literary Texts

**DENTAL HYGIENE (DH)
Dentistry**

Winter Quarter

- 1092 Introduction to Dental Hygienist-Patient Relationships
- 1191 The Dental Hygiene Care Process: Clinical Application I
- 1310 Critiquing Dental Literature
- 3060 Dental Public Health
- 3061 Community Outreach
- 3095 Core V: Adjunct Clinical Procedures
- 3171 Patient Assessment
- 3175 Oral Histology and Embryology
- 3194 The Dental Hygiene Care Process: Clinical Application IV
- 3202 Orthodontics
- 3278 Radiographic Analysis

Spring Quarter

- 1093 Cariology
- 1094 Periodontology
- 1192 The Dental Hygiene Care Process: Clinical Application II
- 3096 Ethics, Jurisprudence and Principles of Practice

- 3176 General and Oral Pathology
- 3195 The Dental Hygiene Care Process: Clinical Application V
- 3275 Oral Radiology I
- 3276 Clinical Radiology

**DESIGN (Dsgn)
Design, Housing, And Apparel
Human Ecology**

Winter Quarter

- R1501 Introduction to Design
- R1523 Design Process: Drawing I
- R1525 Design Process: Two Dimensional Design
- R1528 Design Process: Color
- R1531 Surface Fabric Design I
- R1544 Costume Design: Special Techniques
- R3523 Design Process: Drawing II
- R3525 Design Process: Two Dimensional Design II
- R3527 Design Process: Three Dimensional Design
- R3528 Design Process: Color II
- R3531 Surface-Fabric Design II
- R3541 Costume Design II
- R3553 Interior Design III: Intermediate Interior Design Problems
- 3576 Internship in Interior Design
- R3583 Field Experience in Costume Design
- 3584 Field Experience in Design
- 3586 Design Problems
- R5507 History of Decorative Arts: Textiles
- R5514 History of American Furniture and Interiors
- R5528 Color and Design
- R5552 Interior Design IV: Residential Design
- 5584 Readings in Design
- 5585 Problems in Design: Visual Communication
- 5586 Problems in Design: Interiors
- 5588 Problems in Design: Textiles
- R5589 Problems in Design: Costume
- 8576 Seminar: Design Instruction
- 8584 Readings in Design
- 8585 Problems in Design
- 8586 Problems in Interior Design
- 8587 Problems in Design
- 8588 Directed Study in Design

Spring Quarter

- R1523 Design Process: Drawing I
- R1525 Design Process: Two Dimensional Design
- R1528 Design Process: Color
- R1531 Surface Fabric Design I
- R1544 Costume Design: Special Techniques
- R1555 Interior Design II: Interior Design Problems
- R3523 Design Process: Drawing II
- R3525 Design Process: Two Dimensional Design II
- R3528 Design Process: Color II
- R3548 Lighting Design for Environmental Spaces
- R3577 Interior Design Seminar
- 3583 Field Experience in Costume Design
- 3584 Field Experience in Design
- 3586 Design Problems
- R5509 History of Decorative Arts: Metal, Ceramics, Wood, and Glass
- R5515 20th Century Interiors and Furnishings
- R5518 History of Costume: 19th and 20th Century

- R5528 Color and Design
- R5544 Costume Design Problems
- R5553 Interior Design V: Collaborative
- R5554 Interior Design VI: Non-Residential Design
- R5575 Interior Design Research
- 5584 Readings in Design
- 5585 Problems in Design: Visual Communication
- 5586 Problems in Design: Interiors
- 5588 Problems in Design: Textiles
- 5589 Problems in Design: Costume
- 8576 Seminar: Design Instruction
- 8584 Readings in Design
- 8585 Problems in Design
- 8586 Problems in Interior Design
- 8587 Problems in Design
- 8588 Directed Study in Design

**DESIGN, HOUSING, AND
APPAREL (DHA)
Human Ecology**

Winter Quarter

- 8777 Thesis Credits: Masters
- 8888 Thesis Credits: Doctoral

Spring Quarter

- 8777 Thesis Credits: Masters
- 8888 Thesis Credits: Doctoral

**DUTCH (Dtch)
German
Liberal Arts**

Winter Quarter

- R1102 Beginning Dutch
- R1105 Intermediate Dutch
- R3310 Studies in Dutch Authors
- R3610 Dutch Authors in Translation
- 3970 Directed Studies

Spring Quarter

- R1103 Beginning Dutch
- R1106 Intermediate Dutch
- R3310 Studies in Dutch Authors
- R3610 Dutch Authors in Translation
- 3970 Directed Studies

**EAST ASIAN STUDIES (EAS)
East Asian Studies
Liberal Arts**

Winter Quarter

- 1463 Introduction to East Asia in Modern Times
- 3013 Introduction to Far Eastern Art
- 3302 Senior Project
- 3467 The Nationalist Revolution in China, 1900 to Present
- 3474 Rise of Modern Japan, 1853-1914
- R3868 Asians in America: An Ethnic Perspective
- 3970 Directed Studies
- 8777 Thesis Credits: Masters

Spring Quarter

- 1461 Introduction to East Asia: Early Civilization
- 3468 People's Republic of China: The Communist Revolution, 1900 to Present
- 3970 Directed Studies

8777 Thesis Credits: Masters

ECOLOGY, EVOLUTION AND BEHAVIOR (EEB) Biological Sciences

Winter Quarter

R3001 Introduction to Ecology
R5008 Quaternary Ecology
5063 Evolutionary Ecology of Insect Populations
5136 Ichthyology
5321 Evolution of Social Behavior
R5601 Limnology
R5608 Ecosystems: Form and Function
5970 Directed Studies
5990 Directed Research
8004 Topics in Ecological Genetics
8390 Graduate Seminar
8391 Advanced Work in Ecology and Behavioral Biology
R8602 Advanced Limnology
8777 Thesis Credits: Masters
8888 Thesis Credits: Doctoral
8990 Graduate Research

Spring Quarter

3001 Introduction to Ecology
R3101 Ecology for Engineers and Physical Scientists
3111 Introduction to Animal Behavior
R5016 Ecological Plant Geography
5134 Introduction to Ornithology
5156 Comparative Animal Physiology
R5606 Ecology of Fishes
R5621 Limnology Laboratory
5970 Directed Studies
5990 Directed Research
R8014 Paleocological Methods
8390 Graduate Seminar
8391 Advanced Work in Ecology and Behavioral Biology
8777 Thesis Credits: Masters
8888 Thesis Credits: Doctoral
8990 Graduate Research

ECONOMICS (Econ) Liberal Arts

Winter Quarter

1101 Principles of Microeconomics
1101H Honors Course: Principles of Microeconomics
1102 Principles of Macroeconomics
1102H Honors Course: Principles of Macroeconomics
R1104 Principles of Microeconomics
R1105 Principles of Macroeconomics
R3101 Microeconomic Theory
R3101H Honors Course: Microeconomic Theory
R3102 Macroeconomic Theory
R3102H Honors Course: Macroeconomic Theory
R3103 Welfare Economics
R3103H Honors Course: Welfare Economics
3105 Managerial Economics
3231 Principles of Econometrics
R3315 The Japanese Economy

R3601 Industrial Organization and Antitrust Policy
3701 Money and Banking
R3751 Financial Economics I
R3752 Financial Economics II
R3801 Elements of Public Finance
3951 Major Project Seminar
R3960 Topics in Economics
3970 Directed Studies
R5113 Introduction to Mathematical Economics
R5152 Elements of Economic Analysis: Income and Employment
5162 Microeconomic Theory
5165 Macroeconomic Theory
R5171 History of Economic Thought
5231 Introduction to Econometrics
5262 Applied Econometrics
R5301 Economic Development
R5312 Technology and Development
R5315 The Japanese Economy
R5331H Honors Course: Economic Development
R5401 International Economics
R5431 International Trade
R5432 International Finance
R5611 Resource and Environmental Economics
R5651 Transportation Economics
R5721 Money and Banking
R5731H Honors Course: Macroeconomic Policy
R5733 Intertemporal Economics and Money
R5741 Business Cycles
R5821 Elements of Public Finance
R5831H Honors Course: Cost Benefit Analysis
5970 Directed Studies
8102 Microeconomic Theory
8105 Macroeconomic Theory
8112 Introduction to Mathematical Economics
8117 Non-Cooperative Game Theory
8182 Advanced Topics in Microeconomics
8192 Workshop in Mathematical Economics
8202 Applied Econometrics
8212 Econometrics
8282 Advanced Topics in Econometrics
8292 Workshop in Econometrics
8402 International Trade and Payments Theory
8482 Advanced Topics in International Trade Theory
8492 Workshop in Trade and Development
8502 Wages and Employment
8602 Industrial Organization and Government Regulation
8692 Workshop in Applied Microeconomics
8702 Monetary Economics
8705 Financial Economics
8777 Thesis Credits: Masters
8792 Workshop in Macroeconomics
8802 Public Finance
8888 Thesis Credits: Doctoral
8990 Individual Research

Spring Quarter

1101 Principles of Microeconomics
1102 Principles of Macroeconomics
1102H Honors Course: Principles of Macroeconomics
R1104 Principles of Microeconomics

R1105 Principles of Macroeconomics
R3101 Microeconomic Theory
R3101H Honors Course: Microeconomic Theory
R3102 Macroeconomic Theory
R3102H Honors Course: Macroeconomic Theory
R3103 Welfare Economics
R3103H Honors Course: Welfare Economics
3105 Managerial Economics
3231 Principles of Econometrics
R3315 The Japanese Economy
3701 Money and Banking
R3752 Financial Economics II
R3801 Elements of Public Finance
3951 Major Project Seminar
3960 Topics in Economics
3970 Directed Studies
R5107H Honors Course: Game Theory and Its Applications
5163 Microeconomic Theory
5166 Macroeconomic Theory
R5171 History of Economic Thought
5232 Introduction to Econometrics
5263 Applied Econometrics
R5301 Economic Development
R5315 The Japanese Economy
R5401 International Economics
R5431 International Trade
R5432 International Finance
R5531 Labor Economics
R5534 Economic Security
R5623 Housing Markets and Public Policy in the United States
R5631 Industrial Organization and Antitrust Policy
R5721 Money and Banking
R5721H Honors Course: Money and Banking
R5731 Macroeconomic Policy
R5733 Intertemporal Economics and Money
R5741H Honors Course: Business Cycles
R5752H Honors Course: Financial Economics II
R5821 Elements of Public Finance
R5831 Cost-Benefit Analysis
5970 Directed Studies
8103 Microeconomic Theory
8106 Macroeconomics Theory
8113 Introduction to Mathematical Economics
8118 Non-Cooperative Game Theory
8183 Advanced Topics in Microeconomics
8186 Advanced Topics in Macroeconomics
8193 Workshop in Mathematical Economics
8203 Applied Econometrics
8213 Econometrics
8293 Workshop in Econometrics
8403 International Trade and Payments Theory
8483 Advanced Topics in International Trade Theory
8493 Workshop in Trade and Development
8583 Advanced Topics in Labor Economics
8683 Advanced Topics in Industrial Organization
8693 Workshop in Applied Microeconomics
8777 Thesis Credits: Masters
8793 Workshop in Macroeconomics
8888 Thesis Credits: Doctoral
8990 Individual Research

EDUCATION (Educ) Education

Winter Quarter

- 8777 Thesis Credits: Masters
- 8888 Thesis Credits: Doctoral

Spring Quarter

- 8777 Thesis Credits: Masters
- 8888 Thesis Credits: Doctoral

EDUCATIONAL ADMINISTRATION (EdAd)

Educational Policy And Administration Education

Winter Quarter

- 8777 Thesis Credits: Masters
- 8888 Thesis Credits: Doctoral

Spring Quarter

- 8777 Thesis Credits: Masters
- 8888 Thesis Credits: Doctoral

EDUCATIONAL POLICY AND ADMINISTRATION (EdPA) Educational Policy And Administration Education

Winter Quarter

- r5090 School and Society
- 5099 Directed Study
- 5101 Historical Foundations of Modern Education
- 5102 Education Imagery in Europe and America
- 5128 Workshop: Educational Administration
- 5141 Critical Issues in Contemporary Education
- 5167 The American Middle School
- 5171 Anthropology and Education
- r5173 Case Studies for Policy Research
- 5180 Seminar: Administration of Special Education
- 5182 Comparative Philosophies of Education
- 5202 Politics of Education
- 5210 Social Forecasting and Educational Futures
- 5213 Financial Resource Management
- 5216 Recent Research in Elementary School Administration
- 5218 The Social Organization of Schools
- 5225 Educational Policy and the Law
- 5260 Introduction to Educational Planning
- 5274 Two-Year Postsecondary Institutions
- r8221 Quantitative Models for Program Analysis and Research
- 8228 Problems: Higher Education
- 8229 Seminar: Higher Education
- 8238 Seminar: Theory and Research
- 8240 Seminar: Clinical Experiences in Educational Administration
- 8241 Seminar: Internship in Educational Administration
- 8242 Seminar: Public School Personnel Programs
- 8250 The Higher Education Institution: Organization and Environment
- 8251 Development and Evaluation of Academic Programs

- 8252 Instruction and Learning in Higher Education
- 8260 Seminar: Social and Philosophic Foundations of Education
- 8261 Problems: History and Philosophy of Education
- 8270 Problems: Elementary School Administration
- 8271 Problems: Secondary School Administration
- 8272 Problems: Educational Administration
- 8273 Field Study
- 8341 Analysis of Education Policy Systems

Spring Quarter

- r5090 School and Society
- 5099 Directed Study
- 5120 History of Childhood Education
- 5128 Workshop: Educational Administration
- 5155 History of Western Educational Thought
- 5174 Field Method for the Study of Education
- 5176 Ethnographic Research Skills Laboratory
- 5181 Seminar: Administration of Special Education
- 5190 Sociology of Education
- 5201 Formal Organizations in Education
- 5204 Financing Elementary and Secondary Schools
- 5211 Social Design and Educational Futures
- 5214 School Management Information Systems
- 5223 Law and the Handicapped: Implications for Education
- 5226 Educational Facilities Planning
- 5227 Public School Personnel Programs
- 5230 Public Relations for School Organizations
- 5264 The Secondary School Principalship
- 5266 Principal-Constituent Decision Making
- 5540 Seminar: The College Student
- r8223 Quantitative Techniques for Decision Making
- 8228 Problems: Higher Education
- 8229 Seminar: Higher Education
- 8230 Seminar: Dissertation Research in Higher Education
- 8234 Seminar: Educational Finance
- 8238 Seminar: Theory and Research
- 8240 Seminar: Clinical Experiences in Educational Administration
- 8241 Seminar: Internship in Educational Administration
- 8248 Seminar: Metropolitan School Governance
- 8257 Financing Higher Education
- 8261 Problems: History and Philosophy of Education
- 8268 Seminar: Social and Educational Futures
- 8270 Problems: Elementary School Administration
- 8271 Problems: Secondary School Administration
- 8272 Problems: Educational Administration
- 8273 Field Study

EDUCATIONAL PSYCHOLOGY (EPsy)

Education

Winter Quarter

- r1601 American Sign Language I
- r1602 American Sign Language II

- 1604 Workshop: Developing Educational and Human Service Programs
- 3131 Introduction to Human Relations
- r3602 American Sign Language V
- 3603 Cultural Perspectives of Deafness
- r3606 Exceptional Students in Regular Classes
- 5113 Introduction to the Psychology of Instruction
- r5114 Psychology of Student Learning
- 5130 Personality and Social Development
- 5139 Interpersonal and Personality Effects on Learning
- r5151 Structuring Learning: Social Psychological Approaches
- 5220 Educational Measurement in the Classroom
- 5222 Modern Measurement Theory and Practice
- 5229 Classroom Assessment Methods
- r5240 Principles and Methods of Evaluation
- 5243 Practicum: Survey and Observational Research Methods
- r5260 Introductory Statistical Methods
- 5261 Applied Matrix and Vector Concepts
- 5262 Statistical Computing Using Minitab
- 5281 Introduction to Computer Operations: U of M Systems, SPSS
- r5401 Counseling Procedures
- r5417 Clinical Use of Tests in Psychological Services
- r5431 Career Development: Theory and Counseling Applications
- r5606 Exceptional Students in Regular Classes
- r5609 Family-Professional Planning for Persons with Severe Handicaps
- r5612 Education of Learning-Disabled Children
- r5615 Educational Interventions for Learning Disabilities
- 5620 Introduction to Mental Retardation
- 5626 Instruction for Learners with Severe Handicaps
- 5636 Education of Multihandicapped Learners with Sensory Impairments
- 5644 Language Programming for Children With Hearing Impairments
- 5646 Reading and Instructional Practices with Hearing Impaired Students
- 5648 Modes of Communication for the Handicapped
- r5656 Educational Needs of Students with Emotional Disturbances or Behavioral Disorders
- r5657 Educational Interventions for Students with Emotional Disturbances or Behavioral Disorders
- 5671 Literary Braille
- 5680 Education of the Disadvantaged
- 5700 Assessment and Decision Making in Special Education
- 5701 Practicum: Special Education
- 5703 Practicum Experience: Special Education
- r5704 Workshop: Interventions and Practices in Educational and Human Service Programs
- 5900 Independent Study
- 8129 Research Problems: Learning and Cognition
- 8149 Research Problem: Personality
- 8151 Organizational Development and Change
- 8169 Research Problems: Social Psychology
- 8239 Problems: Measurement
- 8247 Internship: Evaluation
- 8259 Problems: Evaluation
- r8260 Statistical Methods

r8261	Statistical Methods	5600	Childhood Language Development: Classroom Implications	8831	Practicum: School Psychological Services
8264	Multiple Regression Analysis	5601	Education of Exceptional Children	8832	Clinical Practice in School Psychology
8279	Problems: Statistics for Students in Education and Psychology	5602	Computer Technology in Special Education	8840	Internship: School Psychological Services
r8403	Social/Cultural Contexts of Counseling: Theory and Procedures	5604	Transition From School to Work and Community Living for Persons With Special Needs	8841	Internship: Instruction and Supervision in School Psychology
r8411	Seminar: Advanced Counseling Research	5605	Law and the Handicapped: Implications for Education	8888	Thesis Credits: Doctoral
r8505	Field Placement in CSPP	5606	Exceptional Students in Regular Classes	8900	Research Problems
8510	Internship: CSPP	5608	Parent and Professional Planning for Handicapped Students	8905	Landmark Issues and Great Controversies in Educational Psychology
8514	Counseling Practicum: University Counseling Services	r5615	Educational Interventions for Learning Disabilities	8910	Directed Study
8515	Counseling Practicum: University Counseling Services	r5624	Biomedical Aspects of Physical Impairments	ELECTRICAL ENGINEERING (EE)	
r8520	Counseling Practicum: Advanced	5641	Models of Service Delivery to Students with Hearing Impairments	Institute of Technology	
r8521	Practice in Student Personnel Work	5647	Aural and Speech Programming for Children with Hearing Impairments	Winter Quarter	
8524	Clinical Practice in Diagnosis and Treatment of College Learning Difficulties	r5657	Educational Interventions for Students with Emotional Disturbances or Behavioral Disorders	r1400	Circuits Laboratory
8651	Theories of Educating Disturbed Children	5672	Advanced Braille	r3003	Circuits and Electronics
8702	Seminar: Special Education	5681	Methods and Materials for Handicapped Infants and Preschool Children	r3004	Circuits and Electronics Laboratory
r8760	Seminar: Administration of Special Education	5701	Practicum: Special Education	3009	Linear Circuits I
8770	Intervention Strategies for Persons with Developmental Disabilities: Interdisciplinary Perspectives	5703	Practicum Experience: Special Education	3010	Linear Circuits II
8777	Thesis Credits: Masters	5704	Workshop: Interventions and Practices in Educational and Human Service Programs	3011	Signal Analysis
r8810	Assessment in School Psychology I	5849	Assessment of the Preschool Child	3012	System Design
r8816	School Consultation and Intervention Planning	5900	Independent Study	3060	Semiconductor Devices
8831	Practicum: School Psychological Services	8115	Psychology of Instruction	3061	Analog Electronics
8832	Clinical Practice in School Psychology	8129	Research Problems: Learning and Cognition	3110	Electric and Magnetic Fields
8840	Internship: School Psychological Services	8130	Personality Development and Socialization	3351	Introduction to Logic Design
8841	Internship: Instruction and Supervision in School Psychology	8149	Research Problem: Personality	3400	Junior Electrical Engineering Laboratory
r8853	New Approaches to Psychopathology in Children and Adolescents	8169	Research Problems: Social Psychology	3401	Junior Electrical Engineering Laboratory
8888	Thesis Credits: Doctoral	8210	Methods in Educational Research	r3476	Industrial Assignment I
8900	Research Problems	8220	Advanced Theory of Measurement	r5002	Digital Signal Processing
8910	Directed Study	8239	Problems: Measurement	r5003	Digital Signal Processing Laboratory
Spring Quarter		8247	Internship: Evaluation	r5055	Instrumentation and Control Electronics
r1602	American Sign Language II	8259	Problems: Evaluation	r5056	Electronic Circuits Laboratory
r1603	American Sign Language III	8261	Statistical Methods	r5161	Materials and Devices II
1604	Workshop: Developing Educational and Human Service Programs	r8262	Statistical Methods	r5203	Digital Communication
3603	Cultural Perspectives of Deafness	8265	Factor Analysis	r5241	Data Communications Laboratory
3606	Exceptional Students in Regular Classes	8266	Analysis of Results from Nonexperimental Research	r5253	Linear Control Systems
5112	Knowing, Learning, and Thinking	8279	Problems: Statistics for Students in Education and Psychology	r5291	Linear Control Systems Laboratory
r5114	Psychology of Student Learning	r8404	Counseling Theory and Procedures III	r5310	Electric Power Systems
5115	Psychology of Adult Learning	r8412	Seminar: Advanced Counseling Research	r5332	Energy Conversion Methods
5116	Behavior Analysis in Education	r8431	Masters Seminar: CSPP	5355	Microprocessor Interfacing and System Design
5130	Personality and Social Development	8450	Psychological Aspects of Counseling Supervision	r5450	Senior Design Project
5135	Workshop in Human Relations	8510	Internship: CSPP	r5470	Directed Study
r5139	Interpersonal and Personality Effects on Learning	8515	Counseling Practicum: University Counseling Services	r5478	Industrial Assignment III
5221	Basic Principles of Measurement	r8520	Counseling Practicum: Advanced	r5479	Industrial Assignment IV
r5229	Classroom Assessment Methods	8524	Clinical Practice in Diagnosis and Treatment of College Learning Difficulties	r5491H	Honors Project
r5240	Principles and Methods of Evaluation	8620	Psychological Theory and Research in Mental Retardation	r5512	Adaptive Digital Filter Theory
5246	Evaluation Colloquium	8702	Seminar: Special Education	r5572	VLSI Design II
r5260	Introductory Statistical Methods	r8761	Seminar: Administration of Special Education	r5576	VLSI Modeling and Processing
5281	Introduction to Computer Operations: U of M Systems, SPSS	8777	Thesis Credits: Masters	r5605	Microwave Devices and Circuit Applications
r5401	Counseling Procedures	r8811	Assessment in School Psychology II	r5630	Contemporary Optics
5422	Group Counseling: Principles and Procedures	r8815	Theories and Methods of Instructional Intervention	r5651	Physical Methods in Solid State Materials II
r5432	Career Development Programs and Organizational Change	r8820	Seminar: Research in School Psychology	r5661	Semiconductor Properties and Devices I
r5451	Seminar: The College Student			r5667	Magnetic Properties of Materials and Applications
				5670	Basic Microelectronics
				r5700	Information Theory and Coding
				r5751	Linear Optimal Control
				r5815	Switched Mode Power Electronics II
				r5816	Switched Mode Power Electronics Laboratory
				r5825	Finite-Element Methods in Electrical Engineering

R5852 Digital Computer Systems
 R5856 Parallel Computing
 R5962 Design Studies in Engineering
 R8090 Electronics Seminar
 R8154 Properties of Semiconductors
 R8157 Ferromagnetism and Related Phenomena
 8192 Seminar: Magnetics
 R8203 Signal Detection and Estimation Theory with Applications
 R8207 VLSI Signal Processing
 8240 Seminar: Communication
 R8258 Advanced Systems Theory II
 8290 Seminar: Control Theory
 R8381 Advanced Power-System Topics
 R8355 Computer Architecture I
 R8451 Advanced Topics in Electrical Engineering
 8460 Plan B Project
 8491 Graduate Seminar
 8777 Thesis Credits: Masters
 8888 Thesis Credits: Doctoral

Spring Quarter

R1400 Circuits Laboratory
 R3003 Circuits and Electronics
 R3004 Circuits and Electronics Laboratory
 3009 Linear Circuits I
 3010 Linear Circuits II
 3011 Signal Analysis
 3012 System Design
 3061 Analog Electronics
 3062 Analog and Digital Electronics
 3110 Electric and Magnetic Fields
 3111 Electromagnetic Waves
 3352 Introduction to Microprocessors
 3401 Junior Electrical Engineering Laboratory
 3402 Junior Electrical Engineering Laboratory
 R3476 Industrial Assignment I
 R3477 Industrial Assignment II
 R5002 Digital Signal Processing
 R5003 Digital Signal Processing Laboratory
 R5053 Design of Digital Circuits
 R5090 Digital Circuit Design Laboratory
 R5162 Solid-State Transducers
 R5255 Digital Control Systems
 R5290 Digital Control Systems Laboratory
 R5315 Electromechanics in Robotics
 R5322 Electromechanical Processes and Devices
 R5450 Senior Design Project
 5470 Directed Study
 R5478 Industrial Assignment III
 R5479 Industrial Assignment IV
 R5492H Honors Project
 R5606 Antenna Theory and Design
 R5620 Engineering Acoustics
 R5631 Photonic Devices
 R5635 Optical System Design
 R5662 Physical Methods in Solid State Materials III
 R5662 Semiconductor Properties and Devices II
 R5669 Magnetic Recording
 5671 Advanced Microelectronics
 R5680 Principles of Thin Film Technology
 R5712 Kalman Filtering and Applications
 R5752 Computer Aided Design of Control Systems

R5760 Biological System Modelling and Analysis
 R5853 Digital Computer Systems
 R5860 Microcomputer Architecture
 R5963 Design Studies in Engineering
 R8051 Large Scale Integrated Circuits
 8090 Electronics Seminar
 R8170 Fluctuation Phenomena
 8192 Seminar: Magnetics
 R8205 Image Processing and Applications
 R8211 Coding Theory
 R8220 Topics in Statistical Theory of Communication
 8290 Seminar: Control Theory
 R8302 Advanced Power-System Topics
 R8356 Computer Architecture II
 R8451 Advanced Topics in Electrical Engineering
 8460 Plan B Project
 8492 Graduate Seminar
 8777 Thesis Credits: Masters
 8888 Thesis Credits: Doctoral

ELEMENTARY EDUCATION (Elem) Curriculum And Instruction Education

Winter Quarter

3100 Psychological Foundations of Elementary Education
 3101 Introduction to Elementary School Teaching
 R3300 Children's Literature
 R3316 Teaching English in the Elementary School
 R3331 Teaching Reading in the Elementary School
 R3346 Teaching Science in the Elementary School
 R3361 Teaching Social Studies in the Elementary School
 R3376 Nursery School-Kindergarten Curriculum I
 R3377 Nursery School-Kindergarten Curriculum II
 R3378 Social Learning in Early Childhood Education
 R3391 Teaching Mathematics in the Elementary School
 3600 Student Teaching in the Elementary School, Half Days
 3603 Student Teaching in the Kindergarten
 3604 Student Teaching in the Nursery School
 3605 Student Teaching in Elementary School: Half Days, Full Days
 3607 Student Teaching in Elementary School: Full Days
 3621 Junior Practicum in Elementary Education
 3630 Student Teaching in Elementary School Literature
 3631 Student Teaching in Elementary School English
 3633 Student Teaching in Elementary School Reading
 3634 Student Teaching in Elementary School Science
 3636 Student Teaching in Elementary School Social Studies
 3639 Student Teaching in Elementary School Mathematics
 3900 Directed Study
 R5100 Elementary School Curriculum
 R5305 Survey of Special Collections in Children's Literature
 R5316 Teaching and Supervision of English in the Elementary Schools

5320 Practicum: Teaching Second Languages and Cultures in Elementary Schools
 R5337 Beginning Reading Instruction
 R5338 Teaching Reading in the Intermediate Grades
 R5348 Workshop: Outdoor Science Education
 5378 Contemporary Programs for Young Children
 R5602 Practicum: Improvement of Teaching
 8332 Recent Research in Reading
 8346 Research Foundations of Elementary School Science Teaching
 R8916 Problems: Teaching English
 R8931 Problems: Teaching Reading
 R8961 Problems: Teaching Social Studies
 R8976 Problems: Teaching Kindergarten
 R8991 Problems: Improvement of Instruction

Spring Quarter

R3300 Children's Literature
 R3316 Teaching English in the Elementary School
 R3331 Teaching Reading in the Elementary School
 R3346 Teaching Science in the Elementary School
 R3361 Teaching Social Studies in the Elementary School
 R3377 Nursery School-Kindergarten Curriculum II
 R3378 Social Learning in Early Childhood Education
 3379 Cognitive and Creative Learning in Early Childhood Education
 R3391 Teaching Mathematics in the Elementary School
 3600 Student Teaching in the Elementary School, Half Days
 3603 Student Teaching in the Kindergarten
 3604 Student Teaching in the Nursery School
 3605 Student Teaching in Elementary School: Half Days, Full Days
 3607 Student Teaching in Elementary School: Full Days
 3621 Junior Practicum in Elementary Education
 3630 Student Teaching in Elementary School Literature
 3631 Student Teaching in Elementary School English
 3633 Student Teaching in Elementary School Reading
 3634 Student Teaching in Elementary School Science
 3636 Student Teaching in Elementary School Social Studies
 3639 Student Teaching in Elementary School Mathematics
 3900 Directed Study
 R5100 Elementary School Curriculum
 R5141 Using LOGO in the Classroom
 R5300 Literature for the Elementary School
 R5315 Teaching Composition in the Elementary School
 R5316 Teaching and Supervision of English in the Elementary Schools
 5320 Practicum: Teaching Second Languages and Cultures in Elementary Schools
 R5334 Reading Difficulties
 R5337 Beginning Reading Instruction
 R5338 Teaching Reading in the Intermediate Grades
 R5347 Workshop: Curriculum Implementation in Elementary School Science
 R5350 Elementary School Science: Materials and Resources

- r5361 Teaching Social Studies in the Elementary School
- 5377 Early Childhood Education: Materials and Resources
- 5602 Practicum: Improvement of Teaching
- 8333 Seminar: Reading Research and Instruction
- r8916 Problems: Teaching English
- r8931 Problems: Teaching Reading
- r8961 Problems: Teaching Social Studies
- r8976 Problems: Teaching Kindergarten
- 8991 Problems: Improvement of Instruction

ENGLISH LANGUAGE AND LITERATURE (Eng)

Liberal Arts

Winter Quarter

- r1005 Introduction to Literature
- r1005H Honors Course: Introduction to the Study of Literature
- r1017 Introduction to Modern Poetry
- r1018 Introduction to Modern Fiction
- r1241 Introduction to Shakespeare
- r1591 Literature of American Minorities
- r1671 The Short Story
- r3008 Techniques of Literary Study
- r3009 Modern Literary Theory
- r3115 The Middle Ages
- r3118 The Romantic Age
- r3241 Shakespeare
- r3242 Shakespeare
- r3356 Modern British Literature, 1920-1950
- r3410 Major American Writers: Frost and Stevens
- r3412 Survey of American Literature, 1850-1900
- r3671 The Novel
- r3711 Classics of Literary Criticism
- r3851 The English Language
- r3920 Topics in Anglophone Literature: Poetry as Cultural Critique
- r3950 Figures in Anglophone Literature: 20th-Century Canadian Women Writers
- r3960 Junior-Senior Seminar
- 3961 Senior Paper
- 3963H Honors Thesis
- 3970 Directed Studies
- 3980 Directed Instruction
- r5215 Major Types of Middle English Literature
- r5221 Chaucer: The Canterbury Tales
- r5363 James Joyce
- r5482 Folklore
- r5597 Harlem Renaissance Seminar
- r5671 Theory of the Novel
- r5712 Literary Criticism: Plato to Dryden
- r5815 History of English Language
- r5910 Topics in English and North American Literature: Indian Fiction
- r5940 Figures in English and North American Literature: Hopkins and the Pre-Raphaelites
- r5950 Figures in Anglophone Literature: R.K. Narayan
- 5970 Directed Studies
- r8050 Studies in Special Subjects: Pound
- r8119 Proseminar in 20th-Century British, American Literature: 20th-Century Canadian Literature
- r8220 Chaucer

- r8250 Seminar in 17th-Century Studies: Milton, Dryden and Marvell
- r8480 Studies in Folklore
- r8510 Studies in Early American Literature: Colonial Literary Culture in the 18th-Century
- r8530 Studies in 19th-Century American Literature: American Transcendentalists
- r8610 Studies in 20th-Century British and American Literature
- r8710 Studies in Criticism
- r8810 Studies in the English Language: Introduction to Composition Research
- 8888 Thesis Credits: Doctoral
- 8970 Independent Reading

Spring Quarter

- r1005 Introduction to Literature
- r1005H Honors Course: Introduction to the Study of Literature
- r1241 Introduction to Shakespeare
- r1591 Literature of American Minorities
- r3008 Techniques of Literary Study
- r3009H Honors Course: Modern Literary Theory
- r3115 The Middle Ages
- r3116 The Renaissance
- r3241 Shakespeare
- r3242 Shakespeare
- r3413 Survey of American Literature, 1900-1945
- r3455 American Short Story
- r3481 American Folklore
- r3851 The English Language
- r3852 Aspects of the English Language
- r3910 Topics in English and North American Literature: Weird Books by Women
- r3960 Junior-Senior Seminar
- 3961 Senior Paper
- 3963H Honors Thesis
- 3970 Directed Studies
- 3980 Directed Instruction
- r5133 19th-Century British Poetry
- r5134 20th-Century British Poetry
- r5175 Modern Drama Since 1920
- r5364 James Joyce
- r5431 American Poetry
- r5452 20th-Century American Novel
- r5483 Folklore
- r5620 British and American Women Writers: Adrienne Rich
- r5714 Modern and Contemporary Critical Theory
- r5843 American Social Dialects
- r5860 Studies in the English Language
- r5910 Topics in English and North American Literature
- r5920 Topics in Anglophone Literature
- r5940 Figures in English and North American Literature: Wole Soyinka
- r8011 Introduction to Advanced Literary Study
- r8012 Problems in Literary History
- r8050 Studies in Special Subjects
- r8111 Proseminar in Medieval Studies
- r8113 Proseminar in 17th-Century Studies
- r8119 Proseminar in 20th-Century British, American Literature
- r8240 Shakespeare: The Revolution in Shakespeare Studies, 1980-1990
- r8610 Studies in 20th-Century British and American Literature

- r8670 Studies in Prose Fiction: Joyce and Feminism
- r8810 Studies in the English Language
- 8888 Thesis Credits: Doctoral
- 8970 Independent Reading

ENGLISH: CREATIVE & PROFESSIONAL WRITING (EngW)

English Language and Literature Liberal Arts

Winter Quarter

- r1102 Introduction to Fiction Writing
- r1103 Introduction to Poetry Writing
- r5102 Advanced Fiction Writing
- r5106 Advanced Poetry Writing
- r5204 Advanced Playwriting
- 5970 Directed Study in Writing
- r8110 Writing of Fiction

Spring Quarter

- 1101 Introduction to Creative Writing
- r3960 Writing Workshop for Majors
- r5103 Advanced Fiction Writing
- r5107 Advanced Poetry Writing
- r5130 Topics in Advanced Creative Writing
- r5205 Advanced Playwriting
- r5210 Topics in Advanced Nonfiction Writing
- r5320 Reading as Writers
- 5970 Directed Study in Writing
- r8120 Writing of Poetry
- r8130 Creative Writing Seminar

ENTOMOLOGY (Ent)

Agriculture

Winter Quarter

- 5030 Insect Physiology
- 5200 Apiculture
- 5210 Insect Pest Management
- 5280 Livestock Entomology
- 5310 Sampling Biological Populations
- 5480 Invertebrate Neurobiology
- 5910 Special Problems in Entomology
- 8200 Colloquium in Apiculture
- 8240 Colloquium in Insect Ecology
- 8300 Graduate Seminar
- 8500 Research in Entomology
- 8777 Thesis Credits: Masters
- 8888 Thesis Credits: Doctoral

Spring Quarter

- 1001 Insects and Society
- 1005 Economic Entomology
- 3020 Principles of Beekeeping
- 5215 Insects in Relation to Plant Diseases
- 5250 Forest Entomology
- 5900 Basic Entomology
- 5910 Special Problems in Entomology
- 5920 Special Lectures in Entomology
- 8050 Toxicology
- 8300 Graduate Seminar
- 8500 Research in Entomology
- 8777 Thesis Credits: Masters
- 8888 Thesis Credits: Doctoral

FAMILY SOCIAL SCIENCE (FSoS)

Human Ecology

Winter Quarter

- r1001 Dynamics of Family Relationships
- 3260 Family Resource Management
- r5001 Human Sexual Behavior
- r5205 Introduction to Family Research Methods
- 5230 Independent Study in Family Social Science
- 5240 Special Topics in Family Social Science
- 5249 Fieldwork: Directed Community Work Experience
- 5253 Humanities, Aging and Family Living
- r5255 Approaches to Family Policy
- r8214 Theories of Marital and Family Therapy
- 8222 Internship in Teaching College Level Family Courses II
- 8223 Internship in Teaching College Level Family Courses III
- 8230 Directed Study
- 8242 Value Theories and Research in Family Social Science
- 8251 Problems: Family Social Science
- r8262 Process Seminar for Family II
- 8317 Family of Origin I
- 8500 Family Therapy Practicum I
- 8552 Internship in Marital and Family Therapy II
- 8777 Thesis Credits: Masters
- 8888 Thesis Credits: Doctoral

Spring Quarter

- r1001 Dynamics of Family Relationships
- r1025 Parenthood
- 3260 Family Resource Management
- r5206 Developing and Evaluating Family Research Project
- r5210 Family in World Perspective
- 5230 Independent Study in Family Social Science
- 5231 Planning for Fieldwork
- 5249 Fieldwork: Directed Community Work Experience
- 5252 Aging, Family and Society
- 5256 Family Policy: An International Perspective
- 5500 Racial and Ethnic Minority Families
- 8203 Family Stress, Coping and Adaptation
- r8215 Clinical Issues in Marital and Family Therapy
- 8230 Directed Study
- 8251 Problems: Family Social Science
- r8318 Family of Origin II
- 8553 Internship in Marital and Family Therapy III
- 8777 Thesis Credits: Masters
- 8888 Thesis Credits: Doctoral

FINANCE (BFin) Management

Winter Quarter

- r3000 Finance Fundamentals
- r3602 Regulation of Depository Institutions
- r8300 Investments and Portfolio Management
- r8602 Financial Management of Financial Institutions
- r8603 Futures Markets
- r8603E Futures Markets
- r8801 Introduction to the Theory of Capital Markets
- r8900 Research Workshop

Spring Quarter

- r3000 Finance Fundamentals
- r3100 Financial Management

- r3300 Investment Management and Financial Markets
- r3601 Bank Financial Management
- r8150 Theory of Finance
- r8200 Financial Markets and Interest Rates
- r8601 Corporate Investment and Financial Strategy
- r8604 Options Markets
- r8605 Investment Banking
- r8802 Mathematical Methods in the Theory of Capital Markets
- r8900 Research Workshop

FINNISH (Fin) Scandinavian Studies Liberal Arts

Winter Quarter

- r1102 Beginning Finnish
- r1105 Intermediate Finnish
- 3670 Readings: Finnish Texts

Spring Quarter

- r1103 Beginning Finnish
- r1106 Intermediate Finnish
- 3670 Readings: Finnish Texts

FISHERIES AND WILDLIFE (FW) Natural Resources

Winter Quarter

- r1104 Library Research Methods
- 5393 Special Problems in Fisheries Biology
- 5398 Special Problems in Wildlife Biology
- 5601 Assessment and Management of Vertebrate Populations
- 5604 Fishery and Wildlife Management
- 5702 Senior Project
- 8200 Seminar
- 8364 Research in Fisheries Biology
- 8377 Research in Wildlife Biology
- 8576 Wildlife Management: Large Mammals
- 8777 Thesis Credits: Masters
- 8888 Thesis Credits: Doctoral

Spring Quarter

- r1002 Wildlife: Ecology, Values and Human Impact
- r1101 Ethics and Values in Resource Management
- 5393 Special Problems in Fisheries Biology
- 5398 Special Problems in Wildlife Biology
- r5455 Aquaculture
- 5459 Physiology and Behavior of Fish
- 8200 Seminar
- 8364 Research in Fisheries Biology
- 8377 Research in Wildlife Biology
- 8448 Fishery Science
- 8777 Thesis Credits: Masters
- 8888 Thesis Credits: Doctoral

FLUID MECHANICS (FIMe)

Winter Quarter

- 8777 Thesis Credits: Masters
- 8888 Thesis Credits: Doctoral

Spring Quarter

- 8777 Thesis Credits: Masters
- 8888 Thesis Credits: Doctoral

FOOD SCIENCE AND NUTRITION (FScN)

Agriculture & Human Ecology

Winter Quarter

- 1500 Biotechnology: Basic Concepts and Applications
- 1612 Principles of Nutrition
- 3112 Food Analysis
- 3135 Food Processing I
- 3612 Biological Aspects of Nutrition
- 3703 Field Experience in Foodservice Management
- r3730 Quantity Food Production Management
- 3732 Lecture in Quantity Food Production Management
- 5000 Professional Experience Program
- r5100 General Seminar
- 5111 Independent Study in Food Science and Nutrition
- 5120 Food Microbiology
- r5136 Unit Operations Laboratory
- 5403 Experimental Study of Foods
- 5474 Food Marketing Economics
- 5524 Sensory Evaluation of Dairy Products
- 5555 Freezing and Dehydration of Foods
- 5562 Flavor Technology
- 5623 Vitamin and Mineral Biochemistry
- 5664 Field Experience in Clinical Nutrition
- 5666 Applied Clinical Nutrition II
- 5705 Field Experience in Foodservice Management
- 5732 Principles of Foodservice Organization and Management
- 8101 Research Seminar
- 8205 General Seminar
- 8401 Independent Study: Food Science
- 8403 Advanced Topics in Food Science
- r8621 Independent Study: Nutrition
- 8622 Carbohydrate and Lipid Metabolism
- 8777 Thesis Credits: Masters
- 8888 Thesis Credits: Doctoral

Spring Quarter

- 3136 Food Processing II
- 3400 Food Communication Techniques
- 3610 Community Nutrition
- 5000 Professional Experience Program
- r5100 General Seminar
- 5110 Food Chemistry
- 5111 Independent Study in Food Science and Nutrition
- 5122 Control Systems in Food Microbiology
- 5123 Food Fermentations and Biotechnology
- 5522 Technology of Fluid and Concentrated Milk Products
- 5612 Experimental Nutrition
- 5624 Human Protein and Energy Utilization
- 5642 Field Experience in Community Nutrition
- 5664 Field Experience in Clinical Nutrition
- 5667 Applied Clinical Nutrition III
- 5750 Principles of Foodservice Management
- 8101 Research Seminar
- 8205 General Seminar
- 8315 Food Proteins
- r8401 Independent Study: Food Science
- r8621 Independent Study: Nutrition
- 8777 Thesis Credits: Masters
- 8888 Thesis Credits: Doctoral

FOREIGN STUDIES MANAGEMENT

(FSMg)

Management

Winter Quarter

- 3460 Institute of European Studies Program in Vienna, Austria
- 3490 Institute of European Studies Program at the University of Singapore
- 3620 Council on International Educational Exchange Japanese Business and Society Program
- 3680 Council on International Educational Exchange Business and Society Program in Seville, Spain
- 3820 Denmark's International Business Studies Program in Copenhagen

Spring Quarter

- 3460 Institute of European Studies Program in Vienna, Austria
- 3490 Institute of European Studies Program at the University of Singapore
- 3620 Council on International Educational Exchange Japanese Business and Society Program
- 3680 Council on International Educational Exchange Business and Society Program in Seville, Spain
- 3820 Denmark's International Business Studies Program in Copenhagen

FOREIGN STUDY (FoSt)

Liberal Arts

Winter Quarter

- 0010 Study Abroad
- 0060 Study Abroad
- 0090 Study Abroad
- 0120 Study Abroad
- 0150 Study Abroad
- 3110 HECUA Scandinavian Urban Studies Term
- 3130 HECUA Literature, Ideology, and Society in Latin America
- 3210 Kansas Program in Costa Rica
- 3230 Kansas Program in Great Britain
- 3400 IAS Program at Nanzan University, Japan
- 3410 IES Program in Durham, England
- 3420 IES Program in London
- 3430 IES Program in Nantes, France
- 3440 IES Program in Paris
- 3450 IES Program in Madrid
- 3460 IES Program in Vienna
- 3470 IES Program in Freiburg, Germany
- 3480 IES European Community Program in Germany
- 3490 IAS Program at the University of Singapore
- 3500 IES Program in Milan, Italy
- 3510 IES London University and Fine Arts Program
- 3520 IAS: Southeast Asia Program
- 3530 IAS Program in Beijing, China
- 3540 IAS Program in Taipei, Taiwan
- 3550 IAS Program in Tokyo
- 3600 CIEE: Summer/Semester Program in the Soviet Union
- 3610 CIEE Academic Year Program in Leningrad
- 3620 CIEE Business and Society Program in Tokyo, Japan
- 3630 CIEE Language and Culture Program in Rennes, Brittany, France
- 3640 CIEE Critical Studies Program in Paris
- 3650 CIEE Paris Internship and Study Program
- 3660 CIEE Language Area Studies Program in Alicante, Spain

- 3670 CIEE Language, Society and Liberal Arts Programs in Seville, Spain
- 3680 CIEE Business and Society Program in Seville, Spain
- 3690 CIEE Dominican Republic Language/Caribbean Studies Program
- 3810 Bologna Cooperative Studies Program, Italy
- 3820 Denmark's International Study Program
- 3830 Study at the University of Oslo, Norway
- 3900 Exchange Study in British Universities

Spring Quarter

- 0010 Study Abroad
- 0060 Study Abroad
- 0090 Study Abroad
- 0120 Study Abroad
- 0150 Study Abroad
- 3110 HECUA Scandinavian Urban Studies Term
- 3130 HECUA Literature, Ideology, and Society in Latin America
- 3210 Kansas Program in Costa Rica
- 3230 Kansas Program in Great Britain
- 3400 IAS Program at Nanzan University, Japan
- 3410 IES Program in Durham, England
- 3420 IES Program in London
- 3430 IES Program in Nantes, France
- 3440 IES Program in Paris
- 3450 IES Program in Madrid
- 3460 IES Program in Vienna
- 3470 IES Program in Freiburg, Germany
- 3480 IES European Community Program in Germany
- 3490 IAS Program at the University of Singapore
- 3500 IES Program in Milan, Italy
- 3510 IES London University and Fine Arts Program
- 3520 IAS: Southeast Asia Program
- 3690 CIEE Dominican Republic Language/Caribbean Studies Program
- 3810 Bologna Cooperative Studies Program, Italy
- 3820 Denmark's International Study Program
- 3830 Study at the University of Oslo, Norway
- 3900 Exchange Study in British Universities

FOREST PRODUCTS (ForP)

Natural Resources

Winter Quarter

- r1104 Library Research Methods
- 1303 Wood Structure and Identification
- 3301 Industrial Internship
- 3303 Forest Products Marketing
- 3325 Directed Study Experience
- 5305 Pulp and Paper Technology
- 5306 Analysis of Production Systems
- 5307 Wood Base Panel Technology
- 5312 Pulp and Paper Process Engineering Calculations II
- 5313 Pulp and Paper Process Operations
- 5353 Wood Chemistry II
- 5359 Surface and Colloid Chemistry of Papermaking
- 5401 Senior Topics
- 8300 Research Problems
- 8301 Research Problems
- 8302 Research Problems

Spring Quarter

- r3202 Leadership and Management Skills Development
- r3300 Wood Industry Tours

- 3301 Industrial Internship
- 3325 Directed Study Experience
- 5303 Wood Deterioration
- 5310 Pulp and Paper Process Laboratory
- 5315 Paper Engineering Laboratory
- 5316 Coated Product Development
- 5331 Undergraduate Seminar
- 5355 Mechanics and Structural Design with Wood Products
- 5361 Adhesion and Adhesives
- 5401 Senior Topics
- 8300 Research Problems
- 8301 Research Problems
- 8302 Research Problems
- 8303 Advanced Topics: Panel Products Technology
- 8306 Seminar: Forest Products

FOREST RESOURCES (FR)

Natural Resources

Winter Quarter

- r1104 Library Research Methods
- 1201 Conservation of Natural Resources
- 3225 Directed Study Experience
- 5100 Silviculture
- 5106 Senior Silviculture Seminar
- 5114 Forest Hydrology
- 5120 Introductory Tree Physiology and Genetics
- 5121 Tree Physiology Laboratory
- 5200 Aerial Photo Interpretation
- 5221 Plant Molecular Evolution
- 5225 Directed Study Experience
- 5240 Natural Resource Policy and Administration
- 5259 Analysis of Outdoor Recreation Behavior
- r5262 Remote Sensing of Natural Resources
- 5401 Senior Topics
- 5703 Colloquium in Forest Biology
- 8100 Research Problems: Silviculture
- 8101 Research Problems: Forest-Tree Physiology
- 8102 Problems: Forest-Tree Genetics
- 8103 Research Problems: Forest Hydrology
- 8106 Topics in Silviculture-Forest Soils
- 8107 Seminar: Forest Resources
- 8200 Research Problems: Forest Management
- 8201 Research Problems: Forest Economics
- 8202 Research Problems: Forest Biometry
- 8203 Research Problems: Forest Recreation
- 8204 Research Problems: Forest Policy
- 8205 Research Problems: Remote Sensing

Spring Quarter

- r1201 Conservation of Natural Resources
- 1203 Introduction to Minnesota's Natural Resources
- r3202 Leadership and Management Skills Development
- 3225 Directed Study Experience
- 3232 Management of Recreational Lands
- 3250 Role of Renewable Natural Resources in Developing Countries
- 5130 Geographic Information Systems in Natural Resource Analysis
- 5153 Advanced Forest Hydrology
- 5212 Natural Resources Inventory
- 5215 Forest Fire Management
- 5225 Directed Study Experience
- 5226 Forest Economics and Planning
- 5231 Range Management
- 5241 Natural Resource Management: Political and Administrative Processes

5250 Role of Renewable Natural Resources in Developing Countries
 5264 Quantitative Techniques in Forest Management
 5401 Senior Topics
 5412 Advanced Remote Sensing
 5500 Urban Forest Management
 5550 Ethics in Natural Resource Management
 8100 Research Problems: Silviculture
 8101 Research Problems: Forest-Tree Physiology
 8102 Problems: Forest-Tree Genetics
 8103 Research Problems: Forest Hydrology
 8107 Seminar: Forest Resources
 8200 Research Problems: Forest Management
 8201 Research Problems: Forest Economics
 8202 Research Problems: Forest Biometry
 8203 Research Problems: Forest Recreation
 8204 Research Problems: Forest Policy
 8205 Research Problems: Remote Sensing
 8207 Economic Analysis of Forestry Projects

FORESTRY (Fors)

Winter Quarter

8777 Thesis Credits: Masters
 8888 Thesis Credits: Doctoral

Spring Quarter

8777 Thesis Credits: Masters
 8888 Thesis Credits: Doctoral

FRENCH (Fren)

French And Italian Liberal Arts

Winter Quarter

R1101 Beginning French
 R1102 Beginning French
 R1103 Beginning French
 R1104 Intermediate French
 R1105 Intermediate French
 R1106 Intermediate French
 R3015 French Composition and Conversation
 R3016 Advanced French Composition and Conversation
 R3017 Stylistics Through Translation
 R3101 Introduction to French Literary Texts: Poetry
 R3103 French Literary Texts: Novel
 R3269 Topics in 19th-Century French Literature
 R3299 Themes in French Literature
 R3512 French Civilization and Culture
 R3701 The Development of the French Language
 3800 CIEE Language/Culture Program in Brittany
 3970 Directed Readings
 3980 Directed Instruction
 R5105 Topics in Criticism
 R5355 Novel of the 18th Century
 R5702 Structure of Modern French: Phonology, Morphology, Syntax
 5800 CIEE Contemporary Film Program in Paris
 R5900 Topics in French Literature
 R8501 Methodology and Bibliography
 8777 Thesis Credits: Masters
 8888 Thesis Credits: Doctoral
 8970 Directed Readings
 8980 Directed Teaching

Spring Quarter

R1101 Beginning French
 R1102 Beginning French
 R1103 Beginning French
 R1104 Intermediate French
 R1105 Intermediate French

R1106 Intermediate French
 R3014 French Phonetics
 R3015 French Composition and Conversation
 R3016 Advanced French Composition and Conversation
 R3017 Stylistics Through Translation
 R3101 Introduction to French Literary Texts: Poetry
 R3103 French Literary Texts: Novel
 R3269 Topics in 19th-Century French Literature
 R3289 Topics in 20th-Century Literature
 R3513 French Civilization and Culture
 R3603 20th-Century French Theatre in Translation
 3800 CIEE Language/Culture Program in Brittany
 3970 Directed Readings
 3980 Directed Instruction
 R5105 Topics in Criticism
 5800 CIEE Contemporary Film Program in Paris
 R5900 Topics in French Literature
 R8030 Seminar in Drama
 R8050 Seminar in Fiction
 R8120 Seminar in Problems of the 16th Century Writing
 R8701 History of the French Language
 8777 Thesis Credits: Masters
 8888 Thesis Credits: Doctoral
 8970 Directed Readings
 8980 Directed Teaching

FRENCH AND ITALIAN (FrIt)

French And Italian Liberal Arts

Winter Quarter

3604 Cinemas of the Real

GENERAL COLLEGE (GC)

Winter Quarter

R0611 Mathematics Skills Review
 R0615 Arithmetic Problem Solving
 R0616 Algebraic Problem Solving I
 R0617 Algebraic Problem Solving II
 R0618 Intermediate Algebraic Problem Solving
 R0621 Elementary Algebra
 0625 Intermediate Algebra, Part I
 R0631 Intermediate Algebra, Part II
 R0641 Basic Mathematics I
 R0643 Basic Mathematics: Programmed Study
 R1041 Developing College Reading
 R1043 Learning Strategies: Reading and Study Improvement
 R1045 Developing College Writing
 R1051 Introduction to College Reading and Writing
 R1086 Higher Education Survival Seminar
 R1111 Science in Context: Weather and Climate
 R1112 Ecological Evaluation of Environmental Problems
 R1114 Personal Environmental Health
 1131 Biological Science: Principles
 R1132 Biological Science: The Human Body
 R1137 Biological Science Laboratory: The Human Body
 R1160 Investigations in Physical Science
 R1162 Physical Science: Stellar Astronomy
 R1163 Physical Science: Principles of Physics
 R1166 Physical Science: Principles of Chemistry
 R1211 People and Problems
 R1221 Minnesota History
 1231 United States: Growth of National Power

R1233 United States: Government and Politics
 R1235 United States: Law in Society
 R1281 Psychology in Modern Society
 R1284 Behavior Problems of Children
 R1285 Cultural Anthropology
 R1291 The World Today: Geography at Home and Abroad
 R1295 Economic Perspectives: Micro Principles and History
 R1311 Art: General Arts
 R1333 Vocal Music and Its Traditions
 R1355 Philosophy: Problems of Ethics
 R1365 Literatures of the United States
 R1371 Literature: Reading Short Stories
 R1374 The Movies: An Introductory Course
 R1421 Writing Laboratory: Basic Writing
 R1422 Writing Laboratory: Communicating in Society
 R1454 Statistics
 R1456 Functions and Problems of Logic
 R1461 Oral Communication: Speaking and Creative Thinking
 R1462 Oral Communication: Speaking and Critical Thinking
 R1484 Oral Communication: Group Process and Discussion
 R1481 Creativity: Art Laboratory: Experiences in the Media
 R1483 Creativity: Music Laboratory-How to Read and Write Music
 R1511 Introduction to Business
 R1513 Small Business Operations
 R1537 Professional Selling
 R1540 Accounting Fundamentals I
 R1551 Marketing: Introduction
 R1571 Introduction to Microcomputer Applications
 R1572 Introduction to Computer Programming
 R1701 Psychology of Personal Effectiveness
 R1721 Marriage, Family and Personal Fulfillment
 R1731 Consumer Problems and Personal Finance
 R1733 Contemporary Sex Roles
 R1816 African-American Literature
 R1836 Asian American Literature

Spring Quarter

R0615 Arithmetic Problem Solving
 R0616 Algebraic Problem Solving I
 R0617 Algebraic Problem Solving II
 R0618 Intermediate Algebraic Problem Solving
 R0621 Elementary Algebra
 R0625 Intermediate Algebra, Part I
 R0631 Intermediate Algebra, Part II
 R0641 Basic Mathematics I
 R0643 Basic Mathematics: Programmed Study
 R1042 Reading in Content Areas
 R1043 Learning Strategies: Reading and Study Improvement
 R1045 Developing College Writing
 R1051 Introduction to College Reading and Writing
 R1086 Higher Education Survival Seminar
 R1111 Science in Context: Weather and Climate
 1131 Biological Science: Principles
 R1132 Biological Science: The Human Body
 R1134 Cardiovascular Anatomy and Physiology
 R1137 Biological Science Laboratory: The Human Body
 R1160 Investigations in Physical Science
 R1161 Physical Science: Solar System Astronomy
 R1163 Physical Science: Principles of Physics
 R1166 Physical Science: Principles of Chemistry

R1172 Historical Geology
 R1211 People and Problems
 R1233 United States: Government and Politics
 R1235 United States: Law in Society
 R1236 United States: The Crime Problem
 R1281 Psychology in Modern Society
 R1285 Cultural Anthropology
 R1291 The World Today: Geography at Home and Abroad
 R1296 Economic Perspectives: Macro Principles and History
 R1311 Art: General Arts
 R1357 Philosophy: World Religious Beliefs
 R1365 Literatures of the United States
 R1366 Images of Women in Literature
 R1371 Literature: Reading Short Stories
 R1421 Writing Laboratory: Basic Writing
 R1422 Writing Laboratory: Communicating in Society
 R1454 Statistics
 R1456 Functions and Problems of Logic
 R1461 Oral Communication: Speaking and Creative Thinking
 R1462 Oral Communication: Speaking and Critical Thinking
 R1464 Oral Communication: Group Process and Discussion
 R1481 Creativity: Art Laboratory: Experiences in the Media
 R1483 Creativity: Music Laboratory-How to Read and Write Music
 R1511 Introduction to Business
 R1513 Small Business Operations
 R1534 Practical Law
 R1537 Professional Selling
 R1540 Accounting Fundamentals I
 R1553 Marketing: Principles of Management
 R1571 Introduction to Microcomputer Applications
 R1572 Introduction to Computer Programming
 R1575 Introduction to Computers
 R1701 Psychology of Personal Effectiveness
 R1721 Marriage, Family and Personal Fulfillment
 R1812 American Indian Literature
 R1814 The American Indian in American Law
 R1816 African-American Literature

GENETICS (Gene)

Winter Quarter

8777 Thesis Credits: Masters
 8888 Thesis Credits: Doctoral

Spring Quarter

8777 Thesis Credits: Masters
 8888 Thesis Credits: Doctoral

GENETICS AND CELL BIOLOGY (GCB)

Biological Sciences

Winter Quarter

3022 Genetics
 3960 Research Topics
 R5002 Transmission Electron Microscopy Lab
 5022 Genetics
 5034 Intermediate Molecular Genetics
 R5915 Computer Applications in Molecular Biology
 5970 Directed Studies
 5990 Directed Research
 8060 Current Topics
 8131 Advanced Genetics I

8148 Advanced Cell Biology I
 8214 Advanced Molecular Biology II
 8900 Seminar
 8910 Journal Clubs
 8914 Genetic Counseling Seminar III
 8950 Practicum: Teaching in Genetics
 8960 Practicum: Teaching in Cell and Developmental Biology
 8970 Directed Studies
 8990 Research

Spring Quarter

3008 The Biology of Cancer
 3960 Research Topics
 R5001 Scanning Electron Microscopy Lab
 5015 Histology: Cell and Tissue Organization
 R5030 Laboratory: Genetics
 5033 Population and Quantitative Genetics
 5061 Developmental Biology
 5073 Advanced Human Genetics
 5970 Directed Studies
 5990 Directed Research
 8149 Advanced Cell Biology II
 8900 Seminar
 8910 Journal Clubs
 8912 Genetic Counseling Seminar I
 8950 Practicum: Teaching in Genetics
 8960 Practicum: Teaching in Cell and Developmental Biology
 8970 Directed Studies
 8990 Research

GEO-ENGINEERING (GeoE) Civil And Mineral Engineering Institute of Technology

Winter Quarter

5218 Design of Underground Excavations
 5437 Computer Applications in Geological Engineering
 5555 Engineering Geostatistics
 5661 Special Geo-Engineering Problems
 5700 Systems Analysis for Geological Engineers
 8350 Advanced Rock Mechanics I
 8602 Seminar: Geo-Engineering
 8613 Geo-Engineering Research Problems
 8777 Thesis Credits: Masters
 8888 Thesis Credits: Doctoral

Spring Quarter

5262 Geo-Engineering Analysis
 5302 Applied Rock Mechanics
 5662 Special Geo-Engineering Problems
 8336 Boundary Element Methods I
 8603 Seminar: Geo-Engineering
 8614 Geo-Engineering Research Problems
 8777 Thesis Credits: Masters
 8888 Thesis Credits: Doctoral

GEOGRAPHY (Geog) Liberal Arts

Winter Quarter

1301 Human Geography
 1401 Physical Geography
 1501 The Language of Maps

1973 Geography of the Twin Cities
 R3001 Introduction to Geographic Inquiry
 R3101 Geography of United States and Canada
 R3141 Africa
 3213 Southeast Asia
 3344 Land Use and the Federal Government
 R3371 Introduction to Urban Geography
 R3378 Third World Underdevelopment and Modernization
 3531 Quantitative Methods in Geography
 3940 Directed Field Study
 3970 Directed Readings
 3973 Geography of the Twin Cities
 3990 Directed Research
 5001 Geographical Analysis I
 5102 Historical Geography of North America
 5111 Selected Regions: Eastern United States
 5142 Geography of East Africa
 5143 Geography of West Africa
 5311 Time-Geography I
 5372 Metro Analysis I: Population and Housing
 5393 Look of the Land
 5411 Medical Geography
 5423 Advanced Climatology
 R5512 Cartography: Topics: Advanced Map Design and Production I
 5522 Cartographic Design on the Computer
 5562 Introduction to Geographic Information Systems
 5606 Geographical Perspectives on Urban Planning II
 5808 Regional Analysis of North America
 5900 Topics in Geography: Cultural Pluralism
 8010 Seminar: Theoretical Geography
 8210 Seminar: South Asia
 8344 Seminar: Federal Public Land Policy
 8350 Seminar: World Population Problems
 8777 Thesis Credits: Masters
 8888 Thesis Credits: Doctoral
 8970 Directed Readings
 8980 Topics in Geography
 8990 Research Problems

Spring Quarter

1301 Human Geography
 1401 Physical Geography
 1425 Introduction to Meteorology
 1501 The Language of Maps
 R3101 Geography of United States and Canada
 3111 Minnesota
 R3131 Middle America
 3161 Europe
 3215 China
 3321 Political Geography
 3331 Economic Geography
 3381 Population Geography
 3511 Introduction to Cartography
 3530 Cartography Internship
 3940 Directed Field Study
 3970 Directed Readings
 R3985 Senior Project Seminar
 R5131 Colonial Mexico and the Caribbean
 5132 South America
 5145 Development in Africa

- 5178 Scandinavia in the Middle Ages
- 5215 China
- 5312 Time-Geography II
- 5345 Land in America
- 5373 Metro Analysis II: Urban Economic Geography
- 5424 Applied Climatology
- r5512 Cartography: Topics: Advanced Map Design and Production II
- 5530 Cartography Internship
- r5701 Field Research
- 5801 Development of Geographic Thought
- r5856 The Meanings of Place
- 5900 Topics in Geography
- 8140 Seminar: Africa
- 8210 Seminar: South Asia
- 8320 Considering Space, Place and Human Activity
- 8330 Seminar: Rural Geography
- 8380 Seminar: Medical Geography
- 8420 Seminar: Climatology
- 8777 Thesis Credits: Masters
- 8800 Seminar: Development of Geographic Thought
- 8888 Thesis Credits: Doctoral
- 8970 Directed Readings
- 8980 Topics in Geography
- 8990 Research Problems

GEOLOGY AND GEOPHYSICS (Geo)

Institute of Technology

Winter Quarter

- r1001 The Dynamic Earth: An Introduction to Geology
- r1005 Geologic Perspectives on Energy
- r1011 Volcanoes of the Earth
- r1021 Introduction to Geology Lab: Geology of Minnesota
- 1022 Historical Geology
- 1601 Oceanography
- 3401 Introductory Mineralogy
- 3990 Problems in Geology and Geophysics
- 5004 Mineralogy
- 5100 Advanced General Geology
- r5154 Vertebrate Paleontology I
- r5252 Regional Geomorphology
- r5311 General Geochemistry
- r5321 Nuclear Geology
- 5405 Optical Mineralogy
- r5501 Geophysical Methods in Geology
- r5506 Solid Earth Geophysics II
- 5601 Limnology
- 5652 Sedimentary Petrology and Processes
- r5654 Marine Sedimentary Environments
- r5980 Seminar: Current Topics in Geology and Geophysics
- 5990 Senior Thesis
- 8098 Seminar: Current Topics in Geology and Geophysics: Geomorphology/Glacial Geology
- 8099 Research in Geology and Geophysics
- 8262 Quaternary Paleocology and Climate
- 8602 Advanced Limnology
- 8612 Analytical Geohydrology

- 8777 Thesis Credits: Masters
 - 8888 Thesis Credits: Doctoral
- #### Spring Quarter
- r1001 The Dynamic Earth: An Introduction to Geology
 - 1002 Historical Geology
 - r1012 Life, the Earth, and Everything Else: An Introduction to Comparative Planetology
 - r1021 Introduction to Geology Lab: Geology of Minnesota
 - 1111 Introductory Physical Geology
 - 3102 Petrology
 - 3211H Honors Earth Science
 - 3990 Problems in Geology and Geophysics
 - r5100 Advanced General Geology
 - r5155 Vertebrate Paleontology II
 - 5201 Structural Geology
 - r5202 Tectonic Styles
 - 5251 Geomorphology
 - 5255 Glaciology
 - r5313 Aqueous Geochemistry
 - 5342 Planetary Geology
 - 5507 Solid Earth Geophysics III
 - 5521 Data Processing Methods in Geophysics
 - 5611 Groundwater Geology
 - 5621 Limnology Laboratory
 - 5980 Seminar: Current Topics in Geology and Geophysics
 - 5990 Senior Thesis
 - 8098 Seminar: Current Topics in Geology and Geophysics
 - 8099 Research in Geology and Geophysics
 - 8351 Advanced Mineral Deposits
 - 8455 Metamorphic Petrology
 - 8521 Data Processing Methods in Geophysics
 - 8543 Principles of Rock Magnetism
 - 8777 Thesis Credits: Masters
 - 8888 Thesis Credits: Doctoral

GERMAN (Ger)

German Liberal Arts

Winter Quarter

- r1101 Beginning German
- r1102 Beginning German
- r1103 Beginning German
- r1104 Intermediate German
- r1105 Intermediate German
- r1106 Intermediate German
- r3011 Conversation and Composition
- r3012 Conversation and Composition
- r3015 Conversation and Composition
- r3021 Business German
- r3105 Reading and Analysis of Drama and Poetry
- r3105H Honors Course: Reading and Analysis of Drama and Poetry
- 3342 Major Project in German
- 3342H Major Project in German
- r3442 Twentieth-Century Literature: 1918-1933
- r3450 Senior Seminar: German Literature
- r3501 Contemporary Germany: The Federal Republic
- r3512 German Civilization and Culture: Reformation to 1800

- 3590 Directed Studies: German-Speaking Countries
- r3610 German Authors and/or Topics in Translation
- r3702 Beginning Middle High German
- 3970 Directed Studies
- r5101 The Analysis of German
- r5622 Nazi and Postwar German Cinema
- r5721 Middle High German Language
- 5970 Directed Studies
- r8102 Bibliography and Proseminar
- r8113 Introduction to German Literary Theory and Criticism
- r8206 Topics in Middle High German Literature
- r8210 Topics in 16th and 17th Century German Literature
- r8219 Literature of the 19th Century
- r8742 Gothic and Methods of Comparative Germanic Linguistics
- 8777 Thesis Credits: Masters
- 8888 Thesis Credits: Doctoral
- 8990 Reading and Research

Spring Quarter

- r1101 Beginning German
- r1102 Beginning German
- r1103 Beginning German
- r1104 Intermediate German
- r1105 Intermediate German
- r1106 Intermediate German
- r3011 Conversation and Composition
- r3012 Conversation and Composition
- r3013 Conversation and Composition
- r3016 Techniques of Translation
- r3104 Reading and Analysis of Prose
- r3105 Reading and Analysis of Drama and Poetry
- r3301 Lyric Poetry: Klopstock through Holderlin
- 3342 Major Project in German
- 3342H Major Project in German
- r3432 Nineteenth-Century Literature: 1832-1890
- r3510 Topics in German Studies
- r3513 German Civilization and Culture: 1800 to Present
- 3590 Directed Studies: German-Speaking Countries
- r3610 German Authors and/or Topics in Translation
- r3703 Introduction to Old High and Low German
- 3970 Directed Studies
- r5102 The Analysis of German
- r5510 Topics in Contemporary German Culture
- 5970 Directed Studies
- r8217 Literature of the 19th Century
- r8241 Expressionism in German Literature
- r8340 Topics in 20th-Century German Literature
- r8451 Friedrich Nietzsche
- r8751 Manuscript Readings and Text Reconstruction
- 8777 Thesis Credits: Masters
- r8810 The German Woman as Writer
- r8820 Advanced Theoretical Seminar
- 8888 Thesis Credits: Doctoral
- 8990 Reading and Research

GERMANIC PHILOLOGY (GPhl)

Winter Quarter

- 8777 Thesis Credits: Masters

8888 Thesis Credits: Doctoral

Spring Quarter

8777 Thesis Credits: Masters

8888 Thesis Credits: Doctoral

GREEK (Grk)

Classical & Near Eastern Studies Liberal Arts

Winter Quarter

1102 Beginning Classical Greek

1122H Honors Course: Beginning Classical Greek

3052 Beginning Ancient Greek: Accelerated

3105 Greek Drama

3454 Advanced Undergraduate Greek:
Thucydides

3951 Major Project

3960H Honors Tutorial

3970 Directed Studies

5012 Prose Composition

5970 Directed Studies

5980 Directed Teaching

5990 Directed Research

8120 Greek Text Course

8265 Survey of Greek Literature: Literature of the
Fifth Century

8777 Thesis Credits: Masters

8888 Thesis Credits: Doctoral

Spring Quarter

1103 Selections from Greek Literature

3106 Greek Poetry

3120 The Greek New Testament

3451 Advanced Undergraduate Greek: Homer

3951 Major Project

3960H Honors Tutorial

3970 Directed Studies

5310 Greek Literature: Oratory

5970 Directed Studies

5980 Directed Teaching

5990 Directed Research

8120 Greek Text Course

8777 Thesis Credits: Masters

8888 Thesis Credits: Doctoral

8910 Seminar

HEALTH INFORMATICS (Hinf)

Laboratory Medicine and Pathology Medical School

Winter Quarter

5431 Health Informatics II: Database Management
Systems

5436 Seminar: Health Informatics

5470 Topics in Health Informatics

8406 Advanced Topics in Health Informatics II

8449 Advanced Readings in Health Informatics

8450 Research in Health Informatics

8777 Thesis Credits: Masters

8888 Thesis Credits: Doctoral

Spring Quarter

5432 Health Informatics III: Health Information
Systems

5433 Computer Methodology in Delivery of Health
Care I: Physiological Monitoring and Testing

5436 Seminar: Health Informatics

5470 Topics in Health Informatics

8407 Advanced Topics in Health Informatics III

8449 Advanced Readings in Health Informatics

8450 Research in Health Informatics

8777 Thesis Credits: Masters

8888 Thesis Credits: Doctoral

HEALTH SCIENCE UNITS (HSU)

Health Sciences

Winter Quarter

R3005 Orientation to the Health Sciences

R5007 Health Leadership and Effecting Change

R5008 Social and Psychological Aspects of
Physical Disability

R5017 Written Communication Skills for Health
Professionals

R5026 Program Evaluation in Health and Mental
Health Settings

R5027 Human Sexual Behavior

R5031 Biology of Aging

R5040 Dying and Death in Contemporary Society

5210 Terminology of the Health Sciences

Spring Quarter

R5001 Interdisciplinary Team Training in Health
Services Delivery

5010 Public Health Approaches to AIDS

R5011 The Teaching-Learning Process in the
Health Care Setting

R5013 Systems Approach to Design of Instruction

R5030 Humanities and Aging

5035 Development and Prevention of Adolescent
Drug Abuse

5037 Intervention/Secondary Prevention of Drug
Abuse in Adults

5039 Topics in Alcohol and Drug Problems

5210 Terminology of the Health Sciences

HEBREW (Hebr)

Classical & Near Eastern Studies Liberal Arts

Winter Quarter

R1013 Beginning Hebrew for Students with Prior
Exposure

R1102 Beginning Hebrew

R3012 Intermediate Hebrew

R3016 Advanced Modern Hebrew

3131 Talmudic Texts

3980 Directed Instruction

5970 Directed Readings

Spring Quarter

R1103 Beginning Hebrew

R3013 Intermediate Hebrew

R3017 Advanced Modern Hebrew

3132 Talmudic Texts

3304 Modern Hebrew Short Story

3980 Directed Instruction

5970 Directed Readings

5990H Honors Course: Research

HINDI (Hndi)

South Asian & Middle Eastern Studies Liberal Arts

Winter Quarter

1102 Beginning Hindi

5132 Intermediate Hindi

R5162 Advanced Hindi

Spring Quarter

1103 Beginning Hindi

5133 Intermediate Hindi

R5183 Advanced Hindi

HISTORY (Hist)

Liberal Arts

Winter Quarter

1012 Introduction to World History

1012H Honors: Introduction to World History

1022 Introduction to Western Civilization

1022H Honors: Introduction to Western Civilization

1302 American History

1302H Honors Course: American History

R3032 Medicine and Disease in History

3052 Ancient Civilization

3101 Introduction to Medieval History

3152 English History from the 17th Century to the
Present

3271 The Vikings at Home and Away

3282 Intellectual and Cultural History of Modern
Europe

3348 Women in Modern America, 1890-1980

3402 Survey of Latin American History, 1800-1929

3421 The World and the West

3432 History of Africa: 1800 to Present

R3442 Survey of Chicano History, 1900 to Present

3463 Introduction to East Asia in Modern Times

R3474 Rise of Modern Japan, 1853-1914

3488 Modern India

3541 History of the Arabs: 500-800

3547 History of the Ottoman Empire

3607 The History of the Jews in Medieval Europe

3632 History of Germany: Reformation to
Revolution, 1500-1848

3636 Russian History from the Origins to Peter
the Great

3641 Anglo-Saxon England: From King Arthur to
William the Conqueror

3652 England in the Age of Elizabeth I

3708 Social History of Modern Europe

3722 Europe in the Era of World War II

3748 The Austrian Republic from World War I to
Present

3811 Politics and Society in the Early Republic:
1788-1848

3822 United States in the 20th Century, 1932-1960

3834 History of Civil Liberties and Civil Rights in
the United States

3844 American Economic History, Colonial Period
to Civil War

3862 European Americans: From Immigrants to
Ethnics

R3864 Afro-American History

3867 American Jewish History

R3868 Asians in America: An Ethnic Perspective

R3871 American Indian History from Mid-15th
Century to 1850

3883 History of American Foreign Relations
 R3952H Honors Course: History
 R3955 Introduction to Historical Research
 3961 Major Paper
 3970 Directed Studies
 3990 Directed Research
 3992 Undergraduate Seminar in History
 5011 Quantitative Methods in Historical Research
 5062 History of Greece, 600-400 B.C.
 5135 From Khan to Tsar: Russia, 1240-1530
 5285 Diplomatic History of Europe, 1900-1945
 5295 Social History of Russia and Eastern Europe
 5461 Ancient China
 5511 Social and Intellectual Change in Late Chou and Han China
 5515 Proseminar: Local Institutions in Modern China
 5522 Proseminar: Current Issues in Japanese History
 5572 Proseminar: Roman History
 5612 Proseminar: Medieval History
 5625 Proseminar: The German Reformation
 5626 Proseminar: Renaissance France to Richelieu
 5720 Introductory Proseminar in Contemporary Europe:
 5730 Proseminar in Middle East History: Social and Economic History of the Ottoman Empire: 16th to 18th-Centuries
 5762 Proseminar: Russian History
 5785 Proseminar: Diplomatic History of 19th and 20th Century Europe
 5794 Readings in European Economic History, 1750-The Present
 5801 Proseminar: 17th, 18th Century American History
 5832 Proseminar: American Political and Constitutional History
 5844 Proseminar: American Labor History
 5858 Proseminar: Social History of American Women
 5960 Proseminar: Research in Quantitative History
 5970 Directed Studies
 5990 Directed Research
 8112 Medieval History
 8465 Research in Late Imperial China: Yuan, Ming and Qing
 8777 Thesis Credits: Masters
 8888 Thesis Credits: Doctoral
 8945 African History
 8970 Directed Studies
 8990 Directed Research

Spring Quarter

1013 Introduction to World History
 1013H Honors: Introduction to World History
 1023 Introduction to Western Civilization
 R1023H Introduction to Western Civilization
 1302 American History
 1302H Honors Course: American History
 1305 Cultural Pluralism in American History
 3033 Medicine and Disease in History
 3053 Ancient Civilization
 3200 Selected Contemporary Problems in Historical Perspectives
 3283 Intellectual and Cultural History of Modern Europe

3403 Survey of Latin American History: 1929 to Present
 3424 History of Mexico: Pre-Columbian Period Through Independence
 3461 Introduction to East Asia: Early Civilization
 R3464 Early Modern China, 1350-1750
 R3471 Twentieth Century Japan
 3480 Topics in the History of India
 3653 The English Civil War and Restoration
 3681 Modern Irish History
 R3700 Topics in European History
 3716 Spain from 1700 to the Present
 R3723 Europe Since World War II
 3775 History of the European Jews from the Middle Ages to the Present
 3812 Civil War and Reconstruction
 R3823 United States in the 20th Century: 1960 to the Present
 3835 History of Civil Liberties and Civil Rights in the United States
 3837 Minnesota History
 3845 American Economic History, 1870 to the Present
 R3865 Afro-American History
 R3872 American Indian History: 1850 to Present
 R3955 Introduction to Historical Research
 3961 Major Paper
 3970 Directed Studies
 3990 Directed Research
 R5012 Quantitative Methods in Historical Research
 5063 History of Greece 400-200 B.C.
 R5072 History of Rome: 133-31 B.C.
 5115 Medieval Latin Historians
 5118 Scandinavia in the Middle Ages
 5136 From Ivan the Terrible to Peter the Great: Russia, 1530-1700
 5137 The Nomads of Southern Russia from the Scythians to the Mongols, 600 B.C.-1300 A.D.
 5173 Modern England: 1901 to 1972
 5514 Proseminar: Topics in Ming and Ch'ing History, 1350-1800
 5522 Proseminar: Current Issues in Japanese History
 5573 Proseminar: Roman History
 5720 Introductory Proseminar in Contemporary Europe:
 5730 Proseminar in Middle East History: Social and Economic History of the Ottoman Empire: 16th- and 20th-Centuries
 5763 Proseminar: Russian History
 5802 Proseminar: 17th, 18th Century American History
 5845 Proseminar: American Labor History
 5890 Topics in American Indian Social History
 5920 Topics in Comparative Women's History
 5930 Topics in Comparative Third World History
 5970 Directed Studies
 5990 Directed Research
 8113 Medieval History
 8121 Renaissance History
 8347 Social History of American Women
 8466 Research in Late Imperial China: Yuan, Ming and Qing
 8777 Thesis Credits: Masters
 8888 Thesis Credits: Doctoral
 8970 Directed Studies
 8990 Directed Research

HISTORY OF MEDICINE (HMed) Medical School

Winter Quarter

R3002 Doctors and Disease in History
 5401 Medicine During Scientific Revolution 1500-1800
 8231 Readings: History of Science
 8631 Directed Study
 8777 Thesis Credits: Masters
 8888 Thesis Credits: Doctoral

Spring Quarter

R3003 Doctors and Disease in History
 5402 Medicine in the 19th, 20th Centuries
 8232 Readings: History of Science
 8632 Directed Study
 8777 Thesis Credits: Masters
 8888 Thesis Credits: Doctoral

HISTORY OF SCIENCE AND TECHNOLOGY (HSci) Institute of Technology

Winter Quarter

1712 Technology and Western Civilization: Renaissance to Industrial Revolution
 1812 Introduction to History of Science: The Scientific Revolution
 R3202 History of Biology: Biology in the 19th and 20th Centuries
 R3332 Science and American Culture
 3712 Technology and Western Civilization: Renaissance to Industrial Revolution
 3812 Introduction to History of Science: The Scientific Revolution
 R5202 History of Biology: Biology in the 19th and 20th Centuries
 5321 History of Computing
 R5332 Science and American Culture
 5925 History of 20th Century Physics
 5970 Directed Studies
 5990 Directed Research
 8122 Foundations for Research in the Scientific Revolution
 8888 Thesis Credits: Doctoral
 8910 Seminar: History of Modern Physical Sciences
 8920 Seminar: History of Biological Sciences
 8930 Seminar: History of Technology
 8970 Directed Study
 8990 Directed Research

Spring Quarter

1713 Technology and Western Civilization: 19th and 20th Centuries
 1813 Introduction to History of Science: Modern Science
 R3331 Technology and American Culture
 3713 Technology and Western Civilization: 19th and 20th Centuries
 3813 Introduction to History of Science: Modern Science
 3825 Physics and Society in 20th Century America
 R5331 Technology and American Culture
 5825 Physics and Society in 20th Century America
 5990 Directed Research

- 8111 Historiography of History of Science and Technology
- 8888 Thesis Credits: Doctoral
- 8930 Seminar: History of Technology
- 8940 Science and Technology In America
- 8970 Directed Study
- 8990 Directed Research

**HOME ECONOMICS (HE)
Human Ecology**

Winter Quarter

- 5130 Independent Study in Home Economics

Spring Quarter

- R1191 Career Planning Strategies
- R3191 Proseminar: Home Economics
- 5003 Field Experience
- 5130 Independent Study in Home Economics
- R5150H Honors Seminar

**HOME ECONOMICS EDUCATION (HEED)
Vocational And Technical Education Education**

Winter Quarter

- R5001 Special Topics
- R5023 Extension Methods for Developing Countries
- R5024 Extension History and Philosophy
- R5027 Practicum: Placement for Extension Experiences
- 5055 Methods in Farming Systems Research and Extension
- 5310 Methods in Teaching Home Economics: Attitudes, Values, and Knowledge
- R5405 Child Development and Parent Education
- 5513 Clinical Seminar: Educational Practice
- R5600 Practicum: Adult Education
- R5900 Readings: Home Economics Education
- 5920 Directed Studies
- 8777 Thesis Credits: Masters
- 8900 Problems: Home Economics Education

Spring Quarter

- 3910 Educational Methods for Home Economists and Related Professionals
- R5001 Special Topics
- 5021 Education Through Extension Methods
- 5025 Extension Program Development
- R5027 Practicum: Placement for Extension Experiences
- 5056 Application of Farming Systems Research and Extension
- 5315 Evaluation: Theoretical and Technical Aspects
- R5407 Family Life Education
- 5514 Clinical Seminar: Teaching
- R5600 Practicum: Adult Education
- R5900 Readings: Home Economics Education
- 5920 Directed Studies
- 8530 Seminar: Home Economics Education
- 8777 Thesis Credits: Masters
- 8900 Problems: Home Economics Education

**HONORS COLLOQUIA (HCol)
Honors Program
Liberal Arts**

Winter Quarter

- R1010 Ethical Judgments of Television News Broadcasting
- R1030 Stress, Coping, and Health
- R1040 The Empire Writes Back: Reading "Third World" Literature Against the Canon
- R1050 Technology and Environment
- R1060 The Life Sciences and the Liberal Arts Student: An Approach to Learning
- 1970 Honors Colloquium: Directed Studies

Spring Quarter

- R1010 The Vietnam War and American Culture
- R1020 Film as History: When Can Seeing Lead to Believing?
- R1030 Death and Dying in Classical Greece
- R1040 Animated Women: Images of Female Characters in Comics, Cartoons, and Feature Length Animation
- R1050 The Moral Status of Non-Human Animals
- R1060 Honors Colloquium
- R1070 Honors Colloquium
- 1970 Honors Colloquium: Directed Studies

**HONORS SEMINAR (HSem)
Honors Program
Liberal Arts**

Winter Quarter

- R3010 The American Domestic Environment, 1800-1990
- R3020 Constructing Meaning: Dictionaries and Encyclopedias
- R3030 Honors Seminar
- R3040 Honors Seminar
- R3050 Honors Seminar
- 3970 Honors Seminar: Directed Studies

Spring Quarter

- R3010 Service Industries Transforming American Cities
- R3020 King Arthur as Archetype
- R3030 Understanding Diversity through Social Relationships Depicted in Fiction and Film
- R3040 The Fantastic Voyage: Travellers East and West
- R3050 Utopia or Ectopia? Cooperatives, Communes and Non-Profit Organizations in the Market Economy
- R3060 Honors Seminar
- 3970 Honors Seminar: Directed Studies

**HORTICULTURAL SCIENCE (Hort)
Agriculture**

Winter Quarter

- 1036 Plant Propagation
- 3030 Landscape Design of Residential and Small Commercial Sites
- 3097 Horticulture Practicum
- 3099 Seminar
- 5040 Plant Growth Regulation
- 5047 Nursery Scheduling and Enterprise Development
- 5052 Physiological Manipulation of Flowering Plants

- 5091 Directed Studies
- 8007 Extension Horticulture Practicum
- 8041 Discussions in Administration Organization
- 8042 Horticultural Seminar
- 8051 Advanced Problems in Horticultural Crop Breeding
- 8052 Advanced Problems in Physiology of Horticultural Crops
- 8060 Discussions in Potato Research
- 8061 Discussions in Plant Reproductive Biology
- 8062 Discussions in Plant Hardiness
- 8063 Discussions in Plant Breeding
- 8064 Discussions in Floricultural Science
- 8065 Discussions in Postharvest Physiology
- 8066 Discussions in Horticultural Research
- 8777 Thesis Credits: Masters
- 8888 Thesis Credits: Doctoral

Spring Quarter

- 1010 Home Horticulture
- 1022 Herbaceous Plant Materials
- 3016 Greenhouse Management
- 3072 Turf Management
- 3097 Horticulture Practicum
- 5034 Commercial Vegetable Agriculture
- 5048 Nursery Management II
- 5054 Commercial Floriculture Crop Production
- 5091 Directed Studies
- 8007 Extension Horticulture Practicum
- 8042 Horticultural Seminar
- 8051 Advanced Problems in Horticultural Crop Breeding
- 8052 Advanced Problems in Physiology of Horticultural Crops,
- 8061 Discussions in Plant Reproductive Biology
- 8062 Discussions in Plant Hardiness
- 8064 Discussions in Floricultural Science
- 8065 Discussions in Postharvest Physiology
- 8066 Discussions in Horticultural Research
- 8777 Thesis Credits: Masters
- 8888 Thesis Credits: Doctoral

**HOUSING (Hsg)
Design, Housing, and Apparel
Human Ecology**

Winter Quarter

- R1851 Consumer Aspects of Housing
- R3880 Internship in Housing
- 3888 Directed Study in Housing
- R5867 Housing Alternatives for the Family
- 5881 Designed Environments and Aging
- 5888 Directed Study in Housing
- 8880 Directed Study in Housing

Spring Quarter

- R1801 Residential Technology
- R3863 Environment: Housing and Community
- R3880 Internship in Housing
- 3888 Directed Study in Housing
- R5861 Housing Management
- R5865 Housing in World Perspective I
- 5888 Directed Study in Housing
- 8880 Directed Study in Housing

HUMANITIES (Hum)

Liberal Arts

Winter Quarter

- r1001 Humanities in the Modern World I
- r1002 Humanities in the Modern World II
- r1005 Humanities in the Modern World V
- r1117 European Heritage: Renaissance, Reformation

- r1301 Discourse and Society
- r1302 Text and Context
- r1303 Knowledge, Persuasion, Power
- r3174 Poetry as Cultural Critique
- r3176 Cinematic Discourse and Cultural Politics
- r3252 Culture and Society: England 1640-1688
- r3366 Landscape and Ideology, 1600-1875
- r3910 Topics in the Humanities: The Aesthetics, Ideologies and Political Economies of Advertising
 - 3970 Directed Studies
- r5304 Theories of Ideology: Philosophical Views
- r5711 Interpretation of Myth
- r5910 Topics in the Humanities
 - 5970 Directed Studies

Spring Quarter

- r1003 Humanities in the Modern World III
- r1004 Humanities in the Modern World IV
- r1111 European Heritage: Greece
- r1301 Discourse and Society
- r1302 Text and Context
- r1303 Knowledge, Persuasion, Power
- r3172 Music as Discourse
- r3677 Self-Realization in 20th-Century Literature
 - 3970 Directed Studies
- r5301 Society, Ideology and the Production of Art
- r5398 Phenomenology and Ethnography
 - 5970 Directed Studies

INDUSTRIAL EDUCATION (Ind) Vocational And Technical Education

Winter Quarter

- r1110 Introduction to Production Systems
- r1622 Graphic Communications
- r1655 Complex Power Systems
- 3200 Technical Development: Advanced
- r3655 Automotive Systems
- 3900 Independent Study
- 3901 Independent Study
- r5000 Occupational Experience
- 5200 Technical Development: Specialized
- 5301 Tests in Industrial Subjects
- 5303 Instructional Aids
- 5344 Facilities and Management
- 5360 Industrial Instruction
- 5900 Field-Based Projects in Industrial Education
- 5901 Independent Study
- 8700 Seminar: Industrial Education
- 8777 Thesis Credits: Masters
- 8900 Research Problems
- 8901 Research Problems

Spring Quarter

- r1001 Technical Design and Product Development

- r1130 Principles of Energy and Power
- r1612 Construction
- r1624 Photography
- 3200 Technical Development: Advanced
- 3700 Student Teaching
- 3701 Seminar: Student Teaching
- 3702 Student Teaching
- 3704 Student Teaching
- 3706 Student Teaching
- r3750 Industrial Practices and Processes
- 3900 Independent Study
- 3901 Independent Study
- r5000 Occupational Experience
- 5200 Technical Development: Specialized
- 5305 Critical Issues in Industrial Education
- 5306 Industrial Education Workshop
- 5325 Foundations of Industrial Education
- 5900 Field-Based Projects in Industrial Education
- 5901 Independent Study
- 8700 Seminar: Industrial Education
- 8777 Thesis Credits: Masters
- 8900 Research Problems
- 8901 Research Problems

INDUSTRIAL ENGINEERING/OPERATIONS RESEARCH (IEOR) Mechanical Engineering Institute of Technology

Winter Quarter

- r3000 Introduction to Industrial Engineering Analysis
- 5010 Introduction to Work Analysis
- r5020 Engineering Cost Accounting, Analysis and Control
- r5030 Quality Control and Reliability
- r5030H Honors: Quality Control and Reliability
- r5180 Applied Industrial Engineering
- r5181 Applied Industrial Engineering
- 5198H Industrial Engineering Upper Division Honor Thesis I
- 5199H Industrial Engineering Upper Division Honor Thesis II
- 5254 Design Morphology with Applications
- r5361 Inventory and Production Control
- r5441 Operations Research II
- r5550 Design and Analysis of Experiments I
- 8110 Advanced Industrial Engineering
- 8111 Advanced Industrial Engineering
- 8310 Production Engineering Problems
- 8311 Production Engineering Problems
- 8410 Industrial Engineering Research
- 8411 Industrial Engineering Research
- 8773 Graduate Seminar
- 8774 Graduate Seminar
- 8775 Graduate Seminar
- 8777 Thesis Credits: Masters
- 8888 Thesis Credits: Doctoral

Spring Quarter

- r5020 Engineering Cost Accounting, Analysis and Control
- r5040 Introduction to Operations Research
- 5071 Human Factors in System Design

- r5180 Applied Industrial Engineering
- r5198H Industrial Engineering Upper Division Honor Thesis I
- r5199H Industrial Engineering Upper Division Honor Thesis II
- 5254 Design Morphology with Applications
- r5311 Management for Engineers
- r5442 Operations Research III
- r5446 Topics in Industrial Engineering
- 8773 Graduate Seminar
- 8774 Graduate Seminar
- 8775 Graduate Seminar
- 8777 Thesis Credits: Masters
- 8888 Thesis Credits: Doctoral

INDUSTRIAL RELATIONS (IR) Management

Winter Quarter

- r3002 Personnel and Industrial Relations
- r3010 The Individual in the Organization
- r5000 Topics in Personnel and Industrial Relations
- r5006 Labor Policy
- r5990 Independent Study in Personnel and Industrial Relations
 - 8000 Graduate Topics in Industrial Relations
- r8003 Staffing, Training and Development
- r8005 Employee Compensation and Reward
- r8006 Labor Market Analysis
- r8007 Collective Bargaining in the Public and Private Sectors
- r8012 Industrial Relations Systems
- r8014 Organization Design and Administration
- r8015 Compensation, Reward, Motivation and Performance
- r8016 Micro Labor Market Analysis
- r8017 Theories of Labor-Management Relationships and Negotiations
- r8023 Training and Development
- r8025 Employee Benefits Administration and Practice
- r8046 Human Resources and Firm Performance
 - 8777 Thesis Credits: Masters
- r8803 Seminar: Staffing, Training, and Development
 - 8888 Thesis Credits: Doctoral
- r8990 Independent Study in Industrial Relations

Spring Quarter

- r3002 Personnel and Industrial Relations
- r3007 Collective Bargaining and Labor Relations
- r5000 Topics in Personnel and Industrial Relations
- r5990 Independent Study in Personnel and Industrial Relations
 - 8000 Graduate Topics in Industrial Relations
- r8002 An Introduction to Industrial Relations
- r8004 Organization Theory and Analysis
- r8012 Industrial Relations Systems
- r8022 International Human Resource Management
- r8026 Macro Labor Market Analysis
- r8027 Methods for Dispute Resolution
- r8033 Management Development
- r8035 Motivation and Work Behavior
 - 8777 Thesis Credits: Masters
- r8802 Seminar: Industrial Relations Systems
- r8804 Seminar: Organization Theory

- 8888 Thesis Credits: Doctoral
 r8990 Independent Study in Industrial Relations

INFORMATION AND DECISION SCIENCES (IDSc) Management

Winter Quarter

- 1010 Fundamentals of Information Development and Use
 3030 Information Systems and Information Management
 r5102 Introduction to Information Systems Analysis
 r5410 Decision Support Systems
 r5420 Managerial Decision Analysis
 r8103 MIS: Information Systems Analysis, Design, and Development
 r8501 Philosophy of Science and Survey of Research Methodologies
 r8601 System Development Seminar
 r8703 Managerial Problem Solving
 r8990 Readings in Information and Decision Sciences
 r8995 Graduate Research in Information and Decision Sciences

Spring Quarter

- 1010 Fundamentals of Information Development and Use
 3030 Information Systems and Information Management
 r5103 Database Design, Manipulation and Management
 r8101 MIS: The Management of Information Technology in Organizations
 r8104 MIS: Software Design and Programming
 r8430 Advanced Database Design and Administration
 r8440 Advanced Information Systems Development
 r8480 Expert Systems
 r8602 Management of Information Systems Seminar
 r8704 Knowledge Engineering
 r8990 Readings in Information and Decision Sciences
 r8995 Graduate Research in Information and Decision Sciences

INSTITUTE OF TECHNOLOGY (IoT)

Institute of Technology

Winter Quarter

- r1222 Introduction to Careers in Science and Engineering

Spring Quarter

- 3103 Industrial Solid Waste Characterization and Recovery
 r3311 Developing Effective Job Search Skills

INSURANCE (Ins) Management

Winter Quarter

- r5100 Risk Management and Insurance
 8990 Readings in Risk Management and Insurance
 8995 Graduate Research in Risk Management and Insurance

Spring Quarter

- r5100 Risk Management and Insurance
 r5210 Economic and Social Security
 8990 Readings in Risk Management and Insurance
 8995 Graduate Research in Risk Management and Insurance

INTERDEPARTMENTAL STUDY (ID)

Liberal Arts

Winter Quarter

- 3101 An Introduction to Marxism
 3180 HECUA Off-Campus Study Program: City Arts
 r3251 Metro Internship Program
 r3925 Life/Career Planning
 3970 Directed Studies
 5970 Directed Studies

Spring Quarter

- 3101 An Introduction to Marxism
 3170 HECUA Off-Campus Study Program: Metro Urban Studies Term
 3180 HECUA Off-Campus Study Program: City Arts
 3252 Metro Internship Program
 r3925 Life/Career Planning
 3970 Directed Studies

INTERFACIAL ENGINEERING, CENTER FOR (CIE) Institute of Technology

Spring Quarter

- r5101 Fundamentals of Interfacial Engineering

INTERNATIONAL RELATIONS (IntR) Liberal Arts

Winter Quarter

- r3840 Foreign Language Textbooks in International Relations
 r3900 Topics in International Relations
 3960 Field Studies/Internship in International Studies
 3970 Directed Studies
 r3981 Major Project Seminar
 3990H Honors Course: Supervised Research Paper

Spring Quarter

- r3620 Foreign Language News Coverage of International Events
 r3900 Topics in International Relations
 3960 Field Studies/Internship in International Studies
 3970 Directed Studies
 r3981 Major Project Seminar
 3990H Honors Course: Supervised Research Paper
 3991H Junior Research Seminar
 r5145 Development in Africa
 r5900 Topics in International Relations

ITALIAN (Ital) French And Italian Liberal Arts

Winter Quarter

- r1102 Beginning Italian
 r1105 Intermediate Italian
 r3015 Intermediate Italian Conversation and Composition
 r3219 Renaissance and Post-Renaissance Literature
 r3501 Italian Civilization and Culture
 3970 Directed Readings
 8777 Thesis Credits: Masters
 8970 Directed Readings

Spring Quarter

- r1103 Beginning Italian
 r1106 Intermediate Italian
 r3016 Advanced Italian Composition, Conversation
 r3289 Modern Italian Literature
 3970 Directed Readings
 8777 Thesis Credits: Masters
 8970 Directed Readings

JAPANESE (Jpn) East Asian Studies Liberal Arts

Winter Quarter

- 1012 Beginning Japanese
 r3022 Intermediate Japanese
 3032 Third Year Japanese
 3052 Advanced Japanese Conversation and Composition
 3090H Honors Course: Tutorial
 3970 Directed Studies
 5042 Classical Japanese
 5052 Advanced Japanese Conversation and Composition
 r5166 Literature by 20th-Century Japanese Women
 5451 Structure of Japanese-Syntax/Semantics
 5650 Proseminar: Japanese Linguistics
 5970 Directed Studies in Japanese
 8777 Thesis Credits: Masters
 8888 Thesis Credits: Doctoral

Spring Quarter

- 1013 Beginning Japanese
 3023 Intermediate Japanese
 3033 Third Year Japanese
 3053 Advanced Japanese Conversation and Composition
 3090H Honors Course: Tutorial
 r3165 Japanese Performance Arts
 3970 Directed Studies
 5053 Advanced Japanese Conversation and Composition
 5650 Proseminar: Japanese Linguistics
 5970 Directed Studies in Japanese
 8650 Seminar: Japanese Linguistics
 8777 Thesis Credits: Masters
 8888 Thesis Credits: Doctoral

JEWISH STUDIES (JwSt)
Classical & Near Eastern Studies
Liberal Arts

Winter Quarter

- 1034 Introduction to Judaism
- 3034 Introduction to Judaism
- 5970 Directed Readings

Spring Quarter

- 3315 Contemporary Israeli Literature in English
- 5900 Topics in Jewish Studies
- 5970 Directed Readings

JOURNALISM AND MASS COMMUNICATION (Jour)
Liberal Arts

Winter Quarter

- r1001 Introduction to Mass Communication
- 3003 Producing Mass Media Messages
- 3003H Honors Course: Producing Mass Media Messages
- r3004 Information for Mass Communication
- r3006 Visual Communication
- r3007 The Media in American History and Law: Case Studies
- r3101 Reporting
- r3121 Public Affairs Reporting
- 3155 Publications Editing
- r3241 Advertising Copywriting
- r3321 Basic Media Graphics
- r3614 History of Mass Communication Technology
- r3796 Mass Media and Politics
- r3970 Projects in Journalism
- r5131 Interpretive Reporting
- r5141 Opinion Writing in America
- r5155 Advanced Reporting Methods
- r5251 Psychology of Advertising
- r5261 Advertising: Media Analysis
- r5263 Advertising Campaign Planning
- r5274 Advertising in Society
- r5316 Theories of Visual Communication
- 5441 Electronic Newsgathering
- r5501 Communication and Public Opinion I
- r5541 Mass Communication and Public Health
- r5606 Literary Aspects of Journalism
- r5721 Mass Media and U.S. Society
- r5726 Case Studies in Modern Media Management
- r5728 News Media Economics
- r5731H Honors Course: Communications Problems and Issues
- r5741 Minorities and Mass Media
- r5801 International Communication
- r5970 Advanced Projects in Journalism
- r5970H Honors Course: Advanced Projects in Journalism
- 8020 Studies in Mass Communication
- r8502 Seminar: Mass Communication Research Design
- 8580 Seminar: Problems in International Communication Research
- r8672 Communication Agencies as Social Institutions
- r8675 Seminar: Issues in Information Access and Communication

- r8678 Government and Mass Communication: Constitutional Law
- 8777 Thesis Credits: Masters
- 8888 Thesis Credits: Doctoral
- r8970 Advanced Projects in Mass Communication
- r8990 Special Problems in Mass Communication

Spring Quarter

- r1001 Introduction to Mass Communication
- 3003 Producing Mass Media Messages
- 3003H Honors Course: Producing Mass Media Messages
- r3004 Information for Mass Communication
- r3006 Visual Communication
- r3008 Mass Communication Processes and Structure
- r3101 Reporting
- r3121 Public Affairs Reporting
- 3155 Publications Editing
- r3193 Community Newspaper
- r3201 Principles of Advertising
- r3241 Advertising Copywriting
- r3776 Mass Communication Law
- r3970 Projects in Journalism
- r5131 Interpretive Reporting
- r5251 Psychology of Advertising
- r5263 Advertising Campaign Planning
- r5272 Advanced Advertising Copywriting
- r5302 Advanced Photographic Communication
- 5442 Advanced Television News
- 5444 Television and Radio Documentary
- r5531 Communication and Public Opinion II
- r5601 History of Journalism
- r5615 History of Visual Communication in the Mass Media
- r5721 Mass Media and U.S. Society
- r5725 The Management of Media Organizations
- r5825 World Communication Systems
- r5970 Advanced Projects in Journalism
- r5970H Honors Course: Advanced Projects in Journalism
- r8513 Seminar: Ethnographic Methods in Mass Communication Research
- r8640 Seminar: Broadcast News
- r8651 Mass Media and Social Change
- r8652 Seminar: Public Opinion and Propaganda
- r8673 Seminar: Media Management
- r8681 Seminar: International Mass Communication
- 8777 Thesis Credits: Masters
- 8888 Thesis Credits: Doctoral
- r8970 Advanced Projects in Mass Communication

KINESIOLOGY (Kin)
School of Physical Education and Recreation Education

Winter Quarter

- r1871 Introduction to Kinesiology
- r1990 Directed Study
- r3111 Mechanics of Movement
- r3114 Prevention and Care of Injuries
- r3131 History and Philosophy of Physical Education and Sport
- r3135 Motor Learning and Human Performance
- r3143 Organization and Management of Sport

- r3150 Introduction to Evaluation
- r3169 Volleyball Coaching
- r3178 Track and Field Coaching
- r3327 Teaching Physical Education in the Elementary School
- r3386 Exercise Physiology
- r3624 Student Teaching: Coaching
- r3625 Supervised Practical Experience
- r3900 Directed Study
- 5101 Physical Education Activities for the Handicapped
- 5103 Practicum: Physical Education for the Handicapped in a Mainstreamed Setting
- r5126 Advanced Psychological and Sociological Dimensions of Physical Activity
- r5152 Curriculum Development
- 5387 Detection and Prevention of Coronary Heart Disease
- 5389 Practical Experience in Graded Exercise Testing, Prescription, and Direction
- 5562 Clinical Experience II: Physical Education
- r5720 Topics in Kinesiology
- 5980 Research Methodology
- 5981 Problems
- 5983 Readings: Kinesiology
- r8128 Psychology of Sport
- 8381 Laboratory Research Techniques
- 8382 Biomechanics: Research Techniques
- 8777 Thesis Credits: Masters
- 8888 Thesis Credits: Doctoral
- 8980 Graduate Research Seminar
- 8981 Research Problems

Spring Quarter

- r1990 Directed Study
- r3111 Mechanics of Movement
- r3115 Physiological Application to Sports
- r3144 Administration
- r3171 Basketball Coaching
- r3172 Football Coaching
- r3310 Athletic Training Laboratory
- r3327 Teaching Physical Education in the Elementary School
- r3624 Student Teaching: Coaching
- r3625 Supervised Practical Experience
- r3900 Directed Study
- 5102 Practicum: Physical Education for Handicapped in an Adapted Setting
- r5126 Advanced Psychological and Sociological Dimensions of Physical Activity
- r5135 Motor Learning and Human Performance
- r5136 Psychology of Coaching
- r5163 Developmental Motor Assessment
- r5371 Sociology of Sport
- r5380 Computer Applications in Kinesiology
- 5388 Exercise Testing, Conditioning, and Cardiac Rehabilitation
- 5389 Practical Experience in Graded Exercise Testing, Prescription, and Direction
- 5563 Clinical Experience III: Physical Education
- r5620 Practicum: Prevention and Care of Athletic Injuries
- 5981 Problems
- 5983 Readings: Kinesiology
- 8777 Thesis Credits: Masters
- 8888 Thesis Credits: Doctoral
- 8980 Graduate Research Seminar
- 8981 Research Problems

LANDSCAPE ARCHITECTURE

(LA)

Arch & Landscape Arch

Winter Quarter

- r1023 History of Environmental Development: Planning
1024 Landscape Theory
r1026 Basic Visualization II
3065 Landscape Construction: Landform Systems
3082 Basic Design
3092 Intermediate Design
3094 Independent Study in Graphics
3095 Independent Study in Planting Design
3096 Independent Study in History or Theory
3097 Independent Study in Computer Aided Design
3098 Independent Study in Design
3099 Independent Study in Technology
3200 Landscape Architecture Practicum
5100 Resource and Community Development Interdisciplinary Seminar II
5105 Recreational Planning and Design I
5109 Special Problems: Thesis Proposal
5131 Directed Studies in Landscape Architecture History and Theory
5132 Directed Studies in Landscape Architecture Design
5133 Directed Studies in Landscape Architecture Technology
5134 Directed Studies in Emerging Areas for Landscape Architecture
5140 Interdisciplinary Studies in Landscape Architecture
5226 Professional Practice
5228 Seminar: Topics in Campus Planning
5265 History of Landscape Architecture: Individual Influences
5562 Introduction to Geographic Information Systems
8282 Research Analysis Methods in Landscape Architecture
8284 Landscape Architecture Colloquium
8500 Landscape Architecture Research Project
8600 Landscape Architecture Education
8777 Thesis Credits: Masters

Spring Quarter

- r1022 History of Environmental Development
3002 Environmental Design: People and Environment
3069 Landscape Construction: Mechanical Systems
3083 Basic Design
3094 Independent Study in Graphics
3095 Independent Study in Planting Design
3096 Independent Study in History or Theory
3097 Independent Study in Computer Aided Design
3098 Independent Study in Design
3099 Independent Study in Technology
3101 Communicating Landscape Quality
3200 Landscape Architecture Practicum
5063 Landscape Construction: Spatial Performance
5107 Regional Landscape Design
5110 Advanced Landscape Planning and Design
5131 Directed Studies in Landscape Architecture History and Theory

- 5132 Directed Studies in Landscape Architecture Design
5133 Directed Studies in Landscape Architecture Technology
5134 Directed Studies in Emerging Areas for Landscape Architecture
5140 Interdisciplinary Studies in Landscape Architecture
5224 Contemporary Issues in Landscape Architecture
8110 Graduate Landscape Planning and Design
8283 Research Proposals in Landscape Architecture
8284 Landscape Architecture Colloquium
8500 Landscape Architecture Research Project
8600 Landscape Architecture Education
8777 Thesis Credits: Masters

LATIN (Lat)

Classical & Near Eastern Studies

Liberal Arts

Winter Quarter

- r1101 Beginning Latin
r1102 Beginning Latin
1122H Honors Course: Beginning Latin
3052 Accelerated Beginning Latin
r3105 Latin Poetry
3454 Advanced Undergraduate Latin
3951 Major Project
3960H Honors Tutorial
3970 Directed Studies
5370 Latin Literature: Satire
5970 Directed Studies
5980 Directed Instruction
5990 Directed Research
8120 Latin Text Course
8265 Graduate Survey: Literature of the Augustan Age
8777 Thesis Credits: Masters
8888 Thesis Credits: Doctoral
8910 Seminar: Senecan Drama

Spring Quarter

- r1102 Beginning Latin
r1103 Selections from Latin Literature
3106 Latin Poetry
3452 Advanced Undergraduate Latin
3951 Major Project
3960H Honors Tutorial
3970 Directed Studies
5310 Latin Literature: History
5410 Latin Literature of Late Antiquity
5970 Directed Studies
5980 Directed Instruction
5990 Directed Research
8120 Latin Text Course
8777 Thesis Credits: Masters
8888 Thesis Credits: Doctoral

LATIN AMERICAN STUDIES

(LAS)

Liberal Arts

Winter Quarter

- r3104 The Art of Reading Literary Texts

- r3252 Spanish-American Literature: Aspects of Poetry
r3378 Third World Underdevelopment and Modernization
3402 Survey of Latin American History: 1800-1929
r3425 History of Mexico: The 19th and 20th Centuries
3442 Survey of Chicano History, 1900 to Present
r3910 Topics in Luso-Brazilian Literature
r5101 Methods and Sources for Latin American Studies
r5529 National Affirmation and Transnationalization
5530 Topics in Latin American Studies
r5820 The Multinational Corporation
5970 Directed Studies

Spring Quarter

- r3104 The Art of Reading Literary Texts
r3134 Middle America
r3212 La Chicana
r3222 Peoples and Cultures of Middle America
3250 Role of Renewable Natural Resources in Developing Countries
r3253 Spanish-American Literature: Aspects of Drama
3403 Survey of Latin American History: 1929 to Present
3411 History of Brazil, 1500-1808
3427 History of Cuba and Puerto Rico
r3513 Spanish-American Civilization: Modern Latin America
5120 Seminar: Topics
r5131 Colonial Mexico and The Caribbean
r5479 Latin American Government and Politics
5528 Popular Literary Consciousness 1900-1950
r5970 Directed Studies

LEARNING AND ACADEMIC

SKILLS (LASK)

Liberal Arts

Winter Quarter

- r1001 Becoming a Master Student
r1302 Job Seeking Skills for Disabled Students

Spring Quarter

- r1001 Becoming a Master Student
r1303 Internship Experience for Disabled Students

LINGUISTICS (Ling)

Linguistics

Liberal Arts

Winter Quarter

- r1005 Language and Society
3052H Honors Course: Linguistics
3970 Directed Studies
3971 Senior Project
5002 Linguistic Analysis
5012 Mathematical Linguistics
5201 Introduction to Syntax
5206 Advanced Syntax
5211 Semantics
5302 Introduction to Phonology
5702 Second-Language Acquisition
5712 Field Methods in Linguistics
5723 English as a Second Language: Materials

- 5741 Linguistic Description of Modern English
- 5805 Psycholinguistics
- 5821 Sociolinguistics
- 5910 Seminar in Linguistics
- 5970 Directed Studies
- 8200 Topics in Syntax and Semantics
- 8510 Linguistics Structures
- 8600 Topics in Historical Linguistics
- 8751 English for Special Purposes
- 8777 Thesis Credits: Masters
- 8888 Thesis Credits: Doctoral
- 8900 Independent Study

Spring Quarter

- 3001 Introduction to Linguistics
- 3051H Honors Course: Linguistics
- 3601 Introduction to Historical Linguistics
- 3812 Ethnic Bilingualism in the United States
- 3970 Directed Studies
- 3971 Senior Project
- 5013 Mathematical Linguistics
- 5202 Introduction to Syntax
- 5212 Linguistic Pragmatics
- 5303 Introduction to Phonology
- 5601 Introduction to Historical Linguistics
- 5742 Linguistic Description of Modern English
- 5910 Seminar in Linguistics
- 5970 Directed Studies
- 8210 Seminar in Syntax
- 8500 Seminar: Topics in Linguistics: Language Contact
- 8777 Thesis Credits: Masters
- 8841 Philosophy of Linguistics
- 8888 Thesis Credits: Doctoral
- 8900 Independent Study

LOGISTICS MANAGEMENT (LM) Management

Winter Quarter

- r3000 Introduction to Logistics Management
- r5020 Advanced Logistics Management
- 8990 Readings in Logistics Management
- 8995 Graduate Research in Logistics Management

Spring Quarter

- r5010 Topics: Logistics Management
- 8990 Readings in Logistics Management
- 8995 Graduate Research in Logistics Management

MANAGEMENT (Mgmt) Management

Winter Quarter

- r3002 Psychology in Management
- r3004 Business Policy: Strategy Formulation and Implementation
- r5101 Advanced Topics
- r8004 Advanced Topics in Management
- r8006 Psychology in Management
- r8012 Organizational Behavior and Management Analysis
- r8040 International Business
- r8101 Seminar in Strategic Management

- r8203 Research Topics and Methods in Business-Government-Society
- r8303 Organizational Research Seminar
- r8403 Strategic Management Research Seminar
- r8990 Readings in Management Theory and Administration
- r8995 Research in Management Theory and Administration

Spring Quarter

- r3001 Fundamentals of Management
- r3002 Psychology in Management
- r3004 Business Policy: Strategy Formulation and Implementation
- r3008 Entrepreneurship and the Smaller Enterprise
- r5101 Advanced Topics
- r8004 Advanced Topics in Management
- r8006 Psychology in Management
- r8008 Entrepreneurship and the Smaller Enterprise
- r8021 Organization Design and Development
- r8040 International Business
- r8301 Seminar in Organization Behavior
- r8302 Seminar in Organization Theory
- r8403 Strategic Management Research Seminar
- r8990 Readings in Management Theory and Administration
- r8995 Research in Management Theory and Administration

MARATHI (Mar) South Asian & Middle Eastern Studies Liberal Arts

Winter Quarter

- 5970 Directed Readings

Spring Quarter

- 5970 Directed Readings

MARKETING (Mktg) Management

Winter Quarter

- r3000 Principles of Marketing
- r3010 Buyer Behavior and Marketing Analysis
- r3020 Marketing Operations Management
- r3030 Sales and Distribution Management
- r8051 Marketing Research
- r8074 Product and Price Policy
- r8076 Sales Management
- r8078 Marketing Communications
- r8090 Marketing Topics
- r8990 Readings in Marketing
- r8995 Graduate Research in Marketing

Spring Quarter

- r3000 Principles of Marketing
- r3010 Buyer Behavior and Marketing Analysis
- r3020 Marketing Operations Management
- r3050 Marketing Communications
- r3065 Retail Management
- r8051 Marketing Research
- r8080 Marketing Systems
- r8074 Product and Price Policy
- r8084 Business Plans for New Products

- r8088 Strategic Marketing
- r8090 Marketing Topics
- r8990 Readings in Marketing
- r8995 Graduate Research in Marketing

MASTER OF BUSINESS ADMINISTRATION (MBA) Management

Winter Quarter

- r8035 Managerial Accounting
- r8040 Financial Management
- r8045 Marketing Management
- r8050 Operations Management
- r8065 Field Project

Spring Quarter

- r8015 Human Resources Management
- r8060 Strategy and Policy

MATERIALS SCIENCE (MatS) Chemical Engineering & Materials Science Institute of Technology

Winter Quarter

- 3091 Industrial Employment
- 3400 Mechanical Properties of Materials
- 3600H Introduction to Materials Science, Honors
- r5012 Introduction to Dislocations and Physical Metallurgy
- r5101 Thermodynamics of Solids
- 5202 X-Ray Structural Analysis
- r5411 Materials Design
- r5455 Electrochemical Engineering
- r5481 Special Problems in Physical Metallurgy and Materials Science
- r5482 Special Problems in Physical Metallurgy and Materials Science
- 5483 Special Problems in Physical Metallurgy and Materials Science
- r5500 Senior Design Project
- r5630 Polymer Physical Properties
- r8210 Structure-Property Relationships: Mechanical and Microelectronic
- 6471 Seminar: Materials Science and Engineering
- 8481 Selected Topics in Materials Science and Engineering
- r8520 Electron Diffraction, Electron Microscopy
- 8777 Thesis Credits: Masters
- 8888 Thesis Credits: Doctoral

Spring Quarter

- r3091 Industrial Employment
- 3400 Mechanical Properties of Materials
- r5013 Introduction to Electrical and Magnetic Properties of Materials
- r5102 Diffusion and Solid State Kinetics
- 5304 Failure Analysis
- r5470 Corrosion and Electrochemistry on Homogeneous and Heterogeneous Surfaces
- 5481 Special Problems in Physical Metallurgy and Materials Science
- 5483 Special Problems in Physical Metallurgy and Materials Science
- r5500 Senior Design Project
- r5613 Polymer Laboratory
- r5620 Polymer Processing and their Composites

R5820 Thin Films and Interfaces of Microelectronic Materials
 R8214 Electronic Properties of Materials
 R8311 Theories of Mechanical Behavior of Solids
 8472 Seminar: Materials Science and Engineering
 8480 Selected Topics in Materials Science and Engineering
 R8482 Selected Topics in Materials Science and Engineering
 R8521 Topics in Electron Microscopy
 8777 Thesis Credits: Masters
 8888 Thesis Credits: Doctoral

MATHEMATICS (Math)
Institute of Technology

Winter Quarter

1005 Introduction to Elementary Mathematics
 1006 Introduction to Elementary Mathematics
 R1008 Trigonometry
 1111 College Algebra and Analytic Geometry
 1131 Finite Mathematics
 1142 Short Calculus
 1181 Precalculus and Introduction to Higher-Level Mathematical Patterns
 1201 Pre-Calculus
 1211 Calculus I
 1221 Calculus II
 1241 Linear and Nonlinear Multivariable Analysis I
 1421H Integrated Honors Calculus II
 R3007H The World of Mathematics
 3311 Linear and Nonlinear Multivariable Analysis II
 3321 Differential Equations and General Vector Spaces
 3331 Infinite Sequences and Series: Vector Integral Calculus
 3511H Honors: Linear Analysis I
 3521H Honors: Linear Analysis II
 3531H Honors: Linear Analysis III
 R5006 The Diversity of Mathematics
 R5058 Actuarial Mathematics II
 R5082 Fundamentals of Algebra
 R5163 Mathematical Logic
 R5232 Computer-Oriented Linear Algebra
 R5242 Linear Algebra with Applications
 R5243 Linear Algebra with Applications
 R5246 Introduction to Modern Algebra II
 R5283 Fundamental Structures of Algebra
 R5332 Geometry II
 R5341 Introduction to Topology
 R5342 Introduction to Topology
 R5376 Differential Geometry
 R5458 Methods of Applied Mathematics
 R5474 Analysis of Numerical Methods
 R5478 Applied Numerical Analysis of Partial Differential Equations
 R5512 Differential Equations with Applications I
 R5513 Differential Equations with Applications II
 R5522 Introduction to Ordinary Differential Equations
 R5568 Elementary Theory of Complex Variables
 R5572 Elementary Partial Differential Equations
 R5606 Advanced Calculus: A Rigorous Approach
 R5607 Advanced Calculus: A Rigorous Approach
 R5613 Introduction to Analysis

R5682 Probability and Stochastic Processes
 R5701 Enumerative Combinatorics
 R5702 Graph Theory and Optimization
 R5900 Tutorial Course in Advanced Mathematics
 R8167 Recursion Theory
 R8201 General Algebra
 R8204 Algebraic Geometry
 R8209 Homological Algebra
 R8251 Topics in Group Theory
 R8264 Topics in Algebraic Geometry
 R8267 Topics in Number Theory
 R8271 Lie Groups, Algebras
 R8301 Manifolds/Topology
 R8307 Algebraic Topology
 R8343 Topological Dynamics
 R8366 Riemannian Geometry
 R8407 Advanced Methods of Applied Mathematics
 R8446 Numerical Analysis of Ordinary and Partial Differential Equations
 R8451 Topics in Numerical Analysis
 R8461 Problems in Theoretical Physics
 R8471 Topics in the Mathematical Theory of Continuum Mechanics
 R8481 Selected Topics of Celestial Mechanics
 R8501 Theory of Ordinary Differential Equations
 R8551 Theory of Partial Differential Equations
 R8561 Calculus of Variations, Minimal Surfaces
 R8571 Infinite Dimensional Dynamical Systems
 R8591 Topics in Partial Differential Equations
 R8601 Real Analysis
 R8621 Theory of Singular Integrals
 R8641 Topics in Real Analysis
 R8651 Theory of Probability
 R8653 Introduction to Stochastic Processes
 R8657 Measure Theory and Probability
 R8669 Introduction to Combinatorial Theory
 R8673 Topics in Combinatorial Theory
 R8691 Topics in the Theory of Probability
 R8701 Complex Analysis
 8777 Thesis Credits: Masters
 R8801 Functional Analysis
 8888 Thesis Credits: Doctoral
 R8990 Reading and Research
 R8991 Reading and Research

Spring Quarter

1005 Introduction to Elementary Mathematics
 1006 Introduction to Elementary Mathematics
 R1008 Trigonometry
 1111 College Algebra and Analytic Geometry
 1131 Finite Mathematics
 1142 Short Calculus
 1191 Precalculus and Introduction to Higher-Level Mathematical Patterns
 1201 Pre-Calculus
 1211 Calculus I
 1221 Calculus II
 1241 Linear and Nonlinear Multivariable Analysis I
 R3001 Actuarial Science Seminar
 R3008H The World of Mathematics
 3311 Linear and Nonlinear Multivariable Analysis II

3321 Differential Equations and General Vector Spaces
 3331 Infinite Sequences and Series: Vector Integral Calculus
 3511H Honors: Linear Analysis I
 3521H Honors: Linear Analysis II
 3531H Honors: Linear Analysis III
 R3541H Honors: Complex Analysis and Related Topics
 R5007 The Diversity of Mathematics
 R5056 Theory of Interest
 R5059 Actuarial Mathematics III
 R5083 Fundamentals of Geometry
 R5152 Elementary Mathematical Logic
 R5164 Mathematical Logic
 R5209 Theory of Numbers
 R5233 Computer-Oriented Linear Algebra
 R5243 Linear Algebra with Applications
 R5247 Introduction to Modern Algebra III
 R5284 Fundamental Structures of Algebra
 R5333 Geometry III
 R5342 Introduction to Topology
 R5343 Introduction to Algebraic Topology
 R5377 Differential Geometry
 R5404 Variational Problems
 R5428 Mathematical Models in Economics and the Social and Management Sciences
 R5459 Methods of Applied Mathematics
 R5475 Analysis of Numerical Methods
 R5479 Applied Numerical Analysis of Partial Differential Equations
 R5513 Differential Equations with Applications II
 R5521 Introduction to Ordinary Differential Equations
 R5523 Introduction to Ordinary Differential Equations
 R5567 Fourier Series and Boundary Value Problems
 R5569 Operational Mathematics
 R5573 Elementary Partial Differential Equations
 R5607 Advanced Calculus: A Rigorous Approach
 R5608 Advanced Calculus: A Rigorous Approach
 R5614 Introduction to Analysis
 R5679 Probability
 R5683 Probability and Stochastic Processes
 R5702 Graph Theory and Optimization
 R5703 Constructive Combinatorics
 R8168 Recursion Theory
 R8202 General Algebra
 R8205 Algebraic Geometry
 R8210 Homological Algebra
 R8252 Topics in Group Theory
 R8265 Topics in Algebraic Geometry
 R8268 Topics in Number Theory
 R8272 Lie Groups, Algebras
 R8302 Manifolds/Topology
 R8308 Algebraic Topology
 R8344 Topological Dynamics
 R8367 Riemannian Geometry
 R8408 Advanced Methods of Applied Mathematics
 R8447 Numerical Analysis of Ordinary and Partial Differential Equations
 R8452 Topics in Numerical Analysis
 R8462 Problems in Theoretical Physics
 R8482 Selected Topics of Celestial Mechanics

R8502 Theory of Ordinary Differential Equations
 R8552 Theory of Partial Differential Equations
 R8562 Calculus of Variations, Minimal Surfaces
 8572 Infinite Dimensional Dynamical Systems
 R8592 Topics in Partial Differential Equations
 R8602 Real Analysis
 R8622 Theory of Singular Integrals
 R8642 Topics in Real Analysis
 R8652 Theory of Probability
 R8654 Introduction to Stochastic Processes
 R8658 Measure Theory and Probability
 R8670 Introduction to Combinatorial Theory
 R8674 Topics in Combinatorial Theory
 R8692 Topics in the Theory of Probability
 R8702 Complex Analysis
 8777 Thesis Credits: Masters
 R8802 Functional Analysis
 8888 Thesis Credits: Doctoral
 R8992 Reading and Research

MATHEMATICS EDUCATION (MthE)

Curriculum And Instruction Education

Winter Quarter

R5081 Teaching Secondary School Arithmetic
 R5082 Teaching Algebra
 R5322 Materials Laboratory for Secondary School
 Mathematics Instruction
 R5355 Mathematics for Slow Learning Children
 5680 Practicum in Mathematics Education
 5980 Directed Studies
 8500 Theory and Classical Research in
 Mathematics Education
 8590 Seminar: Mathematics Education
 8680 Internship: Mathematics Education
 8980 Problems: Mathematics Education

Spring Quarter

R5082 Teaching Algebra
 R5083 Teaching Geometry
 R5101 Workshop: Elementary School Mathematics
 R5313 Teaching and Supervision of Mathematics
 in the Middle School
 R5331 Current Developments in Elementary
 School Mathematics Instruction
 R5332 Current Trends and Issues in Secondary
 School Mathematics Instruction
 R5345 Mathematics for Gifted Children
 5680 Practicum in Mathematics Education
 5980 Directed Studies
 8570 Research: Mathematics Education
 8680 Internship: Mathematics Education
 8980 Problems: Mathematics Education

MECHANICAL ENGINEERING (ME)

Mechanical Engineering Institute of Technology

Winter Quarter

R1001 Introduction to Mechanical Engineering
 R1025 Engineering Graphics
 R3020 Mechanical Engineering Computation
 3201 Mechanical Engineering Systems Analysis

3203 Analysis of Mechanism Systems
 3203H Analysis of Mechanisms Systems
 3281H Honors: Introduction to Linear Systems
 R3301 Thermodynamics
 R3301H Thermodynamics
 R3303 Applied Thermodynamics
 R3303H Applied Thermodynamics
 R3305 Propulsion Thermodynamics
 R3701 Basic Measurements Laboratory I
 R3702 Basic Measurements Laboratory II
 R3702H Basic Measurements Laboratory II
 R3741 Industrial Assignment
 R3742 Industrial Assignment
 R3743 Industrial Assignment
 R3900 Introduction to Engineering Statistics
 R5190 Advanced Engineering Problems
 R5198H Mechanical Engineering Upper Division
 Honor Thesis I
 R5199H Mechanical Engineering Upper Division
 Honor Thesis II

R5209 Friction and Lubrication
 R5220 Computer-Aided Design
 R5227 Finite Element Methods in Mechanical
 Engineering II

5231 Mechatronics Laboratory
 5233 Programmable Automation
 5254 Design Morphology with Applications
 5255 Engineering Design Project
 5260 Engineering Materials and Processing
 R5268 Properties and Fabrication of Plastics
 R5271 Robotics
 R5283 Industrial Instrumentation and Automatic
 Control
 R5284 Control Systems
 R5285 Control Systems Laboratory

5330 Heat Transfer Laboratory
 R5342 Heat Transfer
 R5342H Heat Transfer
 R5345 Heat Transfer in Electronic Equipment
 5430 Internal Combustion Engine Performance
 Laboratory
 5432 Steam Power Laboratory
 5433 Compressor, Combustor, and Turbine
 Laboratory

R5446 An Introduction to Combustion
 R5460 Internal Combustion Engines
 R5462 Gas Turbines
 R5603 Thermal Environmental Engineering
 R5605 Refrigeration and Air Conditioning Systems
 R5614 Principles of Particle Technology
 R5616 Aerosol Measurement
 5630 Thermal Environmental Engineering Senior
 Laboratory

R5741 Industrial Assignment and Design Project
 R5742 Industrial Assignment and Design Project
 R5990 Topics in Mechanical Engineering
 R8210 Advanced Vibration Engineering
 R8311 Statistical, Non-Equilibrium
 Thermodynamics
 R8331 Convection
 R8444 Applied Thermodynamics II
 R8701 Design Studies in Engineering I
 R8770 Mechanical Engineering Research
 8771 Mechanical Engineering Research
 8772 Mechanical Engineering Research

8773 Graduate Seminar
 8774 Graduate Seminar
 8775 Graduate Seminar
 8777 Thesis Credits: Masters
 8888 Thesis Credits: Doctoral

Spring Quarter

R1025 Engineering Graphics
 R3020 Mechanical Engineering Computation
 3203 Analysis of Mechanism Systems
 3205 Engineering Systems Design
 3205H Engineering Systems Design
 R3301 Thermodynamics
 R3303 Applied Thermodynamics
 R3303H Applied Thermodynamics
 R3305 Propulsion Thermodynamics
 R3701 Basic Measurements Laboratory I
 R3701H Basic Measurement Laboratory I
 R3702 Basic Measurements Laboratory II
 R3741 Industrial Assignment
 R3742 Industrial Assignment
 R3743 Industrial Assignment
 R5190 Advanced Engineering Problems
 R5203 Advanced Analysis and Synthesis of
 Mechanical Systems
 R5207 Experimental Stress Analysis
 R5221 Computer Graphics in Design
 5230 Acoustics and Vibration Laboratory
 5231 Mechatronics Laboratory
 R5244 Vibration Engineering
 5254 Design Morphology with Applications
 5255 Engineering Design Project
 5260 Engineering Materials and Processing
 R5262 Material Working and Fabrication
 Processes
 R5272 Non-Contact Sensing
 R5284 Control Systems
 R5285 Control Systems Laboratory
 R5288 Modelling and Simulation of Dynamic
 Systems
 5330 Heat Transfer Laboratory
 R5342 Heat Transfer
 R5342H Heat Transfer
 R5344 Thermodynamics of Fluid Flow
 R5346 Intermediate Heat Transfer
 5430 Internal Combustion Engine Performance
 Laboratory
 5432 Steam Power Laboratory
 5433 Compressor, Combustor, and Turbine
 Laboratory
 R5443 Turbomachinery
 R5455 Rocket Propulsion
 R5460 Internal Combustion Engines
 R5461 Advanced Internal Combustion Engines
 R5480 Biological Fluid Flow
 R5620 Clean Room Technology and Particle
 Monitoring
 5630 Thermal Environmental Engineering Senior
 Laboratory
 R5712 Solar Energy Utilization
 R5741 Industrial Assignment and Design Project
 R5742 Industrial Assignment and Design Project
 R8221 Advanced Computer Graphics Topics
 R8226 Finite Element Methods for Nonlinear/Linear
 Transient/Dynamic Problems

- r8280 Multivariable Control Systems I
- r8326 Boiling Heat Transfer, Multiphase Flow
- r8332 Radiation
- r8334 Turbulent Convection
- r8352 Advanced Computation of Fluid Flow and Heat Transfer
- r8372 Optical Diagnostics of Flow Systems
- r8445 Applied Thermodynamics III
- 8702 Design Studies in Engineering II
- 8770 Mechanical Engineering Research
- 8771 Mechanical Engineering Research
- 8772 Mechanical Engineering Research
- 8773 Graduate Seminar
- 8774 Graduate Seminar
- 8775 Graduate Seminar
- 8777 Thesis Credits: Masters
- 8800 Modern Developments in Mechanical Engineering
- 8888 Thesis Credits: Doctoral

MEDICAL TECHNOLOGY (MedT) Medical School

Winter Quarter

- 5068 Comparative Hemostasis
- 5078 Hematology II: Hemostasis/Instrumentation
- 5082 Applied Clinical Chemistry
- 5084 Applied Clinical Virology
- 5085 Applied Clinical Hematology
- 5086 Applied Clinical Immunohematology
- 5088 Applied Diagnostic Microbiology
- 5090 Special Laboratory Methods
- 5092 Honors Program: Laboratory Methods
- 5100 Virology/Mycology/Parasitology for Medical Technologists
- 5102 Principles of Diagnostic Microbiology
- 5112 Introduction to Clinical Chemistry
- 5120 Seminar
- 5125 Practicum: Teaching
- r5127 Introduction to Management and Education
- 5135 Advanced Clinical Microbiology
- 5138 Seminar: Clinical Microbiology
- 5145 Development of Medical Technology
- 5155 Advanced Clinical Hematology
- 5165 Advanced Clinical Immunohematology
- 5175 Advanced Clinical Chemistry
- 5179 Chemistry Seminar

Spring Quarter

- 5064 Introduction to Clinical Immunohematology
- 5065 Introduction to Clinical Immunohematology
- 5082 Applied Clinical Chemistry
- 5084 Applied Clinical Virology
- 5085 Applied Clinical Hematology
- 5086 Applied Clinical Immunohematology
- 5088 Applied Diagnostic Microbiology
- 5090 Special Laboratory Methods
- 5092 Honors Program: Laboratory Methods
- 5113 Principles of Clinical Chemistry
- 5120 Seminar
- 5125 Practicum: Teaching
- 5130 Practicum in Laboratory Administration
- 5135 Advanced Clinical Microbiology
- 5138 Seminar: Clinical Microbiology

- 5145 Development of Medical Technology
- 5155 Advanced Clinical Hematology
- 5165 Advanced Clinical Immunohematology
- 5175 Advanced Clinical Chemistry
- 5179 Chemistry Seminar
- 5765 Hematology

MEDIEVAL STUDIES (MeSt) Liberal Arts

Winter Quarter

- r3610 Topics in Medieval Studies
- r5610 Topics in Medieval Studies

Spring Quarter

- r3610 Topics in Medieval Studies
- r5610 Topics in Medieval Studies

METALLURGICAL ENGINEERING (MeE)

Civil And Mineral Engineering Institute of Technology

Winter Quarter

- 5101 Chemical Metallurgy II
- 5501 Metallurgical Engineering Design II
- 5800 Mineral Processing I
- 5902 Pyrometallurgical Process
- 5941 Special Problems in Extractive Metallurgical Engineering
- 8001 Applied Process Metallurgy II
- 8830 Electric and Magnetic Separation of Minerals
- 8842 Surface Chemistry of Mineral Suspensions
- 8922 Research in Extractive Metallurgical Engineering

Spring Quarter

- 5102 Chemical Metallurgy III
- 5503 Metallurgical Engineering Design III
- 5901 Principles of Metals Extraction
- 5903 Hydrometallurgy
- 5942 Special Problems in Extractive Metallurgical Engineering
- 8839 Optimization and Control Techniques in Mineral Processing II
- 8923 Research in Extractive Metallurgical Engineering
- 8934 Physical Chemistry of High Temperature Metallurgical Reactions III

MICROBIAL ENGINEERING (MicE)

Winter Quarter

- 5990 Teaching Practicum
- 8777 Thesis Credits: Masters
- 8990 Biotechnology Seminar

Spring Quarter

- 5990 Teaching Practicum
- 8777 Thesis Credits: Masters
- 8990 Biotechnology Seminar

MICROBIOLOGY (MicB) Medical School

Winter Quarter

- 5105 Biology of Microorganisms
- 5205 Microbiology for Medical Students

- r5218 Immunology
- 5232 Medical Microbiology
- r5234 Immunology and Medical Microbiology Laboratory
- 5611 Microbial Ecology
- 5970 Directed Studies
- 5990 Directed Research
- 5992 Practicum: Teaching
- r8112 Microbial Genetics
- 8125 Microbial Ecology and Development
- r8216 Frontiers of Immunology I: Immunobiology, Immunogenetics
- 8777 Thesis Credits: Masters
- 8888 Thesis Credits: Doctoral
- r8910 Seminar
- 8911 Colloquium in Microbiology
- 8990 Research in Microbiology

Spring Quarter

- 5105 Biology of Microorganisms
- 5206 Microbiology for Medical Students
- 5352 Applied Microbiology
- r5424 Biology of Viruses
- r5425 Virology and Microbial Genetics Laboratory
- 5900 Topics in Microbiology
- 5970 Directed Studies
- 5990 Directed Research
- 5992 Practicum: Teaching
- r8231 Advanced Topics in Microbial Pathogenesis
- 8421 Virology and Tumor Biology
- 8777 Thesis Credits: Masters
- 8888 Thesis Credits: Doctoral
- r8910 Seminar
- 8911 Colloquium in Microbiology
- 8990 Research in Microbiology

MIDDLE EASTERN STUDIES (MidE)

South Asian & Middle Eastern Studies Liberal Arts

Winter Quarter

- r3301 Modern Arabic Poetry in Translation
- 3541 History of the Arabs: 500-800
- 5730 Proseminar in Middle East History: Social and Economic History of the Ottoman Empire: 16th to 18th-Century
- 5970 Directed Studies
- 5990 Directed Research

Spring Quarter

- 3507 Religion and Politics in Islam: Past and Present
- 3508 Islam: Iran to India
- 3555 Zoroastrianism
- 5508 Islam: Iran to India
- 5730 Proseminar in Middle East History: Social and Economic History of the Ottoman Empire: 19th- and 20th-Centuries
- 5970 Directed Studies
- 5990 Directed Research

MILITARY SCIENCE (Mil)

Winter Quarter

- 0100 Leadership Laboratory

- 0300 Advanced Leadership Laboratory
- 1002 Basic Military Skills
- 1012 World Military History
- 1202 Leadership: Small Unit Communications, Control and Coordination
- 1221 Learning to Lead
- 3130 Military Science III Leadership Laboratory
- R3132 Land Navigation/Small Unit Tactics
- 3140 Military Science IV Leadership Laboratory
- R3142 Leadership Communication
- 3970 Directed Studies

Spring Quarter

- 0100 Leadership Laboratory
- 0300 Advanced Leadership Laboratory
- 1003 Basic Military Skills
- R1010 The U.S. Army in Society
- 1013 World Military History
- 1203 Leadership: Small Unit Training, Tactics and Terrain Association
- 1222 Training Management
- 3130 Military Science III Leadership Laboratory
- R3133 Small Unit Tactics
- 3140 Military Science IV Leadership Laboratory
- R3143 Military Law, Service Orientation
- 3970 Directed Studies

MINING ENGINEERING (MinE) Civil And Mineral Engineering Institute of Technology

Winter Quarter

- 8471 Research Problems
- R8602 Seminar: Mineral Engineering
- 8777 Thesis Credits: Masters
- 8888 Thesis Credits: Doctoral

Spring Quarter

- 8472 Research Problems
- 8603 Seminar: Mineral Engineering
- 8777 Thesis Credits: Masters
- 8888 Thesis Credits: Doctoral

MORTUARY SCIENCE (Mort) Medical School

Winter Quarter

- R3040 Funeral Service Psychology
- 3050 Restorative Art
- 3060 Embalming
- 3062 Gross Human Anatomy
- R3070 Funeral Service Management
- 3071 Funeral Service Practice
- R3072 Funeral Service Computer Applications
- R3074 Funeral Service Small Business
- 3080 Funeral Service Practicum
- R3090 Independent Study
- R3271 Funeral Service Seminar
- R3273 Funeral Service Counseling
- R5040 Dying and Death in Contemporary Society

Spring Quarter

- R3010 Funeral Service Law
- R3030 Chemistry
- 3073 Funeral Service Counseling
- R3080 Funeral Service Practicum

- R3090 Independent Study

MUSEUM STUDIES (MSt)

Winter Quarter

- 8010 Museum History and Philosophy
- 8016 Internship

Spring Quarter

- R8012 Museum Practices: Curatorial and Education Departments in Museums
- 8016 Internship

MUSIC (Mus)

Music

Liberal Arts

Winter Quarter

- R1001 Fundamentals of Music
- R1021 Introduction to Music
- R1152 Piano: Class Lessons
- R1160 Voice: Class Lessons
- 1162 Diction for Singers II
- 1165 Diction for Singers V
- 1180 Accompanying
- 1340 Jazz Ensemble
- R1352 Jazz Class Piano
- 1440 Ensemble
- R1511 Ear-Training and Sight-Singing I
- R1522 Keyboard Harmony
- 1531 Theory I: Foundations of Tonal Theory
- R1602 Music and Society
- 3021 Introduction to Music
- 3027 Lyric Song in Medieval and Renaissance Culture
- 3220 Chamber Winds
- R3332 Jazz Improvisation II
- 3410 Concert Band
- 3420 Orchestra
- 3430 University Chorus
- 3440 Ensemble
- R3511 Ear Training and Sight Singing IV
- R3531 Theory IV: Chromaticism
- R3552 Composition
- 3605 History of Western Music
- 3970 Directed Studies
- 3980 Directed Teaching
- 3995 Major Project
- 5220 Chamber Winds
- R5322 Suzuki Violin Pedagogy
- R5325 Advanced Suzuki Violin Pedagogy
- 5330 Concerto Grosso Ensemble
- R5332 Jazz Improvisation V
- 5340 Jazz Ensemble
- R5352 Piano Pedagogy
- 5355 Piano Pedagogy Practicum
- 5360 Woodwind Ensemble
- 5376 Vocal Pedagogy II
- 5380 Brass Choir
- 5399 Performance in Conducting
- 5410 Band
- 5420 Orchestra
- 5430 University Chorus

- 5440 Ensemble
- 5450 Collegium Musicum
- 5470 Opera Workshop and Ensemble
- 5480 Opera Theatre
- 5490 Chamber Singers
- 5510 Early Music Performance Practices
- R5522 Advanced Keyboard Harmony
- 5532 Analysis of 20th Century Music
- 5542 Advanced Counterpoint
- 5550 Composition
- 5562 Orchestration
- 5571 Introduction to Schenkerian Analysis
- 5602 History of Opera
- 5647 20th-Century European/American Music
- 5742 Vocal Literature
- R5793 Analog Synthesis and Recording Techniques
- R5810 Asian Music: Performance
- 5970 Directed Studies
- R5971 Music Transcription for Winds
- R8222 Advanced Piano Literature
- 8550 Composition
- R8632 Music of the Ars Nova and Early Renaissance
- 8754 Choral Literature: Renaissance Through Baroque Eras
- 8777 Thesis Credits: Masters
- 8840 Seminar in Musicology
- 8888 Thesis Credits: Doctoral
- 8990 Special Problems

Spring Quarter

- R1001 Fundamentals of Music
- R1153 Piano: Class Lessons
- R1160 Voice: Class Lessons
- R1163 Diction for Singers III
- R1166 Diction for Singers VI
- 1180 Accompanying
- 1340 Jazz Ensemble
- R1353 Jazz Class Piano
- 1440 Ensemble
- R1512 Ear-Training and Sight-Singing II
- R1523 Keyboard Harmony
- 1532 Theory II: Diatonic Tonality
- 1804 World Music
- 3028 Symphonic Music in the 18th and 19th Centuries
- 3220 Chamber Winds
- R3333 Jazz Improvisation III
- 3410 Concert Band
- 3420 Orchestra
- 3430 University Chorus
- 3440 Ensemble
- 3441 Basic Conducting
- R3512 Ear Training and Sight Singing V
- R3532 Theory V: 20th Century Theory
- R3553 Composition
- 3606 History of Western Music
- 3970 Directed Studies
- 3980 Directed Teaching
- 3995 Major Project
- R5016 Trumpet Pedagogy

- 5220 Chamber Winds
- r5323 Suzuki Violin Pedagogy
- r5326 Advanced Suzuki Violin Pedagogy
- r5333 Jazz Improvisation VI
- 5340 Jazz Ensemble
- r5353 Piano Pedagogy
- 5356 Piano Pedagogy Practicum
- 5360 Woodwind Ensemble
- 5361 Violin Pedagogy I
- r5370 Vocal Performance Laboratory
- 5380 Brass Choir
- 5399 Performance in Conducting
- 5410 Band
- 5420 Orchestra
- 5430 University Chorus
- 5440 Ensemble
- 5470 Opera Workshop and Ensemble
- 5480 Opera Theatre
- 5490 Chamber Singers
- r5523 Advanced Keyboard Harmony
- r5543 Advanced Counterpoint
- 5550 Composition
- 5563 Orchestration
- 5572 Chromaticism in Late-Tonal Music
- 5603 History of Opera
- 5644 Studies in Twentieth-Century American Music
- 5645 18th-Century European Music
- r5795 Digital Music Synthesis and Processing Techniques
- r5810 Asian Music: Performance
- 5970 Directed Studies
- r8223 Advanced Piano Literature
- 8550 Composition
- 8755 Choral Literature: Classical Era Through the Twentieth Century
- 8777 Thesis Credits: Masters
- r8840 Seminar in Musicology
- 8847 Seminar: Notation of Polyphonic Music
- r8861 History of Music Theory: 1550-1750
- 8888 Thesis Credits: Doctoral

MUSIC APPLIED (MusA)

Music Liberal Arts

Winter Quarter

See fall quarter

Spring Quarter

See fall quarter

MUSIC EDUCATION (MuEd)

Education

Winter Quarter

- r3011 Teaching Music in the Elementary School
- 3302 Teaching Vocal and General Music Grades 5-12
- 3415 Choral Laboratory
- r3501 String Techniques II
- 3503 Woodwind Techniques
- 3504 Brass Techniques
- 3516 Instrumental Laboratory II
- 3650 Student Teaching in Music
- 3801 Psychology of Music I

- 3804 Music Therapy Techniques I
- r3850 Field Experiences: Music Therapy
- 3851 Internship: Music Therapy
- 3852 Internship: Music Therapy
- 5112 Research in Music Education: Techniques
- 5615 Teaching Music Reading
- 5970 Independent Study
- 8282 Music Education Seminar: Historical Issues
- 8990 Research Problems

Spring Quarter

- 1201 Introduction to Music Education
- 1801 Introduction to Music Therapy
- r3011 Teaching Music in the Elementary School
- 3302 Teaching Vocal and General Music Grades 5-12
- 3331 Practicum: Music Education
- r3505 Percussion Techniques
- 3650 Student Teaching in Music
- 3802 Psychology of Music II
- 3806 Music Therapy Techniques III
- r3850 Field Experiences: Music Therapy
- 3851 Internship: Music Therapy
- 3852 Internship: Music Therapy
- 5611 Techniques and Materials: Music and Related Arts
- r5666 Microcomputers in the Music Classroom
- 5970 Independent Study
- 8283 Music Education Seminar: Psychological Issues
- 8990 Research Problems

NATURAL RESOURCES AND ENVIRONMENTAL STUDIES (NRES)

Agriculture & Nat Res

Winter Quarter

- 1040 Natural Resources as Raw Materials
- 3001 Colloquium in Natural Resources and Environmental Studies
- 3050 Experience and Training in a Field Setting
- r3100 Problem Solving in Natural Resources and Environmental Studies II
- 3225 Directed Study Experience
- 5210 Survey, Measurement and Modelling Methods for Natural Resource Analysis
- 5225 Directed Study Experience

Spring Quarter

- r1010 Issues in the Environment
- r3001 Colloquium in Natural Resources and Environmental Studies
- 3050 Experience and Training in a Field Setting
- 3225 Directed Study Experience
- 5225 Directed Study Experience

NAVAL SCIENCE (Nav)

Winter Quarter

- r0204 Professional Training in Naval Science
- r1102 Fundamentals of Naval Science II
- r1202 Celestial and Electronic Navigation
- r1204 Naval Weapons II
- r3301 Naval Engineering I
- r3402 Principles of Naval Management II
- r3453 Amphibious Warfare II

Spring Quarter

- r0204 Professional Training in Naval Science
- r1103 Sea Power
- r3303 Advanced Naval Operations
- r3403 Principles of Naval Management III
- r3454 Amphibious Warfare III

NEUROSCIENCE (NSC)

Winter Quarter

- 5102 Veterinary Neurobiology
- 5480 Invertebrate Neurobiology
- 8136 Experimental Comparative Veterinary Neurology
- 8207 Seminar: Psychopharmacology
- 8216 Selected Topics: Neurophysiology
- 8324 Readings in Neurobiology
- 8888 Thesis Credits: Doctoral

Spring Quarter

- 5444 Muscle Contraction
- 5660 Behavioral Neuroscience
- 8207 Seminar: Psychopharmacology
- 8216 Selected Topics: Neurophysiology
- 8324 Readings in Neurobiology
- 8888 Thesis Credits: Doctoral

NORWEGIAN (Nor) Scandinavian Studies Liberal Arts

Winter Quarter

- r1102 Beginning Norwegian
- r1105 Intermediate Norwegian
- 3670 Readings in Norwegian Literary Texts

Spring Quarter

- r1103 Beginning Norwegian
- r1106 Intermediate Norwegian
- 3670 Readings in Norwegian Literary Texts

NURSING, SCHOOL OF (Nurs)

Winter Quarter

- 5040 Restoration and Enhancement of Health in the Acutely Ill Adult
- 5041 Practicum: Acutely Ill Adults
- r5042 Interpersonal Communications
- 5212 Introduction to Human Growth and Development Across the Life Span
- 5213 Introduction to Human Growth and Development Across the Life Span, Supplement
- 5215 Expansion of Perspectives in Nursing II
- 5420 Applied Clinical Research
- 5420H Applied Clinical Research I
- 5441 Practicum: Families with Children
- 5443 Practicum: Individuals/Groups/Populations
- 5460 Leadership/Followership/Management
- 5480 Special Topics
- 5799 Self-Directed Study as a Means of Accomplishing Nursing Electives
- r5902 Nursing and the Politics of Health
- 8001 Special Educational Experiences in Nursing
- 8009 Special Topics
- r8010 Structure of the Discipline of Nursing
- r8011 Moral and Ethical Positions in Nursing
- r8012 Conceptual Framework for Nursing Practice

- r8014 Research in Nursing
- r8021 Community Health Nursing In Long-Term Care
- r8030 Nursing Intervention Models
- 8050 Problems in Nursing
- 8051 Special Topics in Nursing Research
- 8060 Advanced Clinical Nursing
- r8110 Theoretical Foundations of the Discipline
- r8313 Care of the Childbearing Family In Risk
- r8400 Nursing interventions for Adult Populations
- r8421 Psychiatric-Mental Health Nursing: Group Dynamics and Leadership Skills
- r8435 Childbearing-Childrearing Family Nursing II
- 8509 Special Topics: Nursing Education
- 8609 Special Topics in Nursing Supervision
- r8702 Nursing Administration II
- 8777 Thesis Credits: Masters
- 8800 Phenomenon of Health
- 8888 Thesis Credits: Doctoral
- r8900 Theoretical Foundations of Health Related Behaviors

Spring Quarter

- 5140 Restoration and Enhancement of Health in the Acutely Ill Across the Life Span
- 5141 Practicum: Ill Children/Aged
- r5142 Advanced Interpersonal Communications
- 5216 Expansion of the Clinical Role of the RN
- r5420 Applied Clinical Research
- 5420H Applied Clinical Research I
- 5441 Practicum: Families with Children
- 5443 Practicum: Individuals/Groups/Populations
- r5460 Leadership/Followership/Management
- 5462 Professional Issues
- 5480 Special Topics
- 5482H Senior Honors Seminar
- 5620 Independent Study in Nursing Topics
- r5640 Common Response Patterns to Illness
- r5711 Spirituality - Part of the Whole Person
- 5799 Self-Directed Study as a Means of Accomplishing Nursing Electives
- 8001 Special Educational Experiences in Nursing
- 8009 Special Topics
- r8010 Structure of the Discipline of Nursing
- r8011 Moral and Ethical Positions in Nursing
- r8012 Conceptual Framework for Nursing Practice
- r8014 Research in Nursing
- 8022 Clinical Investigation in Community Health Nursing in Long-Term Care
- r8030 Nursing Intervention Models
- 8050 Problems in Nursing
- 8060 Advanced Clinical Nursing
- 8063 Nursing Consultation
- r8111 Moral and Ethical Development in Nursing Science
- 8314 Nurse-Midwifery Management During Childbearing
- 8415 Nurse Clinician Role Development
- 8425 Psychiatric-Mental Health Nursing: Role Development
- 8451 Teaching-Learning Process in Nursing
- 8509 Special Topics: Nursing Education
- 8609 Special Topics in Nursing Supervision
- 8777 Thesis Credits: Masters
- 8888 Thesis Credits: Doctoral

**NUTRITION (Nutr)
Food Science and Nutrition
Agriculture**

Winter Quarter

- 8745 Seminar
- 8777 Thesis Credits: Masters
- 8888 Thesis Credits: Doctoral
- 8990 Graduate Research

Spring Quarter

- 8745 Seminar
- 8777 Thesis Credits: Masters
- 8888 Thesis Credits: Doctoral
- 8990 Graduate Research

**OPERATIONS AND MANAGEMENT
SCIENCES (OMS)**

Management

Winter Quarter

- 1020 Data Analysis and Statistical Inference for Managers
- r3000 Introduction to Operations Management
- r3041 Project Management
- r5155 Methods for Quality and Productivity Improvement
- r5160 Deterministic Modeling and Optimization
- r8041 Project Management
- r8056 Production and Inventory Management
- r8650 Regression Analysis
- r8670 Stochastic Modeling and Analysis
- r8745 Research on Quality Management
- r8850 Topics in Operations and Management Science
- 8990 Readings in Operations and Management Science
- 8995 Graduate Research in Operations and Management Science

Spring Quarter

- 1020 Data Analysis and Statistical Inference for Managers
- r3000 Introduction to Operations Management
- r3059 Quality Management
- r8051 Management of Service Operations
- r8057 Process, Technology, and Innovation in the Operations Function
- r8058 Operations Strategy
- r8651 Experimental Design
- r8671 Simulation Analysis
- r8740 Research in Operations Strategy and Technology Management
- 8990 Readings in Operations and Management Science
- 8995 Graduate Research in Operations and Management Science

**PERSIAN (Per)
South Asian & Middle Eastern
Studies
Liberal Arts**

Spring Quarter

- 5900 Readings in an Iranian Language

**PHARMACOLOGY (Phcl)
Medical School**

Spring Quarter

- 1450 Drugs and Society: Concepts of Drug Action

**PHILOSOPHY (Phil)
Liberal Arts**

Winter Quarter

- 1001 Introduction to Logic
- 1002 Introduction to Philosophy
- 1005 Scientific Reasoning
- 3002 General History of Western Philosophy
- 3003 General History of Western Philosophy
- 3003H Honors Course: General History of Western Philosophy
- r3005 Introduction to the Philosophy of Plato
- r3231 Introduction to the Philosophy of Language
- r3302 Moral Problems of Contemporary Society
- 3601 Scientific Thought
- 3970 Directed Studies
- 3980 Directed Instruction
- 5034 Descartes
- 5202 Symbolic Logic II
- 5324 Ethics and Education
- 5521 Philosophy of Religion
- 5601 Philosophy of Science: Confirmation and Theory-Testing
- 5618 20th Century Philosophy of Science: 1950 to the Present
- 5760 Selected Topics in Philosophy
- 5770 Selected Topics in Philosophy
- 5970 Directed Studies and Research
- 5990 Directed Studies and Research
- 8130 Seminar: Epistemology
- 8180 Seminar: Philosophy of Language
- 8310 Seminar: Moral Philosophy
- 8777 Thesis Credits: Masters
- 8888 Thesis Credits: Doctoral
- 8970 Directed Study and Research
- 8990 Directed Study and Research

Spring Quarter

- 1001 Introduction to Logic
- 1002 Introduction to Philosophy
- r1003 Introduction to Ethics
- 3004 General History of Western Philosophy
- 3008 Introduction to Aristotle
- 3302 Moral Problems of Contemporary Society
- r3305 Medical Ethics
- r3311 Introduction to Ethical Theory
- 3970 Directed Studies
- 3980 Directed Instruction
- 5021 Medieval Philosophy
- 5043 Hume
- 5203 Symbolic Logic III
- 5302 History of Ethics: Selected Classical Moralists
- 5321 Theories of Justice
- 5611 Philosophy of the Social Sciences I
- 5970 Directed Studies and Research
- 5990 Directed Studies and Research
- 8180 Seminar: Philosophy of Language
- 8310 Seminar: Moral Philosophy

- 8600 Seminar in Philosophy of Science
- 8620 Seminar: Philosophy of Biology
- 8777 Thesis Credits: Masters
- 8888 Thesis Credits: Doctoral
- 8970 Directed Study and Research
- 8990 Directed Study and Research

**PHYSICAL EDUCATION (PE)
School of Physical Education And
Recreation
Education**

Winter Quarter

- R1004 Diving, Springboard
- R1007 Swimming
- R1014 Conditioning
- R1015 Weight Training
- R1032 Badminton
- R1034 Judo
- R1035 Karate
- R1036 Racquetball
- R1037 Squash Racquets
- R1038 Tennis
- R1044 Self Defense
- R1048 Bowling
- R1053 Ice Skating
- R1056 Nordic (Cross Country) Skiing
- R1057 Skiing
- R1059 Track and Field
- R1067 Basketball
- R1070 Ice Hockey
- R1074 Volleyball
- R1107 Swimming
- R1135 Karate
- R1138 Tennis
- R1154 Figure Skating
- R1157 Skiing
- R1174 Volleyball
- R1205 Scuba and Skin Diving
- R1306 Advanced Lifesaving
- R1410 Water Safety Instructor
- R1415 Theory and Practice of Weight Training and Conditioning
- R1497 Directed Study

Spring Quarter

- R1004 Diving, Springboard
- R1007 Swimming
- R1014 Conditioning
- R1015 Weight Training
- R1016 Posture and Individual Exercise
- R1032 Badminton
- R1033 Foli Fencing
- R1034 Judo
- R1035 Karate
- R1036 Racquetball
- R1038 Tennis
- R1041 Cycling
- R1042 Orienteering
- R1044 Self Defense
- R1050 Golf
- R1059 Track and Field
- R1072 Soccer
- R1073 Softball

- R1074 Volleyball
- R1107 Swimming
- R1133 Fencing
- R1138 Tennis
- R1160 Tumbling, Floor Exercise, and Trampoline
- R1205 Scuba and Skin Diving
- R1306 Advanced Lifesaving
- R1410 Water Safety Instructor
- R1497 Directed Study

**PHYSICAL MEDICINE AND
REHABILITATION (PMed)
Medical School**

Winter Quarter

- R1002 Orientation to Physical Therapy
- 5150 Kinesiological Electromyography and Nerve Conduction
- 5182 Functional Neuroanatomy and Neurophysiology
- 5221 Therapeutic Procedures II
- 5230 Theory and Technique of Muscle Function, Tests, and Measurements
- 5270 Rehabilitation Procedures
- 5289 Patient Assessment
- 5290 Administration
- 5293 Introduction to Research Design
- 5294 Independent Study in Physical Therapy
- 5311 Therapeutic Activities I
- 5341 Theory I: Psychosocial Dysfunction
- 5344 Theory: Physical Dysfunction II
- 5375 Community Resources and Health Care Issues
- 5380 Management of Occupational Therapy Services
- 5394 Evaluation and Treatment of Sensory Integrative Dysfunction
- 5395 Independent Study in Occupational Therapy
- 5397 Field Work Education in Occupational Therapy
- 5398 Fieldwork Education in Occupational Therapy
- 5410 Adult Rehabilitation Medicine
- 5411 Rehabilitation Medicine: Children
- 5414 Physical Medicine and Rehabilitation for the Family Physician
- 5415 Private Practice in Physical Medicine and Rehabilitation
- 5416 Physical Medicine and Rehabilitation at St. Paul Ramsey
- 5810 Assessment of the Elderly
- 5814 Physiological Assessment in Physical Therapy
- 5817 Special Topics in Physical Therapy
- 5950 Bioelectric Measurements
- 8103 Clinic
- 8130 Seminar: Current Literature in Physical Therapy
- 8135 Advanced Kinesiology
- 8150 Research Methodology: Physical Therapy in Electromyography and Nerve Conduction
- 8170 Special Topics in Physical Therapy
- 8185 Problems in Physical Therapy
- 8188 Teaching Practicum
- 8192 Research Design in Physical Therapy
- 8193 Research Problems in Physical Therapy
- 8195 Research in Physical Therapy

- 8200 Physical Medicine and Rehabilitation Service
- 8205 Readings in Physical Medicine and Rehabilitation
- 8206 Conference on Physical Medicine and Rehabilitation
- 8207 Basic and Applied Physiatry
- 8210 Research in Physical Medicine
- 8212 Electromyography
- 8214 Readings in Electromyography
- 8220 Seminar: Physical Medicine and Rehabilitation
- 8777 Thesis Credits: Masters
- 8888 Thesis Credits: Doctoral

Spring Quarter

- 5135 Pathokinesiology
- 5161 Theory of Physical Medicine, Rehabilitation Applied to Medical Sciences Lectures
- 5222 Therapeutic and Evaluation Procedures III
- 5281 Theory of Therapeutic Exercise
- 5283 Techniques of Therapeutic Exercise
- 5292 Introduction to Research
- 5294 Independent Study in Physical Therapy
- 5295 Clinical Education in Physical Therapy
- 5312 Therapeutic Activities II
- 5342 Theory II: Psychosocial Dysfunction
- 5360 Group Process Seminar
- 5393 Kinesiology/Evaluation
- 5396 Field Work Education in Occupational Therapy
- 5398 Fieldwork Education in Occupational Therapy
- 5410 Adult Rehabilitation Medicine
- 5411 Rehabilitation Medicine: Children
- 5414 Physical Medicine and Rehabilitation for the Family Physician
- 5415 Private Practice in Physical Medicine and Rehabilitation
- 5416 Physical Medicine and Rehabilitation at St. Paul Ramsey
- 5814 Physiological Assessment in Physical Therapy
- 5817 Special Topics in Physical Therapy
- 5841 Instrumentation and Analysis Techniques
- 5951 Bioelectric Stimulation
- 8103 Clinic
- 8130 Seminar: Current Literature in Physical Therapy
- 8135 Advanced Kinesiology
- 8140 Physiological Assessment in Physical Therapy
- 8170 Special Topics in Physical Therapy
- 8172 Educational Administration
- 8180 Physiological Bases for Therapeutic Exercise
- 8185 Problems in Physical Therapy
- 8188 Teaching Practicum
- 8192 Research Design in Physical Therapy
- 8193 Research Problems in Physical Therapy
- 8195 Research in Physical Therapy
- 8200 Physical Medicine and Rehabilitation Service
- 8205 Readings in Physical Medicine and Rehabilitation
- 8206 Conference on Physical Medicine and Rehabilitation
- 8207 Basic and Applied Physiatry
- 8210 Research in Physical Medicine

- 8212 Electromyography
- 8214 Readings in Electromyography
- 8220 Seminar: Physical Medicine and Rehabilitation
- 8777 Thesis Credits: Masters
- 8888 Thesis Credits: Doctoral

**PHYSICS (Phys)
Institute of Technology**

Winter Quarter

- r1001 The Physical World
- r1005 Physics Laboratory
- r1041 Introductory Physics
- r1042 Introductory Physics
- r1045 Introductory Physics Laboratory
- r1046 Introductory Physics Laboratory
- r1105 General Physics
- r1108 General Physics Laboratory
- r1271 General Physics I
- r1275 General Physics Laboratory I
- r1281 General Physics II
- r1285 General Physics Laboratory II
- r1291 General Physics III
- r1295 General Physics Laboratory III
- 1321 Comprehensive Introductory Physics with Calculus II
- 1421 Honors Physics II
- r3015 Oscillations and Waves Laboratory
- r3501 Modern Physics
- r3512 Quantum Physics I
- r3601 Special Relativity
- r3970 Directed Studies
- r5022 Introduction to Analytic Mechanics
- r5023 Introduction to Electric and Magnetic Fields
- r5032 Topics in Mathematical Physics
- r5052 Classical Physics
- r5062 Computational Methods in the Physical Sciences
- r5102 Introduction to Quantum Mechanics
- r5122 Methods of Experimental Physics II
- r5124 Experimental Project
- r5152 Quantum Mechanics
- r5162 Introduction to Plasma Physics
- r5202 Thermal and Statistical Physics
- r5232 Introduction to Solid State Physics
- r5400H Junior Honors Seminar
- r5410H Senior Honors Seminar
- r5805 Contemporary Optics
- r5925 History of 20th Century Physics
- r5950 Seminar
- r5970 Directed Studies
- r5980 Research Seminar
- r5990 Directed Research
- r8082 General Relativity
- r8122 Relativistic Quantum Mechanics
- r8200 Seminar: Condensed Matter Physics
- r8212 Transport Theory
- r8222 Solid-State Physics
- r8300 Seminar: Nuclear Physics
- r8370 Seminar: Elementary Particle Physics
- r8372 Elementary Particle Physics
- r8400 Seminar: Space Physics
- r8422 Solar and Magnetospheric Physics

- r8500 Plan B Project
- 8777 Thesis Credits: Masters
- 8888 Thesis Credits: Doctoral
- r8950 Seminar: Problems of Physics Teaching and Higher Education
- r8990 Research in Physics

Spring Quarter

- r1001 The Physical World
- r1005 Physics Laboratory
- r1042 Introductory Physics
- r1046 Introductory Physics Laboratory
- r1106 General Physics
- r1109 General Physics Laboratory
- r1271 General Physics I
- r1275 General Physics Laboratory I
- r1281 General Physics II
- r1285 General Physics Laboratory II
- r1291 General Physics III
- r1295 General Physics Laboratory III
- 1331 Comprehensive Introductory Physics with Calculus III
- 1431 Honors Physics III
- r1435 Honors Physics Laboratory
- r3513 Quantum Physics II
- r3515 Modern Physics Laboratory
- r3970 Directed Studies
- r5024 Introduction to Electric and Magnetic Fields
- r5053 Classical Physics
- r5123 Methods of Experimental Physics III
- r5124 Experimental Project
- r5153 Quantum Mechanics
- r5211 Introductory Solid State Physics
- r5233 Introduction to Solid State Physics
- r5301 Introduction to Nuclear Physics
- r5371 Introduction to Elementary Particle Physics
- r5400H Junior Honors Seminar
- r5410H Senior Honors Seminar
- r5950 Seminar
- r5970 Directed Studies
- r5990 Directed Research
- r8123 Relativistic Quantum Field Theory
- r8131 Symmetry and its Applications to Physical Problems
- r8200 Seminar: Condensed Matter Physics
- r8216 Many-Body Theory
- r8223 Solid-State Physics
- r8300 Seminar: Nuclear Physics
- r8370 Seminar: Elementary Particle Physics
- 8373 Elementary Particle Physics
- r8400 Seminar: Space Physics
- r8411 Cosmic Ray and Space Physics
- r8500 Plan B Project
- 8777 Thesis Credits: Masters
- 8888 Thesis Credits: Doctoral
- r8950 Seminar: Problems of Physics Teaching and Higher Education
- r8990 Research in Physics

**PHYSIOLOGY (Phsl)
Medical School**

Winter Quarter

- 3051 Human Physiology
- 3053 Principles of Physiology

- 3056 Principles of Physiology
- 3091H Honors Course: Readings in Physiology
- 3092H Honors Course: Problems in Physiology
- 3970 Directed Studies
- 5100 Systems Physiology
- 5110 Human Physiology
- 5113 Problems in Physiology
- r5202 Computational Neuroscience II: Cells and Circuits
- 5441 Quantitative Physiology
- 5552 Readings in Physiology
- 5553 Research in Physiology
- 8113 Problems in Physiology
- 8201 Literature Seminar
- 8202 Readings in Physiology
- 8203 Research in Physiology
- 8216 Selected Topics in Neurophysiology
- 8777 Thesis Credits: Masters
- 8888 Thesis Credits: Doctoral

Spring Quarter

- 3091H Honors Course: Readings in Physiology
- 3092H Honors Course: Problems in Physiology
- 3970 Directed Studies
- 5101 Neuroscience for Dental Students
- 5111 Human Physiology
- 5112 Human Neuroscience B
- 5113 Problems in Physiology
- 5203 Computational Neuroscience III: Neural Systems and Information Processing
- 5444 Muscle Contraction
- 5552 Readings in Physiology
- 5553 Research in Physiology
- 5567 Properties of Receptor Systems
- 5577 Methods in Physiology
- 8113 Problems in Physiology
- 8201 Literature Seminar
- 8202 Readings in Physiology
- 8203 Research in Physiology
- 8211 Selected Topics in Heart and Circulation
- 8216 Selected Topics in Neurophysiology
- 8217 Properties of Sensory Receptor Systems
- 8227 Methods in Physiology
- 8777 Thesis Credits: Masters
- 8888 Thesis Credits: Doctoral

**PLANT BIOLOGY (PBio)
Biological Sciences**

Winter Quarter

- 5001 Basic Botany
- 5109 Molecular Genetics and Biochemistry of Yeasts and Filamentous Fungi
- 5111 Plant Cell, Tissue and Organ Development
- 5183 Water, Minerals, and Translocation
- 5960 Special Topics
- 5970 Directed Studies
- 5990 Directed Research
- 8777 Thesis Credits: Masters
- 8888 Thesis Credits: Doctoral
- 8950 Seminar
- 8990 Research Problems

Spring Quarter

- r1009 Minnesota Plant Life

- r1012 Plants Useful to Humans
- 3131 Survey of Plant Physiology
- 3201 Introductory Plant Systematics
- 5001 Basic Botany
- 5131 Survey of Plant Physiology
- 5182 Plant Metabolism
- r5970 Directed Studies
- 5990 Directed Research
- 8777 Thesis Credits: Masters
- 8888 Thesis Credits: Doctoral
- 8950 Seminar
- 8990 Research Problems

PLANT BREEDING (PIBr)

Winter Quarter

- 8777 Thesis Credits: Masters
- 8888 Thesis Credits: Doctoral

Spring Quarter

- 8777 Thesis Credits: Masters
- 8888 Thesis Credits: Doctoral

PLANT PATHOLOGY (PIPa)

Agriculture

Winter Quarter

- 1500 Biotechnology: Basic Concepts and Applications
- 3090 Research in Plant Pathology
- 5002 Introductory Plant Pathology for Advanced Students
- 5004 Bacterial Diseases of Plants
- 5006 Fungal Diseases of Plants
- 5106 Mycology: Ascomycetes-Fungi Imperfecti
- 5109 Biochemistry and Molecular Biology of Fungi
- 8002 Plant Disease Theory II: Tissues to Whole Plants
- 8090 Advanced Procedures and Research in Plant Pathology
- 8095 Advanced Procedures and Research in Mycology
- r8201 Seminar
- 8777 Thesis Credits: Masters
- 8888 Thesis Credits: Doctoral

Spring Quarter

- 3090 Research in Plant Pathology
- 5000 Professional Experience Program
- 5007 Air Pollutants and Their Effects on Plants
- r5008 Introduction to Plant Nematology
- 5050 Forest Pathology
- r5215 Insects in Relation to Plant Diseases
- 8003 Plant Disease Theory III: Populations
- 8090 Advanced Procedures and Research in Plant Pathology
- 8095 Advanced Procedures and Research in Mycology
- 8777 Thesis Credits: Masters
- 8888 Thesis Credits: Doctoral

PLANT PHYSIOLOGY (PIPh)

Agriculture

Winter Quarter

- 8251 Seminar: Plant Physiology
- 8777 Thesis Credits: Masters
- 8888 Thesis Credits: Doctoral

Spring Quarter

- 8251 Seminar: Plant Physiology
- 8777 Thesis Credits: Masters
- 8888 Thesis Credits: Doctoral

POLISH (Plsh)

Russian And East European Studies Liberal Arts

Winter Quarter

- 1102 Beginning Polish
- 5900 Topics
- 5970 Directed Readings

Spring Quarter

- 1103 Beginning Polish
- 5900 Topics
- 5970 Directed Readings

POLITICAL SCIENCE (Po)

Liberal Arts

Winter Quarter

- 1001 American Government and Politics
- r1025 World Politics
- r1026 American Foreign Policy
- r1041 Contemporary Political Ideologies
- r1054 Introduction to Comparative Politics
- r3051 Introduction to Political Analysis
- 3070 Directed Field Studies
- 3080 Internship
- r3085H Honors Course: Introduction to Political Research
- 3110H Honors Work in Selected Fields
- r3308 The United States Congress
- r3323 Civil Liberties in America
- r3352 Fieldwork in the Legislature
- r3469 Political Elites and Leadership
- r3659 American Political Thought
- r3739 The Politics of Ethnic Communities
- r3836 Foreign Policy Decision Making
- 3970 Directed Studies
- r5322 American Social Policy
- r5327 Local Government and Politics
- r5410 Advanced Topics in Government and Politics: Peasant Politics
- r5461 Western European Government and Politics
- r5477 Middle Eastern Government and Politics
- r5502 Principles of the American Constitution II
- r5657 The Development of Political Thought: Contemporary
- r5885 International Peace and Violence
- 8101 Scope and Methods of Political Science
- 8103 Political Science as a Profession
- 8125 Dynamic Analysis
- 8140 Individual Readings and Research in Methodology
- 8150 Research Seminar: Methodology
- 8215 American Political Thought
- 8240 Individual Reading and Research in Political Thought
- 8250 Research Seminar: Political Theory
- 8301 Public Opinion and Political Participation
- 8313 Executive Process
- 8340 Individual Reading and Research in American Politics

- 8350 Research Seminar: American Politics
- 8400 International Relations
- 8440 Individual Reading and Research in International Relations
- 8450 Research Seminar: International Politics and Foreign Policy
- 8633 Comparative Socio-Political Change
- 8640 Individual Readings and Research in Comparative Politics
- 8645 Comparative Analysis of Elites in an Institutional Context
- 8650 Research Seminar: Comparative Politics
- 8660 Topics in Comparative Politics
- 8777 Thesis Credits: Masters
- 8888 Thesis Credits: Doctoral

Spring Quarter

- 1001 American Government and Politics
- r1025 World Politics
- r1026 American Foreign Policy
- r1041 Contemporary Political Ideologies
- r1054 Introduction to Comparative Politics
- r1061 Introduction to Political Thought
- r3051 Introduction to Political Analysis
- 3070 Directed Field Studies
- 3080 Internship
- r3085 Introduction to Political Research
- 3110H Honors Work in Selected Fields
- r3306 The American Presidency
- r3308 The United States Congress
- r3661 Democratic Theory
- r3766 Political Psychology
- r3835 The International System
- 3970 Directed Studies
- r5303 The American Democracy
- r5410 Advanced Topics in Government and Politics
- r5461 Western European Government and Politics
- r5467 Japanese Government and Politics
- r5478 Government and Politics of African Countries
- r5737 American Political Parties
- r5889 The Politics of Global Economic Relations
- 8102 Approaches to Political Research
- 8103 Political Science as a Profession
- 8121 Introduction to Quantitative Analysis
- 8140 Individual Readings and Research in Methodology
- 8150 Research Seminar: Methodology
- 8200 Understanding Political Theory
- 8231 Democratic Theory
- 8240 Individual Reading and Research in Political Thought
- 8250 Research Seminar: Political Theory
- 8321 Urban Politics
- 8335 Public Policy
- 8340 Individual Reading and Research in American Politics
- 8350 Research Seminar: American Politics
- 8402 Conflict Dynamics and Security
- 8411 Foreign Policy and Decision Making
- 8608 Government and Politics of the U.S.S.R.
- 8611 Government and Politics in East Asia
- 8637 Comparative Political Economy
- 8640 Individual Readings and Research in Comparative Politics

- 8650 Research Seminar: Comparative Politics
- 8777 Thesis Credits: Masters
- 8888 Thesis Credits: Doctoral

PORTUGUESE (Port)
Spanish And Portuguese
Liberal Arts

Winter Quarter

- r1001 Beginning Portuguese
- r1002 Beginning Portuguese
- r1004 Intermediate Portuguese Grammar and Composition
- r1005 Intermediate Portuguese
- r3104 The Art of Reading Luso-Brazilian Literary Texts
- 3970 Directed Studies
- 5524 Brazilian Literature and Modernization
- 5970 Directed Readings
- 5990 Directed Research
- 8777 Thesis Credits: Masters
- 8970 Directed Readings in Romance Languages

Spring Quarter

- r1002 Beginning Portuguese
- r1003 Beginning Portuguese
- r1005 Intermediate Portuguese
- r1006 Intermediate Portuguese
- r3104 The Art of Reading Luso-Brazilian Literary Texts
- r3502 Luso-Brazilian Civilization II Fiction: its Political and Social Content
- 3970 Directed Studies
- 5940 Figures in Luso-Brazilian Literature
- 5970 Directed Readings
- 5990 Directed Research
- 8777 Thesis Credits: Masters
- 8970 Directed Readings in Romance Languages

PSYCHOLOGY (Psy)
Liberal Arts

Winter Quarter

- 1001 Introduction to Psychology
- r1001H Honors Seminar: Introduction to Psychology
- 1004 Introductory Laboratory Psychology
- 1005 Introductory Laboratory Psychology
- r1011 Career Decision Making
- r3011 Introduction to Psychology of Learning
- r3051 Introduction to Cognitive Psychology
- r3902 Major Project in Psychology
- 3960 Undergraduate Seminar
- 3970 Directed Studies
- 3990 Directed Research
- 5012 Psychology of Learning
- 5036 Vision: Computational Theory to Neural Systems
- 5051 Psychology of Human-Machine Interaction
- 5054 Psychology of Language
- r5101 Personality
- r5138 Psychology of Aging
- r5206 Research Methods in Social Psychology
- r5604H Abnormal Psychology
- r5701 Personnel and Industrial Psychology
- r5705 Work Motivation
- 5901H Honors Project

- 5960 Topics in Psychology
- 8015 Seminar: Analysis of Operant Behavior
- 8040 Psychophysiology
- 8070 Seminar: Psychopharmacology
- r8107 Cross-Cultural Study of Personality
- 8115 Scientific Study of Psychopathology
- 8120 Personality, Therapy, and Women
- 8203 Impression Management
- 8205 Seminar: Research in Social Psychology
- 8410 Perspectives in Learning, Perception, and Cognition
- r8501 Counseling Psychology I: History and Theory
- 8515 Practicum in Student Counseling
- 8518 Practicum in Rehabilitation Counseling
- 8521 Pre-Practicum in Applied Psychology
- 8544 Seminar: Research in Counseling Psychology
- 8545 Seminar: Research in Counseling Psychology
- 8560 Internship in Counseling Psychology
- 8612 Professional Methods in Clinical Psychology I: Assessment
- 8620 Practicum in Clinical Psychology
- 8622 Professional Methods in Clinical Psychology II: Techniques of Intervention
- 8632 Professional Methods in Clinical Psychology III: Descriptive Psychopathology
- 8640 Seminar: Topics in Clinical Psychology
- 8670 Internship in Clinical Psychology
- 8704 Seminar: Industrial and Organizational Psychology
- 8777 Thesis Credits: Masters
- 8882 Seminar: Psychometric Methods
- r8884 Methods for Multivariate Data Analysis
- 8888 Thesis Credits: Doctoral
- r8970 Seminar: Special Areas of Psychology and Related Sciences
- 8980 Directed Teaching in Psychology
- 8990 Research Problems

Spring Quarter

- 1001 Introduction to Psychology
- 1005 Introductory Laboratory Psychology
- r1011 Career Decision Making
- r3101 Introduction to Personality
- 3201 Introduction to Social Psychology
- r3604 Introduction to Abnormal Psychology
- 3617 Introduction to Clinical Psychology
- r3902 Major Project in Psychology
- 3970 Directed Studies
- 3990 Directed Research
- 5013 Psychology of Learning
- r5014 Psychology of Human Learning and Memory
- r5034 Psychobiology of Vision
- r5122 Issues in Developmental Disabilities
- r5136 Human Abilities
- 5141 Psychology of Women
- r5202 Attitudes and Social Behavior
- r5501 Vocational Psychology
- r5702 Psychology of Individual Behavior in Organizations
- r5900H Honors Seminar: Psychology
- 5901H Honors Project
- 5960 Topics in Psychology

- 8019 Seminar: Readings in Behavior Theory
- 8037 Psychophysics and Audition
- 8041 Psychophysiology
- 8056 Seminar: Psychology of Language
- 8070 Seminar: Psychopharmacology
- 8114 Scientific Study of Psychopathology
- 8121 Achievement Motivation and Women
- 8206 Seminar: Research in Social Psychology
- 8208 Advanced Social Psychology: The Self
- 8410 Perspectives in Learning, Perception, and Cognition
- 8503 Counseling Psychology III: Interviewing and Theories
- 8516 Practicum in Student Counseling
- 8519 Practicum in Rehabilitation Counseling
- 8522 Pre-Practicum in Applied Psychology
- 8542 Seminar: Practices, Approaches and Issues in Counseling Psychology
- 8546 Seminar: Research in Counseling Psychology
- 8560 Internship in Counseling Psychology
- 8613 Professional Methods in Clinical Psychology I: Assessment
- 8620 Practicum in Clinical Psychology
- 8660 Seminar: The Psychopathic Personality: Theory and Research
- 8670 Internship in Clinical Psychology
- 8777 Thesis Credits: Masters
- 8883 Seminar: Psychometric Methods
- 8888 Thesis Credits: Doctoral
- 8900 Seminar: Behavioral Genetics
- r8970 Seminar: Special Areas of Psychology and Related Sciences
- 8980 Directed Teaching in Psychology
- 8990 Research Problems

PUBLIC AFFAIRS (PA)

Winter Quarter

- r5002 Planning and Management of Organizational Relations
- r5021 Quantitative Methods in Public Affairs and Planning I
- r5113 Public Services Redesign
- r5121 Public Budgeting I
- r5193 Topics in Public and Independent Sector Management
- r5201 Planning Theory
- r5211 Group Techniques in Public Affairs and Plan Making
- r5231 Strategy and Tactics in Project Planning
- r5302 Topics in Policy Analysis II
- r5430 Labor Policy
- r5441 Survey of Women and Public Policy
- r5493 Topics in Social Policy
- 5502 Economic Development II
- r5593 Topics in Economic and Community Development
- 5602 Metropolitan Analysis I: Population and Housing
- r5621 Private Sector Development
- 5702 Technology Planning II
- r5711 Energy Policy I
- r5721 Environmental Policy I
- r5820 The Multinational Corporation
- r5966 General Topics
- r8192 Advanced Topics in Public and Independent Sector Management

r8691 Advanced Topics in Land Use and Human Settlements

8900 Public Affairs Internship

8910 Independent Study

Spring Quarter

r5012 Policy Analysis II

5022 Quantitative Methods in Public Affairs and Planning II

5123 Financial Management in Public and Nonprofit Organizations

r5197 Topics in Public and Independent Sector Management

5221 Law and Urban Affairs

r5241 Policy Planning Strategy

r5293 Topics in Planning

r5310 Policy and Evaluation Research

r5320 Modeling and Causal Inference in the Social Sciences

r5442 Seminar on Women and Public Policy

r5497 Topics in Social Policy

r5593 Topics in Economic and Community Development

r5603 Metropolitan Analysis II: Urban Economic Geography

r5622 Managing Urban Growth and Change

5712 Energy Policy II

r5961 General Topics

r6300 Case Studies in Policy Analysis

r6391 Advanced Topics in Policy Analysis

r8451 Seminar: Health Care Policy

8900 Public Affairs Internship

8910 Independent Study

8998 Seminar: Leadership and Professional Practice in Public Affairs

PUBLIC HEALTH (PubH)

Winter Quarter

r3003 Fundamentals of Alcohol and Drug Abuse

r3034 Topics in Alcohol and Drug Problems

3400 Directed Studies: Biometry

r5003 Fundamentals of Alcohol and Drug Abuse

r5004 Field Instruction in Public Health

5004H Field Instruction in Public Health

r5005 Topics in Public Health

r5008 Preventive Medicine Seminar

r5015 Topics in Interdisciplinary Studies

r5020 Public Health Social Work Integrative Seminar

5040 Dying and Death in Contemporary Society

r5044 Topics in Alcohol and Drug Problems

r5084 Internship in Health Education Practice I

r5085 Internship in Health Education Practice II

5090 Research Topics in Health Education

5096 Topics: Research

r5097 Topics: Selected Readings

5150 Topics: Environmental and Occupational Health

5154 Practicum in Environmental and Occupational Health

5159 Seminar: Environmental Health

5184 Air Analysis

5186 Environmental Chemistry

5192 Occupational Safety

5194 Injury Prevention in the Workplace, Community, and Home

r5197 Topics: Injury Prevention in the Workplace, Community, and Home

5233 Biological Safety

5239 Microbiology of the Human Environment: Seminar

5243 Water and Health

5253 Introduction to Hazardous Waste Management

5262 Metabolism and Distribution of Xenobiotics

5326 Research in Animal/Human Health

5330 Epidemiology I

r5340 Epidemiology II: Strategies and Methods

r5386 Public Health Aspects of Cardiovascular Diseases

r5387 Cancer Epidemiology

r5390 Smoking Intervention

5393 Design and Analysis of Community Trials in Epidemiology

5394 Mass Communication and Public Health

r5397 Social Environment and Health Behavior Change

r5399 Seminar: Topics in Epidemiology

r5414 Biostatistical Methods I

5415 Biostatistical Methods II

r5421 Statistical Computing II: FORTRAN and Advanced SAS

5452 Biostatistics II

5462 Clinical Trials I

5470 Topics in Biostatistics

5510 Research Methodology in Public Health Nursing

r5530 Public Health Nursing Practicum

5531 Public Health Nursing Practicum

5575 Topics: Public Health Nursing

5606 Health of Infants and Young Children

5614 Field Experience in Maternal and Child Health

r5616 The Rights of Children and Youth: Abuse and Neglect

5621 Maternal and Child Health Student/Faculty Seminar

5648 Topics in Maternal and Child Health

5649 Maternal and Child Health Research

r5651 Critical Readings in Adolescent Health Seminar

r5701 Public Health Administration II

5703 Public Health Administration Clerkship

5704 Field Experience: Public Health Administration

5707 Independent Study: Public Health Administration

r5713 HMOs and Alternative Delivery System Management II

r5720 Management Communications

5723 Administrative Residency

r5727 Health Leadership and Effecting Change

5728 Program Planning and Development in Public Health

r5735 Public Ethics/Politics and Public Health

5736 The Elderly: A High Risk Population

5738 Topics: Adult Health

5739 Topics: Public Health Administration

r5744 Principles of Problem Solving in Health Services Organizations

r5745 Advanced Problem Solving Project in Health Services Organizations

r5751 Principles of Management in Health Services Organizations

r5752 Strategic and Facilities Planning

r5753 Strategic Management in the Healthcare Industry

r5757 Managerial Accounting in Health Services Organizations

r5760 Operations Research and Control Systems for Hospitals

r5767 Applied Field Research II

5770 Topics: Hospital and Health Care Administration

r5794 Public Policy in Health Care

r5852 Program Evaluation in Health and Mental Health Settings

r5861 Health Insurance

r5901 Seminar: Public Health Nutrition

5903 Nutritional Assessment

5906 Field Experience: Public Health Nutrition

5909 Topics in Public Health Nutrition

5914 Nutrition Intervention

5935 Child and Adolescent Nutrition

8150 Research: Environmental and Occupational Health

8191 Research: Injury Prevention in the Workplace, Community, and Home

8264 Human Diseases Caused by Environmental Agents

8269 Toxicology Seminar

8330 Research in Epidemiology

8331 Field Practice in Epidemiologic Investigations

8332 Readings in Epidemiology

8400 Seminar in Biostatistics

8421 Analysis of Categorical Data

8422 Sampling Theory

8431 Bayes and Empirical Bayes Methods

r8443 Advanced Biometric Methods for Epidemiologic Research

8449 Topics in Biostatistics

8450 Research in Biostatistics

8510 Directed Research

8511 Directed Research

8760 Topics in Hospital and Health Care Administration

8762 Contemporary Problems of Hospital and Related Health Services

8763 External Forces Affecting Health Services Delivery

8764 Research Applications to Health Services Delivery

8777 Thesis Credits: Masters

8780 Advanced Statistical Methods in Health Care Research

8782 Research Practicum

8803 Long Term Care: Principles and Policies

r8811 Seminar: Research Studies in Health Care

8820 Microeconomics of Health Care

8888 Thesis Credits: Doctoral

Spring Quarter

3001 Personal and Community Health

3034 Topics in Alcohol and Drug Problems

3400 Directed Studies: Biometry

5001 Philosophical and Conceptual Bases of Public Health Practice

5004 Field Instruction in Public Health

5005 Topics in Public Health

5008 Preventive Medicine Seminar

r5010 Public Health Approaches to AIDS

r5013 Interdisciplinary Team Training in Health Services Delivery

5015 Topics In Interdisciplinary Studies
 5022 Personal and Community Health
 5044 Topics In Alcohol and Drug Problems
 r5045 Adolescent Development and Prevention of Drug Abuse
 r5047 Intervention/Secondary Prevention of Drug Abuse In Adults
 5056 Health Educational Approaches to Change through Planning
 r5064 The Teaching-Learning Process in the Health Care Setting
 r5084 Internship in Health Education Practice I
 r5085 Internship in Health Education Practice II
 5090 Research Topics in Health Education
 5096 Topics: Research
 5097 Topics: Selected Readings
 5150 Topics: Environmental and Occupational Health
 5152 Environmental Health
 5153 Case Studies in Environmental Health
 5154 Practicum in Environmental and Occupational Health
 5158 Health Risk Evaluation
 5159 Seminar: Environmental Health
 5161 Administration of Environmental Health
 5165 The Political Process in Public Health
 5197 Topics: Injury Prevention in the Workplace, Community, and Home
 r5212 Ventilation Control of Environmental Hazards
 5213 Ergonomics In Occupational Health
 5215 Applied Occupational Toxicology
 5218 Field Problems In Occupational Health
 5242 Environmental Health Aspects of Groundwater Systems
 5271 Occupational Epidemiology
 5326 Research in Animal/Human Health
 5335 Epidemiology of Infections and Communicable Disease
 5341 Epidemiology III: Interpretation of Data From Epidemiologic Resources
 5361 Hospital Infection Control
 5380 Applied Human Nutrition
 5388 Epidemiology of Mental Disorders
 5389 Nutritional Epidemiology
 r5391 Introduction to Behavioral Epidemiology
 5392 Public Health Approaches to Health Behavior Change
 5398 Public Health Policy As a Prevention Strategy
 5399 Seminar: Topics In Epidemiology
 r5422 Statistical Computing III: Data Collection and Management
 5450 Biostatistics I
 5454 Biostatistics III
 r5456 Biostatistics Consulting Seminar
 5459 Introduction to the Mathematical Foundation of Biostatistics
 5461 Biostatistical Topics In Epidemiology
 5470 Topics In Biostatistics
 5510 Research Methodology in Public Health Nursing
 5530 Public Health Nursing Practicum
 5531 Public Health Nursing Practicum
 r5575 Topics: Public Health Nursing
 5607 Adolescent Health: Issues and Challenges
 5614 Field Experience in Maternal and Child Health

5621 Maternal and Child Health Student/Faculty Seminar
 5630 Reproductive Health
 5645 Families and Health
 5648 Topics In Maternal and Child Health
 5649 Maternal and Child Health Research
 5702 Public Health Administration III
 5703 Public Health Administration Clerkship
 5704 Field Experience: Public Health Administration
 5707 Independent Study: Public Health Administration
 r5711 Public Health Law
 r5722 Interpersonal Behavior in Health Organizations
 5723 Administrative Residency
 5731 Administrative Aspects of Planning Disease Prevention/Health Promotion Programs
 5732 Competition and Regulation in the Delivery of Health Services
 r5737 Topics: Multidisciplinary Perspectives on Aging
 5738 Topics: Adult Health
 5739 Topics: Public Health Administration
 r5745 Advanced Problem Solving Project in Health Services Organizations
 r5747 Human Resources Management
 r5754 Marketing Health Services
 r5759 Health Care Financial Management
 r5761 Quantitative Methods Applied to Health Administration Problems
 r5768 Applied Field Research III
 5770 Topics: Hospital and Health Care Administration
 r5771 Financial Management in Health Services Organizations
 r5796 Legal Considerations in Health Services Organizations
 5901 Seminar: Public Health Nutrition
 5906 Field Experience: Public Health Nutrition
 5909 Topics in Public Health Nutrition
 5932 Nutrition: Adults and the Elderly
 5934 Administrative Skill Building
 8150 Research: Environmental and Occupational Health
 r8185 Analysis of Toxicants
 8191 Research: Injury Prevention in the Workplace, Community, and Home
 8261 Molecular Toxicology
 8269 Toxicology Seminar
 8330 Research in Epidemiology
 8331 Field Practice in Epidemiologic Investigations
 8332 Readings in Epidemiology
 8379 Seminar in Epidemiology
 8389 Seminar: Topics in Epidemiology
 8400 Seminar in Biostatistics
 8432 Bioassay and Screening
 8449 Topics In Biostatistics
 8450 Research In Biostatistics
 8510 Directed Research
 8511 Directed Research
 8763 External Forces Affecting Health Services Delivery
 8764 Research Applications to Health Services Delivery
 r8770 Seminar: Health and Human Behavior
 8777 Thesis Credits: Masters

8782 Research Practicum
 8801 Seminar: Health Services Policy
 8812 Seminar: Research Studies in Health Care
 r8813 Measurement of Health Related Social Factors
 8821 Seminar: Advanced Health Economics
 8888 Thesis Credits: Doctoral

RECREATION, PARK, AND LEISURE STUDIES (Rec) School of Physical Education And Recreation Education

Winter Quarter

r1520 Orientation to Leisure and Recreation
 r1600 Leadership in Social Activities
 r3550 Park and Recreation Administration
 3700 Senior Internship
 3900 Directed Study
 r5160 Conservation of Park Resources
 r5220 Therapeutic Recreation Services
 5230 Recreation and Persons with Developmental Disabilities
 r5255 Leisure Education for Special Populations
 r5350 Wilderness Outdoor Recreation Programming
 5630 Practicum: Therapeutic Recreation
 5640 Practicum: Leisure Services
 5695 Practicum: Sport Management
 r5750 Legal Issues in Leisure Services
 5900 Workshop: Contemporary Issues in Leisure Services
 r5980 Introduction to Research
 5981 Problems
 5983 Readings: Recreation
 8310 Seminar: Recreation and Park Administration
 8777 Thesis Credits: Masters
 8980 Research Problems
 8981 Research Problems

Spring Quarter

r1520 Orientation to Leisure and Recreation
 r1540 Camp Counseling
 r3540 Recreation Programming
 3700 Senior Internship
 3900 Directed Study
 r5240 Recreation and Aging
 r5250 Financing Leisure Services
 r5270 Community Leisure Services and Persons with Disabilities
 r5310 Programming in Outdoor Education
 r5455 Recreational Sports
 r5510 Women in Sport and Leisure
 5630 Practicum: Therapeutic Recreation
 5640 Practicum: Leisure Services
 5695 Practicum: Sport Management
 5981 Problems
 5983 Readings: Recreation
 r8370 Seminar: Administrative Problems in Therapeutic Recreation
 r8380 Seminar: Administrative Problems in Recreation and Parks
 8777 Thesis Credits: Masters
 8980 Research Problems
 8981 Research Problems

RELIGIOUS STUDIES (ReIS)

Liberal Arts

Winter Quarter

- 3034 Introduction to Judaism
- r3072 The New Testament
- 3202 The Bible: Prophecy
- 3970 Directed Studies
- r5072 The New Testament
- r5102 Religion and American Culture
- 5890 Seminar in Religious Studies
- 8777 Thesis Credits: Masters
- 8970 Directed Studies

Spring Quarter

- 3037 Zoroastrianism
- r3073 Roman Religion and Early Christianity
- 3203 The Bible: Wisdom, Poetry, and Apocalyptic
- 3251 The Modern Study of the Old Testament
- 3508 Islam: Iran to India
- 3970 Directed Studies
- r5073 Roman Religion and Early Christianity
- r5113 Experiences, Mystical and other
- 5508 Islam: Iran to India
- r5960 Topics in Religious Studies
- 8777 Thesis Credits: Masters
- 8970 Directed Studies

RHETORIC (Rhet)

Agriculture

Winter Quarter

- r1101 Writing to Inform and Persuade
- r1104 Library Research Methods
- r1151 Writing in Your Major
- r1160 Efficient College Reading
- r1220 Principles of Human Communication
- r1222 Public Speaking
- r1301 Humanities: Modern Thought and the Enlightenment
- r1302 Humanities: Modern Thought and the Industrial Revolution
- r1303 Humanities: Modern Thought and the Impact of Evolution
- r1311 Humanities: The Family in American Experience
- r3254 Advanced Public Speaking
- r3266 Communication, Discussion in Small Group Decision Making
- 3270 Speech: Special Problems
- 3374 Special Problems in Humanities
- r3375 Humanities: Agricultural Heritage
- r3380 Humanities: The Literature of Social Reflection
- r3562 Writing in Your Profession
- r3572 Grammatical Editing for Technical Writers
- 5100 Technical Communication: Special Problems
- 5180 Internship in Technical Communication
- 5257 Scientific and Technical Presentations
- r5400 Dissemination and Utilization of Information
- r5531 Scientific and Technical Communication Course Development: Developing Writing Courses
- r5541 Readings in Scientific and Technical Prose
- r5551 Report and Thesis Writing
- 5571 Writing for Special Purposes

- r5575 Newsletter
- r5581 Document Design
- 8180 Design Project
- r8210 Theory and Research in Media Selection
- 8777 Thesis Credits: Masters

Spring Quarter

- r1101 Writing to Inform and Persuade
- r1104 Library Research Methods
- r1151 Writing in Your Major
- r1160 Efficient College Reading
- r1222 Public Speaking
- r1303 Humanities: Modern Thought and the Impact of Evolution
- r1310 Humanities: The Land in American Experience
- r3101 Functional Photography
- r3254 Advanced Public Speaking
- r3266 Communication, Discussion in Small Group Decision Making
- 3270 Speech: Special Problems
- r3276 Special Topics in Rhetoric and Communication
- r3370 American Humanities
- 3374 Special Problems in Humanities
- r3380 Humanities: The Literature of Social Reflection
- r3381 Humanities: 20th-Century Culture
- r3390 Humanities: Technology, Self, and Society
- r3562 Writing in Your Profession
- r3572 Grammatical Editing for Technical Writers
- r3582 Senior Seminar
- r3700 Rhetorical Theory: Persuasion and the Literature of Science
- 5100 Technical Communication: Special Problems
- r5160 Advanced College Reading
- r5170 Managerial Communications
- 5180 Internship in Technical Communication
- r5257 Scientific and Technical Presentations
- r5500 Research in Communication Strategies
- r5531 Scientific and Technical Communication Course Development: Developing Writing Courses
- 5571 Writing for Special Purposes
- r5572 Procedures and Policies Manual
- r8120 Reading and Writing Processes and the Technical Communicator
- r8180 Design Project
- r8500 Qualitative Research: Strategies in Technical Communication
- r8510 Theory and Practice in Designing Messages
- 8777 Thesis Credits: Masters

RUSSIAN (Russ)

Russian And East European Studies Liberal Arts

Winter Quarter

- r1102 Beginning Russian
- r1105 Intermediate Russian
- r3102 Third-Year Russian
- 3105 Readings of Russian Poetry and Novel
- 3311 Major Project in Russian
- 3311H Honors Course: Major Project in Russian
- 3422 Literature: Tolstoy to the Present in Translation
- 3970 Directed Readings

- 5021 Soviet Union Study Tour
- 5105 Reading of Russian Poetry and Novel
- 5404 Tolstoy in Translation
- 5422 Literature: Tolstoy to the Present in Translation
- 5970 Directed Readings
- 8777 Thesis Credits: Masters

Spring Quarter

- r1103 Beginning Russian
- r1106 Intermediate Russian
- r3103 Third-Year Russian
- 3106 The Current Soviet Scene
- 3311 Major Project in Russian
- 3311H Honors Course: Major Project in Russian
- 3970 Directed Readings
- 5211 Soviet Literature in Translation
- 5407 Stories and Plays of Anton Chekhov in Translation
- 5970 Directed Readings
- 8111 Seminar in the Study of Russian Literature
- 8777 Thesis Credits: Masters

SANSKRIT (Skt)

South Asian & Middle Eastern Studies

Liberal Arts

Winter Quarter

- 5132 Beginning Sanskrit
- 5162 Advanced Sanskrit
- 5710 Topics: Language and Literature

Spring Quarter

- 5133 Beginning Sanskrit

SCANDINAVIAN (Scan)

Scandinavian Studies

Liberal Arts

Winter Quarter

- 3271 The Vikings at Home and Away
- r3605 The Scandinavian and Finnish Short Story
- 3970 Directed Studies
- 5615 Ibsen and the Beginnings of Modern Drama
- 5701 Old Norse Language and Literature
- 5970 Directed Studies
- 8202 Proseminar: Literary Methodology
- r8702 Philological Proseminar II: Introduction to Philology
- 8888 Thesis Credits: Doctoral
- 8970 Research: Scandinavian Literature and Language

Spring Quarter

- 3457 Sweden: Social Structure, Social Change
- r3505 Scandinavian Fiction from 1890 to Present
- 3602 The Scandinavian Fairy Tale as Literature
- 3613 Children's Literature in Scandinavia
- 3970 Directed Studies
- r5118 Scandinavia in the Middle Ages
- 5613 Contemporary Scandinavian Literature
- 5616 Strindberg and the Drama in Revolt and Transition
- r5645 Folk Arts of Scandinavia
- r5670 Topics in Scandinavian Studies: Scandinavian Art and Design 1880-1915
- r5702 Old Norse Language and Literature

- 5970 Directed Studies
 R8501 Seminar: Medieval Scandinavian Languages and Literature
 8888 Thesis Credits: Doctoral
 8970 Research: Scandinavian Literature and Language

SCHOOL HEALTH EDUCATION (Hlth)

School of Physical Education And Recreation Education

Winter Quarter

- R3330 Teaching Health in the Elementary School

Spring Quarter

- R3330 Teaching Health in the Elementary School

SCIENCE IN AGRICULTURE (ScAg)

Agriculture

Winter Quarter

- 5009 Undergraduate Senior Thesis: Science in Agriculture

Spring Quarter

- 5009 Undergraduate Senior Thesis: Science in Agriculture

SCIENTIFIC COMPUTATION (SciC)

(SciC)

Spring Quarter

- 8101 Supercomputer Research Seminar

SECONDARY EDUCATION (SeEd)

Curriculum And Instruction Education

Winter Quarter

- R3150 Introduction to Secondary School Teaching
 3151 Directed Study
 3152 Practicum: Secondary Education
 R3365 Teaching Secondary School Mathematics
 R3366 Computer Assisted Mathematics Instruction
 R3368 Teaching Secondary School Mathematics
 3600 Student Teaching
 3631 Student Teaching in Second Languages
 R3661 Student Teaching in Mathematics
 R5150 Advanced Methods of Teaching the Social Studies
 5152 Techniques of Instruction in Social Studies
 R5153 New Perspectives in Social Studies
 5185 School and Professional Based Experiences in Second Languages and Cultures
 5189 Planning and Assessing Second Language Curriculum
 5191 Workshop: Teaching of Second Languages and Cultures
 5217 Programs and Curricula in Bilingual Education
 R5219 Teaching Reading to Second Language Learners
 5320 Literature for Adolescents
 5322 Teaching Writing
 5344 Teaching Reading in Content Areas
 5350 Current Developments in English Education
 5351 Directed Study

- 5385 Planning and Assessing Second Language Instruction
 5395 School-Based Projects in Science Education
 5659 School-Related Projects in Language Arts
 5700 Science Education for the Middle School
 5701 Applying Science Education to the Middle School
 5702 Teaching Secondary School Science: A Constructivist Approach
 5703 Applying Science Methods in High Schools
 8387 Research Seminar: Second Languages and Cultures Education
 8801 Problems: Teaching Social Studies
 8871 Problems: Curriculum Construction
 8894 Problems: Second Languages and Cultures Education
 8895 Readings in English Education
 8896 Problems: Teaching English
 8898 Readings in Second Languages and Cultures Education

Spring Quarter

- 3151 Directed Study
 R3152 Practicum: Secondary Education
 R3368 Teaching Secondary School Mathematics
 3600 Student Teaching
 3621 Directed Experiences in Teaching English
 3631 Student Teaching in Second Languages
 R3641 Student Teaching in Social Studies
 R3661 Student Teaching in Mathematics
 5122 Teaching Culture: Theory and Application
 5150 Advanced Methods of Teaching the Social Studies
 R5151 School-Based Projects in Social Studies Education
 5153 New Perspectives in Social Studies
 5175 Secondary Remedial Reading Instruction
 5185 School and Professional Based Experiences in Second Languages and Cultures
 5191 Workshop: Teaching of Second Languages and Cultures
 5321 Teaching Literature in Secondary Schools
 5351 Directed Study
 5382 Second Language Testing, Assessment, and Evaluation
 R5394 Workshop: Science Education: Foundations of Science Education
 R5395 School-Based Projects in Science Education
 R5604 Perspectives on Literacy
 5659 School-Related Projects in Language Arts
 5702 Teaching Secondary School Science: A Constructivist Approach
 5703 Applying Science Methods in High Schools
 5704 Clinical Experience in Science Teaching
 5705 Seminar: Reflecting on Clinical Experience in Science Teaching
 8187 Second Language Teaching in the Classroom: Theory and Application
 8188 Information Sources and Research in Second Language Learning and Teaching
 8387 Research Seminar: Second Languages and Cultures Education
 8801 Problems: Teaching Social Studies
 8871 Problems: Curriculum Construction
 8893 Seminar: Advanced Topics in English-Language Arts Education
 8894 Problems: Second Languages and Cultures Education
 8895 Readings in English Education
 8896 Problems: Teaching English

- 8898 Readings in Second Languages and Cultures Education
 8899 Seminar: Research in Science Education

SLAVIC (Slav) Russian And East European Studies Liberal Arts

Winter Quarter

- 5504 Proseminar: Senior Thesis in Slavic Area Studies
 5504H Honors Course: Proseminar: Senior Thesis in Slavic Area Studies
 8601 Interdisciplinary Seminar in Slavic Area Studies

Spring Quarter

- 8602 Interdisciplinary Seminar in Slavic Area Studies

SOCIAL AND PHILOSOPHICAL FOUNDATIONS OF EDUC (SPFE) Educational Policy And Administration Education

Winter Quarter

- 8777 Thesis Credits: Masters

Spring Quarter

- 8777 Thesis Credits: Masters

SOCIAL WORK (SW)

Human Ecology

Winter Quarter

- R3201 Interventions with Individuals and Groups
 3970 Directed Studies
 3990 Directed Research
 R5010 Seminar: Special Topics
 R5020 Public Health Social Work Integrative Seminar
 R5026 Mediation and Conflict Resolution
 R5102 Survey of Women and Public Policy
 5211 Advanced Theories of Human Growth and Change
 R5601 Ethno-Cultural Concepts in Social Work Practice
 8010 Field Instruction I
 8020 Field Instruction II
 8030 Field Instruction in Social Work III
 R8300 Organizations and Community Systems
 R8301 Human Services Management I
 8401 Social Work Methods II
 R8407 Strategies of Family Intervention
 R8422 Social Work Practice with the Chronically Mentally Ill
 R8450 Special Topics: Practice with Individuals, Families, and Groups
 R8461 Theory and Model Development in Social Work
 8888 Thesis Credits: Doctoral
 R8901 Social Work Research Methods
 R8903 Program Evaluation
 8970 Directed Study
 8990 Research Projects
 R8992 Research Seminar

Spring Quarter

- R3202 Interventions in Community and Social Policy

3970 Directed Studies
 3990 Directed Research
 R5010 Seminar: Special Topics
 R5013 Interdisciplinary Team Training in Health Services Delivery
 5111 Contemporary Policy and Programs in Social Welfare
 R5601 Ethno-Cultural Concepts in Social Work Practice
 8010 Field Instruction I
 8020 Field Instruction II
 8030 Field Instruction in Social Work III
 R8130 Seminar: History of Social Work
 R8180 Social Policy Formulation and Analysis
 R8305 Community Development
 R8307 Human Services Management II
 8402 Social Work Methods III
 R8406 Supervision and Consultation in Social Work Practice
 R8408 Direct Work with Children and Their Families
 R8450 Special Topics: Practice with Individuals, Families, and Groups
 8888 Thesis Credits: Doctoral
 R8901 Social Work Research Methods
 R8902 Direct Practice Evaluation
 8970 Directed Study
 8990 Research Projects
 R8993 Research Seminar

**SOCIOLOGY (Soc)
 Liberal Arts**

Winter Quarter

R1001 Introduction to Sociology
 R1001H Honors Course: Introduction to Sociology
 R1004 American Race Relations
 R3101 Introduction to American Criminal Justice
 3201 Principles of Social Psychology
 R3501 The Family System
 R3503 Sex, Romance, and Relationships
 R3551 World Population Problems
 3801 Sociological Methods I: Descriptive Statistics
 3802 Sociological Methods II: Statistical Inference
 3802H Honors Course: Sociological Methods II: Statistical Inference
 R3811 Computer Usage for Social Statistics
 R3960 Topics in Sociology
 R3966 Major Projects Seminar
 3970 Directed Studies
 3990 Sociology Honors Thesis
 R5102 Criminology
 R5161 Criminal Law in American Society
 R5211 Social Processes in Small Group Settings
 R5441 Work-Family Linkages
 R5461 Comparative Asian Development
 R5705 Background of Modern Social Thought
 R5953 Sociology of Education
 R5960 Topics in Sociology
 5970 Directed Studies
 8090 Topics in Sociology
 R8415 Theories of Social Organization
 R8501 Seminar: Contemporary Research on Marriage, Family
 8777 Thesis Credits: Masters
 8812 Intermediate Statistics for Sociologists

R8817 Sociological Research Practicum
 8888 Thesis Credits: Doctoral
Spring Quarter
 R1001 Introduction to Sociology
 R1001H Honors Course: Introduction to Sociology
 R1003 Social Problems
 R1651 Rural Sociology
 R3102 Introduction to Criminal Behavior and Social Control
 3401 Principles of Social Organization
 R3457 Sweden: Social Structure, Social Change
 R3501 The Family System
 R3503 Sex, Romance, and Relationships
 3802 Sociological Methods II: Statistical Inference
 3803 Sociological Methods III: Research Methods
 3803H Honors Course: Sociological Methods III: Research Methods
 R3937 Social Gerontology: Elders in American Society
 R3954 Sociological Perspectives on Race, Class, and Gender
 R3960 Topics in Sociology
 R3966 Major Projects Seminar
 3970 Directed Studies
 3990 Sociology Honors Thesis
 R5105 Contemporary Corrections
 R5108 Current Issues in Crime Control
 R5147 Sociology of Mental Disorders
 R5162 Criminal Procedure in American Society
 R5311 Sociology of Conflict
 R5411 Formal Organizations
 R5415 Comparative Social Structure
 R5505 Family Development
 R5703 Social Life and Cultural Change
 R5953 Sociology of Education
 R5956 Sociology of Death
 R5960 Topics in Sociology
 5970 Directed Studies
 8090 Topics in Sociology
 R8215 Theories of Social Psychology
 R8714 Comparative Sociology: Perspectives in Theory and Research
 8777 Thesis Credits: Masters
 8813 Data Analysis
 R8814 Seminar: Design of Sociological Research
 R8818 Sociological Research Practicum
 R8855 Health and Human Behavior
 8888 Thesis Credits: Doctoral
 R8955 Seminar: Teaching Sociology on the College Level

**SOIL SCIENCE (Soil)
 Agriculture**

Winter Quarter

1020 The Soil Resource
 1500 Biotechnology: Basic Concepts and Applications
 R3118 Seminar: Soil and Water Pollution and Public Policy
 3416 Soil Fertility
 R3417 Soil Fertility Laboratory
 5102 Modeling of Dynamic Processes in Soil under Natural and Agricultural Ecosystems
 5114 Special Problems in Soils
 R5240 Microclimatology

5416 Soil Fertility
 R5417 Soil Fertility Laboratory
 5550 Peatlands: Formation, Classification, and Utilization
 5605 Microbial Ecology
 8111 Colloquia in Soil Science
 8124 Research Problems in Soils
 8128 Seminar: Soils
 8330 Advanced Soil Chemistry
 8777 Thesis Credits: Masters
 8888 Thesis Credits: Doctoral

Spring Quarter

1262 Introduction to Meteorology
 3225 Physical Soil Management and Conservation
 3520 Soil Morphology, Classification, and Genesis
 5114 Special Problems in Soils
 5228 Seminar: Climatology, Meteorology, and Agriculture
 5310 Soil Chemistry
 5340 Organic and Pesticidal Residues
 5510 Soil Morphology, Classification and Genesis
 5515 Soil Development, Classification and Geography
 R5710 Forest Soils
 8111 Colloquia in Soil Science
 8124 Research Problems in Soils
 8128 Seminar: Soils
 8777 Thesis Credits: Masters
 8888 Thesis Credits: Doctoral

**SOUTH ASIAN STUDIES (SoAS)
 South Asian & Middle Eastern Studies
 Liberal Arts**

Winter Quarter

5970 Directed Studies
 5990 Directed Research
 8777 Thesis Credits: Masters
 8888 Thesis Credits: Doctoral

Spring Quarter

1506 Introduction to Contemporary South Asia
 3202 Modern Indian Literature in Translation
 3506 Introduction to Contemporary South Asia
 5202 Modern Indian Literature in Translation
 5970 Directed Studies
 5990 Directed Research
 8777 Thesis Credits: Masters
 8888 Thesis Credits: Doctoral

**SOVIET CENTRAL ASIAN STUDIES (SCAS)
 Russian And East European Studies
 Liberal Arts**

Winter Quarter

5311 Medieval Sages: Iran and Soviet Central Asia

**SPANISH (Span)
 Spanish And Portuguese
 Liberal Arts**

Winter Quarter

R1101 Beginning Spanish

R1102 Beginning Spanish
 R1103 Beginning Spanish
 R1104 Intermediate Spanish
 R1105 Intermediate Spanish
 R1106 Intermediate Spanish
 R1502 Culture, Civilization of Latin America: Indian, European-Colonial, African Roots
 R3002 Reading for Speed and Comprehension
 R3004 Written Communication: Formal and Informal
 R3005 Oral Communication: Speaking and Listening
 R3104 The Art of Reading Literary Texts
 R3212 Spanish Literature: Aspects of Poetry
 R3212H Honors Course: Spanish Literature: Aspects of Poetry
 R3213 Spanish Literature: Aspects of Drama
 R3213H Honors Course: Spanish Literature: Aspects of Drama
 R3252 Spanish-American Literature: Aspects of Poetry
 R3252H Honors Course: Spanish-American Literature Aspects of Poetry
 R3501 Spanish Civilization: Roots of Modern Spain and Latin America
 R3701 The Structure of Spanish and Portuguese: Phonology
 R3910 Topics in Spanish Peninsular Literature
 R3910H Topics in Spanish Peninsular Literature
 3970 Directed Studies
 3973 Major Project
 5107 The Literature of the Spanish Empire and Its Decline
 5234 Feminism and Literature in Spain
 5526 Creole Consciousness and Mercantilist Culture
 5534 National Literatures of Spanish America
 5701 History of Ibero-Romance
 5970 Directed Readings
 5985 The Study of Spanish in the U.S.: Theory and Field Methods
 5990 Directed Research
 8300 The Construction of Spanish Literary History
 8400 Spanish Literature and the Interaction of National Cultures
 8777 Thesis Credits: Masters
 8888 Thesis Credits: Doctoral
 8970 Directed Readings in Romance Languages

Spring Quarter

R1101 Beginning Spanish
 R1102 Beginning Spanish
 R1103 Beginning Spanish
 R1104 Intermediate Spanish
 R1105 Intermediate Spanish
 R1106 Intermediate Spanish
 R1503 Culture, Civilization of Modern Latin America: Societies in Change
 R3002 Reading for Speed and Comprehension
 R3004 Written Communication: Formal and Informal
 R3005 Oral Communication: Speaking and Listening
 R3021 Advanced Communication Skills
 R3104 The Art of Reading Literary Texts
 R3211 Spanish Literature: Aspects of Prose and Fiction
 R3211H Honors Course: Spanish Literature: Aspects of Prose and Fiction

R3253 Spanish American Literature: Aspects of Drama
 R3253H Honors Course: Spanish-American Literature Aspects of Drama
 R3614 Don Quixote: Study of Lost Illusions
 R3730 Topics in Hispanic Linguistics
 R3910 Topics in Spanish Peninsular Literature
 R3910H Topics in Spanish Peninsular Literature
 3970 Directed Studies
 3973 Major Project
 5111 The Literature of Spanish Crisis of the 20th Century
 5711 The Structure of Modern Spanish: Phonology
 5714 The Structure of Modern Spanish: Semantics
 5930 Topics in Ibero-Romance Linguistics
 5970 Directed Readings
 5990 Directed Research
 8504 Modern Forms of Narrativity after the Early Thirties
 8777 Thesis Credits: Masters
 8888 Thesis Credits: Doctoral
 8960 Advanced Research in Social Approaches to Spanish American Literary Texts
 8970 Directed Readings in Romance Languages

SPANISH-PORTUGUESE (SpPt) Spanish And Portuguese Liberal Arts

Winter Quarter

3801 Honors Seminar
 3980 Directed Instruction
 8920 Cross-Cultural Issues in Hispanic and Luso-Brazilian Literatures

Spring Quarter

3980 Directed Instruction

SPEECH-COMMUNICATION (Spch) Liberal Arts

Winter Quarter

R1101 Fundamentals of Speech-Communication: Oral Communication
 1110 Freshman Discussion and Debate
 R1313 Analysis of Oral Argument
 3192H Honors Course: Tutorial Seminar in Speech
 R3201 Introduction to Broadcasting Production
 R3401 Theories of Person to Person Communication
 R3402 Communication in Relationships
 R3411 Small Group Communication Processes
 R3431 The Role of Persuasion in the Modern World
 R3441 Communicating in Organizations
 R3501 Introduction to Communication Research Methods
 R3601 Approaches to Public Discourse
 R3605 Persuasive Speaking
 3620 Intercollegiate Debate and Oratory
 3970 Directed Studies
 3980 Directed Instruction
 R5211 Contemporary Problems in American Broadcasting
 R5222 Educational Television Programming and Administration
 R5231 Comparative Broadcast Systems

R5401 Advanced Theories of Communication
 R5402 Problems in Interpersonal Communication
 R5404 Language, Culture, and Education
 R5405 Nonverbal Communication: Theory and Research
 R5431 The Process of Persuasion
 R5602 Contemporary Political Persuasion
 5607 Rhetoric of Asia
 5970 Directed Readings
 8411 Seminar: Small Group Communication
 8451 Seminar: Face-to-Face Intercultural Communication
 8502 Quantitative Research in Speech-Communications
 8777 Thesis Credits: Masters
 8888 Thesis Credits: Doctoral
 8990 Research

Spring Quarter

R1101 Fundamentals of Speech-Communication: Oral Communication
 R1102 Fundamentals of Speech-Communication: Communication Process
 R1313 Analysis of Oral Argument
 R3111 Leadership Communication
 3193H Honors Course: Tutorial Seminar in Speech
 R3201 Introduction to Broadcasting Production
 R3211 Determinants of Broadcast Programming
 R3411 Small Group Communication Processes
 R3431 The Role of Persuasion in the Modern World
 R3441 Communicating in Organizations
 R3451 Intercultural Communication: Theory and Practice
 R3452 Communication and the Intercultural Reentry
 R3601 Approaches to Public Discourse
 R3605 Persuasive Speaking
 R3615 Argumentation
 3970 Directed Studies
 3980 Directed Instruction
 R5232 International Broadcasting
 R5261 Communicative Processes of Television
 R5411 Small Group Communication Theory
 R5422 Interview and Communication
 R5441 Communication in Human Organizations
 R5452 Workshop in Intercultural Communication
 R5615 Introduction to Rhetorical Criticism
 5617 History and Criticism of American Public Address
 5970 Directed Readings
 8110 Seminar: Advanced Speech Problems
 8210 Seminar: Selected Topics in American Broadcasting
 8441 Seminar: Organizational Communication
 8452 Seminar: Facilitating Intercultural Communication
 8502 Quantitative Research in Speech-Communications
 8504 Seminar in Rhetorical Criticism
 8777 Thesis Credits: Masters
 8888 Thesis Credits: Doctoral
 8990 Research

STATISTICS (Stat) Liberal Arts

Winter Quarter

1001 Introduction to Ideas of Statistics

- 3011 Statistical Analysis
- 3012 Statistical Analysis
- 3091 Introduction to Probability and Statistics
- 5021 Statistical Analysis
- 5121 Theory of Statistics
- 5122 Theory of Statistics
- r5132 Theory of Statistics
- r5133 Theory of Statistics
- 5161 Applied Statistical Methods
- 5301 Designing Experiments
- 5302 Applied Regression Analysis
- r5421 Analysis of Categorical Data
- 5890 Senior Paper
- 5900 Tutorial Course
- 8152 Mathematical Statistics
- 8312 Linear Models
- 8331 Statistical Computing
- 8412 Multivariate Analysis
- 8777 Thesis Credits: Masters
- 8801 Statistical Consulting
- 8888 Thesis Credits: Doctoral
- 8900 Student Seminar
- 8901 Directed Readings and Research
- 8932 Advanced Topics in Statistics: Regression Graphics
- 8933 Advanced Topics in Statistics: Inference in Artificial Worlds

Spring Quarter

- 1001 Introduction to Ideas of Statistics
- 3011 Statistical Analysis
- 3012 Statistical Analysis
- 3091 Introduction to Probability and Statistics
- 5021 Statistical Analysis
- 5122 Theory of Statistics
- r5133 Theory of Statistics
- r5162 Applied Statistical Methods
- r5163 Applied Statistical Methods
- r5201 Sampling Methodology in Finite Populations
- 5301 Designing Experiments
- 5302 Applied Regression Analysis
- 5890 Senior Paper
- 5900 Tutorial Course
- 8153 Mathematical Statistics
- 8162 Computational Statistical Methods
- 8401 Topics in Multivariate Methods
- 8777 Thesis Credits: Masters
- 8801 Statistical Consulting
- 8888 Thesis Credits: Doctoral
- 8900 Student Seminar
- 8901 Directed Readings and Research
- 8934 Advanced Topics in Statistics: Discrete-Time Stochastic Control and Stochastic Games

SUMERIAN (Sum) Classical & Near Eastern Studies Liberal Arts

Winter Quarter

- 5012 Elementary Sumerian

SWEDISH (Swed) Scandinavian Studies Liberal Arts

Winter Quarter

- r1102 Beginning Swedish

- r1105 Intermediate Swedish
 - r3670 Readings in Swedish Literary Texts
- #### Spring Quarter
- r1103 Beginning Swedish
 - r1106 Intermediate Swedish
 - 3670 Readings in Swedish Literary Texts

TEXTILES AND CLOTHING (TexC)

Design, Housing, And Apparel Human Ecology

Winter Quarter

- r1641 Introduction to Merchandising
- r1642 Seminar: Orientation to Retail Merchandising
- 3003 Cooperative Education Program
- r3605 Draping Design and Construction
- 3621 Textiles
- r3623 Performance Evaluation of Textiles
- r3644 Retail Experience Seminar I
- 3661 Cultural Perspectives on Dress
- 3662 Aesthetics of Clothing
- 5003 Cooperative Education Program
- 5004 Cooperative Education Integrative Paper
- r5662 Clothing Consumption Problems
- 8661 Readings in Clothing
- 8663 Problems: Clothing and Textiles
- 8664 Fashion Theory and Analysis
- 8668 Methodological Orientations in Clothing and Human Behavior

Spring Quarter

- r1643 Apparel Industries
- 3003 Cooperative Education Program
- r3603 Ready-to-Wear Analysis
- r3604 Flat Pattern Design
- 3621 Textiles
- r3622 Textiles for Interiors
- r3644 Retail Experience Seminar I
- r3645 Retail Experience Seminar II
- 5003 Cooperative Education Program
- 5004 Cooperative Education Integrative Paper
- r5622 Issues and Trends in Textile Consumer Protection
- r5660 Topics in Apparel and Adornment
- r5661 Clothing and Human Behavior
- r5680 Special Topics in Textiles and Clothing
- 5685 International Trade in Textiles and Apparel
- 8661 Readings in Clothing
- 8663 Problems: Clothing and Textiles
- r8681 Integrative Seminar

THEATRE ARTS (Th) Liberal Arts

Winter Quarter

- r1101 Introduction to the Theatre
- r1301 Beginning Acting for Non-Theatre Majors
- r1321 Beginning Acting
- r1326 Beginning Movement for Actors
- r1502 Makeup for the Actor
- r1504 Elements of Technical Theatre
- 3172 History of the Theatre: Neo-Classicism through Realism
- r3311 Beginning Voice Production

- r3321 Intermediate Acting
- 3412H Honors Course: Tutorial Seminar in Theatre Arts
- r3701 Introduction to Directing
- r3801 Performing Fiction
- r3803 Platform Performance
- r3901 Theatre Arts/Dance Senior Seminar
- r5100 Theatre Practicum
- 5110 Theatre Performance
- r5115 Playwriting
- r5130 Shakespeare
- r5172 History of Theatre
- r5181 Contemporary Black Theatre, 1960-Present
- r5192 Myth and the Performance of Modern Drama II
- r5323 Acting for the Camera
- r5335 Acting for Music-Theatre
- r5512 Advanced Problems in Costuming
- r5513 Stagecraft
- r5712 Advanced Stage Direction
- r5720 Plays in Production and Performance
- r5735 Directing the Singer Actor
- r5760 Advanced Stage Management
- r5940 Topics in Theatre
- r5950 Topics in Theatre
- 5970 Directed Readings
- r8103 The Theatre Dramaturg
- r8114 History/Theory of Western Theatre: Rise of National Theatres
- r8322 Problems in Acting
- r8335 Performance Theory and Technique
- r8712 Seminar: Stage Direction
- 8777 Thesis Credits: Masters
- 8888 Thesis Credits: Doctoral
- 8980 Directed Instruction
- 8990 Research

Spring Quarter

- r1101 Introduction to the Theatre
- r1301 Beginning Acting for Non-Theatre Majors
- r1321 Beginning Acting
- r1326 Beginning Movement for Actors
- r1502 Makeup for the Actor
- r1504 Elements of Technical Theatre
- 1805 American Ethnic Literature in Performance
- 3173 History of the Theatre: Naturalism to the Present
- r3311 Beginning Voice Production
- r3321 Intermediate Acting
- r3323 Advanced Acting: Period Styles
- 3412H Honors Course: Tutorial Seminar in Theatre Arts
- r3515 Technical Theatre Production II
- r3701 Introduction to Directing
- r3711 Beginning Stage Direction
- r3801 Performing Fiction
- r3803 Platform Performance
- r3901 Theatre Arts/Dance Senior Seminar
- r5100 Theatre Practicum
- r5110 Theatre Performance
- r5116 Playwriting
- 5173 History of Theatre
- r5510 Drawing and Rendering for Theatre Designers
- r5516 Advanced Problems in Stage Lighting Design

- r5519 Sound for the Theatre
- r5540 Scene Painting Techniques
- r5711 Stage Direction/Avant Garde Drama
- r5720 Plays in Production and Performance
- r5760 Advanced Stage Management
- r5823 Interpreting Shakespeare
- r5940 Topics in Theatre
- 5970 Directed Readings
- r8116 History/Theory of Western Theatre: Romanticism through Naturalism
- r8323 Problems in Acting
- r8336 Performance Theory and Technique
- 8777 Thesis Credits: Masters
- 8888 Thesis Credits: Doctoral
- 8990 Research

TOXICOLOGY (Txcl)
Veterinary and Diagnostic Investigation
Veterinary Medicine

Winter Quarter

- 8777 Thesis Credits: Masters
- 8888 Thesis Credits: Doctoral

Spring Quarter

- 8777 Thesis Credits: Masters
- 8888 Thesis Credits: Doctoral

UNIVERSITY COLLEGE (UC)

Winter Quarter

- r3075 Independent Study
- 3211 Degree Planning
- 3251 Directed Individualized Study
- 3281 Major Project
- 3291 Graduation Dossier Preparation
- 3299 Graduation Review

Spring Quarter

- r3075 Independent Study
- 3211 Degree Planning
- 3251 Directed Individualized Study
- 3281 Major Project
- 3291 Graduation Dossier Preparation
- 3299 Graduation Review

URBAN STUDIES (Urbs)

Liberal Arts

Winter Quarter

- r3102 Urban Studies Colloquia
- r3301 American Cities: Settings for Cultural Pluralism
- r3500 Workshops
- r3900 Internship
- r3970 Directed Studies

Spring Quarter

- r3103 Urban Studies Colloquia
- r3104 Introduction to Urban Studies
- r3301 American Cities: Settings for Cultural Pluralism
- r3500 Workshops
- r3900 Internship
- r3970 Directed Studies

URDU (Urdu)
South Asian & Middle Eastern Studies

Liberal Arts

Winter Quarter

- r1102 Beginning Urdu
- 5132 Intermediate Urdu
- 5162 Advanced Urdu

Spring Quarter

- 1103 Beginning Urdu
- 5133 Intermediate Urdu
- 5163 Advanced Urdu

VETERINARY MEDICINE (CVM)

Veterinary Medicine

Winter Quarter

- 5260 Animal Behavior

Spring Quarter

- 3100 Perspectives: Interrelationship of People and Animals in Society Today

VETERINARY PATHOBIOLOGY (VPB)

Veterinary Medicine

Spring Quarter

- 3103 General Microbiology

VOCATIONAL EDUCATION (VoEd)

Vocational And Technical Education

Education

Winter Quarter

- 5300 Philosophy and Practice of Vocational Education
- r5750 Training in Industry and Business
- r5760 Organization Development in Industry and Business
- r5770 Training and Development
- r5780 Internship: Training and Development
- r5900 Using Vocational Education Research
- r8120 History and Philosophy of Vocational Education
- 8810 Internship in Vocational Education
- 8888 Thesis Credits: Doctoral
- r8910 Positivist Research in Vocational Education
- r8920 Interpretive and Critical Science Research in Vocational Education

Spring Quarter

- 5500 Introduction to Vocational Education Administration
- r5760 Organization Development in Industry and Business
- r5762 Management of Conflict
- r5780 Internship: Training and Development
- r5790 Strategic Planning: Training and Development
- 5800 Working with Special Needs Students
- r8130 Critical Issues in Vocational Education
- 8810 Internship in Vocational Education
- 8888 Thesis Credits: Doctoral
- r8920 Interpretive and Critical Science Research in Vocational Education

WOMEN'S STUDIES (WoSt)

Liberal Arts

Winter Quarter

- 1002 Introduction to Women's Studies

- r3100 Topics in Women's Studies
- r3104 Feminist Expository Writing
- r3200 Topics in Women's Studies: Women's Psychologies
- r3202 Biology of Women
- r3306 U.S. Minority Women Writers
- r3900 Seminar
- 3970 Directed Studies
- 3980 Directed Instruction
- r5206 Women and Madness in History and Literature
- r5300 Topics: Literature by 20th-Century Japanese Women
- r5502 Women and Public Policy
- 5970 Directed Studies
- 8511 Feminist Theory and Method
- r8710 Feminist Research
- 8970 Directed Study

Spring Quarter

- r1102 Women in World Cultures
- r3100 Topics in Women's Studies: Black Feminism
- r3104 Feminist Expository Writing
- r3900 Seminar
- 3960 Field Learning in Women's Studies
- 3970 Directed Studies
- 3980 Directed Instruction
- r5100 Topics in Women's Studies: Statistics of Gender Discrimination
- r5103 Feminist Pedagogy
- 5970 Directed Studies
- r8610 Topics in Feminist Studies
- r8910 Feminist Writing Seminar
- 8970 Directed Study

YOUTH DEVELOPMENT AND RESEARCH (YoSt)

Human Ecology

Winter Quarter

- r3100 Introduction to Youthwork
- r5120 Independent Study in Youth Studies
- r5133 Youth and Health
- r5202 Youthwork Practice: Internship and Seminar
- 8002 Advanced Seminar in Youth Studies

Spring Quarter

- r5120 Independent Study in Youth Studies
- 5132 Experiential Learning
- r5203 Youthwork Practice: Internship and Seminar
- r5711 Introduction to Consultation in Youthwork
- 8003 Advanced Seminar in Youth Studies

ZOOLOGY (Zool)

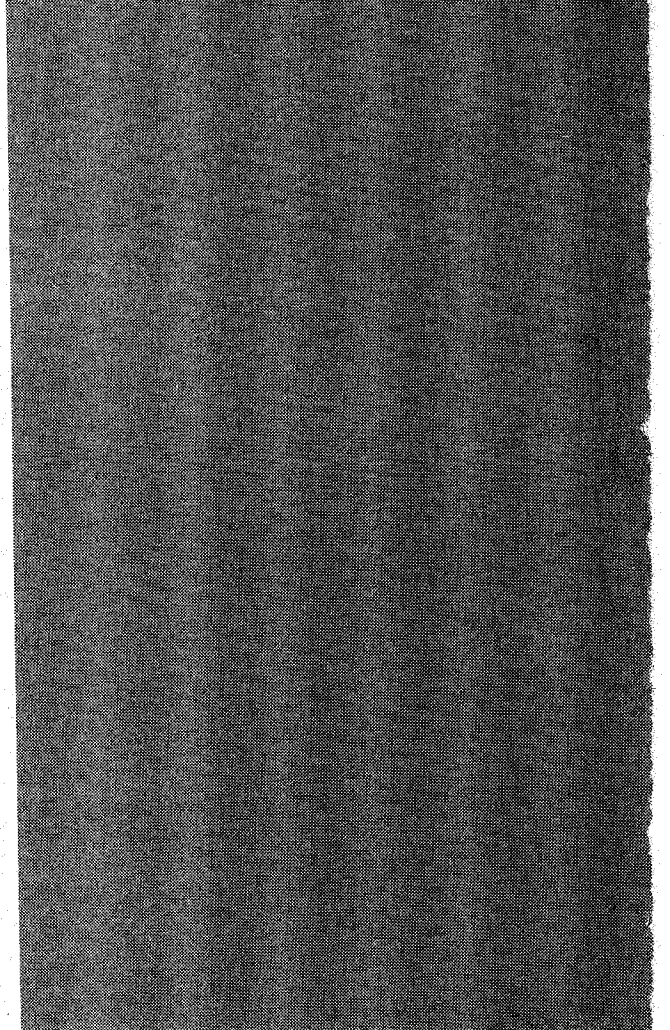
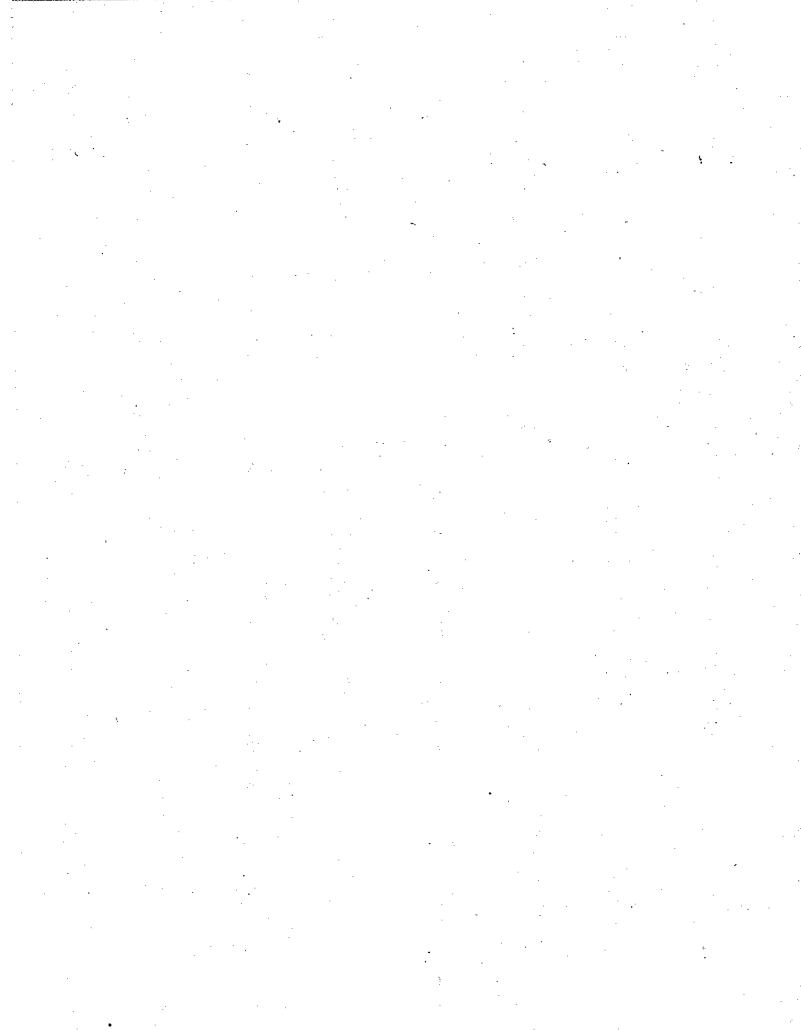
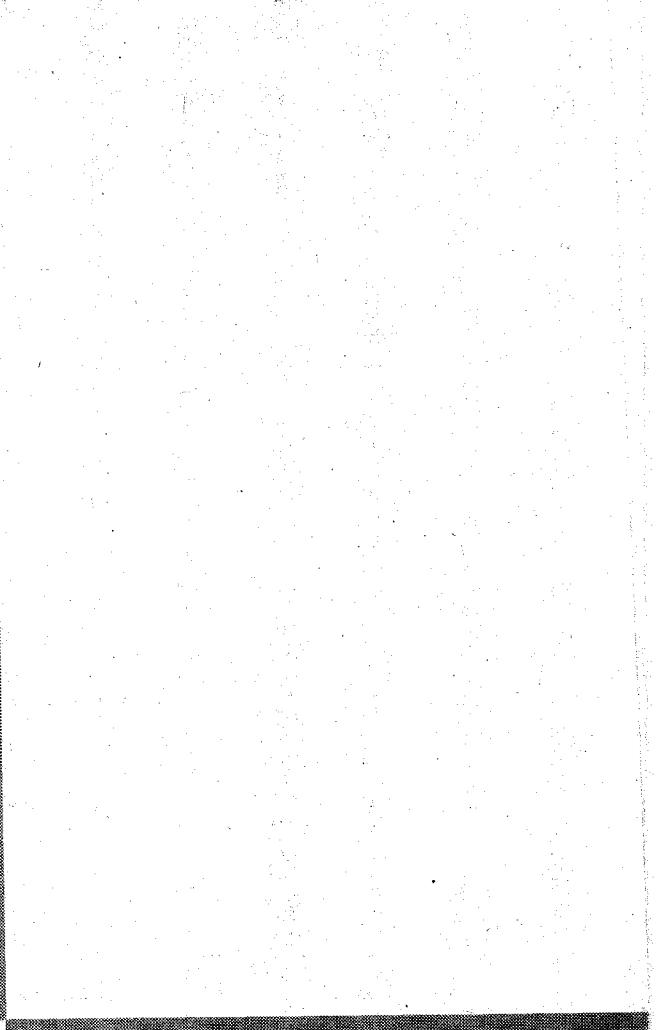
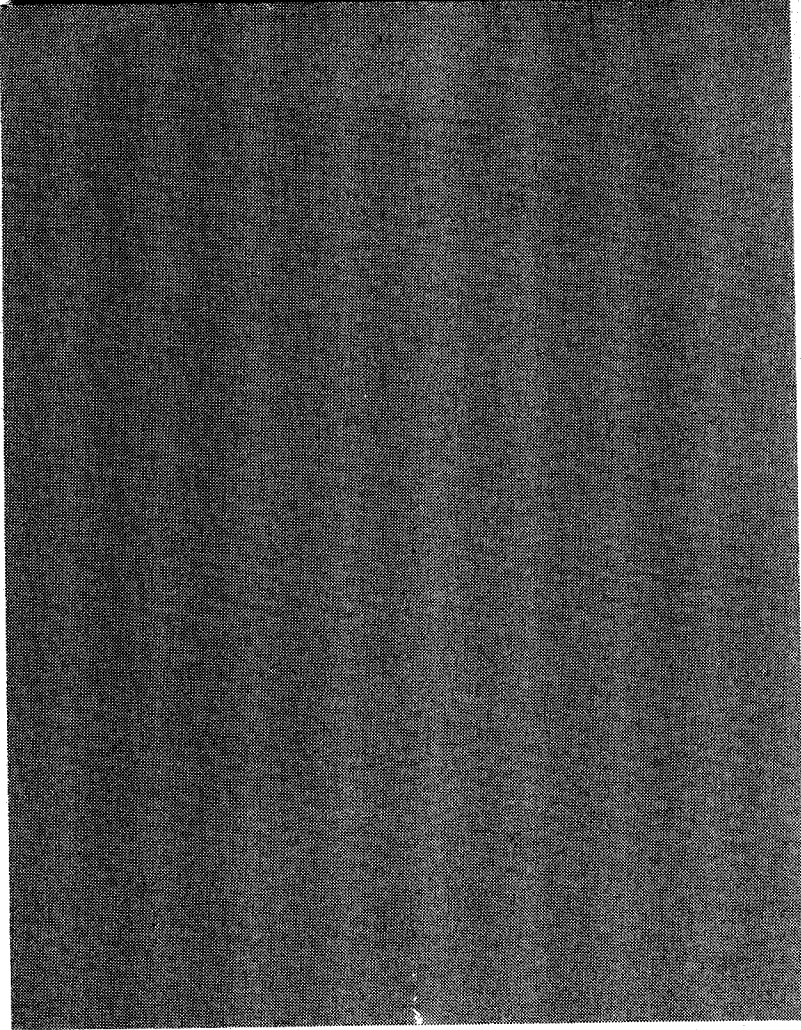
Biological Sciences

Winter Quarter

- 8777 Thesis Credits: Masters
- 8888 Thesis Credits: Doctoral
- 8970 Seminar
- 8980 Special Research
- 8990 Research

Spring Quarter

- 8777 Thesis Credits: Masters
- 8888 Thesis Credits: Doctoral
- 8970 Seminar
- 8980 Special Research
- 8990 Research



WALT
UNA



Twin Cities Campus Class

Schedule

MGC/C568

UNIVERSITY OF MINNESOTA

WINTER 1992



Winter 1992 | **Class Schedule**

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**THIS CLASS SCHEDULE CAN BE RE-
CYCLED WITH NEWSPRINT. LOOK
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CLING BARRELS AROUND CAMPUS.**

EQUAL OPPORTUNITY

The University of Minnesota is committed to the policy that all persons shall have equal access to its programs, facilities, and employment without regard to race, religion, color, sex, national origin, handicap, age, veteran status, or sexual orientation. In adhering to this policy, the University abides by the requirements of the Minnesota Human Rights Act, Minnesota Statute Ch. 363; by the Federal Civil Rights Act, 42 U.S.C. 2000e; by Title IX of the Education Amendments of 1972; by Sections 503 and 504 of the Rehabilitation Act of 1973; by Executive Order 11246, as amended: 38 U.S.C. 2012; by the Vietnam Era Veterans Readjustment Assistance Act of 1972, as amended; and by other applicable statutes and regulations relating to equality of opportunity.

Inquiries regarding compliance may be addressed to Patricia A. Mullen, Director, Office of Equal Opportunity and Affirmative Action, 419 Morrill Hall, University of Minnesota, 100 Church Street S.E., Minneapolis, MN 55455 (612/624-9547); to the Director of the Office of Civil Rights, Department of Education, Washington, DC 20202; or to the Director of the Office of Federal Contract Compliance Programs, Department of Labor, Washington, DC 20210.

UNIVERSITY CALENDAR

Twin Cities Campus

Fall Quarter 1991

NOVEMBER 1991

- 7 Winter quarter registration begins.
28-29 Thanksgiving holiday. Classes excused and University offices closed.

DECEMBER 1991

- 3 Last day of instruction.
4 Study day.
5-11 Final examinations.
11 *End of fall quarter.*
Commencement. Commencement ceremonies are held by colleges once or twice a year. Check with your college office for information.
15 Graduate School application deadline for spring quarter.
23-25 Christmas holiday. University offices closed.

Winter Quarter 1992

JANUARY 1992

- 1 New Year's holiday. University offices closed.
3 Last day to register for winter quarter without paying late registration fee.
6 *Winter quarter classes begin.*
1992-93 financial aid application packets available.
17 Last day to cancel individual course without transcript record.
20 Martin Luther King's Birthday observed. Classes excused and University offices closed.

FEBRUARY 1992

- 11 Last day for undergraduates and students in professional degree programs to pay graduation fees for winter quarter.
21 Spring quarter registration begins.

MARCH 1992

- 13 Last day of instruction.
14 Study day.
16-21 Final examinations.
21 *End of winter quarter.*
Commencement. Commencement ceremonies are held by colleges once or twice a year. Check with your college office for information.

Spring Quarter 1992

MARCH 1992

- 27 Last day to register for spring without paying late registration fee.
30 *Spring quarter classes begin.*

APRIL 1992

- 1 Last day for Graduate School students who want to participate in spring commencement ceremony to

pay graduation fees.

- 8 Last day for undergraduates and students in professional degree programs to pay graduation fees for spring quarter.
10 Last day to cancel individual course without transcript record.
15 Graduate School application deadline for first term of summer session.

MAY 1992

- 11 Summer registration begins for currently enrolled students.
14 Early registration for fall 1992 begins.
15 Graduate school application deadline for second term of summer session.
25 Memorial Day, holiday. Classes excused and University offices closed.

JUNE 1992

- 5 Last day of instruction.
6 Study day.
8-13 Final examinations.
13 *End of spring quarter.*
Commencement. Commencement ceremonies are held by colleges once or twice a year. Check with your college office for information.

Summer Session—First Term 1992

JUNE 1992

- 11 Last day for undergraduates and students in professional degree programs to pay graduation fees for first term.
16 *First term classes begin.*

JULY 1992

- 3 Independence Day, holiday observed. Classes excused and University offices closed.
15 Graduate School application deadline for fall quarter.
21 *End of first term.*
Commencement. Commencement ceremonies are held by colleges once or twice a year. Check with your college office for information.

Summer Session—Second Term 1992

JULY 1992

- 22 Last day for undergraduates and students in professional degree programs to pay graduation fees for second term.
23 *Second term classes begin.*

AUGUST 1992

- 26 *End of second term.*
Commencement. Commencement ceremonies are held by colleges once or twice a year. Check with your college office for information.

1991

NOVEMBER							DECEMBER						
S	M	T	W	T	F	S	S	M	T	W	T	F	S
					1	2	1	2	3	4	5	6	7
3	4	5	6	7	8	9	8	9	10	11	12	13	14
10	11	12	13	14	15	16	15	16	17	18	19	20	21
17	18	19	20	21	22	23	22	23	24	25	26	27	28
24	25	26	27	28	29	30	29	30	31				

1992

JANUARY							FEBRUARY						
S	M	T	W	T	F	S	S	M	T	W	T	F	S
				1	2	3	4						1
5	6	7	8	9	10	11	2	3	4	5	6	7	8
12	13	14	15	16	17	18	9	10	11	12	13	14	15
19	20	21	22	23	24	25	16	17	18	19	20	21	22
26	27	28	29	30	31		23	24	25	26	27	28	29

MARCH							APRIL						
S	M	T	W	T	F	S	S	M	T	W	T	F	S
1	2	3	4	5	6	7				1	2	3	4
8	9	10	11	12	13	14	5	6	7	8	9	10	11
15	16	17	18	19	20	21	12	13	14	15	16	17	18
22	23	24	25	26	27	28	19	20	21	22	23	24	25
29	30	31					26	27	28	29	30		

MAY							JUNE										
S	M	T	W	T	F	S	S	M	T	W	T	F	S				
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3	4	5	6	7	8	9	7	8	9	10	11	12	13				
10	11	12	13	14	15	16	14	15	16	17	18	19	20				
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24	25	26	27	28	29	30	28	29	30								
31																	

JULY							AUGUST								
S	M	T	W	T	F	S	S	M	T	W	T	F	S		
					1	2	3	4							1
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12	13	14	15	16	17	18	9	10	11	12	13	14	15		
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26	27	28	29	30	31		23	24	25	26	27	28	29		
							30	31							

SEPTEMBER							OCTOBER										
S	M	T	W	T	F	S	S	M	T	W	T	F	S				
					1	2	3	4	5						1	2	3
6	7	8	9	10	11	12	4	5	6	7	8	9	10				
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20	21	22	23	24	25	26	18	19	20	21	22	23	24				
27	28	29	30				25	26	27	28	29	30	31				

- First and Last Days of Instruction
- Final Examination Dates
- Classes Excused or Holidays

STUDENT RESPONSIBILITY

The policies in this *Class Schedule* directly affect your registration. You are responsible for all the information contained in this book: avoid potential problems by reading carefully through the various sections. You can receive credit only for those courses for which you are properly registered. Likewise, you must pay for any course for which you register unless you officially cancel at your registration center. In addition, if you attend a class without registering for it, you will be considered an auditor in the course and will be billed for full tuition and fees. To prevent misunderstandings and errors in registration, you should register in person. If you cannot register in person, you can have someone register for you only with your written permission and student ID card.

RECENT CHANGES

If you are a continuing or returning student, the following recent changes in procedures or policy will be of special interest to you:

- Thesis credits above requirement p. 7
- Leave of absence for CLA students p. 9
- Transcript distribution for grades p. 10

The contents of this schedule and other University bulletins, publications, or announcements are subject to change without notice. University offices can provide current information about possible changes.

Because this *Class Schedule* was prepared in September, scheduling changes may also occur before or during registration. Registration terminals always contain the most current and accurate information. Hour and day changes are published in the Official Daily Bulletin, a column in the *Minnesota Daily*, and are posted with the Section Status Report. Room changes are posted on classroom doors.

DESIGNATOR CHANGES

The following designators have changed this quarter. For course offerings under the new designators, see the course listings. A complete list of designators and abbreviations is in Section 5.

ADDED DESIGNATORS

- CIE Interfacial Engineering, Center for
- Entr Entrepreneurship
- SciC Scientific Computation
- VDM Veterinary Diagnostic Medicine

DELETED DESIGNATORS

- Alb Albanian
- LACS Large Animal Clinical Sciences
- SAPH Social, Administrative, and Hospital Pharmacy

REGISTRATION INSTRUCTIONS

Steps in Registration

Step 1 Complete the registration check list on this page and the next.

Step 2 Bring your Course Request form and this *Class Schedule* to your registration center. The registration center in 202 Fraser Hall, Minneapolis, is primarily for students in Minneapolis colleges, although St. Paul students may also register there. Minneapolis students with mobility restrictions (including temporary problems) can register at 150 Williamson Hall. The registration center in 130 Coffey Hall, St. Paul, is for students in St. Paul colleges. Students in units based both in Minneapolis and St. Paul (the Graduate School, and the colleges of Education and Architecture and Landscape Architecture) may use either registration center.

Step 3 Pay your tuition and fees. See pages 21-23 for complete information on paying your fees.

Late Registration Fee—You must register by January 3 to avoid a late registration fee. Students who register from January 6-17 will be charged a \$10 late registration fee. Students who register on or after January 21 will be charged a \$20 late registration fee.

A Registration Check List—Run through this check list before you go to your registration center. You will be able to avoid frustrating delays by following these hints:

Fill out a Course Request form completely. (Course Request forms are found on page 127.) Be sure to list a new address on the form if you have moved or have a new local address; a correct address will be needed for mailing your Registration Status Notice for the next registration period. List alternate courses in case your first choices are not available. Obtain college or adviser approval (departmental approval in I.T.) as required.

Do you know the name and policy number of your hospitalization insurance company or HMO? Unless you provide this information on the Student Hospi-

talization Insurance Form (on page 129) every quarter when you register, you will **automatically** be charged for University-sponsored hospitalization insurance if you take 6 or more credits. See Health Service and Hospitalization Charges, page 17, for more information.

Have you checked the Section Status Report? Check the report (posted outside of 101 Fraser Hall, B18 and 16 Johnston Hall, 4 Mechanical Engineering, 170 Anderson Hall, and 130 Coffey Hall) to see if space is available in limited enrollment (**R**) courses. Remember: The Section Status Report lists only limited enrollment courses. If you use it exclusively to plan your program, you may overlook courses that have no limit on enrollment.

Do you need any Registration Override Permits? Is there a # or Δ or □ in the prerequisite statement of your course? (All symbols used in prerequisite statements are defined on page 28.) Are you trying to register in a closed course? Remember: You must have a signed Registration Override Permit; handwritten notes will not be accepted.

Do you have any holds you need to clear? You will not be able to register if you have any holds on your record. Clear your holds as soon as possible. See Holds, below, for further information.

International students—Have you registered for a full course of study? See page 6, for credit requirements. **Are you new to campus?** You must go to the Office of International Education before you register. See page 5.

Are you a CLA student? Read your college instructions on pages 8-9.

Are you a student in the Graduate School? The Graduate School instructions on pages 6-8 govern your registration.

Are you taking Carlson School of Management courses? Read the special instructions on pages 9-10 that apply to those courses.

Are you taking Institute of Technology courses? There are instructions on page 10 that apply to I.T. courses.

HOLDS

If you have a hold on your record, you may not register or, in many cases, obtain transcripts until that hold is cleared with the office imposing the hold. A hold may be imposed for financial indebtedness to the University (e.g., for unpaid tuition or fees, unpaid library fines, or delinquent health service payments) or for disciplinary or scholastic reasons. You will usually be notified of an existing or impending hold by the department or office authorizing the hold. Notice of any hold, including the name of the department or office where it

may be cleared, also appears on your Registration Status Notice.

To remove a hold from your record, you must first pay the debt owed, correct the scholastic deficiency, or be cleared by the Special Counseling Office. For most debts, you will receive a billing statement, which you will submit with payment at the Bursar's Office; you may present the receipted billing statement to the department or office that authorized the hold as evidence that the debt has been paid.

When you clear any hold *in advance of registration*, the unit imposing the hold must notify your registration center (202 Fraser Hall in Minneapolis, 130 Coffey Hall in St. Paul) that the hold may be removed from your record. *If you have not cleared holds in advance*, you may be given a hold release to take with you to your registration center. When you are given a *permanent hold release*, you must leave the release form with the operator when you register. On occasion, units may issue *temporary hold releases*. Temporary releases will allow you to either receive one transcript or to register during the quarter in progress. Because a hold remains on your record until it is permanently cleared, you must show a temporary release for registration each time you return to your registration center. If you are issued a temporary hold release for registration, be sure it is returned to you after you have registered.

If, in order to register, you pay a Student Accounts Receivable hold for a previous quarter with a personal check, and that check does not clear the bank, you will be sent a notice by Student Accounts Receivable. Your current registration may be cancelled if you fail to respond to this notice and pay your debt.

STUDENTS WITH DISABILITIES

The Office for Students with Disabilities (OSD) can assist disabled students in accessing campus programs and facilities by providing services such as advocacy, support, information, academic assistance, interpreters, readers, tutors, and adaptive testing. For more information, contact OSD at 16 Johnston Hall, 624-4037 (V/TDD).

These procedures should be followed for classroom or registration accessibility:

- *Classroom Changes*—Requests for room changes for courses scheduled in inaccessible locations should be made directly to the department offering the course.
- *Early Registration*—If you need to schedule clustered classes, sign language interpreters, or arrange for taped textbooks, you must contact your college office for permission to register early.
- *Registration*—Students with disabilities that prevent them from standing in lines or who find Fraser Hall inaccessible may register at Student Relations, 150 Williamson Hall.

INTERNATIONAL STUDENTS

If you hold a non-immigrant visa of any type, have been formally admitted to the University of Minnesota, and are registering for the first time, three holds have been placed on

your record—AI (check of non-immigrant status documents), ME (health clearance), and AZ (English proficiency). Please read the following information carefully.

Preregistration Program and Document Check (AI Hold)—Go to the Office of International Education (OIE), 20 Nicholson Hall. You must sign up for a mandatory Preregistration Program for International Students. During this program, you will receive information about living and studying in the U.S. and at the University. You will also have your non-immigrant status documents checked and your AI, ME, and AZ holds released. You must bring your passport and non-immigrant status documents (I94 form, pages 3-4 of your I-20AB, and/or IAP-66). Sponsored students must also provide documentation of their financial support. If you are a permanent resident, you must present documented evidence of your status.

Health Clearance (ME Hold)—If you are not a citizen of the United States and if you are registering for the first time at the University, a hold has been placed on your record and you must have a health clearance in order to register. You will be given a release for this hold after your visit to Boynton Health Service. This visit is arranged as part of the OIE Preregistration Program for International Students. If you arrived too late to attend the OIE preregistration program, go immediately to the information desk at Boynton Health Service, 410 Church Street, Minneapolis, for instructions.

At that visit, you will be tested for tuberculosis unless you have been tested within the past 12 months and bring proof in English of your testing. A positive reaction to the tuberculin test indicates that you have been exposed to tuberculosis but it does not necessarily mean that you have contracted the disease. If your test is positive, you will be allowed to register for classes, but you will be required to have a chest x-ray and to return for the results.

In addition to the above health clearance, Minnesota law requires that all students provide in writing the month and year when they were immunized against measles, mumps, rubella, tetanus, and diphtheria. You must complete and sign the Student Immunization Form you received with your admission letter. See Immunization Clearance, page 17.

Mandatory Health/Hospitalization Insurance—All international students must carry hospitalization insurance for themselves and their dependents. Insurance coverage must be continuous from the date of arrival in the U.S. through the final date of departure from the U.S. This means that international students must have insurance coverage even if they are registered for fewer than 6 credits or are away from campus for the summer or an academic quarter. See Health Service and Hospitalization Charges, page 17.

English Proficiency (AZ Hold)—All new international students have holds placed on their records to make sure that they meet the University's English proficiency requirements. The AZ hold will be released by the Minnesota English Center (MEC) as part of the OIE mandatory Preregistration Program for International Students (see above).

Permanent AZ hold releases will be given to international

students who have TOEFL scores that meet or exceed the minimum required by their college, or who have completed two years of academic work at a U.S. college.

Students with a TOEFL score lower than that required by their college, or for whom the TOEFL was waived at the time of admission, may be required to take the Minnesota Battery English Language Proficiency test. Register for this test at the MEC office as soon as possible because results are not available for two weeks. You must pay a \$25 testing fee when you register for the test. You can receive information about the test and about requirements for English classes by visiting the MEC office (102 Klæber Court, 320 16th Avenue S.E.) or by calling 624-1503.

If you have not met the English requirements for your college, you will be required to register for 1-3 noncredit English classes each quarter until you achieve the required test score.

Full Course of Study—All foreign students holding F-1 and J-1 visas are required by the Immigration and Naturalization Service to register for a full course of study each academic quarter. (NOTE: For graduate students and adult specials, a full course of study is 7 credits; for undergraduates it is 12 credits.) Exceptions to this rule are possible only in a limited number of circumstances. In such instances an Application for Exception from the Full Course of Study Requirement must be completed, signed by your adviser, and submitted to the OIE, 20 Nicholson Hall, by the first day of each quarter for undergraduates, and by the end of the second week of each quarter for graduate students and adult specials. (Forms are available at the OIE or 130 Coffey Hall.) If you have questions about this requirement, call 626-7100.

GRADUATE SCHOOL REGISTRATION INSTRUCTIONS

New Students—If you are registering for the first time in the Graduate School, obtain your registration materials in 309 Johnston Hall.

Active Students—If you have registered in the Graduate School at least once in the last two years, have your adviser sign your Course Request form. Follow the steps below to clear any Graduate School holds:

MAST PROG	Take signed master's program to 316 Johnston Hall.
DOCT PROG	Take signed doctoral program to 316 Johnston Hall.
SPEC PROG	Take signed specialist program to 316 Johnston Hall.
THES TITLE	Take signed thesis title to 316 Johnston Hall.
BACH DEGREE	Take bachelor's transcript, showing degree awarded, to 316 Johnston Hall.
GPA	Take letter releasing hold from major field director of graduate studies to 316 Johnston Hall.
INCOMPLETE	Take letter releasing hold from major field director of graduate studies to 316 Johnston Hall.

DEAN'S HLD	Go to 316 Johnston Hall for explanation and instructions for clearing.
GS DEG AWD	Go to 306 Johnston Hall for change of status or readmission information.
GRAD ASST	Go to 416 Johnston Hall for explanation and instructions for clearing.

Have your adviser sign your Course Request form.

Inactive Students—If you have not registered in the Graduate School at least once in the last two years, you must be readmitted before you will be allowed to register. Contact the Graduate School Admissions Office, 306 Johnston Hall (625-8060).

Maximum Credits—The maximum credit load for fall, winter, and spring quarters is 18.

Grading Option—Two grading systems, A-B-C-D-F and S-N, are used in the Graduate School. You must designate your grading option for each course at registration. (However, if either A-F only or S-N only is printed after the prerequisite statement for a course, you must register for that grading system.) Any change to your designated grading option must be made at your registration center during the first two weeks of the quarter on a Course Request form signed by your adviser. Similarly, any change to or from auditor status must be made during the first two weeks of the quarter on a Course Request form signed by your adviser. See below for specific deadlines.

Registration Deadlines—Students in the Graduate School must register no later than the end of the second week of the quarter. Friday of the second week (January 17 for winter 1992) is the last day to:

- register,
- add a course or change sections of a course,
- change grading option, including changing to or from audit status, and
- cancel a course without a *W* appearing on your record.

All changes in registration require your adviser's signature. Courses may be cancelled through Friday of the sixth week of the quarter. Courses cancelled after the sixth week will require the signature of *both* your adviser and the instructor. No registration changes will be permitted after the last day of instruction.

These registration deadlines are strictly enforced. (Remember, registration changes are not effective until you take a completed Course Request form to your registration center.) Exceptions will be considered only by written request to the Graduate School. Such requests will *not* be routinely approved. If circumstances will prevent you from meeting the above deadlines, contact the Graduate School *before* the deadline.

NOTE: These deadlines in no way change the current policy regarding assessment of late registration fees (you must register before the beginning of the quarter—by January 3 for winter 1992—to avoid such a fee); nor do they affect the University's refund policies.

Thesis Credits—All students are required to register for thesis credits before receiving a Plan A master's or a professional master of engineering degree (at least 16 credits of 8777 required), or a Ph.D. or Ed.D. degree (at least 36 credits of 8888 required). D.M.A. students should consult their department or the Graduate School to determine their requirement. Doctoral students may not register for thesis credits until the quarter after they have passed their preliminary oral examinations.

Some students who were first registered in the graduate School before fall quarter 1983 may have their thesis credit requirements reduced or eliminated. For more information, contact 316 Johnston Hall (625-3490). Contact 316 Johnston Hall (625-3490) if you have questions regarding thesis credit requirements.

Tuition for thesis credits is assessed the same way course credits are assessed, with both resident and nonresident rates. Those doctoral students who are in the final stages of completing their degree requirements will be able to register for thesis credits only, at a reduced rate of \$30 per credit, if they meet *all* the following conditions:

- have passed the preliminary oral examination,
- have registered for a minimum of 36 doctoral thesis credits,
- have registered for a minimum of 7 full-time-equivalent quarters in the Graduate School, *and*
- are registering only for doctoral thesis credits.

NOTE: Full rates are assessed at registration for thesis credits only. Rates are adjusted to the reduced rate *after* the end of the second week of classes.

You must register for all thesis credits under your major field course designator. (Note that any earlier thesis credit registrations under the designator Grad will remain on your transcript and will still count toward your Graduate School degree requirements.) In most cases, your course designator will match that of the department in which you take your major field courses. Some major fields will share a single designator, while new designators have been created for interdisciplinary graduate programs. Consult the course listings in Section 3 for the proper designator and current call numbers.

If you have any questions about registering for thesis credits, including which course designator to use, contact your director of graduate studies or the Graduate School, 316 Johnston Hall (625-3490).

Doctoral Residency Requirement—Doctoral students are required to complete a residency requirement of 7 quarters full-time registration. Full-time registration during the academic year is defined as 7 or more credits per quarter.

All credits taken in the Graduate School may be used to fulfill the residency requirement. During the academic year, part-time students (registering for 1-6 credits) will accumulate 0.1 quarter residency for each credit taken. Credits for registrations in first and second terms of the summer session will be added together. For 7 or more total credits, 1.0 quarter of residency will be granted; if the credit total is 1-6, 0.1 quarter of residency will be granted for each credit taken.

Residency may not be earned for credits accepted for transfer to a doctoral degree program, nor can residency be earned using master's degrees from other institutions or from other colleges of the University.

Some students who were first registered in the Graduate School before fall 1984 may be exempted from the residency requirement. For more information, contact 316 Johnston Hall (625-3490).

Tuition Privileges for Graduate Assistants, Fellows, and Trainees—*Graduate assistants* with 25% time appointments or more for an *entire* quarter receive tuition benefits equal to twice the percentage of their appointment for the quarter in which they hold the appointment. For more information, see page 25. Graduate assistants whose remaining tuition and fees total \$150 or more may qualify for payroll deduction. See page 23 for application procedures.

Nonresident graduate assistants, trainees, and fellows who hold at least a 25% time appointment are eligible for resident tuition rates. This eligibility also extends to members of the immediate family. Refer to page 26 for details.

Graduate Assistant Health-Care Plan—See page 18 for information.

Doctoral Oral Examinations—You must schedule your preliminary and final oral exams *at least one week in advance*. You may schedule your exams by going to 316 Johnston Hall or by calling 625-5367 for a preliminary oral exam or 625-5833 for a final oral exam. These exams should not be scheduled from the beginning of second term of summer session to the beginning of fall quarter unless members of the assigned committee can be assembled without substitution. If you are not active (registered in the Graduate School at least once in the last two years), you may not schedule your examination. Contact the Graduate School Admissions Office, 306 Johnston Hall (625-8060), regarding readmission.

Graduation—Graduate School degrees are awarded monthly. To graduate at the end of any given month you must:

- *submit your Graduate School Application for Degree form* in 150 Williamson Hall or 130 Coffey Hall on or before the first workday of the month. When you submit your application, you must also pay your \$25 graduation fee.
- *complete all other requirements* by the last workday of the month.

Graduating before the end of the quarter may affect your eligibility for student loans, housing, etc. Check with the appropriate office if you have questions on eligibility.

Plan A master's, professional master of engineering, and doctoral students receive an Application for Degree form plus detailed graduation instructions when they register their thesis or project titles in the Graduate School, 316 Johnston Hall. Plan B and specialist students receive Application for Degree forms and graduation instructions when they pick up their Final Examination Report forms from the Graduate School, 316 Johnston Hall. Students must be active (registered in the Graduate School at least once in the last two

years) and have approved program or thesis proposal forms on file at the Graduate School before Applications for Degree and other graduation forms can be released.

Spring Commencement Ceremony—The spring commencement ceremony will be held on May 15, 1992 for all students graduating from January through June. If you wish to attend this ceremony and/or have your name appear in the commencement program, do the following by April 1:

- *complete your commencement attendance form* and return it to 316 Johnston Hall, and
- *pay your graduation fee* (see above).

You should pick up a commencement handbook (containing information on academic costume, rehearsal, parking, and other topics) at University Relations, 6 Morrill Hall, at the information desk in the west bank bookstore, at the St. Paul campus bookstore, or at 130 Coffey Hall.

REGISTRATION INSTRUCTIONS FOR COLLEGE OF LIBERAL ARTS STUDENTS

Before Registering—You may not register until all holds have been cleared from your record. To clear CLA holds follow these steps:

- | | |
|-----------------------|---|
| ADV APP or WINTER SIG | Your adviser must sign your Course Request form. Get your adviser's approval at least 24 hours before you register. |
| CLA, CLA2, or CSS | A scholastic committee action. Contact your college office. |
| MAJ PROG | You must bring an approved program from your major department to your college office. |
| ORIENT MTG | Contact the office named. |
| UD MAJ MTG | Contact your college office, make an appointment, and attend this orientation. |
| REASSIGN | Students will be asked to confirm or change their intended major. Contact 214 Johnston Hall. |

Read official CLA communications—you are responsible for knowing their contents:

- | | |
|------------------|---|
| All CLA students | • any material available at your <i>Class Schedule</i> distribution point. |
| | • registration, grading, and progress policies published in the <i>CLA Bulletin</i> . |
| Honors students | • (admitted to the Honors Program)—honors course listings available in 115 Johnston. |

Read the CLA instructions on this page and the next.

Check the Section Status Reports in Johnston Hall, ground floor, or in your college office.

Registration Deadlines—CLA strictly enforces the following registration deadlines. Be sure to make any adjustments in your registration promptly. All changes must be made at the

registration center in 202 Fraser Hall.

Friday of the second week (January 17 for winter 1992) is the last day to:

- *register* (instructor's signature needed after the fifth day of the quarter),
- *add a course or change sections of a course* (instructor's signature needed after the fifth day of the quarter),
- *change grading systems* (to or from S-N grading), and
- *cancel a course without transcript notation.*

Any course cancellations must be done through 202 Fraser Hall by Friday of the sixth week of the quarter (February 14 for winter 1992).

You may cancel completely (cancel *all* your courses) through March 13, 1991. **Effective fall 1991, CLA students must submit to their college office a written request for a leave of absence if they plan to either withdraw from all courses or not enroll in a subsequent quarter. Students who withdraw without receiving an approved leave of absence will be required to reapply for admission.**

Exceptions to these deadlines may be approved only by petition to the CLA scholastic committee. Such petitions are not routinely approved. If circumstances prevent you from meeting a deadline, you must contact your college advising office *before* the deadline.

Program Approval—Registration for more than 19 credits per term requires approval of the scholastic committee.

Registrations for *independent study, extra credit, directed study, directed research, and directed instruction* require the approval of the instructor, department, and college. Obtain a special permission slip for independent and directed study from the department, get approval of the instructor and department, and bring the form to 214 Johnston Hall for college approval.

Registration in 8000-level courses must be approved by the instructor, the director of graduate studies, and the Graduate School. Approval forms are available in 306 Johnston Hall.

5000-level courses are intended for juniors, seniors, and graduate students. 3000-level courses are intended for sophomores, juniors, and seniors. To prevent inappropriate registrations, sophomores should not register for 5000-level courses, nor freshmen for 3000- or 5000-level courses without first consulting their college advising office.

Courses not listed in the *CLA Bulletin* may not be applicable towards a CLA degree. Consult your college advising office before registering for courses not listed in the *CLA Bulletin*.

S-N Registration—Changes to or from S-N registration may be made through the first two weeks of the quarter. Follow the cancel/add procedure outlined on page 11. For *sophomores, juniors, seniors, and adult specials*, there is no limit on the number of S-N courses in one quarter; *freshmen* may take no more than *half* of a quarter's credits S-N.

The number of S-N credits that can be applied to a CLA degree is limited. See the *CLA Bulletin* for details. Courses in departmental majors may be taken S-N only if the department

has approved such a policy. Otherwise, S-N registration is allowed in all courses listed in the *CLA Bulletin*.

Ask in your college office about restrictions on the use of S-N credits in premedicine, predentistry, prepharmacy, and all interdepartmental programs (such as American Studies, International Relations, and Urban Studies). If you are in a preprofessional program, you should follow the requirements of the college that you plan to enter.

REGISTRATION INSTRUCTIONS FOR CARLSON SCHOOL OF MANAGEMENT COURSES

UNDERGRADUATE COURSES

Carlson School of Management Majors—Students enrolled in Carlson School undergraduate degree programs may register for 3000- and 5000-level Carlson School courses on or after their queue time. Undergraduates may not register for more than 20 credits without approval from an adviser in the undergraduate studies office, 290 Humphrey Center.

Degree-seeking Students in Approved Units—If you are a student in an approved unit with 90 or more credits and your GPA is 2.8 or higher, you may register for all 3000- and 5000-level general management courses (excluding practicum, honors, and special sections). You may register for these courses during queued registration by going directly to your registration center. Your college office can provide you with a detailed list of general management courses. Approved units include the following major programs: College of Agriculture—agricultural business, food science, animal and plant systems (environmental horticulture emphasis) nutrition; College of Education—business studies, business and marketing education, recreation, park, and leisure studies; College of Human Ecology—all majors; College of Liberal Arts—journalism (professional track), international relations (commerce and political economy tracks), urban studies; College of Natural Resources—fisheries and wildlife, forest resources (management and administration emphasis), forest products marketing, production management, urban forestry; Institute of Technology—actuarial science, computer science, mechanical engineering (EIP and IE emphasis). BIS and ICP majors should consult their program offices for information.

Other non-Carlson School of Management Students—Any non-Carlson School student with 90 or more credits and a cumulative GPA of 2.8 or higher may be able to register for open 3000- and 5000-level Carlson School courses during open registration by bringing a current transcript to 290 Humphrey Center. Occasionally, select Carlson School courses are available to non-Carlson School students, meeting the above criteria, during queued registration. Details are available in 290 Humphrey Center.

Accounting Courses—Accounting 1050 is available to all students who have completed 40 or more credits. Accounting 3001 is available to all Carlson School students and select majors outside the Carlson School. Students with a declared

finance emphasis have access to accounting 3101 and 3201 during queued registration and do not need an override. Non-accounting majors may submit an accounting request form in 290 Humphrey Center to obtain permission to register for Accounting 3101 and 3201, and all other 3000- and 5000-level accounting courses; non-Carlson School students must attach a current transcript which shows 90 credits completed and a GPA of 2.8 or higher.

GRADUATE COURSES

Carlson School of Management and IR Graduate Students—Graduate students enrolled in the Carlson School or the Industrial Relations program may register for most Carlson School courses on or after their queue time. M.B.A. courses are restricted to students enrolled in the M.B.A. program.

Non-Carlson School of Management Graduate Students—Non-Carlson School graduate students may request approval to register for Carlson School graduate courses by completing a petition for entry form. Approval will be given just prior to the first class meeting based on availability of space in courses. Forms and additional information will be available in 295 Humphrey Center after December 1. Approval for IR graduate courses must be obtained from the director of graduate studies in Industrial Relations, 537 Management/Economics.

Adult Special Students—Adult special students generally may not register for graduate courses. Any exceptions for IR courses must be approved by the director of graduate study in Industrial Relations, 537 Management/Economics.

REGISTRATION INSTRUCTIONS FOR INSTITUTE OF TECHNOLOGY COURSES AND STUDENTS

Engineering Courses—If you are *not* enrolled in the Institute of Technology, you may not register for any engineering course without an approved and signed Registration Override Permit from the department offering the course.

Department Approval—If you are enrolled in the Institute of Technology, you must obtain department approval on your Course Request form before you register or cancel/add.

Credit Limit—Registration for more than 19 credits requires college approval for students enrolled in the Institute of Technology. Apply for this approval in 105 Lind Hall before you register.

Grading Option—Students in the Institute of Technology may change their designated grading options (i.e., to or from S-N grading) without approval through the second week of the quarter. Changes after the second week require approval from 105 Lind Hall.

Course Cancellations—If you are enrolled in the Institute of Technology, you must obtain department approval for all cancellations through the sixth week of the quarter. Cancellations after the sixth week require approval from 105 Lind Hall.

THE FIRST WEEK OF CLASS

Winter quarter classes begin Monday, January 6.

Mandatory Attendance—You must attend the first class meeting of every course in which you are registered, unless you obtain approval for your intended absence before the first meeting. Without this prior approval, you may lose your place in class to another student. If you wish to remain in a course from which you have been absent the first day without prior approval, contact your instructor as soon as possible. Instructors have the right to deny you admission if the course is full. You must *officially* cancel any course to which you are denied admission.

Gaining Admission to a Closed Course—You should first go to the department offering the course, where you may be put on a waiting list or be referred to the instructor for permission to register. Attend the first class meeting if you are on a waiting list or need the instructor's permission, to see if more students will be admitted. To register in a closed course you must have a signed Registration Override Permit from the instructor.

Senior Citizen Education Program—If you are 62 or older and a Minnesota resident, you may audit courses free of charge or take courses for credit at \$6 per credit whenever space is available after the first day of class. (The Section Status Reports located outside of 101 Fraser Hall, B18 and 16 Johnston, 4 Mechanical Engineering, 170 Anderson Hall, and 130 Coffey Hall, can tell you if a course with limited enrollment—R before the course number—is open or closed. If a course is not on the report, it has no limit on enrollment and space will be available.) Under this plan, you will not pay the student services fee, but must pay any required laboratory or materials fees.

Registration for the Senior Citizen Education Program is on the second day of class (Tuesday, January 7 for winter quarter). Attend the first day of class, however, to see if space is available and to receive information about class procedures. To register, go to 202 Fraser Hall (150 Williamson Hall for those with mobility impairments) or 130 Coffey Hall with your registration forms and identification to verify age and Minnesota residency. Call 625-5333 for more information.

Fall Quarter Grades—Fall quarter grades, in audit transcript form, will be available from January 6-10 in the Great Hall Annex of Coffman Memorial Union for students registered in the College of Liberal Arts, College of Education, General College, University College, School of Nursing, Graduate School, Institute of Technology, and College of Architecture and Landscape Architecture. Hours in Coffman for grade distribution are: 8-6, January 6; 8-5:30 January 7-8; and 8-4, January 9-10. Audit transcripts for students in St. Paul colleges will be available in 130 Coffey Hall beginning January 6. Audit transcripts for students in all remaining colleges will be distributed through college offices. You must show identification to receive grades.

NOTE: During grade distribution (January 6-10), unofficial transcripts will not be available in Williamson or Coffey Halls.

CHANGE OF REGISTRATION

General Guidelines—Subject to certain limitations, you may add or cancel courses or may change grading systems. Course cancellations and changes to or from S-N grading are generally allowed without college permission during the first two weeks of the quarter or before.

When you cancel an individual course during the first two weeks of the quarter there is no transcript record of that course. If you cancel *all* courses during the first two weeks of the quarter, a notation of cancellation will appear on your record, although no Ws will be recorded. Cancellation of any course after the second week of the quarter will generally result in a W on your record.

Graduate students must follow all registration deadlines outlined on page 7.

When to Cancel Courses—If you decide before the quarter begins not to attend, cancel before the first day of classes. If you stop attending class for any reason, cancel immediately. On occasion, a course may be cancelled by the department offering the course. Contact the department immediately to see if other arrangements have been made. If no arrangements exist, it is then your responsibility to remove the course from your record by filing an official cancellation at your registration center.

Cancellations are effective the day you *officially* cancel (by taking a completed Course Request form to your registration center) *not* on the date you stopped attending class. If you fail to cancel any course for which you have registered but not paid, you will receive billing statements from Student Accounts Receivable for your tuition and fees, including additional billing charges and late payment fees. If you fail to pay by the due date on your billing statement, a hold will be placed on your record.

Tuition Charges and Refunds for Course Additions and Cancellations—Full tuition is charged on a per-credit basis for all changes in registration that increase your credit load, except for those credits that fall within the 14-18 credit undergraduate or 7-15 credit graduate plateaus. For example, if you are an undergraduate and add a 4-credit course, increasing your credit load from 12 to 16 credits, you will be charged only for your 13th and 14th credits because your 15th and 16th credits fall within the undergraduate plateau.

No additional tuition is charged when any course addition is balanced *at the same time* by a course cancellation, i.e., a cancellation equal to the number of credits being added *or* a cancellation and course addition that keeps the total number of credits within the undergraduate or graduate plateaus.

Refunds are issued on a per-credit basis according to the refund rate that applies to the date of cancellation. (In a very limited number of circumstances, retroactive cancellations and refunds may be authorized.) For more information on refunds, see pages 23-24. There is no refund for those credits that fall within the undergraduate or graduate plateaus. For example, if you are an undergraduate registered for 14 credits and you cancel a three credit course, lowering your credit load to 11, you will receive a refund for 3 credits. If you are

registered for 18 credits, however, and cancel 3 credits, you will not be issued a refund because your credit total remains within the plateau.

How to Change Your Registration—To change your course load or grading system, you should:

1. Fill out a Course Request form. Use the extra form in this schedule or obtain a form from your college office or registration center. Check the box indicating cancel/add and note the number of credits you will have after this change. If you are cancelling *all* courses, check the appropriate box.
2. Obtain instructor, adviser, and/or college office approval if required.
3. Turn in your Course Request form at your registration center, where you will receive a revised fee statement. Any assessment or credit amount that results from a change in registration is posted to your account at Student Accounts Receivable. New assessments will appear on your next billing statement. See Payment of Fees, pages 21-23, for more information.

CHANGE OF COLLEGE

Any student who wishes to transfer from one college of the University to another winter or spring quarter should submit a completed Application for Change of College or Status to the Office of the Registrar (150 Williamson Hall or 130 Coffey Hall) according to the following schedule for admitting colleges. Applications and general information are available from the Office of the Registrar. College offices can provide information on admission requirements.

NOTE: These dates are not applicable to programs in the Graduate School.

Winter 1992

Biological Sciences	November 1
Mortuary Science	November 15

Spring 1992

Agriculture	January 15
Biological Sciences	February 1
Education	
Undergraduate (except Elementary Education)	January 15
Master of Education	February 1
Postbaccalaureate (Agricultural, Business, Industrial, and Marketing Education) ..	February 1
Human Ecology	January 15
Institute of Technology	January 15
Liberal Arts	
Undergraduates	January 15
Adult Specials	March 1
Management	
Undergraduates	January 15
Adult Specials	February 15
Mortuary Science	February 15
Natural Resources	January 15

REGISTRATION QUEUE—WINTER QUARTER 1992

The registration queue on this page and the next has three parts—stage 1 for graduate, pharmacy, and public health students, and seniors (135 or more credits); stage 2 for juniors, sophomores and freshmen; and stage 3 for adult and high school specials. Within each stage, there are name ranges—listing last names (up to 10 letters) and sometimes partial first names. To find your registration time, locate the name range for your last name. For example, if you are a junior named Chris R. Student, your name falls between Strand, Taw—Sullivan, M in stage 2, and you may register at or after 12:30 p.m. on November 19.

MORNING HOURS

Stage 1: Graduate, Pharmacy, and Public Health Students and Seniors (135 or more credits)

	8:00 a.m.	8:30 a.m.	9:00 a.m.	9:30 a.m.	10:00 a.m.	10:30 a.m.	11:00 a.m.	11:30 a.m.
November 7	Harmsen-Hockert, Ma	Hockert, Mb-lwaszek, Th	Iwaszek, Ti-Joseph, Jil	Joseph, Jim-Klacan, Car	Klacan, Cas-La Mirande	La Mirandf-Levin, Sidn	Levin, Sido-Luksan, Mar	Luksan, Mas-Mason, Darr
November 8	Raymond, Np-Rothstein	Rothsteio-Schmidt, Ti	Schmidt, Tj-Sidenbende	Sidenbendf-Stafford, R	Stafford, S-Syring, Lav	Syring, Law-Trinh, Nam	Trinh, Nan-Vikmanis, V	Vikmanis, W-Weber, Kris
November 11	Boone, Lisb-Bundy, Jame	Bundy, Jamf-Chard, Dani	Chard, Danj-Cornils, Ma	Cornils, Mb-Devery, Car	Devery, Cas-Eichers, Su	Eichers, Sv-Entinger, C	Entinger, D-Farah, Amir	Farah, Amis-Fisher, Der

Stage 2: Juniors, Sophomores and Freshmen

	8:00 a.m.	8:30 a.m.	9:00 a.m.	9:30 a.m.	10:00 a.m.	10:30 a.m.	11:00 a.m.	11:30 a.m.
November 12	Harmsen-Hawkins, Je	Hawkins, Jf-Helgemoe, J	Helgemoe, K-Hexum, Marc	Hexum, Mard-Hirth, Kenn	Hirth, Keno-Hoffman, Os	Hoffman, Ot-Holseth, Ki	Holseth, Kj-Hovland, Er	Hovland, Es-Hunt, Vince
November 13	Kalb, Davie-Kegley, Ann	Kegley, Ano-Khang, Jose	Khang, Jost-Kivi, Joel	Kivi, Joem-Ko, Tony W	Ko, Tony X-Kotnour, Je	Kotnour, Jf-Kromer, Kel	Kromer, Kem-Kupcho, Mar	Kupcho, Mas-Lam, Toan Q
November 14	Loucks, Roc-Lundeen, Je	Lundeen, Jf-MacMillan	MacMillao-Maloney, Ia	Maloney, Ib-Marshall, S	Marshall, T-Matthews, F	Matthews, G-McCulloch	McCulloci-McKay, Jeff	McKay, Jefg-Megard, Jas
November 15	Neitzel, Db-Nelson, Sha	Nelson, Shb-Nguyen, Hun	Nguyen, Huo-Nielsen, Li	Nielsen, Lj-Novakoske	Novakoskf-Oanes, Lian	Oanes, Liao-Olson, Bret	Olson, Breu-Onah, Nwadi	Onah, Nwadj-Ouren, Paul
November 18	Poletz, Hrz-Prest, Joel	Prest, Joem-Qunchairut	Qunchairuu-Rasmussen	Rasmusseo-Reigstad, J	Reigstad, K-Richards, C	Richards, D-Roan, Jessi	Roan, Jessj-Roesler, Ro	Roesler, Rp-Roske, Lesh
November 19	Scofield, O-Sewell, Reb	Sewell, Rec-Shinn, Step	Shinn, Steq-Simonton, C	Simonton, D-Smith, Andr	Smith, Ands-Snopek, She	Snopek, Shf-Souvannaso	Souvannasp-Stang, Stev	Stang, Stew-Sterling, A
November 20	Tlusty, Wim-Tran, Hai T	Tran, Hai U-Truong, Kyt	Truong, Kyu-Uhlenkamp	Uhlenkamq-Vanderwaal	Vanderwaam-Vikingstad	Vikingstae-Vukomanovi	Vukomanovj-Walls, Tony	Walls, Tonz-Wartnick, J
November 21	Wu, Charlif-Yechout, Pa	Yechout, Pb-Zarns, Davi	Zarns, Davj-Zwicki, Sea	Zwicki, Seb-Adler, Lisa	Adler, Lisb-Allen, Mark	Allen, Marl-Anderson, B	Anderson, C-Anderson, M	Anderson, N-Apfelbeck
November 22	Bergkvisu-Bhagroo, Ni	Bhagroo, Nj-Blackburn	Blackburo-Bode, Jill	Bode, Jilm-Bonnie, Jen	Bonnie, Jeo-Bowler, The	Bowler, Thf-Breault, Mi	Breault, Mj-Britton, Mi	Britton, Mj-Browne, Chr
November 25	Cheung, Chb-Chrzanowsk	Chrzanowsl-Clinton, Ro	Clinton, Rp-Collins, Sc	Collins, Sd-Corcoran, J	Corcoran, K-Coyne, Moll	Coyne, Molm-Cummings, T	Cummings, U-Dahl, Jeffr	Dahl, Jeffs-Dankowski
November 26	Dunn, Stevf-Ebner, Phil	Ebner, Phim-Eilers, Kur	Eilers, Kus-Emerfoll, T	Emerfoll, U-Erickson, A	Erickson, B-Esser, Kimb	Esser, Kimc-Fahnhorst	Fahnhorsu-Feinberg, G	Feinberg, H-Finch, John
November 27	Gehrke, Lit-Gessner, Su	Gessner, Sv-Ginsbach, J	Ginsbach, K-Gokcen, Jas	Gokcen, Jat-Gorman, Che	Gorman, Chf-Gravell, Ma	Gravell, Mb-Grimes, Chr	Grimes, Chs-Grosz, Mich	Grosz, Mici-Guidarelli

Stage 3: Adult and High School Specials

	8:00 a.m.	8:30 a.m.	9:00 a.m.	9:30 a.m.	10:00 a.m.	10:30 a.m.	11:00 a.m.	11:30 a.m.
December 2	Harmsen-Joiner, Car	Joiner, Cas-Lehto, Lynn	Lehto, Lyno-Mindel, Les	Mindel, Let-Pierson, Ge	Pierson, Gf-Scott, Heat	Scott, Heau-Tillis, Hol	Tillis, Hom-Yae, Hae De	Yae, Hae Df-Bloom, Pame

NAME ROTATION THROUGH FUTURE QUEUES	Spring 1992	Fall 1992	Winter 1993
Registration Starts:	February 21, 1992	May 14, 1992	November 12, 1992
Each Stage Queue Begins:	Olson, R	Buenger	Sanford

AFTERNOON HOURS

Stage 1: Graduate, Pharmacy, and Public Health Students and Seniors (135 or more credits)

	12:00 noon	12:30 p.m.	1:00 p.m.	1:30 p.m.	2:00 p.m.	2:30 p.m.	3:00 p.m.	3:30 p.m.
November 7	Mason, Dars-Merck, Mich	Merck, Mici-Mountain, Ca	Mountain, Cb-Nelson, Eri	Nelson, Erj-O'Neill, Pa	O'Neill, Pb-Pan, Chih-C	Pan, Chih-D-Pfeilstick	Pfeilsticl-Priewe, Car	Priewe, Cas-Raymond, No
November 8	Weber, Krit-Williams, D	Williams, E-Yang, Xue M	Yang, Xue N-Abubaker, A	Abubaker, B-Anderson, L	Anderson, M-Ball, Linda	Ball, Lindb-Berg, Greta	Berg, Gretb-Bishop, Jen	Bishop, Jeo-Boone, Lisa
November 11	Fisher, Des-Franco, Pet	Franco, Peu-Gage, Amy M	Gage, Amy N-Germ, Pamel	Germ, Pamem-Goldberg, H	Goldberg, I-Gregor, Daw	Gregor, Dax-Gustafson	Gustafsoo-Hamilton, L	Hamilton, M-Harmsemzzz

Stage 2: Juniors, Sophomores and Freshmen

	12:00 noon	12:30 p.m.	1:00 p.m.	1:30 p.m.	2:00 p.m.	2:30 p.m.	3:00 p.m.	3:30 p.m.
November 12	Hunt, Vinc-Ireland, Mi	Ireland, Mj-Jahr, Jodel	Jahr, Jodem-Jensen, Sta	Jensen, Stb-Johnson, Cr	Johnson, Cs-Johnson, Ma	Johnson, Mb-Jones, Damo	Jones, Damp-Jukich, Jul	Jukich, Jum-Kalb, David
November 13	Lam, Toan R-Lara, Ramon	Lara, Ramoo-Lau, Ruth L	Lau, Ruth M-Lee, Debra	Lee, Debrb-Lekhter, Ir	Lekhter, Is-Liang, Xun	Liang, Xuo-Lindskoog	Lindskooh-Lofstrom, J	Lofstrom, K-Loucks, Rob
November 14	Megard, Jat-Metz, Kathe	Metz, Kathf-Milbrandt	Milbrandu-Mitchell, K	Mitchell, L-Moore, Eric	Moore, Erid-Moses, Matt	Moses, Matu-Muma, Steph	Muma, Stepi-Myers, Will	Myers, Wilm-Neitzel, Da
November 15	Ouren, Paum-Paplior, Al	Paplior, Am-Patnode, Cr	Patnode, Cs-Pederson, C	Pederson, D-Peters, Mar	Peters, Mas-Peterson, S	Peterson, T-Phouthavan	Phouthavao-Pirie, Will	Pirie, Wilm-Poletz, Hry
November 18	Roske, Lesi-Ruesga, Ant	Ruesga, Anu-Sabol, Jane	Sabol, Janf-Sanderson	Sandersoo-Schedler, D	Schedler, E-Schmidt, Mi	Schmidt, Mj-Schoppe, Da	Schoppe, Db-Schulz, Dan	Schulz, Dao-Scofield, N
November 19	Sterling, B-Strand, Tav	Strand, Taw-Sullivan, M	Sullivan, N-Swanson, Pe	Swanson, Pf-Tang, Lisa	Tang, Lisb-Terwelp, Ka	Terwelp, Kb-Thomas, Sus	Thomas, Sut-Thonet, Ann	Thonet, Ano-Tlusty, Wil
November 20	Wartnick, K-Weidner, Eu	Weidner, Ev-Wesley, Kat	Wesley, Kau-White, Tim	White, Tin-Williams, C	Williams, D-Wilson, Ron	Wilson, Roo-Wolf, John	Wolf, Joho-Woodford, J	Woodford, K-Wu, Charlie
November 21	Apfelbecl-Asefa, Afew	Asefa, Afex-Backman, Sc	Backman, Sd-Ballot, Wil	Ballot, Wim-Barry, Pete	Barry, Petf-Bealles, Kr	Bealles, Ks-Bell, Scott	Bell, Scotu-Benzaquen	Benzaqueo-Bergkvist
November 22	Browne, Chs-Buffalow, J	Buffalow, K-Burrock, Je	Burrock, Jf-Cafourek, S	Cafourek, T-Carlson, Am	Carlson, An-Carroll, Br	Carroll, Bs-Cedarholm	Cedarholn-Chapin, Law	Chapin, Lax-Cheung, Cha
November 25	Dankowskj-Dawson, Con	Dawson, Coo-Demars, The	Demars, Thf-Deyle, Davi	Deyle, Davj-Dittel, Lor	Dittel, Los-Donner, Amy	Donner, Amz-Draskovich	Draskovici-Dueringer	Dueringes-Dunn, Steve
November 26	Finch, Joho-Fleetwood	Fleetwooe-Foreman, Ke	Foreman, Kf-Franck, Jef	Franck, Jeg-Freimark, N	Freimark, O-Funk, Lisa	Funk, Lisb-Gao, Wen	Gao, Weo-Garvalia, C	Garvalia, D-Gehrke, Lis
November 27	Guidarellj-Gwaza, Comf	Gwaza, Comg-Hagan, Joy	Hagan, Joz-Hall, Chris	Hall, Chrit-Hamberlin	Hamberlio-Haney, Dani	Haney, Danj-Hanson, Ang	Hanson, Anh-Hanson, Rac	Hanson, Rad-Harmsemzzz

Stage 3: Adult and High School Specials

	12:00 noon	12:30 p.m.	1:00 p.m.	1:30 p.m.	2:00 p.m.	2:30 p.m.	3:00 p.m.	3:30 p.m.
December 2	Bloom, Pamf-Browne, Wen	Browne, Weo-Case, Natha	Case, Nathb-Cronin, San	Cronin, Sao-Donley, Kar	Donley, Kas-Erdman, Eli	Erdman, Eli-Foy, Mary F	Foy, Mary G-Gomez, Roma	Gomez, Romb-Harmsemzzz

REGISTRATION SERVICES

Registration Center

202 Fraser Hall, Minneapolis
Monday 8 a.m.-6 p.m.; Tuesday-Friday 8-4
(January 7-8—8 a.m.-5:30 p.m.)

For turning in scholarships, registration materials, cancel/add materials, and obtaining fee statements; processing payroll deductions

Office of the Registrar

150/155 Williamson Hall, Minneapolis
Monday 8 a.m.-6 p.m.; Tuesday-Friday 8-4
(January 7-8—8 a.m.-5:30 p.m.)

Transcript Service (155), 624-4115

For regular service for official transcripts (\$3 charge), rush service for official transcripts (\$9 charge), and for unofficial copies of student records (limit one copy per day)

Student Relations (150), 625-5333

For assistance with individual student record problems, questions; registration services for students with mobility impairments; name and address changes; student loan deferments; turning in Application for Degree forms and Application for Change of College or Status forms

Certifications (155)

For certification letters and Veterans certification

St. Paul Admissions and Records

130 Coffey Hall, 624-3731
Monday 8 a.m.-6 p.m.; Tuesday-Friday 8-4
(January 7-8—8 a.m.-5:30 p.m.)

Registration Service

For turning in scholarships, registration materials, and cancel/add materials and obtaining fee statements; processing payroll deductions (St. Paul colleges, Architecture and Landscape Architecture, Education, and Graduate School only)

Student Contact Area

For registration services for students with disabilities. For assistance with individual student record problems and questions; for certifications; for turning in Application for Degree forms, Application for Change of College or Status forms, and address changes. For regular service for official transcripts (\$3 charge), rush service for official transcripts (\$9 charge), and for unofficial copies of student records (limit one copy per day). For obtaining college bulletins

Student Accounts Receivable

20 Fraser Hall, Minneapolis 625-8500
107 Coffey Hall, St. Paul
Monday-Friday 8-3:30

For obtaining refunds, payroll deduction information, obtaining fee payment verifications, receiving assistance with student billing problems, questions. Picture ID required for service

Bursar's Office

145 Williamson Hall, East Bank
Anderson Hall ground level, West Bank
107 Coffey Hall, St. Paul
Monday-Friday 8-3:30

For paying tuition and fees, cashing refund vouchers and checks (student ID card and bottom half of fee statement necessary for check cashing; \$50 limit per day; \$.25 charge per check; \$15 charge for returned check), purchasing deposit cards and student ID card authorizations

ID Card Office

248 Williamson Hall, Minneapolis
Monday-Friday 8-4
(January 7-8—8 a.m.-5:30 p.m.)

For obtaining new student ID cards; lost student ID cards turned in

Information Center

first floor concourse,
Williamson Hall, Minneapolis
Monday-Friday 7:45-4:30
(January 7-8—8 a.m.-5:30 p.m.)

For obtaining college bulletins, maps, campus bus information (route 13 and MTC routes 52 only), and miscellaneous publications and information; no *Class Schedules* issued

TWIN CITIES CAMPUS TUITION SCHEDULE 1991-92¹

Tuition Rates for Undergraduates—The following per-credit tuition rates have been approved for the 1991-92 academic year.

Your tuition is always tied to the college in which you are registering. If there is only a single set of rates (resident and nonresident) listed below for your college, school, or program, you will pay that rate regardless of your class standing. When there are both lower and upper division rates listed for your college, you will pay lower division rates *through the quarter in which you have registered for your 90th credit*. Upper division rates are assessed thereafter. Adult special students pay upper division rates. For information on Minnesota resident status, see the next page.

There is a 14-18 credit plateau for all units listed below. Credits 1 through 14 are assessed on a per-credit basis. There is no charge (except for course fees) for your 15th, 16th, 17th, and 18th credits. Each credit above 18 is assessed on a per-credit basis. Credits for three Math courses—1008, 1111, and 1201—do not count in the tuition plateau.

Students registering in:	Resident	Non-Resident
Lower Division: Colleges of Agriculture, Architecture and Landscape Architecture, Education, General College, Human Ecology, Liberal Arts, Natural Resources, Institute of Technology, and University College	\$58.93	\$173.84
Upper Division: General College, College of Liberal Arts, and University College	\$60.57	\$178.68
Upper Division: Colleges of Architecture and Landscape Architecture, Education, and Institute of Technology	\$69.70	\$205.62
Upper Division: Colleges of Agriculture, Human Ecology, and Natural Resources	\$72.59	\$214.14
Management, Carlson School of	\$64.44	\$190.10
Biological Sciences, College of	\$72.59	\$214.14
Dental Hygiene, Program in Medical Technology, Department of Mortuary Science, and Programs in Occupational Therapy and Physical Therapy	\$73.00	\$215.35
Nursing, School of	\$73.00	\$146.00
Pharmacy, College of Bachelor of Science	\$80.00	\$160.00
Pharmacy, College of B.S. Seniors	\$35.51	\$64.60

Graduate School Tuition Rates—The following rates have been approved for the Graduate School for 1991-92. For information on who may register for thesis credits beyond requirement, see page 7.

Part-time rates:	Resident	Non-Resident
1-2 credits	\$301.15	\$602.30
3 credits	\$383.92	\$767.84
4 credits	\$511.89	\$1,023.78
5 credits	\$639.86	\$1,279.72
6 credits	\$767.83	\$1,535.66
Full-time rates:		
7-15 credits	\$1,084.00	\$2,168.00
per credit for each credit over 15	\$90.33	\$180.66
Thesis credits beyond requirement:		
Doctoral candidates only (per credit)	\$30.00	\$30.00
M.B.A. rates:		
M.B.A. day program (per credit)	\$168.00	\$255.94
M.B.A. evening program (per credit)	\$168.00	\$168.00

ADDITIONAL FEE INFORMATION

Professional School Tuition Rates	16
Student services fee breakdown	16
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Course fees	19
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Facility fees	20
Payment dates for winter quarter	21
Financial aid recipients	22
Refunds	23

¹Tuition and fees are subject to change without notice.

Professional School Tuition Rates—The following rates have been approved for professional school students and the departmental masters for 1991-92. Some schools have a 14-18 credit plateau. With this plateau there is no charge (except for course fees) for the 15th, 16th, 17th, and 18th credits. Each credit above 18 is assessed on a per-credit basis. Most other schools have term rates for 12 or more credits.

Students registering in:		Resident	Non-Resident
Dentistry, School of	per credit	\$186.67	\$280.00
	term (12 or more credits)	\$2,240.00	\$3,360.00
Departmental Masters, Colleges of Agriculture and Education	per credit	\$77.00	\$154.00
	14-18 credit plateau	\$1,078.00	\$2,156.00
Law School (semester rate)	per credit	\$213.33	\$426.66
	term (12 or more credits)	\$2,560.00	\$5,120.00
Medical School	1-5 credits	\$739.00	\$1,478.00
	6-10 credits	\$1,478.00	\$2,956.00
	11-15 credits	\$2,217.00	\$4,434.00
	16 or more credits	\$2,956.00	\$5,912.00
	Medical fellow specialists residency program (per term)	\$121.00	\$121.00
	Psychology fellow specialists (per term)	\$121.00	\$121.00
Nurse Anesthetist (Medical School)	per credit	\$90.00	\$265.50
	14-18 credit plateau	\$1,260.00	\$3,717.00
Pharmacy, College of (Pharm.D. program)	per credit	\$85.00	\$170.00
	14-18 credit plateau	\$1,190.00	\$2,380.00
	Pharm.D. clerkship (per term)	\$121.00	\$121.00
Public Health, School of	per credit	\$77.00	\$154.00
	14-18 credit plateau	\$1,078.00	\$2,156.00
Veterinary Medicine, College of	per credit	\$172.92	\$259.38
	term (12 or more credits)	\$2,075.00	\$3,112.50
	Veterinary fellow specialists (per term)	\$121.00	\$121.00

STUDENT SERVICES FEE

All students registered for 6 or more credits must pay a \$118.03-per-quarter (\$177.05-per-semester) student services fee in addition to tuition. Courses that carry no degree credit (Comp 0011, GC 0401, 0402, 0419, 0611, 0615, 0616, 0617, 0618, 0621, 0623, 0625, 0631, 0641, 0643, and all courses in which you register as an auditor) count in the determination of the credit total for the student services fee on a one class hour = one credit basis. For example, registration in GC 0625, which meets for 5 class hours per week, counts as 5 credits towards assessment of the fee. Credit courses for which a course fee is charged instead of tuition (Math 1008, 1111, and 1201) also count in the determination of the credit total for the student services fee. The fee is distributed among the following programs:

All-Campus Elections Commission	\$.138
Board of Student Publications (<i>Minnesota Daily</i>)	4.05
Boydton Health Service	54.00
Coffman Memorial Union	15.41
Community Child Care Center	.39
Council of College Boards	.238
Cultural Programs	1.47
Gay, Lesbian, and Bisexual Association	.20
International Study and Travel Center	1.06
Minnesota International Student Association	.524
Recreational Sports Building Fund	5.00
Recreational Sports Operations	10.49
St. Paul Board of Colleges	.162
St. Paul Student Center	7.53
Student Advocate Service	.30
Student Emergency Loan Fund	.238
Student Legal Services	4.99
Student Omsbud Service	.47
Student Organization Financial Management	.27
Union Expansion Fund	5.94
University YW	.20
West Bank Union	4.77
WMMR	.19
TOTAL	\$118.03

Students who are registered only for research or other independent work do not need to pay the student services fee if the work is done exclusively outside the 9-county metro area (Hennepin, Ramsey, Dakota, Washington, Scott, Anoka, Carver, Wright, and Chisago). Students meeting the exemption criteria may elect to pay the fee if they wish to use or support the services covered by the fee.

RESIDENCE REGULATIONS

Because the University is a state institution, residents of Minnesota pay lower tuition than nonresidents, and, in many programs, receive priority consideration for admission. To qualify for resident status, you must reside in Minnesota for at least one calendar year *prior* to the first day of class attendance. During that one year waiting period, your primary reason for living in Minnesota must be something other than school attendance. There are few exceptions to this rule, and these generally apply to veterans, migrant workers, specific federal employees, refugees, and faculty at Minnesota col-

leges. Students holding temporary international visas (F-1, J-1, H-1, etc.) *do not* qualify for resident tuition.

If you have moved here from another state, resident status is not automatically granted; you must apply and present evidence that: you have abandoned your former domicile; you have made Minnesota your *permanent* home; you are not a tax dependent of a parent or spouse living out-of-state; and you have taken reasonable steps to substantiate your desire to remain in Minnesota. Although acceptance of employment, registration of automobiles, payment of local taxes, etc. may support an application for resident status, these actions, by themselves, do not constitute sufficient evidence of residence.

You may apply for or appeal your resident status by obtaining an application in 240 Williamson Hall or 130 Coffey Hall. An administrative classification will follow a review of the application. To appeal, you must file within 30 days after notification of classification. If the review board finds that an erroneous classification has been made, it will be corrected.

HEALTH SERVICE AND HOSPITALIZATION CHARGES

General Information—All students who take 6 or more credits must pay the student services fee. By paying the fee, you become eligible to receive most outpatient services at Boynton Health Service at no charge and others at reduced cost. Coverage for winter quarter begins Monday, December 23. (Students whose programs do not follow the regular quarterly calendar are usually covered on their first day of class. Call 624-1471 for further information.) If you do not pay the student services fee, you may purchase outpatient health coverage through the Extended Coverage Benefits plan available at the cashier's window, second floor, Boynton Health Service. Your spouse may also buy the Extended Coverage Benefits plan if both you and your spouse are covered by University-sponsored hospitalization insurance. Students who do not pay the student services fee or purchase extended coverage (and spouses and children of students) may use Boynton Health Service on a fee-for-service basis.

Boynton Health Service is open 8 a.m.-5 p.m. Monday through Friday. Prepaid medical care at Boynton includes general medical services, internal medicine, orthopedics, chest clinic, women's clinic, laboratory procedures, and eye clinic. Partial fees are charged for routine physical exams, annual dental exams, and some specialty care. Charges for mental health clinic visits, x-rays, and minor surgical procedures must be submitted by you to your hospitalization insurance company; your student services fee will cover the costs that your hospitalization insurance does not. Students without hospitalization insurance will be responsible for full payment of these charges. Full fees are charged for prescription drugs, eye glasses, and most dental care.

During the hours that Boynton is closed, emergency care is available at the University Hospital emergency department. However, the charges for such after-hours care are only partially covered by the student services fee. In most cases, Boynton will pay 50% of charges that cannot be collected from your insurance. You are responsible for the remainder of the

bill or for the entire bill if you do not have insurance. Visits to other emergency rooms are not covered by the student services fee. Follow-up care after an emergency must be obtained at Boynton to be covered.

For detailed information, see *Welcome to Boynton Health Service*, a brochure available at Boynton. General information and a copy of the brochure may be obtained by calling 625-8400.

Hospitalization Insurance—The Board of Regents requires all students taking 6 or more credits per quarter to carry hospitalization insurance. International students must carry hospitalization insurance for themselves and their dependents for the entire time they are in the U.S. If you already have insurance, be sure to fill in the name of your insurance company and your policy number on the hospitalization insurance form in the back of this *Class Schedule* and bring the form with you when you register. If you do not provide your insurance information when you register, you will automatically be charged for University-sponsored hospitalization insurance. To cancel this assessment and receive a full refund, you must return to your registration center with your insurance information by the end of the *first* week of classes.

Even if you are taking fewer than 6 credits, you have the option of purchasing hospitalization insurance. Coverage may be purchased at registration or at the cashier's window, second floor, Boynton Health Service. You must pay either the student services fee or the extended coverage fee in order to be eligible to purchase this insurance. Coverage must be purchased by the end of the second week of classes (January 17 for winter quarter).

For more information on insurance or an insurance brochure, contact the Student Insurance Office at Boynton, room W228 (624-0627).

Summer Insurance Coverage—If you enroll in the University-sponsored hospitalization insurance plan during spring quarter, you may purchase summer coverage, even if you do not take summer classes. It is important to maintain insurance coverage through the summer so you are protected in case of a summer accident or illness. You may also purchase the Extended Coverage Benefits plan for \$110 for summer 1992, but you are not required to do so in order to be eligible to purchase the hospitalization insurance.

For information about purchasing summer insurance coverage, contact the Student Insurance Office at Boynton Health Service, room W228, (624-0627).

Immunization Clearance—Minnesota law requires all students born after December 31, 1956, to provide documentation of immunization for measles, mumps, rubella, tetanus, and diphtheria. This documentation must be entered on a Student Immunization Form and must include the month and year each immunization was given. Forms are available at your registration center and at the Boynton Health Service information desk. You only need to fill out a Student Immunization Form the first time you register for classes.

Check your medical or high school immunization records. All students are legally required to provide information on immu-

nizations or exemptions; students who fail to provide the required information will have holds placed on their records and will not be allowed to register for classes. (The law does allow for some exceptions based on documented medical or conscientious exemptions.) If you need any of the required immunizations, call your family doctor or the Boynton Immunization Clinic (625-2929) for an appointment.

GRADUATE ASSISTANT HEALTH-CARE PLAN

University subsidized health insurance, provided through Group Health, Inc., is available to graduate and professional students who meet any of the following eligibility requirements:

- graduate assistants with appointments of 25% or more in class titles 9511 (teaching assistant), 9521 (research assistant), or 9531 (administrative fellow),
- students who hold a Graduate School Fellowship, Doctoral Dissertation Fellowship, or Minority and Disadvantaged Student Fellowship, or
- students enrolled in the Graduate School who hold a fellowship or traineeship with a stipend or \$9000 or more for the academic year (fall, winter, and spring quarters) and whose departments agree to pay the full insurance premium.

For graduate assistants, the University will pay a portion of the health insurance premium equal to twice their appointment percentage. For example, a graduate assistant with a 25% appointment receives a 50% subsidy. All eligible fellowship and traineeship holders receive 100% subsidies.

To receive this coverage you must apply for it during the first quarter of your assistantship, traineeship, or fellowship, and by the enrollment deadline. For most students, this deadline is the end of the second week of classes (January 17 for winter quarter). Each quarter you are a member of the plan you must pay the student services fee (118.03 per quarter) and your portion, if any, of the health insurance premium. Plan members registering for fewer than 6 credits must ask to be assessed the student services fee at the time of registration. If you are on a provisional hourly appointment and work less than the estimated number of hours, you will be billed for an additional portion of the premium.

Once enrolled in the plan, you remain a member until you lose eligibility (e.g., your appointment drops below 25%, you leave your appointment, or your fellowship or traineeship ends). Upon loss of eligibility you *must* cancel your participation in the group plan by completing a cancellation form; you will be billed for the full insurance premium and student services fee until you do so. When you cancel you can elect to continue coverage for a period of time at your own expense; you are then responsible for the full amount of the health insurance premium.

Coverage for dependents of eligible students is available through a separate Group Health plan offering benefits similar to and clinic locations the same as the graduate assistant plan. The cost of dependent coverage is borne entirely by the student and is not subsidized by the University. For informa-

tion on dependent coverage, contact Group Health at 623-8600.

To apply for or cancel your coverage you *must* contact the Graduate Assistant Insurance Office in 411 Johnston Hall, 625-4346. Students already enrolled *need not* re-enroll to maintain coverage.

TRANSCRIPT FEES

There are two types of service for *official* transcripts: regular service and rush service. (Official transcripts are certified and signed by the University Registrar.) Regular service is available for \$3 a copy. Processing time for regular service is 2-3 workdays; after processing, your copies will be mailed to the places you have specified. Rush service on your official transcript requests is available for \$9 a copy. Rush service guarantees your transcript will be issued to you in person or put in the mail on the same day it is requested. You must have a picture ID (student ID card, driver's license, or current passport) to receive over-the-counter rush service. Prepaid courier service may also be requested for both regular and rush service. Visit the transcript service (155 Williamson Hall, Minneapolis, or 130 Coffey Hall, St. Paul) for more information or call 625-5333.

Official transcripts can be requested by mail. Requests can also be dropped off at the locations below. No phone or FAX requests will be accepted. Requests should include your full name, your student ID number, college, dates of enrollment, and complete address(es) to send the transcript(s) to. Minneapolis students should send their requests to the Certifications Unit, 155 Williamson Hall, 231 Pillsbury Drive S.E., Minneapolis, MN 55455. St. Paul students should send their requests to St. Paul Admissions and Records, 130 Coffey Hall, 1420 Eckles Avenue, St. Paul, MN 55108. (*If your last registration in Extension was spring 1989 or earlier, you must request your Extension record at the Certifications Unit in Minneapolis.*) Your request must include a check or money order payable to the University of Minnesota for \$3 or \$9 per transcript or the same amount in transcript vouchers from the Bursar.

You may pick up an *unofficial* copy of your record by presenting your student ID card at the transcript window in 155 Williamson Hall or at 130 Coffey Hall. There is no charge for an unofficial copy of your record; there is, however, a limit of one copy per day. Unofficial transcripts are never available, however, during grade distribution (January 6-10 for winter 1992).

Students are advised that disciplinary action will be taken if academic records are forged or altered.

SPECIAL FEES¹

BILLING CHARGE

\$5 per billing cycle for a maximum of \$10 per quarter.

BUSINESS QUARTERLY

\$2.75—Required of all Carlson School of Management students who pay the student services fee. Assessed at registration.

COGS (COUNCIL OF GRADUATE STUDENTS)

\$1.37—Required of *all* students in the Graduate School.

COLLEGE OF EDUCATION—PLACEMENT SERVICE FEE

\$40—Registration fee for graduate students, alumni, and others (annual fee).

\$25—College of Education students completing a teacher licensing program (annual fee—assessed with graduation fee)

\$8—Vacancy bulletin service fee to receive vacancy bulletins by mail (quarterly fee)

Bachelor of Science degree candidates in the teacher licensing program areas from the College of Education are required to register with the placement section of the Education Student Affairs Office or to secure an official exemption from that office. Graduate students and alumni seeking employment in education positions may also use the placement services.

CREDIT BY SPECIAL EXAMINATION

\$30—Check with your college office for further information.

DIPLOMA, OVERSEAS MAILING

\$5—For sending a diploma *air mail* to address outside the United States, Canada, or Mexico. (Fee optional)

DIPLOMA REPLACEMENT FEE

\$15

ENGLISH FOR INTERNATIONAL STUDENTS

For international students who are required to take English as a Second Language courses—a fee ranging from \$585 (5 hours per week) to \$1485 (25 hours per week) is charged separate from tuition and fees charged for academic classes.

GRADUATE AND PROFESSIONAL STUDENT ASSEMBLY (GAPSA)

\$1.29—Assessed quarterly to students in most professional schools and students in the Graduate School.

GRADUATION FEE

\$25—Each degree, includes diploma.

HOSPITALIZATION INSURANCE, UNIVERSITY SPONSORED

\$141 per quarter—Available only to students who pay the student services fee or the extended coverage fee.

INTERNATIONAL STUDENT AID FEE

\$4 per quarter—Required of all students who hold nonimmigrant visas.

I.T. BOARD OF PUBLICATIONS

\$2.90—Required of all Institute of Technology students who pay the student services fee—assessed at registration.

LATE PAYMENT FEE

\$15 per billing cycle for a maximum of \$45 per quarter.

LATE REGISTRATION FEE

\$10 through the first two weeks of classes and \$20 thereafter.

MINNESOTA PUBLIC INTEREST RESEARCH GROUP (MPIRG)

\$2.50 (refusable/refundable)—Assessed with student services fee.

MINNESOTA STUDENT ASSOCIATION (MSA)

\$1.43—Assessed to undergraduates, departmental masters, and students in pharmacy.

MUSIC PRACTICE ROOMS

Rooms with upright or grand piano, harp, harpsichord, organ, or percussion as well as rooms with no instrument are available on a quarterly basis. Check in 100 Ferguson Hall for rental information and rates.

ORIENTATION FEE

\$32—Required of all new students *except*: high school and adult specials; graduate students who attended the University as undergraduates; students in law, medicine, veterinary medicine, dentistry, and public health; and students in postbaccalaureate education, master of education, and master of agriculture programs.

RECREATIONAL SPORTS PARTICIPATION FEE/LOCKER RENTALS

Currently enrolled students who do not pay the student services fee must purchase a quarterly permit to become eligible to use recreational facilities and programs. Similar permits (at different costs) are available for faculty and staff.

For further information, including the current fee rates, call or visit one of the Recreational Sport offices: 101 Cooke Hall, Minneapolis, (625-6800) or 104 St. Paul Gym (625-8283).

Sports lockers and towel service can be rented at the equipment rooms in the University Recreation Center and Norris Hall at the following rates:

\$1—Daily rate for locker/towel/rental

\$15—Quarterly locker/towel/rental for students

\$20—Quarterly locker/towel/rental for staff/faculty

SERVICE FEE, INTERNATIONAL PROGRAMS

\$100-\$250 per quarter according to services provided—For international students supported under contractual arrangements with sponsoring agencies or entities requiring special administrative or management services beyond those normally provided.

SPEECH AND HEARING CLINIC

U of M students, staff, and faculty are not charged for clinical services provided in the Speech and Hearing Clinic.

¹Fees are subject to change without notice.

COURSE FEES¹

All fees are per quarter unless otherwise indicated.

Students taking the following courses will pay course fees as follows:

COMPOSITION AND COMMUNICATION

\$205—0011

ECOLOGY AND BEHAVIORAL BIOLOGY

\$15—5014, 5016, 5132, 5134—Transportation Fee

FIELD STUDIES HEALTH SERVICE FEE

\$54 per quarter—Required of students on University field studies such as Anthropology, Geology, etc. (covers outpatient medical care for emergency illness at nearest facility on approval of the person in charge of the group. Eligible charges which are not collectible from a student's insurance carrier will be paid by Boynton Health Service up to a maximum of \$100 per visit).

FOREST PRODUCTS

\$50—ForP 3300 Wood Industries Tour

GENERAL COLLEGE

\$205—0401, 0402, 0419, 0611, 0615, 0616, 0617, 0618, 0621, 0623, 0625, 0631, 0641, 0643—Preparatory Mathematics and Composition

LANDSCAPE ARCHITECTURE

\$35—5073, 5107

MATHEMATICS

\$236—1008

\$295—1111, 1201

MUSIC, APPLIED

Applied lessons—1 half-hour lesson per week for 2 credits; 2 half-hour lessons or 1 hour lesson per week for 4 credits.

Music majors who have passed the entrance exam: \$0 per 2 credits
Majors taking extra credits (beyond requirement) or taking lessons on a second instrument: \$45 per 2 credits

Students taking lessons for minor in music: \$45 per 2 credits

Non-majors, elective credit: \$115 (0-2 credits)

PLANT BIOLOGY

\$10—1009 Transportation Fee

SOIL SCIENCE

\$6—3220 Field Course

\$19—3520, 5510 Transportation Fee

STUDIO ARTS²

Materials fees:

\$5—1101, 1102, 1404, 5190

\$20—1702, 3720

\$25—1701, 3710, 5710, 5790

\$30—3430, 5430, 8360

\$35—1510, 1520, 1530, 1540, 3306, 5360

\$40—3510, 3520, 3530, 3540, 3550, 5510, 5520, 5530, 5540, 5550, 5590

\$45—3830

\$50—1301, 1302, 1811, 1812, 3301, 3302, 3303, 3304, 3305, 3307, 5310, 5320, 5330, 5340, 5350, 5370, 8310, 8320, 8330, 8340, 8350, 8370

\$55—5830

\$60—1802, 3810, 5390

\$66—5890

\$70—5810

\$80—3820, 5821

\$95—5820

\$225—8810

Arranged (amount adjusted to individual needs of students or particular class project)—3420, 3970, 3980, 5420, 5970, all other 8000-level courses

¹Fees are subject to change without notice.

²Materials fees—assessed at the time of registration. Arranged fees are collected by department.

DEPOSIT CARDS AND RENTAL CARDS

Deposit Cards—Deposit cards may be purchased from the Bursar's Offices, 145 Williamson Hall, 107 Coffey Hall, or 101a Anderson Hall (no pharmacy cards available at Anderson Hall). Chemistry cards are \$30; microcomputer lab cards are \$35; pharmacy cards are \$10; art cards are \$5. Chapter 31 veterans (veterans on vocational rehabilitation) should obtain a voucher from the Certifications Unit, 155 Williamson Hall, and present this voucher at the Bursar's Office when they purchase a card.

Chemistry and Pharmacy Cards—Chemistry and pharmacy cards must be presented for admittance to the first meeting of lab classes. One card may serve for more than one class. Partially depleted cards are acceptable for admittance to class, provided that the unused portion is not less than the minimum stipulated for that course. The deposit card requirement is waived for graduate teaching assistants.

Lab material and breakage will be charged against your deposit card. Any unused balance will be refunded at the end of the course. You must present your deposit card to be assigned a lab desk. If you are disabled, you should speak with your instructor about any special arrangements that are necessary.

Microscope Rental Cards—Students enrolling in the following courses who do not provide their own microscopes must purchase one microscope rental card for Biology 3013 and two cards for the following Microbiology courses: 1101, 3103, 5105, 5106, 5233, 5234. The nonrefundable cards are \$3 each and may be purchased from the Bursar's Offices.

¹Fees are subject to change without notice.

FACILITY FEES¹

Students registered in the following courses must pay the amount indicated to the appropriate facility operator for the use of the facility and/or equipment.

AnSc 1601 Horse Equitation	\$60
PE 1034 Judo	\$18 (maximum)
PE 1035 Karate	\$23 (maximum)
PE 1048, 1148 Bowling	each \$15 (maximum)
PE 1057, 1157, 1257 Skiing	each \$75 (maximum)
PE 1205 Scuba and Skin Diving	\$25 (maximum)

¹Fees are subject to change without notice.

STUDENT ID CARD REPLACEMENT

Student ID cards are required in many areas of the University to process student services. Cards can only be produced for students who are registered for a current or future quarter.

You will not be charged a replacement ID fee if you request a legal name change (you must provide a copy of legal documentation if you are requesting a change in both first and last names); a multi-part name change (ST JAMES rather than STJAMES); or a social security number update (you must show a copy of your SSN card). You will also not be charged for card replacement due to: typographical errors, a name cut off due to lack of available space, an embossed surface or bar code that is worn due to normal wear and tear, or if you have not registered within the past two years and have lost or never been issued a card. For all of the above, you may obtain a new card at the ID Office, 248 Williamson Hall.

You will be charged a replacement fee if you have registered within the past two years and need a replacement ID for any reason other than those listed above or if you need to replace a card damaged due to negligence. In these instances, you will need to purchase an authorization card for \$10 at the Bursar's Offices, 145 Williamson Hall, 107 Coffey Hall, or 101a Anderson Hall. Bring the authorization card to the ID Office, 248 Williamson Hall, where your student status will be verified and you will be issued a new ID card. (NOTE: Lost ID cards that have been turned in are kept at the ID Office for 6 months.)

PAYMENT OF FEES

BILLING AND PAYMENT DATES FOR WINTER QUARTER			
STATEMENT	BILLING DATE	PAYMENT DATE	BALANCE DUE
Billing Statement #1	January 13	January 31	30%
Billing Statement #2	February 6	February 26	60%
Billing Statement #3	March 3	March 20	100%

Student Accounts Receivable Billing System for Tuition and Fees—Every student has an account at Student Accounts Receivable and receives a bill for tuition and fees at the beginning of each quarter. Each time you register for, cancel, or add courses, your tuition and fees will be charged to your account. This account, unlike individual fee statements, will reflect your *total* charges for tuition and fees.

You will continue to receive fee statements, but they will not carry payment due dates. Instead, your tuition due dates will be on your billing statements.

This billing system allows installment payments, with three payments possible over the quarter. Your first billing statement will list both your total tuition charges *and* a minimum payment amount. To make installment payments you need only pay the minimum payment listed. You will receive up to two additional billing statements during the quarter, each indicating a minimum amount due. There is a nominal billing charge (\$5) for each installment. If you choose to pay the minimum payment, you will be assessed this \$5 billing charge on your next statement. Every time you pay less than the minimum amount due, you will be charged \$15 in late payment fees in addition to the \$5 billing charge and a hold will be placed on your record. (Billing charges and late payment fees will appear under Charges and Debits on your bill.) Any bill can be paid *in full* by the due date to avoid billing charges.

Installment payments may not be suitable for certain students who need to be certified as having paid tuition and fees in full by the beginning of the quarter. Check with the Certifications Unit, 155 Williamson Hall, for more information.

You can make installment payments only for charges for the current quarter—balances or transactions from previous quarters are always due in full. You will be assessed billing charges for the current quarter if you have a previous balance outstanding. Any payments that you make will *always* be applied to the oldest charge on your account.

The chart at the top of the page lists the billing dates and the payment dates for winter quarter. For winter quarter, your first billing statement will be mailed to you on January 13 and your first payment will be due January 31. This billing statement will list a minimum payment of 30% of all charges for winter quarter plus 100% of any previous charges. Your second bill will be mailed on February 6 with a due date of February 26.

The minimum payment for the second bill is 60% of all unpaid charges for the quarter (plus 100% of any charges for previous quarters or terms). The final bill for the quarter will be mailed on March 3 with payment due on March 20. With the final bill you will be expected to pay any amount not yet paid. For example, if your tuition and fees total \$900, the minimum payment on your first bill would be \$270 (30% of your total tuition and fees) and this amount would be due January 31. After you make your first payment of \$270, your second bill would be for \$635 (your balance of \$630 plus a \$5 billing charge). You would have a minimum payment due on February 26 of \$381 (60% of the balance of \$635 remaining on your account). Your final bill would be for \$259 (your balance of \$254 plus a \$5 billing charge); payment would be due March 20.

NOTE: Students in units that do not follow the regular quarterly calendar (e.g., Dentistry, Medicine, Law) may have billing and due dates that differ from the above schedule. Contact Student Accounts Receivable, 625-8500, for information on billing schedules for your unit.

It is your responsibility to report any change in address to the University. When you register, verify that the address printed on your course confirmation form is correct. (You may report an address change to Student Accounts Receivable by calling 625-8500.) If you do not receive any billing statement, you *must* obtain a payment voucher on or before the payment due dates listed on the chart at the top of this page. Payment vouchers are available at Student Accounts Receivable, 20 Fraser Hall in Minneapolis (Bursar's departmental window, 145 Williamson Hall, for students with mobility impairments) or 107 Coffey Hall in St. Paul. If you want to pay your balance *before* you receive your billing statement, go to Student Accounts Receivable where a payment voucher will be prepared for you.

When to Pay—For students who register through January 13, the first payment is due January 31. Students whose registrations occur after the first billing date will be billed in the next billing cycle (February 6) and will have a February 26 due date. Always pay by the due date listed on your bill.

REMEMBER: Initial registrations that occur after January 3 are subject to late registration fees.

Where to Pay—Pay your tuition and fees at the Bursar's Office (145 Williamson Hall on the east bank, ground floor of Anderson Hall on the west bank in Minneapolis, or 107 Coffey Hall in St. Paul). Your billing statement (or fee statement) and a check or money order may also be dropped in any of the fee deposit boxes on campus: in the Fraser and Coffey Hall registration centers; both concourses of Williamson Hall; Anderson Hall; Coffman Union Service Center; and all dorms. Payments are picked up at 8 a.m. and are credited to the previous day. The receipted statement may be picked up after five workdays at 145 Williamson Hall or 107 Coffey Hall. Your receipted statement will be mailed to you if you enclose a self-addressed, stamped envelope.

Mailing Your Payment—Your billing statement (or fee statement) and a check or money order may be mailed, using the envelope enclosed with your billing statement, to the Bursar's Office, PO Box 88, Minneapolis, MN 55440-0088. Write your student ID number on your check or money order and enclose all copies of your statement. (If you are paying with your fee statement, do not remove the student copy before sending in payment but do remove the lower portion—your course confirmation form.) Your mailed payment must be received by the billing statement due date, or you will be billed for additional charges on the following statement. If you want your receipted statement returned to you by mail, you must enclose a self-addressed, stamped envelope. If you do not include this return envelope, you can pick up your receipted copy after five workdays at the Bursar's Office in Minneapolis (145 Williamson Hall).

Monthly Budget Plan—A monthly budget plan is offered for the academic year. With this plan, you or your sponsor (your parent or spouse, for example) can pay your estimated fall, winter, and spring quarter tuition and University housing costs in 9 equal installments. These installments will run from July through March each year.

Each spring, you will receive information about this plan from Student Accounts Receivable. For more information, including information on entering the plan mid-year, call Student Accounts Receivable (625-8500) or go to 20 Fraser Hall or 107 Coffey Hall.

Collection Procedures and Costs—Past due accounts may be subject to handling charges and collection procedures. Collection can include court action or referral to outside collection agencies. You are responsible for any and all costs necessary for the collection of any amount not paid when due.

Fee Statements, Course Confirmation Forms—Do not destroy or throw away any fee statements you receive from the registration center. Although your tuition is billed by Student Accounts Receivable, you may use your fee statements to pay at the Bursar's Office prior to receiving your billing statement.

The bottom half of your fee statement—your course confirmation form—is your proof of enrollment. Keep all copies for the quarter together with your student ID card. Many University facilities such as the libraries, Boynton Health Service, the Bursar's check cashing service, and athletic facilities require your course confirmation form as proof of enrollment. In

addition, if you do not have these copies, you will not be able to pick up your financial aid or loan checks without a lengthy replacement procedure.

Duplicate Fee Statements—Duplicate unreceipted fee statements for the current quarter may be obtained at your registration center. If your fees are paid, Student Accounts Receivable can issue a payment verification letter or validate your unreceipted copy at 20 Fraser Hall or 107 Coffey Hall (150 Williamson Hall for students with mobility impairments).

Credit Balance Fee Statements—Credit balance fee statements have a dollar amount in the "Amount Due" box that is followed by "CR," which means that your obligation to the University has been reduced by that amount. If you have already paid your fees *in full*, you may obtain a refund by presenting the credit balance fee statement to Student Accounts Receivable. (See also Refunds, on page 23.) If all of your fees have not been paid and the amount on the credit balance fee statement is less than what you owe, this credit will be reflected on your next bill from Student Accounts Receivable. This credit could also lower the minimum amount due on your current billing: for information on your current billing, call Student Accounts Receivable at 625-8500. If all of your fees have not been paid and the credit amount is *more* than the amount that you owe, go to Student Accounts Receivable for further information or call 625-8500.

Zero Balance Fee Statements—Zero balance fee statements have zeros printed in the "Amount Due" box on the fee statement. This means that no *additional* tuition and fees have been charged to your account at Student Accounts Receivable. All previous amounts owed remain unchanged. If you have questions about your balance, call 625-8500 for more information.

Credit for Tuition Deposit—If you are registering for the first time at the University and you paid a tuition deposit, you will receive credit for that deposit on your first billing statement from Student Accounts Receivable.

Paying Tuition Holds—If, in order to register, you pay a Student Accounts Receivable hold for a previous quarter with a personal check and that check does not clear the bank, you will be sent a notice by Student Accounts Receivable. Your current registration may be cancelled if you fail to respond to this notice and pay your debt.

NOTE: If you pay a hold by check, it will be two weeks before you can obtain a transcript. For an immediate transcript release, pay with cash.

Financial Aid Recipients—You must turn in your Course Request form and receive your course confirmation form by January 3, even though you will have not yet received your financial aid check. If you register after January 3, you will be charged a late registration fee.

If you present a restrictively endorsed financial aid check in payment of tuition and fees, it will be applied in full toward the total amount of tuition and fees assessed. You are not eligible for installment payments if your financial aid check is 100% or more of your tuition and fees.

If your check is less than 100% of the amount due on your billing statement, you can make installment payments—your check, *in full*, would be your first payment, and your balance would be billed during the next billing cycle. With a financial aid check that is less than the minimum due, you can still make installment payments by using other funds to complete the first payment. Call Student Accounts Receivable (625-8500) for further information.

REMEMBER: If, for any reason, you do not receive your financial aid, you are still responsible for paying your tuition and fees.

Tuition and Fees Paid by Various Agencies—If you have authorization for the University to bill a sponsor for your tuition and fees, you should bring your authorization *before the beginning of registration* to your registration center (202 Fraser Hall for Minneapolis students, 130 Coffey Hall for St. Paul students, or 150 Williamson Hall for students with mobility impairments). If you are unable to present your authorization before the beginning of registration, bring it with you when you register. International students who need assistance with documentation or translation should contact the Office of International Education, 626-7100.

NOTE: You will have a hold placed on your record if your sponsoring agency falls behind in payment for more than two quarters. You will be held responsible for all unpaid tuition and fees if your sponsoring agency does not fulfill its obligations. It is your responsibility to monitor payments made to your account by your sponsor.

Regents' Scholarships—If you are registering for a course with a Regents' Scholarship, you should bring your authorization to your registration center when you register. If you receive your authorization after you have registered, you must return to your registration center for an adjusted fee statement. (Regents' Scholarship authorizations should never be mailed to the Bursar.) If you fail to receive authorization by the due date on your first billing statement from Student Accounts Receivable, you will be liable for billing charges and late payment fees. Regents' Scholarships cover only tuition for approved courses. You are responsible for all course fees and special fees. If you fail to pay these fees by the due dates on your billing statements, you will be liable for billing charges and late payment fees.

Payroll Deduction for Graduate Assistants—To be eligible for payroll deduction, you must be enrolled in the Graduate School or in a professional post-baccalaureate degree program and hold at least a 25% graduate assistant appointment for the entire quarter. Those students holding only hourly graduate assistant appointments, including those teaching classes in Continuing Education and Extension, are not eligible. Your tuition and student services fee must total at least \$150. (The student services fee is the only deductible fee.) In addition, you must earn enough in your last four pay periods to cover your tuition and fees in four equal installments (see NOTE, below).

Application for payroll deduction is *never* possible after the fifth day of the quarter. Request payroll deduction when you register. After you fill out a payroll deduction authorization

card, you will be credited directly on your billing statement for the amount to be deducted.

All students must pay all fees not covered by payroll deduction (e.g., MPIRG, hospitalization, course fees) by the due dates on their billing statements to avoid billing charges and late payment fees.

If upon review Student Accounts Receivable denies your application for any reason (e.g., temporary or incorrect Social Security Number, insufficient income to cover deducted amount in four payments), a billing statement with a new due date will be sent to you. This bill must be paid by the due date to avoid a billing charges and late payment fees.

If you cancel/add anytime through the first week of the quarter, go to Student Accounts Receivable (20 Fraser Hall) to have your payroll deduction application adjusted. After the first week of the quarter, tuition and fees for added courses cannot be put on your payroll deduction and must be paid by the due dates on your billing statements. If you cancel courses after the first week of the quarter, you cannot receive a refund for credited tuition and fees until the last of the four payroll deductions has been made.

NOTE: Tuition and fees are withheld in four equal installments from the last four pay periods of the quarter. For example, if your tuition and deductible fees total \$400, this amount will be withheld from your last four paychecks in equal installments of \$100. To be eligible for payroll deduction, you must net at least \$120 per paycheck (the extra \$20 is added because no payroll check can be issued for less than \$20). If you discover, after you have applied, that your net pay will not cover your deductions, contact Student Accounts Receivable in 20 Fraser Hall (625-8500) for a new fee statement. If you are ineligible for payroll deduction, you can make installment payments by paying the minimum amount due on your billing statements.

REFUNDS

Tuition and Course Fees—Tuition and course fees are refunded on the following general schedule: if you cancel during the first week of the quarter or before, you will receive a 100% refund; 75% during the second week; 50% during the third week, and 0% thereafter. Refer to the table below for those dates for winter quarter.

REFUND SCHEDULE FOR WINTER 1992	
For refund of:	Cancel by:
100%	January 10
75%	January 17
50%	January 24
0%	on or after January 27

Special length courses that begin after the first week of the quarter may be cancelled for a 100% refund through the first day of the course. Cancellations after the first day of the course but during the second and third weeks of the quarter follow the refund schedule above. After the third week of the quarter, no refund is available if the course is cancelled after the first day.

Remember: Cancellations are effective the day they are processed. Your refund will be based on the date you *officially* cancel (by taking a completed Course Request form to your registration center) not on the date you stopped attending class. Cancel immediately if you stop attending class for any reason.

In a very limited number of circumstances (e.g., active military duty, scholastic drop) retroactive cancellation may be possible. If retroactive cancellation is authorized within one calendar year after the end of the quarter, you may be entitled to a tuition refund. Check with the Student Relations staff in 150 Williamson Hall (625-5333) or 130 Coffey Hall (624-3731) for details.

If your tuition and fees are not paid in full, any refund you receive will be a monetary credit applied to your unpaid balance. Read Payment of Fees, pages 21-23.

Student Services Fee and University-Sponsored Hospitalization Insurance Fee—If you drop your credit load to below 6 credits, you can request a refund of the student services fee and the University-sponsored hospitalization insurance fee when you process your cancellation. All refunds of these fees are based on the date that the cancellation is processed (see above table for deadlines) and are not affected by retroactive cancellation. If you wish to continue your hospitalization insurance, you cannot receive a refund of the student services fee.

If you receive a refund of the student services fee, you can no longer use the services provided by the fee. To continue using these services, you must continue to be registered and not be issued any refund.

If you cancel *all* courses and qualify for a tuition refund, you must also accept a prorated refund of the student services fee unless you retain University-sponsored hospitalization insurance.

Special Fees—The orientation fee and the late registration fee are never refunded. MPIRG is not refunded through the Registration Centers—refund instructions are published every quarter in the *Minnesota Daily*. All other special fees assessed at registration are refunded through the third week of the quarter at the same rate as tuition and course fees. There is no refund of special fees after the third week of the quarter, even if retroactive cancellation is authorized.

How to Obtain Your Refund—If you have paid your fees in full, you may obtain a refund by presenting your credit balance fee statement and picture ID to Student Accounts Receivable, 20 Fraser Hall or 107 Coffey Hall. There is a two week waiting period for your refund beyond the last date any payment was received, unless your fees were paid only with cash or a University of Minnesota check. You can request a refund be sent to you by mail by calling Student Accounts Receivable,

625-8500. Allow an additional three to four weeks, beyond the two week waiting period, for a refund by mail.

If you have *not* paid your fees in full, any refund you receive will be a monetary credit applied to your unpaid balance. Read Payment of Fees, pages 21-23.

Refunds for Students on Payroll Deduction—If you cancel courses, you cannot receive a refund for tuition and fees that are being deducted until after all four payments have been deducted from your check. To receive a refund, bring your *last* pay check stub to Student Accounts Receivable at 20 Fraser Hall (Bursar's departmental window, 145 Williamson Hall, for students with mobility impairments) in Minneapolis or 107 Coffey Hall in St. Paul.

Financial Aid Refund Policy—If you receive financial aid, you must maintain full-time status (a minimum of 12 credits for undergraduates, 7 credits for graduate students). If you cancel courses and your credit total falls below full-time status, report your cancellation to Student Accounts Receivable, 20 Fraser Hall. Federal regulations require that all or a portion of your tuition refund must be credited to the financial aid funds from which you received assistance. Refunds may also be sent to the lender of a student loan to reduce the principal on that loan. Repayment of financial aid is calculated according to the date on which your cancellation is effective. If you cancel courses at the 100% refund rate during a quarter, you must repay all financial aid received during that quarter. If the refund amount is insufficient to repay the appropriate financial aid fund, you will be billed for the difference by Student Accounts Receivable. You will be notified by mail of the disposition of your refund.

VETERANS CERTIFICATION

Students under Chapters 30, 32, 35, 106, and 901—The following is a summary of University and Department of Veteran Affairs (V.A.) procedures and does not include all the information you may need. You can contact the Certifications Office, 155 Williamson Hall, 625-8076, or the St. Paul Veterans Assistance Office, 190 Coffey Hall, 625-5284, for further information. However, only the V.A. can determine an applicant's eligibility for educational assistance. Because eligibility criteria are different for the several educational assistance programs and the benefits for the programs vary, students with specific questions about eligibility should contact the V.A. If you plan on attending fall, winter, and spring quarters, you can request certification for the entire academic year by coming in person to the Certifications Office or the St. Paul Veterans Assistance Office. If you enroll for (or drop to) less than half time, you can be certified only for the current term; when you register for the next term you will have to reapply for certification.

You can request continuous enrollment/payment during winter or spring quarters for the next quarter if you did not initially sign up for the academic year. Continuous enrollment/payment *cannot* be requested in the following instances:

- if you are attending less than half time, are on active duty, or are receiving chapter 901 benefits, or
- if you withdrew from all courses in the preceding term.

If you will be enrolling at a half-time rate or more when you enter school initially or reenter, but are not eligible for continuous payment, you may elect to be paid in advance for the first partial (or full) month of training plus the following full month. Payment for the next month, however, will not be available until the very end of that month. This means that if you receive advance payments for January and February for winter, you will not receive your March check until about April 1. Advance payment for winter may be requested from September 27-November 7. Advance payment for spring may be requested from December 20-January 30.

If you do not participate in advance payment or if you are not eligible for continuous pay, you must be officially registered before requesting certification. Certification cannot be sent to the V.A. until the first day of the quarter.

Whenever you register for extension courses you are required to show a paid fee statement by the first day of each quarter to be certified. If you requested certification for the academic year, you must be officially registered by the first day of each quarter. Failure to register by the first day of the quarter will result in notification of the V.A. and cancellation of payments.

If you cancel any or all of your courses, notify the Certification Office or the St. Paul Veterans Assistance Office. Your reduction in credits will be reported to the V.A. The V.A. will adjust your benefits retroactive to the first day of the quarter and may require you to repay all money paid to you for any courses that you cancel.

Any grade of N will be reported to the V.A. The V.A. will adjust your benefits retroactive to the first day of the quarter and require that you repay all money paid to you for that course. Likewise, any grade of I will be reported to the V.A. However, the V.A. will allow one year for completion of the course before repayment is required. You are responsible for notifying the Certifications Office or the St. Paul Veterans Assistance Office once you receive a grade to replace the I.

Whenever you claim mitigating circumstances for reductions in your credit load, you should present written evidence to the Certifications Office to be included with the report submitted to the V.A.

Chapter 31 Veterans—If you receive vocational rehabilitation assistance, you can refer questions to the scholarship terminal at 202 Fraser Hall. Bring your fee statement and course list to the appropriate bookstore to obtain books and supplies.

CERTIFICATION FOR LOAN DEFERMENTS

Occasionally you may be required to have your attendance at the University certified as full time or half time in order to defer payment of your student loan. This certification is especially required of transfer students who received loans at their previous institutions.

For students in undergraduate and professional units (law, dentistry, medicine, and veterinary medicine) full-time status is defined as 12 or more credits per quarter; half-time status is 6-11 credits per quarter.

For students in the Graduate School, the Pharm.D. program, master's programs in agriculture and education, and dental and psychology fellow specialist programs, full-time status is defined as 7 or more credits per quarter; half-time status is 3-6 credits per quarter. For students in master's programs in public health, full-time status is 9 credits; part-time status is 4 credits. Audit registrations are not applicable for certification purposes.

To have your attendance certified, bring your loan deferment form to 150 Williamson Hall (130 Coffey Hall for St. Paul students). More information about deferments and exceptions to the definitions of full-time and half-time status is also available at 150 Williamson Hall or 130 Coffey Hall.

RECIPROCITY

The University has reciprocity agreements with Wisconsin, North Dakota, South Dakota, and Manitoba; and a limited Western Undergraduate Exchange Program with Alaska, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, and Wyoming. If you are a resident of any of these states or provinces, you may qualify for reciprocity tuition rates, which are lower than nonresident tuition rates and, in some cases, comparable to resident rates. There are some exceptions:

- Wisconsin students entering the School of Dentistry, the Medical School, or the College of Veterinary Medicine for the first time are not eligible for reciprocity.
- Students who first enroll during the summer must *reapply* for reciprocity for the academic year.

You must apply for reciprocity prior to the quarter in which you wish your reciprocity to begin. After your first year, *provided you have earned credits*, your reciprocity will automatically be renewed.

Delays in your reciprocity credit will not exempt you from billing charges or late payment fees. For information and application forms, check with your home state reciprocity office. You can also obtain application forms and information in 240 Williamson Hall or 130 Coffey Hall.

TUITION BENEFITS FOR GRADUATE ASSISTANTS

Tuition Benefits—Graduate assistants who hold at least a 25% time appointment for six full pay periods (130 hours per quarter) receive tuition benefits (tuition waivers) equal to twice the percentage of their appointment for the quarter in which they hold the appointment. For example, those holding a 25% appointment will receive a 50% tuition benefit, while those with an appointment of 50% or more will receive a 100% tuition benefit. These benefits waive tuition only and do not cover the student services fee or course fees.

For benefit purposes, the quarter is defined as six full pay periods: 9/16-12/15 for fall; 12/16-3/15 for winter; and 3/16-6/15 for spring. *Appointments which begin after the quarter has started will be prorated*, but must be the equivalent of at least a 25% appointment to qualify. For example, a 50% appointment for half the quarter would be adjusted to a

25% appointment for benefit purposes, and a 50% tuition benefit would be awarded.

Tuition benefits will be available to teaching assistants, research assistants, administrative fellows, legal project assistants, dental fellows, medical fellows, and veterinary medical associates. Graduate assistants who hold at least a 12.5% time appointment for six full pay periods (65 hours per quarter) *must* register no later than the end of the second week of the quarter for every quarter they hold the assistantship.

Graduate assistants with percentage appointments who are paid on regular payroll are eligible for the tuition benefit at the beginning of the quarter. If you are on regular payroll but do not automatically receive the tuition benefit when you register, you must obtain an authorized Tuition Benefit Information Form and a photocopy of your payroll document (PAF) from your work department. Take the tuition benefit form and the PAF to the Graduate Assistant Office (GAO), 416 Johnston Hall, before returning to registration to obtain a corrected fee statement.

As a graduate assistant on miscellaneous hourly or biweekly payroll, you may be eligible for a provisional tuition benefit at the beginning of the quarter, provided your work department can predict fairly accurately the number of *hours* (not the percentage) you are expected to work as a graduate assistant for the quarter. (For a miscellaneous payroll *percentage* appointment, follow the instructions in the preceding paragraph.) Your work department should provide you with a letter on department stationery estimating the number of hours you are expected to work, a copy of your PAF, and a Tuition Benefit Information Form. When you have these items, go to the GAO, 416 Johnston, to finish processing your tuition benefit.

Qualifying hourly graduate assistants who can not (or choose not to) receive tuition benefits provisionally may receive those benefits retroactively. To receive benefits retroactively, you must bring documentation of the total hours paid as a graduate assistant for the quarter to the GAO, along with an authorized Tuition Benefit Information Form. This documentation must be copies of authorized timecards and/or payroll abstracts. After you bring these items to the GAO, you may proceed to registration for a credit balance fee statement. In some cases (CEE, work-study, or independent study), a credit balance fee statement reflecting your tuition benefit will automatically be mailed to you 3-4 weeks after the end of the quarter. CEE, work-study, and independent study graduate assistants not wishing to wait 3-4 weeks can walk through the appropriate documentation as outlined above.

To avoid billing charges and late payment fees you must pay in full by the due date on your first billing statement from Student Accounts Receivable. If you are paid on regular payroll and are entitled to a tuition benefit (whether or not your tuition benefit has been entered into the registration system), or if you are eligible to receive a provisional tuition benefit at the beginning of the quarter, your tuition benefit credit must be processed and you must pay any remaining balance by the due date on your billing statement to avoid billing charges and late payment fees. In all other instances, you must pay *all* tuition and fees in full by the due date on your billing statement

to avoid billing charges and late payment fees. If you have paid in full and subsequently receive a tuition benefit credit, you can take your credit balance fee statement to Student Accounts Receivable to receive a refund. Read How to Obtain Your Refund on page 24.

NOTE: If you do not complete your appointment (i.e., leave in the middle of the quarter, graduate early, or work less than the estimated number of hours), you will be billed for tuition for the uncompleted portion of the appointment. This billing may include the difference between resident and nonresident rates if you are a nonresident and work less than 130 hours between the quarter dates listed above.

More information on tuition benefit eligibility and procedures is available from your department or the GAO, 416 Johnston Hall, 626-1310.

Graduate Assistant Health-Care Plan—See page 18 for information.

RESIDENT TUITION PRIVILEGES

Graduate Assistants and Immediate Family Members—Non-resident students enrolled in the Graduate School or in another post-baccalaureate degree program who hold at least a 25% time appointment as a teaching assistant, research assistant, or administrative fellow are eligible for resident tuition rates. This eligibility extends only to parent, spouse, child, or ward.

If you hold such an appointment, and your appointment has been processed, you will automatically be charged the resident tuition rate when you register. If you are charged the nonresident tuition rate, you should contact the Graduate Assistant Office (GAO), 416 Johnston Hall, 626-1310.

If you hold such an appointment and you want your family member to receive resident tuition rates, you must contact the GAO for more information.

Graduate School Fellows/Trainees and Immediate Family Members—Graduate students who hold fellowships or traineeships are eligible for resident tuition rates, provided the award is administered by the University and the stipend is at least equal to a 25% time graduate assistantship. This eligibility also extends to members of the *immediate* family (i.e., parent, spouse, child, or ward).

If you hold a fellowship or traineeship, codes for resident tuition have, most likely, already been entered into the computerized registration system. If, for some reason, you are charged the nonresident tuition rate when you register, you should contact the Graduate Fellowship Office, 422 Johnston Hall, 625-7579.

If you hold a qualifying fellowship or traineeship and you want your family member to receive resident tuition rates, contact the Graduate Fellowship Office for more information.

Professional School Fellows/Trainees and Immediate Family Members—Professional school fellows/trainees and immediate family members are also eligible for resident tuition rates, provided the fellowship/traineeship is at least

equal to a 25% graduate assistantship. If, for some reason, you are charged the nonresident tuition rate when you register, first contact your department payroll personnel and then the Graduate Assistant Office, 416 Johnston Hall.

Former Graduate Assistants, Trainees, and Fellows and Immediate Family Members—If you no longer hold a graduate assistantship, fellowship, or traineeship, but *have* held qualifying appointments for three or more quarters, you and your immediate family members may still be eligible for up to six more quarters of resident tuition. Contact the Graduate Assistant Office, 416 Johnston Hall, 626-1310, for more information.

Academic Appointees and Immediate Families—Academic appointees at the University of Minnesota and their immediate family members are eligible to pay resident tuition rates subject to the following rules concerning class title and percentage of appointment.

Appointees (and their immediate family members) who hold 75% appointments for an entire quarter in the following class titles are eligible to pay resident rates during that quarter:

- all 93xx academic administrative classes
- all 94xx faculty rank classes
- 9544—Pharm D associate
- 9546—post doctoral associate
- 9548—veterinary medical assistant
- 9551—post doctoral fellow
- 9556—medical fellow specialist
- 9563—dental fellow specialist
- all 96xx Agricultural Extension Service classes
- all 97xx professional classes

Appointees (and their immediate family members) who hold at least a 25% appointment in the following class titles, with a level of support equal to or greater than that provided by a 25% graduate assistantship, are eligible to pay resident tuition rates during the quarter of their appointment:

- 9538—legal project assistant
- 9545—pre-doctoral assistant
- 9550—pre-doctoral fellow
- 9558—psychology fellow specialist

To claim the resident tuition benefit, appointees or immediate family members from both groups listed above should have the appointee's employing department complete a Tuition Status Verification form. A separate form will be needed for each individual appointee or immediate family member for each quarter in which resident tuition is requested. Completed forms should be taken to your registration center, 202 Fraser Hall (130 Coffey Hall for St. Paul students); resident rates will then be assessed.

Appointees to the above class titles do not accrue extended resident tuition credit. Resident tuition privileges are available to appointees and their immediate family members *only* during quarters of qualifying appointment.

Civil Service Employees—Civil service employees of the University of Minnesota who work 75% time or more during an entire quarter and their immediate family members are eligible to pay resident tuition rates. These resident tuition privileges are available *only* during quarters of qualifying employment.

To claim the resident tuition benefit, *employees on regular payroll* or their immediate family members should have the employee's department complete a Tuition Status Verification form. Every quarter a separate form is needed for each employee and family member. Completed forms should be taken by the student to the Registration Center, 202 Fraser Hall (130 Coffey Hall for St. Paul students); resident rates will then be assessed. *Employees on miscellaneous payroll* and their immediate family members must initially pay nonresident tuition and be reimbursed after the quarter ends. The employment department must certify that the employee worked at least 390 hours during the quarter.

HOW TO USE THIS SCHEDULE

Call Number—This six-digit number appears to the left of each course or each section of a course. You must use the course numbers and these specific call numbers when you fill out your Course Request form.

Prerequisites—In order to enroll in some courses, you must either complete or concurrently enroll in certain other courses or have certain qualifications or class standing. These requirements, known as prerequisites, are listed inside the parentheses after the course titles. If no prerequisites are listed, there are usually none, except for the class standing requirement indicated by the course number.

Class standing requirements, unless otherwise noted, are indicated by course numbers as follows:

- 0000 to 0999 noncredit courses
- 1000 to 1999 introductory courses—primarily for freshmen and sophomores
- 3000 to 3999 intermediate courses—primarily for juniors and seniors, but sometimes open to others with a C average overall and in prerequisites
- 5000 to 5999 advanced courses—open to juniors, seniors, and graduate students
- 8000 to 8999 graduate courses—open to graduate students only

When courses that must be taken in sequence are prerequisites, only the last course of the sequence is listed.

When no course designator precedes the course number listed as a prerequisite (e.g., 'prereq 3221'), that course is in the same department as the course being offered. Likewise, a prerequisite reading "6 cr" means 6 credits in courses offered by the same department.

Work equivalent to a prerequisite course (having either the same content or requiring the same competence) is ordinarily accepted in place of that prerequisite. An instructor may, in some instances, waive prerequisites at her or his discretion. See your college bulletin for further information.

A comma always means "and."

In addition to the prerequisites listed above and expressed in the symbols listed below, departments and colleges may use the registration system to help place certain categories of qualified students into courses or sections on a priority basis (seniors, majors, etc.). If you meet all stated prerequisites for the course, including class standing, you may also need to meet other qualifications established at the time of registration. For this reason, it is helpful to list both first *and* second course choices on your Course Request form.

Class Standing—Your class standing is determined by the number of credits you have completed:

Freshman	1-45 credits
Sophomore	46-90 credits
Junior	91-135 credits
Senior	136 or more credits

Symbols—The following symbols are used throughout this schedule:

- † All courses preceding this symbol must be completed before credit will be granted for any quarter of the sequence.
- § Credit will not be granted if credit has been received for the course listed after this symbol.
- ¶ Concurrent registration is required (or allowed) in the course listed after this symbol.
- # Registration Override Permit, completed and signed by the instructor, is required for registration.
- Δ Registration Override Permit, completed and signed by the department offering the course, is required for registration.
- Registration Override Permit, completed and signed by the college offering the course, is required for registration.
- H Honors course (follows the course number).
- R The letter R preceding the course number indicates limited enrollment.
- ★ This symbol designates a part of a course (e.g., lecture) for which you are automatically registered when registering for a corresponding part of the same course (e.g., lab).
- ◆ This symbol will precede the call numbers of a course with multiple section types (e.g., LECT, LAB, REC) without automatic registration. You must select and register for one of each of the parts of the course.

Number of Credits—The number of credits approved for a particular course or section of a course appears at the end of the time and room information for each course or course section: e.g., 1015-1100 MWF, BlegH 450, Brown, 4 cr. You must register for the number of credits indicated; you may not, for example, take a 4-credit course for either more or fewer than the approved 4 credits. (Extra credit is sometimes possible, however, through X registration. See below.) A few courses are offered for a variable number of credits, as indicated by the notation "ar cr" (credits arranged) or by an optional-credit notation (e.g., "3-4 cr"). In such cases, you may register for the number of credits agreed upon by you and the instructor.

Registering for Topics Courses—A number of departments offer "topics" courses. A "topics" course usually is assigned a single course number (e.g., 3910), but subjects, course titles, and number of credits may change from quarter to quarter. Besides the usual prerequisites, there sometimes are limitations on registration for these courses. You usually

may not register for the same course more than a certain number of times over a series of quarters. In the course listing, this restriction appears as part of the prerequisite information inside the parenthesis: "(max 12 cr; prereq...)," for example, means your total registrations in the course may not exceed a maximum total of 12 credits.

Directed or Independent Study—Most colleges permit directed or independent study (X and Y registration) in their regular courses. Through X registration, you can earn extra credits (with a limit of 3) in a course by arranging with the instructor to complete additional work or explore a subject in more depth. Through Y registration, you can complete a course by studying independently under the instructor's guidance without attending class. Regular fees, deadlines, and grading policies apply, and you must register only for the number of credits approved for the course. Requirements for completing the course must be agreed upon by you and your instructor.

Both types of registration require instructor and department approval. When you receive this approval, you must also obtain a call number with which to register for the course (call numbers for X and Y registrations are not available at the registration centers). For further information, check with your college or department office.

Auditing Courses—Most colleges permit auditing in their courses. As an auditor, you enroll in, pay tuition and fees for, and attend classes but do not complete assignments or take examinations. You receive no credit for the course, but the course will be placed on your transcript with the symbol V (Visitor) to indicate your special registration status. Although you do not receive credit, the credit value for the course counts in determining the credit total for the student services fee.

Colleges may have additional requirements for you to meet before you register as an auditor. It may be necessary to have approval from your adviser, instructor, and/or special scholastic committees. Many colleges do not permit registration as an auditor in required courses. Nor do colleges generally allow you to repeat an audited course for credit. For further information, check with your college office.

To register as an auditor once you have received any necessary approval, list the course on your Course Request form and place a V in the grading option column for that course.

Grading Option—If either A-F only or S-N only is printed after the prerequisite statement for a course, you must register for that grading system. If no grading system is listed, you may often register for either A-F or S-N grading. For information on courses offered for S-N grading and any degree or quarter limits on credits taken under this system, consult both your own college office and the college offering the course. You may not change your grading option after the second week of classes.

Course Changes—Your registration terminal always contains the most current and accurate information. Hour and day changes are also published in the Official Daily Bulletin, a column in the *Minnesota Daily*. Room changes are posted on classroom doors.

Choice of Classes—When section numbers precede the hours and days listed, you may choose the section in which you wish to enroll (see the first example below). Many courses have a choice of laboratory or recitation periods but only a single lecture period, in which all students taking the course are automatically registered (see the second example below). If laboratory or recitation sections are distributed under different lecture hour headings (as in the third example below), then your choice of laboratory or recitation hours determines which lecture you are automatically registered in. Occasionally there will be a choice of both lecture and laboratory or recitation periods. If the sections are listed after two or more lecture hour headings (as in the fourth example below), then you must register for and attend any one lecture and any one lab or recitation section.

Example 1

315330—1 0815-0900 TThS
115331—2 0915-1000 MWF
015332—3 1115-1200 TThS

Example 2

★ LECT 1015-1100 MWF
815333—1 LAB 1215-1400 M
615334—2 LAB 1215-1400 W

Example 3

★ LECT 0915-1000 T
415335—1 LAB 1015-1200 T
215336—2 LAB 1015-1200 Th
★ LECT 0915-1000 Th
115337—3 LAB 1315-1500 T
645742—4 LAB 1315-1500 Th

Example 4

◆ 873302—1 LECT 0815-0900 T
◆ 637303—2 LECT 0914-1000 Th
437304—1 REC 1015-1200 T
237305—2 REC 1315-1500 T
137306—3 REC 1015-1200 Th
937307—4 REC 1315-1500 Th

Course Descriptions—Courses are listed in this *Class Schedule* with a minimum of information—title, prerequisites, day and time, location, and sometimes instructor. For more information about a course, you should consult your college bulletin, where course listings include descriptions of course content. You should not choose your classes on the basis of title alone. Bulletins are available from the information center in Williamson Hall and from 130 Coffey Hall. You may also consult bulletins in the libraries and in college and department offices, but these copies may not be removed.

In addition, department offices (e.g., Philosophy) may provide expanded course descriptions for their courses. Departments can also provide information on recent changes to course content. Department addresses are listed in Section 5.

HOURS AND DAYS

This schedule lists both a starting time and an ending time for all classes, using a 24-hour clock. Refer to the table below for help in interpreting these times. To convert any time between 1:00 p.m. and 12:00 midnight from standard time to the 24-hour clock, add 1200 (for example, 3:45 p.m. + 1200 = 1545). To convert from the 24-hour clock to standard time, subtract 1200 (for example, 1615 - 1200 = 4:15 p.m.).

24-hour clock	0800	0900	1000	1100	1200	1300
Standard Time	8:00 a.m.	9:00 a.m.	10:00 a.m.	11:00 a.m.	12:00 noon	1:00 p.m.
24-hour clock	1400	1500	1600	1700	1800	1900
Standard Time	2:00 p.m.	3:00 p.m.	4:00 p.m.	5:00 p.m.	6:00 p.m.	7:00 p.m.

In both Minneapolis and St. Paul, classes continue for 50 minutes after the start time. Because there is a 15-minute break between classes, start times for classes are staggered throughout the day. For example, the first class of the day in Minneapolis starts at 8:00 a.m. and ends at 8:50; the second class starts at 9:05 and ends at 9:55; the third class starts at 10:10 and ends at 11:00. In St. Paul, the first class begins at 8:30 and ends at 9:20, the second class runs from 9:35 to 10:25, the third from 10:40 to 11:30, and so on throughout the day. The class periods for Minneapolis and St. Paul are listed below.

Minneapolis	St. Paul	Minneapolis	St. Paul
0800-0850	0830-0920	1325-1415	1355-1445
0905-0955	0935-1025	1430-1520	1500-1550
1010-1100	1040-1130	1535-1625	1605-1655
1115-1205	1145-1235	1640-1730	1710-1800
1220-1310	1250-1340		

The University Senate approved the above 50-minute class periods with the understanding that classes may continue for 55 minutes after the starting time whenever students' schedules permit.

There are also standard approved 75-minute periods usually meeting on Tuesday and Thursday. In Minneapolis, times for these classes are 0815-0930; 0945-1100; 1115-1230; 1245-1400; 1430-1545; and 1600-1715. Corresponding St. Paul times are 0845-1000; 1015-1130; 1145-1300; 1315-1430; 1500-1615; and 1630-1745.

Days of the week are abbreviated M, T, W, Th, F, and S.

No Time or Place—When hours and days or the place of meeting are missing, consult the instructor or department offering the course.

schedule of classes

ACCOUNTING (Acct) Management

Non-SMgt students should refer to page 9, Carlson School of Management Courses, before attempting to register for 3000- and 5000-level Acct courses.

- r1050 Introduction to Financial Reporting** (§8050; prereq 40 or more credits) (A-F only)
 *LECT 1300-1415 MW, AndH 270, Daley
 517528 -1 LAB 0800-0850 TF, BlegH 215, 5 cr
 515309 -2 LAB 0905-0955 TF, BlegH 215, 5 cr
 113482 -3 LAB 1010-1100 TF, BlegH 425, 5 cr
 322567 -4 LAB 1115-1205 TF, BlegH 125, 5 cr
 618539 -5 LAB 1115-1205 TF, BlegH 420, 5 cr
- r3101 Intermediate Financial Reporting** (prereq grade of A or B in 1024/1025 or 1050) (A-F only)
 516508 -1 0900-1000 MWF, HHHctr 25, Rayburn, 4 cr
 915310 -2 1005-1105 MWF, HHHctr 25, Rayburn, 4 cr
 223579 -3 1300-1400 MWF, BlegH 110, Mukherji, 4 cr
- r3199 Internship in Public Accounting** (prereq 5125; for accounting majors only) (S-N only)
 621540 Berryman, 3 cr
- r3201 Intermediate Management Accounting** (prereq 3001, acct maj or gen mgmt maj with finance emphasis) (A-F only)
 542056 -1 1130-1300 TTh, BlegH 220, McCabe, 4 cr
 342057 -2 1315-1445 TTh, BlegH 220, McCabe, 4 cr
- r3299 Internship in Management Accounting** (prereq 3102; for accounting majors only) (S-N only)
 322326 Berryman, 3 cr
- r5102 Advanced Financial Reporting I** (prereq 3101 or 5101, mgmt or grad mgmt student) (A-F only)
 115466 -1 1300-1445 TTh, BlegH 110, Tranter, 4 cr
 942068 -2 1300-1445 TTh, BlegH 110, Tranter, 4 cr (MBA stu only)
 142067 -3 1500-1645 TTh, BlegH 110, Tranter, 4 cr
 742069 -4 1500-1645 TTh, BlegH 110, Tranter, 4 cr (MBA stu only)
 142070 -5 1730-2100 Th, BlegH 145, Tranter, 4 cr (MBA stu only)
- r5126 Internal Auditing** (prereq 5102, 3201 or 5201; for accounting majors only) (A-F only)
 323749 1810-1940 TTh, BlegH 230, Owens, 4 cr (Acct MBA stu only)
- r5135 Income Tax Accounting** (prereq 1025 or 1050) (A-F only)
 317787 -1 1300-1400 MWF, BlegH 220, Carter, 4 cr
 115510 -2 1300-1400 MWF, BlegH 220, Carter, 4 cr (MBA stu only)
- r5160 Financial Statement Analysis** (prereq 1050 or MBA 8030) (A-F only)
 523748 1730-2100 W, BlegH 230, Potter, 4 cr (MBA stu only)
- r5180 Advanced Financial Reporting II** (prereq 5102, mgmt or MBA student) (A-F only)
 619514 -1 1130-1300 TTh, BlegH 240, Biondich, 4 cr
 420731 -2 1130-1300 TTh, BlegH 240, Biondich, 4 cr (MBA stu only)
- r8810 Seminar II** (prereq PhD student or grad SMgt approval) (A-F only)
 923679 1500-1700 MW, HHHctr 20, Kanodia, 4 cr
- r8990 Readings in Accounting** (prereq #, grad SMgt approval) (A-F only)
 717902 1500-1700 TTh, HHHctr 20, Joyce, ar cr

ADULT AND TEACHER EDUCATION (AdEd) Curriculum And Instruction Education

- 5103 Adult Education Workshop: Distance Education: From Correspondence to Electronic Delivery** (max 12 cr; prereq practicing adult educator or #) (A-F only)
 922662 1630-1900 T, PeikH 33, Rohde, 3 cr

- 5202 Adult Literacy: Diagnosis and Prescription** (§Educ 5202; prereq 5201 or #) (A-F only)
 722663 1535-1800 M, PeikH 25, Park, 3 cr
- 5205 Field Experience in Adult Education** (§Educ 5205; max 8 cr; prereq #) (A-F only)
 218642 -1 Bruning, 4-8 cr
 920653 -2 Park, 4-8 cr
 816594 -3 Rohde, 4-8 cr
 415500 -4 Williams, 4-8 cr
- 5401 Adult Learning and Development through the Life Span** (§Educ 5401) (A-F only)
 219631 1330-1600 Th, PeikH 165, Williams, 3 cr
- 5605 Research Topics: International Development Education** (§Educ 5605) (A-F only)
 817616 1630-1900 T, PeikH 27, Cogan, 3 cr
- 5901 Introduction to Community Education** (§Educ 5901) (A-F only)
 721643 1535-1800 M, PeikH 315, Bruning, 3 cr
- 8302 Problems: Adult Education** (§Educ 8302; prereq #)
 617617 -1 Bruning, 1-9 cr
 215501 -2 Park, 1-9 cr
 613583 -3 Williams, 1-9 cr
- 8603 Seminar: International Development Education** (§Educ 8603; prereq 5603)
 118643 1630-1900 Th, PeikH 25, Paige, 3 cr

ADULT PSYCHIATRY (AdPy) Medical School

- r5109 Externship in Clinical Psychiatry: Duluth Hospital** (prereq regis med)
 213876 Olson, 9 cr
- r5110 Contemporary Hospital Psychiatry: St. Luke's Hospital, Duluth** (prereq regis med)
 114440 Cowan, 9 cr
- 5121 Descriptive Psychiatry** (prereq regis OT or PT)
 918143 1430-1625 T, Mayo C231, Rowe, 2 cr (Todd Amph)
- 5500 Psychiatry Externship** (prereq regis med)
 612854 Eckert, 9 cr
- 5501 Elective Rotation in Alcohol Problems Clinics** (prereq 3rd or 4th yr med stu)
 644381 Willenbring, 9 cr
- 5502 Elective Rotation in Addiction Medicine** (prereq 5500, regis med)
 444382 Willenbring, 9 cr
- 5503 Elective Experience in Research Addiction Medicine** (prereq course director permission, regis med stu)
 244383 Willenbring, 9 cr
- r5511 Psychiatry in Medicine: Consultation-Liaison: University Hospitals** (prereq regis med)
 919101 Popkin, 9 cr
- r5514 Substance Abuse and Associated Psychiatric Disorders** (prereq MD or #)
 017050 Halikas, 3 cr
- r5515 Neuropsychology: University Hospitals** (prereq regis med)
 521904 Meier, 9 cr
- r5516 St. Mary's Extended Care Center, Alcoholic Treatment Unit** (prereq regis med)
 820452 Hiers, 4.5-9 cr
- r5518 Community Psychiatry: Braham, MN** (prereq regis med)
 214686 Walton, 9 cr
- 5530 Independent Study** (prereq Δ)
 019011 Mackenzie, ar cr
- 5602 Clinical Psychopharmacology Seminar** (prereq regis med)
 013709 Abuzzahab, 1 cr
- 5800 Case Conference: Psychiatry in Medicine** (prereq MD or #)
 215983 Popkin, 1 cr
- 5801 Consultation-Liaison Psychiatry** (prereq MD)
 115080 Popkin, ar cr
- 5910 Internship: Hennepin County Medical Center Psychiatry** (prereq PGY-1 psychiatry resident) (S-N only)
 745358 Koch, 12-48 cr

- 5911 Psychiatry PGY-1 Internship at VA Medical Center** (prereq PGY-1 psychiatry resident) (S-N only)
 545359 Dean, 12-48 cr
- 5912 Psychiatry PGY-1 Internship at St. Paul Ramsey Medical Center** (prereq PGY-1 psychiatric resident) (S-N only)
 945360 Zander, 12-48 cr
- 5924 Practical Psychotherapy, Crisis Intervention and Emergency Management** (prereq #) (S-N only)
 844444 1300-1430 Th, Mayo C608, Mitchell, 3 cr
- 5925 Biological Psychiatry I** (prereq #) (S-N only)
 644445 1430-1600 Th, Mayo C608, Faris, 3 cr
- 5932 Applied Behavioral Analysis** (prereq #) (S-N only)
 044457 Eckert, 3 cr
- 5934 Cognitive Behavioral Therapy** (prereq #) (S-N only)
 444446 1300-1430 T, Mayo C608, Evans, 3 cr
- 5935 Advanced Group and Family Therapy** (prereq #) (S-N only)
 244447 1300-1430 W, Mayo C608, Chung, Smith, 3 cr
- 5944 Administrative Psychiatry** (prereq #) (S-N only)
 144448 1300-1430 Th, PWB 3165, Malecha, 6 cr
- 5951 Inpatient Psychiatry** (prereq psychiatric resident) (S-N only)
 745361 Meller, 6 cr
- 5952 VA Medical Center Inpatient Psychiatry** (prereq psychiatric resident) (S-N only)
 545362 Dean, 6 cr
- 5953 Clinical Chemical Dependency** (prereq psychiatric resident) (S-N only)
 345363 Halikas, 3-6 cr
- 5954 Clinical Eating Disorder Treatment** (prereq psychiatric resident) (S-N only)
 145364 Mitchell, 3-6 cr
- 5955 Emergency Psychiatric Management and ECT** (prereq psychiatric resident) (S-N only)
 045365 Meller, 3-6 cr
- 5961 Clinical Child Psychiatry** (prereq psychiatry resident) (S-N only)
 845366 Jensen, 6 cr
- 5962 Clinical Consultation Liaison Psychiatry** (prereq psychiatric resident) (S-N only)
 645367 Popkin, 6 cr
- 5963 Clinical Outpatient Psychiatry** (prereq psychiatric resident) (S-N only)
 445368 MacKenzie, 6 cr
- 5971 Consultation Liaison Psychiatric Fellowship** (prereq C-L fellow/psychiatric resident) (S-N only)
 645370 Popkin, 6-24 cr
- 5972 Psychiatric Child Fellowship: Year I** (prereq psychiatric resident/fellow) (S-N only)
 445371 Jensen, 6-24 cr
- 5973 Chemical Dependency Fellowship** (prereq psychiatric resident/fellow) (S-N only)
 245372 Halikas, 6-24 cr
- 5974 Eating Disorder Fellowship** (prereq psychiatric resident/fellow) (S-N only)
 145373 Mitchell, 6-24 cr
- 5975 Advanced Clinical Psychiatry** (prereq psychiatric resident/fellow) (S-N only)
 945374 Meller, 6-24 cr
- 5981 Psychiatric Child Fellowship: Year II** (prereq psychiatric resident/fellow) (S-N only)
 745375 Jensen, 6-24 cr
- 8244 Comparative Theories of Psychotherapy** (prereq #)
 216471 3 cr
- 8249 Neuropsychopharmacology** (prereq resident)
 415240 Abuzzahab, 2 cr
- 8264 Presentations on Current, Appropriate Literature Pertaining to all Phases of Medical Health Care** (prereq #)
 116293 Magraw, 1 cr

- 8265 Readings in Psychosomatic Medicine, Consultation-Liaison Psychiatry** (max 3 cr; prereq MD, #)
516928 Popkin, ar cr
- 8777 Thesis Credits: Masters**
121775 1-16 cr
- 8970 Directed Studies** (max 9 cr)
813842 Halikas, ar cr

AEROSPACE ENGINEERING AND MECHANICS (AEM) Institute of Technology

- r1005 Introduction to Aerospace Engineering** (prereq IT stu, Phys 1311 or Phys 1271 or equiv) (A-F only)
★LECT 1115-1205 MW, Arch 5, Wilson
642095 -1 REC 1115-1205 Th, AkerH 215, 2 cr
442096 -2 REC 1115-1205 Th, AkerH 211, 2 cr
- r1015 Statics** (prereq IT stu, Phys 1271 or equiv, Math 1241) (A-F only)
★LECT 1325-1415 MWF, Arch 5
918269 -1 REC 1325-1415 TTh, AkerH 211, 4 cr
318020 -2 REC 1325-1415 TTh, AkerH 225, 4 cr
621117 -3 REC 1325-1415 TTh, AkerH 309, 4 cr
116052 -4 REC 1325-1415 TTh, AkerH 313, 4 cr
216258 -5 REC 1325-1415 TTh, CivMinE 212, 4 cr
- r3016 Deformable Body Mechanics** (prereq IT stu, 1015, Math 3321 or equiv) (A-F only)
★LECT 1010-1100 MWF, NichH 211
115225 -1 REC 1010-1100 TTh, AkerH 313, 4 cr
317482 -2 REC 1010-1100 TTh, AkerH 211, 4 cr
220391 -3 REC 1010-1100 TTh, AkerH 215, 4 cr
020403 -4 REC 1010-1100 TTh, AkerH 309, 4 cr
320396 -5 REC 1010-1100 TTh, MechE 18, 4 cr
013323 -6 REC 1010-1100 TTh, EE/CSci 3230, 4 cr
418316 -7 REC 1010-1100 TTh, Arch 30, 4 cr
518372 -8 REC 1010-1100 TTh, PillsH 110, 4 cr
- r3036 Dynamics** (prereq IT stu, 1015, Math 3321 or equiv) (A-F only)
★LECT 1220-1310 MWF, Arch 25
814151 -1 REC 1220-1310 TTh, AkerH 211, 4 cr
414802 -2 REC 1220-1310 TTh, AkerH 215, 4 cr
823402 -3 REC 1220-1310 TTh, AkerH 309, 4 cr
916473 -4 REC 1220-1310 TTh, AkerH 313, 4 cr
322312 -5 REC 1220-1310 TTh, AkerH 225, 4 cr
- r5200 Kinematics and Dynamics of Fluid Flow** (prereq upper div IT or grad IT stu, 3036, Math 3331) (A-F only)
342088 1325-1415 MTWF, Arch 35, Alving, 4 cr
- r5202 Incompressible Boundary Layer Theory** (prereq 5200, upper div IT stu)
316221 1010-1100 MWThF, AkerH 209, 4 cr
- r5206 Aerodynamics of Lifting Surfaces** (prereq 5200, CSci 3101 or CSci 3104)
713395 1115-1310 MW, AkerH 209, Lyrintzis, 4 cr
- r5244 Hypersonic Aerodynamics** (prereq IT upper div or grad stu, 5201)
644591 1535-1730 MW, AkerH 225, Lyrintzis, 4 cr
- r5321 Automatic Flight Control Systems** (prereq 3401 or equiv) (A-F only)
717849 1010-1205 MW, AkerH 225, 4 cr
- r5330 Design of Aerospace Elements and Systems** (prereq AEM sr or Δ)
021776 1325-1520 TTh, AkerH 209, Vano, 4 cr
- r5359 Deceleration of Aerospace Craft** (prereq IT stu, 3036, 5200)
844590 1010-1205 TTh, AkerH 225, Garrard, 4 cr
- r5515 Aerospace Structures I** (prereq 3016, IT stu)
118142 1430-1625 MW, Arch 5, 4 cr
- r5518 Mechanics of Composite Materials** (prereq 3016)
618394 1535-1730 TTh, AkerH 209, Leo, 4 cr
- r5581 Thermodynamics and Mechanics of Solids** (prereq Math 3311 or #, IT or grad stu)
013208 1220-1415 MW, AkerH 313, Truskinovsky, 4 cr
- r5646 Aeromechanics Laboratory II** (prereq 3016, 5200, upper div IT stu) (A-F only)
★LECT 0800-0850 MW, AkerH 209
020109 -1 LAB 0800-1205 T, AkerH 30A, 30B, 30, 2 cr
821021 -2 LAB 1325-1730 T, AkerH 30A, 30B, 30, 2 cr
122165 -3 LAB 0800-1205 Th, AkerH 30A, 30B, 30, 2 cr
242097 -4 LAB 0800-1205 F, AkerH 30A, 30B, 30, 2 cr

- 5801 Problems in Mechanics and Materials** (prereq Δ)
319183 1-4 cr
- 5811 Problems in Fluid Mechanics** (prereq Δ)
222125 1-4 cr
- r5822H Aerospace Engineering and Mechanics Honors Thesis II** (prereq 5820H, #, upper div AEM honors program stu) (A-F only)
212923 4 cr
- 5838 Summer Engineering Employment** (prereq completion of 3rd yr, Δ)
513687 1-4 cr
- 5839 Summer Engineering Employment** (prereq completion of 3rd yr, Δ)
318731 1-4 cr
- 5840 Industrial Assignment** (prereq regis in engineering intern program, Δ)
714658 2 cr
- 5841 Industrial Assignment** (prereq regis in engineering intern program, Δ)
721139 2 cr
- 5842 Industrial Assignment** (prereq regis in engineering intern program, Δ)
119833 2 cr
- 5843 Industrial Assignment** (prereq regis in engineering intern program, Δ)
520929 2 cr
- 8002 Seminar: Aerospace Engineering and Mechanics** (prereq consent of director of graduate studies) (S-N only)
923486 1430-1520 F, AkerH 225, 1 cr
- r8202 Fluid Mechanics II** (prereq 8201)
522177 1430-1520 MTWTh, AkerH 211, Abrahamson, 4 cr
- 8209 Rotating Fluids** (prereq background in fluid mechanics)
342091 0905-0955 MWF, AkerH 227, Joseph, 3 cr
- 8240 Perturbation Methods in Fluid Mechanics** (prereq 8202 or #)
142092 1115-1205 MWF, AkerH 227, Lundgren, 3 cr
- r8411 Linear Systems** (prereq 8410 or 5438, #)
316509 1220-1415 MW, AkerH 225, Posbergh, 4 cr
- 8414 Hamiltonian Systems on Manifolds** (prereq 8410, 8411, or #, grad IT stu)
715311 0905-0955 MTWF, AkerH 215, Zhao, 3 cr
- 8502 Research Seminar in the Mechanics of Materials**
316056 1325-1520 T, AkerH 227, Fosdick, Truskinovsky, 2-4 cr
- r8511 Continuum Mechanics II** (prereq 8510 or #)
119380 1535-1730 MW, AkerH 227, Fosdick, 4 cr
- 8596 Elastodynamics** (prereq 8510 or 5580 or #)
042093 1430-1520 MTW, 1010-1100 F, AkerH 227, Warner, 4 cr
- 8777 Thesis Credits: Masters**
914187 1-16 cr
- 8801 Selected Topics in Mechanics and Materials** (prereq Δ)
822900 1-4 cr
- 8811 Selected Topics in Fluid Mechanics** (prereq Δ)
320320 Joseph, 1-4 cr
- 8880 Plan B Project** (max 4 cr; prereq grad aerospace engineering or mechanics maj, Δ)
713414 4 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
915839 1-36 cr

AEROSPACE STUDIES (Air)

- 1105 Air Force Combat Commands**
616077 -1 0905-0955 W, Armory 105, Patterson, 1 cr
942989 -2 1325-1415 W, Armory 105, Patterson, 1 cr

- 1205 Allied Airpower in World War II and the Berlin Airlift**
314517 -1 1115-1205 T, Armory 12, Bradley, 1 cr
513866 -2 1325-1415 T, Armory 12, Bradley, 1 cr
- 3302 Air Force Leadership Communication** (prereq 1104, 1105, 1106)
117435 -1 0815-0930 MW, Armory 12, Cornwell, 3 cr
920362 -2 1430-1545 MW, Armory 12, Cornwell, 3 cr
- 3402 Seminar: Formulation and Implementation of U.S. Defense Policy** (prereq 3401, 33xx Air courses) (A-F only)
519179 -1 0815-0930 TTh, Armory 105, Devereaux, 3 cr
218222 -2 1115-1230 TTh, Armory 105, Devereaux, 3 cr

AFRO-AMERICAN STUDIES (Afro)

Afro-American & African Studies Liberal Arts

- r3002 Introduction to West African History: 1800 to Present**
042109 1010-1100 MWF, BlegH 220, Coifman, 4 cr
- r3072 Racism: Social and Psychological Consequences for Black Americans** (§5072)
022278 0945-1100 TTh, BlegH 130, Taborn, 4 cr
- r3108 Black Music: A History of Jazz**
219094 -1 0905-0955 MWF, FergH 90, McCurdy, 4 cr
144179 -2 0905-0955 MWF, BlegH 115, 4 cr
- r3141 Africa** (§Geog 3141)
643957 1220-1310 MWF, BlegH 440, Porter, 4 cr
- r3226 Intermediate Swahili** (prereq 3225 or #)
212694 1245-1400 TTh, BlegH 205, Pike, 4 cr
- r3864 Afro-American History, from 1619 through Reconstruction** (§Hist 3864, Hist 3865)
844170 1245-1400 TTh, AndH 230, 4 cr
- r3910 Topics in Afro-American/African Studies: Black Music, The Sixties**
418543 1115-1230 TTh, BlegH 260, Southall, 4 cr
- 3970 Directed Studies** (prereq #, Δ , \square)
922290 1-15 cr
- 3991 Senior Project in Afro-American and African Studies** (3991-3992-3993); prereq completed CLA advanced composition requirement, permission of undergrad adviser) (A-F only)
914075 2 cr
- 3992 Senior Project in Afro-American and African Studies** (3991-3992-3993); prereq 3991) (A-F only)
613728 2 cr
- 3993 Senior Project in Afro-American and African Studies** (3991-3992-3993); prereq 3992) (A-F only)
119797 2 cr
- r5072 Racism: Social and Psychological Consequences for Black Americans** (§3072)
719097 0945-1100 TTh, BlegH 130, Taborn, 4 cr
- r5182 Blacks in American Theatre 1820-1960's** (§Th 5182)
816062 1325-1520 TTh, RarigC 20, Bellamy, 4 cr
- r5301 African Literature: The Novel**
342110 1430-1545 TTh, BlegH 260, Pike, 4 cr
- r5352 Black Families in Comparative Perspectives** (prereq jr or sr or grad stu)
742105 1415-1600 T, BlegH 210, Brewer, 4 cr
- r5597 Harlem Renaissance** (§Eng 5597)
542106 1115-1230 TTh, BlegH 255, Wright, 4 cr
- r5701 Proseminar: Afro-American Studies** (§3701, prereq #) (A-F only)
342107 1430-1545 TTh, BlegH 205, Wright, 4 cr
- r5910 Topics: Afro-American/African Studies: Religious Music: Black Americans**
923021 1325-1530 W, BlegH 260, Southall, 4 cr
- 5970 Directed Studies** (prereq #, Δ , CLA approval)
918420 1-6 cr

AGRICULTURAL AND APPLIED ECONOMICS (AgEc)

Agriculture

- R1101 Principles of Microeconomics** (§Econ 1101)
818426 -1 1040-1130 MTWF, ClaOff B45, Crewdson, 4 cr
519487 -2 1250-1340 MTWF, ClaOff B35, Crewdson, 4 cr
- R1102 Principles of Macroeconomics** (§Econ 1102)
023415 -1 0935-1025 MTThF, ClaOff B45, Peterson, 4 cr
013824 -2 1355-1445 MTThF, ClaOff B45, Peterson, 4 cr
- R3002 Applied Microeconomics: Managerial Economics** (prereq 3001, 1250 or Acct 1024 or #)
★LECT 1315-1430 TTh, ClaOff B25, King
719276 -1 LAB 1500-1700 T, McNH 197, 4 cr
419479 -2 LAB 0800-1000 W, ClaOff 135, 4 cr
517626 -3 LAB 1300-1500 W, ClaOff 135, 4 cr
922760 -4 LAB 0800-1000 Th, ClaOff 135, 4 cr
- 3006 Applied Macroeconomics: Government and the Economy** (§Econ 3102; prereq 1101, 1102 or Econ 1101, Econ 1102)
917753 0830-0925 MTWTh, ClaOff B25, Houck, 4 cr
- 3070 Agriculture and Economic Growth in Developing Countries** (prereq 1101 or Econ 1101, 1102 or Econ 1102)
★LECT 0845-1000 TTh, ClaOff B42, Welsch
444625 -1 REC 1145-1235 W, ClaOff B42, 4 cr
- 3240 Strategic Management of Farms and Agribusinesses** (prereq 3003, 3500 or #)
★LECT 1315-1430 TTh, ClaOff B30, Eidman
644624 -1 REC 1250-1340 W, ClaOff B42, 4 cr
- 3430 Dairy Marketing Economics** (prereq 1101 or Econ 1101)
116107 1250-1340 MWF, ClaOff B36, Hammond, 3 cr
- 3990 Independent Study in Agricultural and Applied Economics** (prereq #)
623031 ar cr
- 5400 Intermediate Market and Price Analysis** (prereq 3003 or Econ 3101 or #)
619982 0830-0920 MTWTh, ClaOff B36, Hammond, 4 cr
- R5480 Futures Markets and Prices** (prereq 1101, 1102 or Econ 1101, Econ 1102 or #)
521238 1040-1130 MTWTh, ClaOff B25, Dahl R., 4 cr
- R5500 Financial Markets and Agricultural Credit Institutions** (prereq 3500 or BFin 3000 or grad stu or #)
013788 0935-1025 MTWTh, ClaOff B36, Pederson, 4 cr
- 5550 Food Marketing Economics** (prereq 3001 or Econ 3101 or #)
214929 1630-1800 TTh, McNH 144, Senauer, Asp, 4 cr
- 5600 Land Economics** (prereq 3001, 3006 or Econ 3101, Econ 3102 or #)
818247 1355-1445 MWF, ClaOff B36, Raup, 3 cr
- 5630 Regional Development Systems** (prereq 1101 or Econ 1101)
519909 1630-1745 MW, ClaOff 35, Maki, 3 cr
- 5730 European Agriculture: Farm, Food and Environmental Policy** (prereq 3003 or Econ 3101 or #)
219841 1530-1645 TTh, ClaOff B36, von Witzke, 4 cr
- 5890 Independent Study: Advanced Topics in Farm Management** (prereq #)
216812 1-6 cr
- 5990 Special Topics and Independent Study in Agricultural and Applied Economics** (prereq #)
020448 ar cr
- 8200 Advanced Topics in Agricultural and Applied Economics**
814442 -1 1530-1645 W, ClaOff 27, 1-9 cr
813484 -2 1-9 cr
- 8270 Applied Welfare Economics and Public Policy** (prereq calculus and intermediate economic theory)
945696 0830-0945 MW, ClaOff 27, Kinsey, Taff, 3 cr

- 8278 Agricultural and Economic Development** (prereq Econ 5301)
013483 1315-1430 TTh, ClaOff B36, Roe, 3 cr
- 8382 Seminar: Farm Management and Production Economics**
822198 1040-1155 TTh, ClaOff 27, King, Pederson, 3 cr
- 8777 Thesis Credits: Masters**
114888 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
313951 1-36 cr

AGRICULTURAL EDUCATION

(AgEd)

Vocational And Technical Education Education

- 1002 Principles of Career Planning in Agriculture** (A-F only)
244450 1250-1340 W, VoTech R385, Peterson, 1 cr
- 3029 Directed Experience in Agricultural Education** (prereq Δ) (A-F only)
121081 1250-1340 Th, VoTech R385, Bear, 1-3 cr
- R3041 Practicum: Agricultural Education Technology** (max 5 cr; prereq Δ) (A-F only)
414041 -1 1355-1550 MWF, AgEngShop 42, Bear, 3 cr
718936 -2 1605-1655 F, VoTech R375, 1-3 cr
- 5023 Extension Methods for Agricultural Production in Developing Countries** (§HEED 5023) (A-F only)
520753 1500-1745 M, VoTech R385, Persons, 3 cr
- 5024 Extension History and Philosophy** (§HEED 5024) (A-F only)
821214 1500-1745 Th, VoTech R385, Smith, 3 cr
- 5027 Practicum: Placement for Extension Experiences** (max 9 cr; §HEED 5027) (S-N optional)
017985 Norenberg, 2-9 cr
- 5031 Clinical Experience in Teaching Agriculture** (prereq 5028, 4 cr of foundations courses) (S-N only)
145258 1355-1550 M, 1605-1800 TW, VoTech R375, Peterson, 6-10 cr
- 5055 Methods in Farming Systems Research and Extension** (A-F only)
121145 0845-1000 TTh, VoTech R385, Leske, 3 cr
- 5072 Practicum: Agricultural Business and Industry** (max 9 cr; prereq 5071 or #) (A-F only)
315313 1250-1340 T, VoTech R385, Leske, 3 cr
- 5078 FFA Organization and Management** (A-F only)
015959 Leske, 2 cr
- 5090 Independent Study** (prereq sr) (A-F only)
019977 1-3 cr
- 5095 Integrating Paper: Master of Education** (prereq MEd student in agricultural education) (A-F only)
114504 3 cr
- 8001 Research in Agricultural Education** (prereq 15 cr educ)
713980 ar cr
- 8091 Field Problems**
615088 3 cr
- 8303 Seminar: Graduate Studies Review**
822876 1500-1730 W, VoTech R375, Wardlow, 1-3 cr
- 8777 Thesis Credits: Masters**
713137 1-16 cr

AGRICULTURAL ENGINEERING

(AgEn)

Institute of Technology

- 3970 Directed Studies in Agricultural Engineering** (prereq #)
718175 2-5 cr
- 5050 Intern Reports** (prereq IT stu, #)
113885 Foster, 2 cr

- 5140 Thermal Processes for Food** (prereq heat transfer, IT upper div or grad IT)
★LECT 1230-1400 TTh, MechE 202, Bhattacharya
242827 -1 LAB Bhattacharya, 4 cr
- 5191 Special Problems** (prereq #)
522180 2-5 cr
- 5192 Special Problems** (prereq 5191, #)
216177 2-5 cr
- 5892 Senior Design II** (†5891-5892; prereq 5891)
842838 1400-1630 TTh, AgEng 101, 4 cr
- R5910 Agricultural Waste Management Engineering** (prereq 3052, Chem 1005, CE 3400, IT upper div or grad IT)
★LECT 0800-0915 TTh, AgEng 303E
221816 -1 LAB 1400-1700 W, AgEng 303E, 4 cr
- 8190 Advanced Problems and Research** (prereq 5191, 5192, Δ)
914948 2-6 cr
- 8191 Advanced Problems and Research** (prereq 5191, 5192, Δ)
914724 2-6 cr
- 8192 Advanced Problems and Research** (prereq 5191, 5192, Δ)
221444 2-6 cr
- 8777 Thesis Credits: Masters**
820418 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
221119 1-36 cr

AGRICULTURAL ENGINEERING TECHNOLOGY (AgET)

Agriculture

- 1090 Directed Studies** (prereq #)
218236 ar cr
- R3030 Introduction to Problem Solving with Computers** (prereq Math 1111 or equiv) (A-F only)
★LECT 1500-1550 MWF, ABLMS 125, Park
319801 -1 REC 1605-1655 M, ClaOff 135, Park, 4 cr
916411 -2 REC 1500-1550 T, ClaOff 135, Park, 4 cr
416338 -3 REC 1605-1655 W, ClaOff 135, Park, 4 cr
523135 -4 REC 1500-1550 Th, ClaOff 135, Park, 4 cr
- 3091 Special Problems in Agricultural Engineering** (prereq #)
018134 2-5 cr
- 5035 Problems and Field Studies in Advanced Agriculture: Metal Fabrication Materials and Techniques** (prereq 5020 or #)
942829 Bear, 1-3 cr
- 5091 Special Problems in Agricultural Engineering** (prereq #)
423256 2-5 cr
- 5092 Special Problems in Agricultural Engineering** (prereq 5091)
814375 2-5 cr
- R5410 Hydrology and Water Quality** (prereq Math 1111, Phys 1041, Chem 1004, 1005)
★LECT 1040-1130 MWThF, AgEng 16B, Wilson
921415 -1 LAB 1400-1700 W, AgEng 16A, Wilson, 5 cr

AGRICULTURAL INDUSTRIES AND MARKETING (AIM)

Agriculture

- 5002 Marketing Practicum II** (prereq 5001) (A-F only)
144537 1605-1655 TTh, CentLib 8, Cardwell, 2 cr

AGRICULTURE (Agri)

Agriculture

- 1000H Honors Colloquium: Things That Plague Us** (prereq honors program registration, □) (A-F only)
213621 1500-1640 W, ClaOff B42, Zeyen, 2 cr

- r1200 Computer Applications in Your Profession** (prereq Coll of Agric undergrad stu) (A-F only)
719780 0900-1030 TTh, AlderH 310, Jom, 3 cr
- 3000 Seminar in International Agriculture** (prereq minor in international agriculture, #)
622378 1530-1700 T, Agr 408, Smith, 1 cr
- 3100H Honors Agronomy** (prereq approved proposal by Coll of Agr Honors Prog Comm) (A-F only)
242116 3-4 cr

AGRONOMY AND PLANT GENETICS (Agro) Agriculture

- r1010 Principles of Agronomy** (§3010, 3020, 3030)
★LECT 1145-1235 MTWTF, BorH 335, Smith
721481 -1 LAB 1355-1550 W, AgGhCl 103, Smith, 5 cr
223369 -2 LAB 0935-1130 Th, AgGhCl 103, Smith, 5 cr
- 1020 Special Problems** (prereq 5 cr agronomy, #)
022989 Smith, 1-3 cr
- 1500 Biotechnology: Basic Concepts and Applications** (§AnSc 1500, FScN 1500, PIPa 1500, ScAg 1500, Soil 1500; prereq hi schl biol and chem or #) (A-F only)
119668 1355-1445 MWF, GmH 110, Somers, 3 cr
- 3000 Seminar in International Agriculture** (prereq minor in international agriculture, #)
942118 1530-1655 T, Agr A408, Smith, 1 cr
- r3010 Adaptation, Distribution, and Ecology of Field Crops** (prereq Biol 1011)
★LECT 1040-1130 MWF, BorH 335, Simmons
320172 -1 REC 1355-1445 T, BorH 210, Simmons, 4 cr
819978 -2 REC 1500-1550 T, BorH 210, Simmons, 4 cr
112977 -3 REC 1355-1445 W, BorH 210, Simmons, 4 cr
- 3130 Seed Technology** (prereq 1010 or #)
742119 1250-1445 TTh, Agr A104, Cardwell, 2 cr
- r3200 Seminar** (prereq jr or sr)
921947 1530-1700 Th, BorH 306, Smith, 1 cr
- 5001 Problems in Agronomy for Advanced Students** (prereq 20 cr agronomy, #)
319748 Smith, 1-5 cr
- r5020 Introduction to Plant Breeding** (prereq GCB 3022)
912844 0830-0920 MWThF, BorH 335, Ort, 4 cr
- r5040 Corn and Soybean Management** (prereq 3010, 3020, 3030, Soil 1122 or #)
212808 1250-1445 TTh, BorH 335, Crookston, 3 cr
- 5055 Methods in Farming Systems Research and Extension** (§AgEd 5055, HeEd 5055)
714854 0845-1000 TTh, VoTech R385, Cardwell, 3 cr
- 5070 Ecology of Field Crops** (prereq 3010, 3 cr in agronomic sciences or #)
420437 0935-1025 MWF, BorH 210, Putnam, 3 cr
- r5110 Adaptation, Distribution, and Ecology of Field Crops** (§3010; prereq Biol 1011)
★LECT 1040-1130 MWF, BorH 335, Simmons
718144 -1 REC 0830-0920 F, Agr A408, Simmons, 3 cr
- 8010 Research in Agronomy** (prereq #)
113790 ar cr
- 8020 Seminar: Agronomy**
021230 1600-1700 W, BorH 306, Burnside, 1 cr
- 8100 Forage Research Techniques and Topics** (prereq 5010)
944158 0935-1025 TTh, Agr A408, Sheaffer, 3 cr
- 8200 Plant Breeding Principles and Methods I** (prereq 5020, GCB 5042, Stat 5301)
221279 0935-1025 MWF, BorH 365, Rasmusson, 3 cr
- r8240 Cellular and Molecular Genetics of Plant Improvement** (prereq GCB 5034)
821777 1040-1235 TTh, Agr A408, Gengenbach, Somers, 3 cr
- 8270 Seminar: Plant Breeding**
621098 1600-1700 M, BorH 306, Phillips, 1 cr

- 8330 Research in Plant Genetics**
816899 ar cr
- 8777 Thesis Credits: Masters**
117251 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
922998 1-36 cr

AMERICAN INDIAN STUDIES (Amln)

Liberal Arts

- 1022 Beginning Ojibwe** (prereq 1021)
123101 1115-1205 MTWThF, WullH 130, 5 cr
- 1032 Beginning Dakota** (prereq 1031)
123471 1220-1310 MTWThF, WullH 130, Schommer, 5 cr
- 3025 Intermediate Ojibwe** (prereq 3024)
215966 1325-1415 MTWThF, WullH 130, 5 cr
- 3035 Intermediate Dakota** (prereq 3034)
418865 1430-1520 MTWThF, WullH 130, Schommer, 5 cr
- r3111 American Indian History from Mid-15th Century to 1850** (§Hist 3871)
622803 0945-1100 TTh, AndH 270, O'Brien, 4 cr
- r3211 American Indian Philosophies**
217653 0945-1100 TTh, FolH 306, 4 cr
- 3810 Field Practice: Indian Studies** (prereq soph or jr or sr, #)
813811 3-9 cr
- 3970 Directed Studies** (prereq #, Δ)
115314 1-15 cr
- 3980 Directed Instruction** (prereq #, Δ, □)
113149 5 cr
- r5341 Contemporary Indian Movements**
317529 1010-1105 MWF, ScottH 4, 4 cr
- 5990 Directed Research** (prereq by petition only, #, Δ, CLA approval)
014990 1-15 cr

AMERICAN STUDIES (AmSt)

Liberal Arts

- r1001 American Cultures**
★LECT 0815-0930 TTh, ScottH 4
144568 -1 REC 0815-0930 M, Zoology 102, 4 cr
044569 -2 REC 0815-0930 W, Zoology 102, 4 cr
- r1002 American Cultures**
★LECT 0945-1100 TTh, NichH 211, May L, Miller C.
642131 -1 REC 0800-0850 M, NichH 122, 4 cr
542137 -2 REC 1010-1100 M, BuH 125, 4 cr
142134 -3 REC 1325-1415 M, SciCB 375, 4 cr
542140 -4 REC 1115-1205 T, Phys 131, 4 cr
342141 -5 REC 1325-1415 T, SmithH 331, 4 cr
442132 -6 REC 0800-0850 W, NichH 122, 4 cr
342138 -7 REC 0800-0850 W, EIH N119, 4 cr
942135 -8 REC 1325-1415 W, MeChE 221, 4 cr
142142 -9 REC 1325-1415 Th, PillsH 110, 4 cr
242133 -10 REC 0800-0850 F, EIH N119, 4 cr
142139 -11 REC 1325-1415 F, NichH 209A, 4 cr
742136 -12 REC 1325-1415 F, NichH 209, 4 cr
- r1002H American Cultures** (prereq honors stu or #)
★LECT 0945-1100 TTh, NichH 211, May L, Miller C.
642145 -80 REC 1325-1415 Th, JonesH 4, Richter, 4 cr
- r1003 American Cultures**
★LECT 0905-0955 MWF, ScottH 4, Krasnow
042143 -1 REC 0905-0955 T, LindH 325, 4 cr
842144 -2 REC 0905-0955 Th, FolH 240, 4 cr
- r3107 Introduction to Chicano Studies** (§Chic 3107)
442129 0800-0850 MWF, ScottH 4, Green, 4 cr
- r3111 Creative Americans and Their Worlds**
042126 1245-1400 TTh, ScottH 4, Kilpatrick, 4 cr
- r3112 American Everyday Life**
014486 1115-1230 TTh, ScottH 4, Nemanic, 4 cr
- r3299 American Studies Proseminar** (A-F only)
814098 1325-1525 M, JonesH 2, Noble G., 4 cr
- r3302 Proseminar: American Studies** (prereq 3301)
914559 1325-1525 T, ScottH 2, Montana, 4 cr

- r3920 Topics in American Studies** (max 12 cr; prereq jr or sr)
243962 1245-1400 TTh, FordH 115, Kohlstedt, 4 cr
- 3970 Directed Studies** (prereq #, Δ, □)
122926 1-15 cr
- r5920 Topics in American Studies** (max 12 cr)
323668 -1 1115-1205 MWF, JonesH 207B, Marling, 4 cr (20th-Century American Art) (§Anth 5521, sec 1)
115578 -2 1535-1735 W, BlegH 105, Valdes, 4 cr (Proseminar in Chicano History) (§Hist 5930, sec 1)
842127 -3 0945-1100 TTh, ScottH 4, Montana, 4 cr (Folk Narratives) (§Chic 5305, LAS 5305)
143968 -4 1430-1545 TTh, ScottH 4, Damon, 4 cr (Poetics of Marginality)
- r8202 Introduction to American Studies: Current Research and Practice** (prereq admission to AmSt grad program) (A-F only)
213277 1325-1525 M, ScottH 2, Noble D., 4 cr
- r8239 Gender, Race, Class and/or Ethnicity in America: History of the Family in the United States** (prereq # or Δ) (A-F only)
918983 1325-1525 W, ScottH 2, May E., 4 cr
- r8240 Gender, Race, Class and/or Ethnicity in America: Understanding Ethnicity through Cultural Images of Intimacy** (max 12 cr; prereq 8239 or # or Δ) (A-F only)
243959 0930-1200 M, ScottH 2, Prell, 4 cr
- r8249 Material Culture and/or Popular Culture: Seminar in American Art: America in the 1950's** (§ArH 8520)
642128 1400-1600 M, JonesH 202, Marling, 4 cr
- r8259 American Literature, History and Culture** (prereq # or Δ) (A-F only)
218544 -1 1000-1200 M, ScottH 2, Rabinowitz, 4 cr
320561 -2 1000-1200 W, ScottH 2, King, 4 cr
- 6279 Society and Social Processes** (prereq # or Δ) (A-F only)
344570 Kohlstedt, 4 cr
- 8401 Practicum in American Studies** (prereq admission to Ph.D. program in AmSt, #) (A-F only)
722758 1000-1200 Th, ScottH 2, May E., 4 cr
- 8777 Thesis Credits: Masters**
818474 1-16 cr
- 8802 Dissertation Seminar** (prereq #) (A-F only)
821469 1325-1525 Th, ScottH 2, Howe, 4 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
622199 1-36 cr
- 8970 Readings in American Civilization**
119923 ar cr

ANCIENT NEAR EASTERN (ANE) Classical & Near Eastern Studies Liberal Arts

- 1002 The Bible: Prophecy** (§3002, RelS 3202)
142173 1010-1100 MWF, NichH 45, Paradise, 4 cr
- 3002 The Bible: Prophecy** (§1002, RelS 3202)
042174 1010-1100 MWF, NichH 45, Paradise, 4 cr
- 5970 Directed Studies** (prereq #)
315151 1-4 cr

ANCIENT STUDIES (AnSt) Liberal Arts

- r5120 Archaeology of Prehistoric Europe** (§Anth 5120, Anth 3371)
122479 1010-1100 MWF, FordH 349, Wells, 4 cr
- 8002 Basic Seminar: Understanding the Past: Approaches to Ancient Texts** (prereq grad maj or #)
112678 1325-1520 M, FolH 224, 4 cr
- 8110 Interdisciplinary Seminar** (prereq grad maj or #)
744548 Wright, Kelts, 4 cr
- r8120 Interdisciplinary Seminar** (prereq grad maj or #)
642176 1430-1700 W, FolH 334, Zahavy, Sellew, 4 cr

- 8200 Directed Readings (prereq Δ)
221833 1-3 cr
- 8300 Directed Research (prereq Δ)
221976 1-3 cr
- 8777 Thesis Credits: Masters
222884 1-16 cr
- 8888 Thesis Credits: Doctoral (max 18 cr per qtr)
120979 1-36 cr

ANESTHESIOLOGY (Anes) Medical School

- r3105 Respiratory Therapy Procedures (prereq #)
616046 1010-1205 TTh, 1115-1205 W, Mayo
C565, Larsen, 5 cr
- r3107 Individual Study in Respiratory Therapy
(prereq #)
614586 1430-1520 W, Mayo C559, Larsen, ar cr
- 5015 Directed Study, Anesthesia Topics/Project
Course Development (prereq CRNA, regis
B.S. in nurs anes, #)
820290 Bell, ar cr
- 5086 Clinical Curriculum Development and
Evaluation for Nurse Anesthesia (prereq
CRNA, regis B.S. in nurs anes, #)
615821 1615-1845 W, MoosT 2580, Bell, 3 cr
- 5181 Externship in Clinical Practice of
Anesthesiology (prereq regis med)
118237 Anderson, 4.5-9 cr
- 5182 Independent Study, Anesthesiology (prereq
regis med)
112817 ar cr
- 5186 Clinical Practice in Anesthesia (prereq
CRNA, regis B.S. in nurs anes, 5086, #)
914271 Palahniuk, 15 cr
- 5268 Seminar In Anesthesia (prereq CRNA, regis
B.S. in anes)
416016 1500-1700 F, Mayo B580, Palahniuk, 2 cr
- 5286 Directed Study, Anesthesia Topics/Project:
Clinical (prereq CRNA, regis B.S. in nurs anes,
#)
120299 Bell, ar cr
- 5386 Education in Nurse Anesthesia (prereq
CRNA, regis B.S. in nurs anes, #)
214820 Bell, 1 cr
- 8265 General Anesthesia
021924 Palahniuk, 12 cr
- 8266 Regional Anesthesia
113345 Palahniuk, 4 cr
- 8267 Pre-Postanesthetic Evaluation
914061 1530-1800 MTWTh, Mayo B580,
Palahniuk, 2 cr
- 8268 Seminar: Anesthesia
613809 1500-1700 F, Mayo B580, Palahniuk, 2 cr
- 8269 Research in Anesthesia
121008 Palahniuk, ar cr
- 8777 Thesis Credits: Masters
216017 1-16 cr

ANIMAL PHYSIOLOGY (AnPh)

- 8777 Thesis Credits: Masters
920202 1-16 cr
- 8888 Thesis Credits: Doctoral (max 18 cr per qtr)
914321 1-36 cr

ANIMAL SCIENCE (AnSc)

Agriculture

- 1100 Introductory Animal Science
022510 0935-1025 MTWThF, PetH 110, Young,
others, 5 cr
- 1302 Management Techniques: Sheep (prereq #)
(S-N only)
814411 1 cr
- 1500 Biotechnology: Basic Concepts and
Applications (S Agro 1500, FScN 1500, PIPa
1500, SAg 1500, Soil 1500; prereq hi schl biol
and chem or #) (A-F only)
315571 1355-1445 MWF, GrnH 110, Somers, 3 cr
- 1520 Milk Production (prereq 1100 or #)
119324 1500-1550 MWF, FScN 15, Young, 3 cr

- 3113 Animal Welfare (prereq soph)
413620 0845-1000 TTh, HckrH 210, Scanlan, 4 cr
- 3120 Advanced Meat Animal, Carcass Evaluation
(prereq 1120...3130 or 3131, 3142, 3143 rec)
316851 Meiske, Epley, 1 cr
- 5231 Dairy Cattle Breeding (prereq 3220 or #)
822329 1355-1445 MTWTh, ClaOff B42, Hansen,
4 cr
- 5260 Livestock Entomology (SEnt 5280)
114253 0935-1025 MWF, HodsonH 485, Moon,
3 cr
- 5327 General Endocrine Physiology (prereq 3301
or #)
518940 1500-1550 MWF, HckrH 312, Wheaton,
3 cr
- r5403 Ruminant Nutrition (§5413; prereq 1401 or
3401)
★LECT 1040-1130 MWF, PetH 110,
Otterby, Stern
318003 -1 LAB 1040-1235 T, HckrH 70, Otterby,
Stern, 4 cr
413908 -2 LAB 1145-1340 W, HckrH 70, Otterby,
Stern, others, 4 cr
118836 -3 LAB 1430-1555 Th, HckrH 70, 4 cr
- 5609 Principles of Farm Animal Environment
(prereq jr, 3301 or #)
116150 0935-1025 MWF, HckrH 210, El Halawani,
3 cr
- r5703 Literature and Seminar (prereq jr)
317286 1500-1550 MW, HckrH 100, 2-3 cr
- 5710 Special Problems (prereq #)
514712 ar cr
- 5715 Tutorial (prereq #)
920233 ar cr
- 8081 Neuroethology (§EBB 8081, NSc 8081; prereq
EBB 5312, Psy 5061 or #)
621327 1500-1700 T, Zoology 10, Pusey, 3 cr
(Mpls)
- 8221 Quantitative Inheritance (prereq GCB 5042)
113054 1145-1235 MWF, PetH 108, Boylan, 3 cr
- 8603 Graduate Seminar (prereq #)
220939 1710-1800 M, PetH 108, Hunter, 1 cr
- 8740 Concepts and Developments in Ruminant
Nutrition (prereq #)
215093 1325-1525 Th, HckrH 120, Stern, 2 cr
- 8750 Concepts and Developments in Meat
Science and Technology (prereq #)
212887 Dayton, 1 cr
- 8777 Thesis Credits: Masters
317031 1-16 cr
- 8810 Research in Animal Science (prereq #)
123308 ar cr
- 8820 Research in Animal Genetics (prereq #)
121243 ar cr
- 8830 Research in Animal Physiology (prereq #)
116110 ar cr
- 8840 Research in Animal Nutrition (prereq #)
618220 ar cr
- 8850 Research in Muscle Chemistry and
Physiology (prereq #)
116415 ar cr
- 8888 Thesis Credits: Doctoral (max 18 cr per qtr)
022796 1-36 cr

ANTHROPOLOGY (Anth) Liberal Arts

- r1101 Human Origins
★LECT 1010-1100 MWF, SciCB 325,
Walker
120070 -1 REC 0800-0850 T, FordH 20, 5 cr
118366 -2 REC 0905-0955 T, FordH 20, 5 cr
121848 -3 REC 1010-1100 T, FordH 20, 5 cr
022264 -4 REC 1115-1205 T, FordH 20, 5 cr
114706 -5 REC 1220-1310 T, FordH 20, 5 cr
819379 -6 REC 0800-0850 Th, FordH 20, 5 cr
115001 -7 REC 0905-0955 Th, FordH 20, 5 cr
716796 -8 REC 1010-1100 Th, FordH 20, 5 cr
920121 -9 REC 1115-1205 Th, FordH 20, 5 cr
512717 -10 REC 1220-1310 Th, FordH 20, 5 cr
- r1101H Honors Course: Human Origins (prereq B avg
or #)
★LECT 1010-1100 MWF, SciCB 325,
Walker
519358 -80 REC 1325-1415 T, FordH 20, Walker,
5 cr
- r1102 Introduction to Social and Cultural
Anthropology (§1115, 5102)
★LECT 0905-0955 MWF, WilleyH 175,
Lipset
013743 -1 REC 0800-0850 T, FordH 15, 5 cr
717432 -2 REC 0905-0955 T, Phys 166, 5 cr
313366 -3 REC 0905-0955 T, FordH 170, 5 cr
817017 -4 REC 1010-1100 T, LindH 325, 5 cr
113384 -5 REC 1010-1100 T, MechE 221, 5 cr
912763 -6 REC 1115-1205 T, NichH 209A, 5 cr
716362 -7 REC 1220-1310 T, SmithH 121, 5 cr
413293 -8 REC 0800-0850 Th, FordH 15, 5 cr
018490 -9 REC 0905-0955 Th, FordH 15, 5 cr
217166 -11 REC 1010-1100 Th, FordH 15, 5 cr
017890 -12 REC 1010-1100 Th, KolH S132, 5 cr
713431 -13 REC 1115-1205 Th, FordH 55, 5 cr
514273 -14 REC 1220-1310 Th, JonesH 4, 5 cr
- r1102H Introduction to Social and Cultural
Anthropology (prereq GPA 3.0 or #)
★LECT 0905-0955 MWF, WilleyH 175,
Lipset
717446 -80 REC 0905-0955 T, FordH 15, Lipset,
5 cr
- r3211 Native Peoples of North America
312685 1115-1205 MWF, BlegH 5, Dunnigan, 4 cr
- r3261 Indian Culture and Society
442177 1115-1230 TTh, FordH 150, Raheja, 4 cr
- r3293 Peoples and Cultures of the Pacific Islands
814327 1415-1530 TTh, FordH 120, Ogan, 4 cr
- r3371 Archaeology of Prehistoric Europe (§5120,
AnSt 5120)
717530 1010-1100 MWF, FordH 349, Wells, 4 cr
- 3970 Directed Studies (prereq #, Δ, □)
615768 ar cr
- 3992H Honors Tutorial (can not be applied toward any
CLA degree) (S-N only)
912889 1 cr
- r5132 Symbolic Anthropology (prereq 1102 or 5102,
5112 or #)
242178 0905-0955 MWF, FordH 349, Ingham,
4 cr
- 5145 Anthropology and Education (§SPFE 5171,
EdPA 5171; prereq 1102 or 5102 or #)
215031 1515-1730 W, PeikH 31, Dobbart, 4 cr
- r5154 Anthropology of Colonialism (prereq 1102 or
5102 or #)
016108 0905-0955 MWF, FordH 285, Rowe, 4 cr
- r5301 Advanced Methods and Theory in
Archaeology (prereq 3111 or #)
242181 1115-1230 TTh, FordH 120, Gibbon, 4 cr
- r5331 Culture Theory: An Introduction (prereq jr, sr,
grad or #)
142182 0945-1100 TTh, FordH 150, Penn, 4 cr
- r5910 Topics in Anthropology
719133 -1 1325-1520 M, FordH 290E, Walker,
4 cr (Maya Culture/History) (§8510)
942183 -2 1220-1310 MW, 1220-1415 F, FordH
130, Rowe, 4 cr (Visual Anthropology)
- r5920 Topics in Anthropology: Racial Thought,
Problems and Issues
813419 1415-1600 T, FordH 235, Penn, 4 cr
- r5960 Senior Seminar: Anthropology of Aging
(prereq sr maj)
114406 1325-1520 M, FordH 235, Ogan, 4 cr
- 5961 Senior Research Project (prereq sr maj, #)
(A-F only)
115992 4 cr
- 5970 Directed Readings (prereq #, Δ, CLA
approval)
612739 2-4 cr
- 8002 Contemporary Anthropology (prereq 8001 or
#)
622820 1430-1700 W, FordH 290E, Gudeman,
3 cr
- 8320 Seminar: Social Anthropology
742184 1325-1520 Th, FordH 290E, Raheja, 3 cr
- 8510 Seminar: Archaeology
542185 1325-1520 M, FordH 290E, Walker, 3 cr
- 8777 Thesis Credits: Masters
922497 1-16 cr
- 8888 Thesis Credits: Doctoral (max 18 cr per qtr)
518176 1-36 cr
- 8950 Directed Studies (prereq #)
117881 ar cr

ARABIC (Arab)
Afro-American & African Studies
Liberal Arts

- r1102 Beginning Arabic** (prereq 1101)
 518064 1115-1205 MTWThF, BlegH 225,
 AshShareef, 5 cr
- r3102 Intermediate Arabic** (prereq 1103 or #)
 423421 1325-1520 MWF, BlegH 225, AshShareef,
 4 cr
- r3301 Modern Arabic Poetry in Translation** (\$MidE
 3301)
 642193 1430-1545 TTh, BlegH 115, AshShareef,
 4 cr
- r5501 Modern Arabic Poetry**
 944502 1430-1545 TTh, BlegH 115, AshShareef,
 4 cr
- r5970 Directed Readings** (prereq #, Δ, CLA
 approval)
 118634 AshShareef, ar cr

ARAMAIC (Arm)
Classical & Near Eastern Studies
Liberal Arts

- 5011 Aramaic** (prereq 1 yr Hebr or Arab or #)
 442194 0800-0850 MWF, CivMinE 214, Reisman,
 4 cr

ARCHITECTURE (Arch)
Arch & Landscape Arch

- r1010 Introduction to Architecture, Drawing**
 815316 1325-1710 TTh, Arch 30, Piotrowski, 4 cr
- r1023 History of Cities** (SLA 1023)
 019848 1115-1310 TTh, NichH 45, Satkowski, 4 cr
- r1042 Architectural Graphics** (prereq 1041)
 518503 1600-1730 TTh, Arch 55, Grebner, 2 cr
- r3065 Environmental Management and Control**
 (prereq 3064)
 ★LECT 1010-1205 WF, Arch 55,
 Ubbelohde, 4 cr
 742198 -1 REC 1010-1205 M, Arch 55
 542199 -2 REC 1010-1205 M, Arch 55
- r3066 Building Energy Systems** (prereq arch maj or
 adult special, 3064, 3093, or #) (A-F only)
 ★LECT 1010-1205 WF, Arch 15, Huizenga,
 4 cr
 513589 -1 REC 1010-1205 M, Arch 15
- r3082 Architectural Design** (prereq 3081) (A-F only)
 ★LECT 1325-1730 MWF, Arch 55, Weeks,
 6 cr
 716782 -1 LAB 1325-1730 MWF, Arch 230,
 Weeks
- r3092 Architectural Design** (prereq 3091) (A-F only)
 ★LECT 1325-1730 MWF, Arch 50, 6 cr
 122957 -1 LAB 1325-1730 MWF, Arch 220,
 Mullinger
- r3511 Introduction to Architectural Structures**
 (prereq Arch maj, 3081, Math 1142 or Math
 1211, Phys 1042, Phys 1046) (A-F only)
 645336 0810-1010 TTh, CivMinE 212, Sterling,
 4 cr
- r3970 Directed Study** (prereq 3081 or Δ)
 120893 ar cr
- r5056 Modern Architecture** (\$ArH 5056; prereq
 1021 or #)
 213487 1010-1205 TTh, Arch 25, James, 4 cr
- r5064 Baroque Architecture in Italy** (prereq 1021 or
 #, arch maj) (A-F only)
 142196 1010-1205 WF, Arch 25, Satkowski, 4 cr
- r5111 Architectural Design** (prereq 3093, 3064-3065
 or #, CE 3600-3601-3602 or #, arch maj)
 ★LECT 1325-1730 MWF, Arch 25, 6 cr
 713851 -1 LAB 1325-1730 MWF, Arch 145,
 Rauma
- r5112 Architectural Design** (prereq 5111, arch maj)
 ★LECT 1325-1730 MWF, Arch 25, 6 cr
 613048 -1 LAB 1325-1730 MWF, Arch 145,
 Rauma
- r5113 Architectural Design** (prereq 5112, arch maj)
 ★LECT 1325-1730 MWF, Arch 25, 6 cr
 821360 -1 LAB 1325-1730 MWF, Arch 145,
 Rauma

- r5116 Structure and Form in Architecture** (prereq
 5115)
 117167 1325-1625 Th, Arch 35, Shekner, 4 cr
- r5121 Architectural Design** (prereq 5113, CE 3602,
 arch maj) (A-F only)
 ★LECT 1325-1730 MWF, Arch 40, 6 cr
 616791 -1 LAB 1325-1730 MWF, Arch 240,
 Dittmar
- r5122 Architectural Design** (prereq 5121, arch maj)
 ★LECT 1325-1730 MWF, Arch 40, 6 cr
 816255 -1 LAB 1325-1730 MWF, Arch 240,
 Dittmar
- r5123 Architectural Thesis** (prereq 5122, submit
 thesis plan qtr prior to writing, 800 hrs practical
 exp, 36 lab hrs, Δ)
 420454 1325-1730 MTWThF, Arch 135, 140,
 Lockhart, 12 cr
- r5126 Professional Practice** (prereq 3rd yr design or
 #, arch maj or adult special)
 216129 0800-0955 TTh, Arch 25, Scherer, 4 cr
- r5138 Planning: Theory and Methodology** (prereq
 5137 or #)
 120814 0800-0955 WF, Arch 55, Robinson M.,
 4 cr
- 5142 Historic Building Conservation** (prereq 5141
 or #)
 513625 1715-1900 TTh, Arch 5, Mack, 4 cr
- r5850 Topics in Theory** (prereq arch maj or adult
 special)
 942202 -1 1535-1730 T, Arch 45, 2 cr
 519831 -2 1830-2030 W, Arch 20, 2 cr (prereq #)
 516699 -3 1325-1520 Th, Arch 45, James, 2 cr
 (prereq #)
- r5852 Architecture as Thought-Design Process**
 (prereq 3093 or #; arch maj or adult special)
 (A-F only)
 ★LECT 1535-1730 Th, Arch 20, Dittmar,
 3 cr
 744405 -1 REC 1325-1415 T, Arch 20, Dittmar
- r5952 Architectural Programming** (prereq 3093 or
 #, arch maj)
 121906 1010-1205 WF, Arch 35, Robinson J., 4 cr
- r5962 Computer Aided Architectural Design**
 (prereq 5961 or #, arch maj)
 ★LECT 1325-1520 T, Arch 45, Anderson,
 4 cr
 544406 -1 LAB 1325-1520 Th, Arch 148,
 Anderson
- r5970 Directed Study** (prereq #)
 217474 ar cr
- r8251 Architectural Design** (prereq grad status in
 architecture) (A-F only)
 ★LECT 1325-1730 MWF, Arch 45,
 Rockcastle, 6 cr
 017002 -1 LAB 1325-1730 MWF, Arch 210
- r8252 Architectural Design** (prereq grad status in
 architecture) (A-F only)
 ★LECT 1325-1730 MWF, Arch 45,
 Rockcastle, 6 cr
 114499 -1 LAB 1325-1730 MWF, Arch 210
- r8253 Architectural Design** (prereq grad status in
 architecture) (A-F only)
 ★LECT 1325-1730 MWF, Arch 45,
 Rockcastle, 6 cr
 617875 -1 LAB 1325-1730 MWF, Arch 210
- r8254 Architectural Design** (prereq grad status in
 architecture) (A-F only)
 ★LECT 1325-1730 MWF, Arch 45, Fraker,
 6 cr
 316896 -1 LAB 1325-1730 MWF, Arch 210
- r8255 Architectural Design** (prereq grad status in
 architecture) (A-F only)
 ★LECT 1325-1730 MWF, Arch 45, Fraker,
 6 cr
 317434 -1 LAB 1325-1730 MWF, Arch 210
- r8256 Architectural Design** (prereq grad status in
 architecture) (A-F only)
 ★LECT 1325-1730 MWF, Arch 45, 6 cr
 314842 -1 LAB 1325-1730 MWF, Arch 210
- r8261 Selected Problems in Architecture** (prereq
 grad status in architecture)
 522454 1325-1730 MWF, Arch 210, 1-9 cr
- r8262 Selected Problems in Architecture** (prereq
 grad status in architecture)
 717785 1325-1730 MWF, Arch 210, 1-9 cr

- r8263 Selected Problems in Architecture** (prereq
 grad status in architecture)
 316350 1325-1730 MWF, Arch 210, 1-9 cr
- r8272 Problems in City and Community Design**
 (prereq grad Arch stu)
 ★LECT 1325-1625 Th, Arch 210
 821472 -1 LAB 1325-1730 MWF, Arch 210, 9 cr
- r8276 Problems in City and Community Design**
 (prereq grad Arch stu)
 614684 1325-1730 MWF, Arch 210, 9 cr
- 8777 Thesis Credits: Masters**
 420857 1-16 cr

ART EDUCATION (ArEd)
Curriculum And Instruction
Education

- r3001 Survey of Art Activities** (prereq non art
 education maj) (A-F only)
 823125 -1 0905-1100 MWF, WullH 220, 4 cr
 214719 -2 1430-1625 MWF, WullH 220, 4 cr
 823481 -3 0905-1200 TTh, WullH 220, 4 cr
- r3020 Contemporary Crafts** (A-F only)
 816370 0905-1100 MWF, WullH 110, James, 4 cr
- 3200 Field Experiences in Art Education** (prereq
 educ stu) (S-N only)
 412953 1615-1830 W, WullH 110, 3-9 cr
- 3309 Independent Study** (max 4 cr; prereq #) (A-F
 only)
 422382 DiBlasio, 1-4 cr
- 3800 Current Trends in Art Education** (prereq
 3120, 3130) (A-F only)
 119041 1325-1625 W, WullH 240, DiBlasio, 3 cr
- r5020 Advanced Contemporary Crafts** (prereq 3020
 or #) (A-F only)
 019980 0905-1100 MWF, WullH 110, James, 4 cr
- r5308 Theory and Practice of Teaching Art in
 Elementary Schools** (A-F only)
 144451 1300-1620 TTh, WullH 220, 240,
 Freedman, 4 cr (Elem postbac stu only)
- 5386 Improving Art Programs in the Schools**
 (prereq teaching experience or #) (A-F only)
 221542 1640-1920 T, WullH 240, Freedman, 4 cr
- 5600 Internship** (prereq #) (A-F only)
 020398 Freedman, 3-9 cr
- 5605 Practicum** (prereq #) (A-F only)
 713199 DiBlasio, 3-9 cr
- 5900 Professional Problems** (prereq MEd student,
 #) (A-F only)
 222321 -1 DiBlasio, 3 cr
 716068 -2 Freedman, 3 cr
- 8306 Seminar: Art Education**
 944452 1640-1825 W, WullH 110, DiBlasio, 1 cr
- 8900 Problems: Art Education** (prereq #)
 823268 -1 DiBlasio, ar cr
 116205 -2 Freedman, ar cr

ART HISTORY (ArH)
Liberal Arts

- r3008 History of Ancient Art**
 ★LECT 1115-1205 MWF, FolH 306,
 McNally
 842208 -1 REC 1010-1100 Th, NichH 209, 4 cr
 642209 -2 REC 1115-1205 Th, NichH 209, 4 cr
 042210 -3 REC 1220-1310 Th, BuH 125, 4 cr
- r3012 History of 19th, 20th Century Art**
 822539 0815-0930 TTh, AndH 310, Nelson, 4 cr
- r3013 Introduction to Far Eastern Art** (\$EAS 3013)
 442213 1245-1400 TTh, AndH 310, Poor, 4 cr
- r3015 Survey of Islamic Art**
 842211 0945-1100 TTh, FordH 155, Asher C., 4 cr
- r3325 Michelangelo: His Work in Its Times**
 217202 1010-1100 MWF, FolH 306, Canedy, 4 cr
- r3575 The Art of Walt Disney in American Culture**
 242214 0905-0955 MWF, WilleyH 125, Marling,
 4 cr
- r3921 Art of the Film**
 013922 1325-1415 MW, 1325-1540 F, AndH 310,
 Silberman, 4 cr

- r3930 Junior-Senior Seminar (A-F only)**
142215 -1 1010-1205 M, JonesH 202, Silberman, 4 cr (Film) (prereq ArH or film maj, jr or sr, #)
445337 -2 1400-1600 T, JonesH 202, Steyaert, 4 cr (The Ghent Altarpiece and Other Enigmas of Early Flemish Paintings) (prereq ArH maj, jr or sr, #)
- 3970 Directed Studies** (prereq #, Δ, □)
418249 1-5 cr
- 3971 Major Project** (prereq art history maj, #)
416775 1 cr
- 3975 Directed Museum Experience** (prereq #, Director of Undergrad Studies) (S-N only)
022295 1-3 cr
- r5056 Modern Architecture** (§Arch 5056; prereq Arch 1021 or #)
942216 1010-1205 TTh, Arch 25, James, 4 cr
- r5234 Gothic Sculpture of the Cathedral Age** (prereq 3009 or grad student or #)
245338 1010-1100 MWF, JonesH 207A, Steyaert, 5 cr
- r5252 History of Early Christian and Byzantine Art** (§Clas 5252)
742217 0945-1100 TTh, Arch 45, Alchermes, 4 cr
- r5313 Italian High Renaissance Architecture, Sculpture, and Painting** (prereq 3011 or grad student or #)
621022 1220-1310 MWF, JonesH 207A, Canedy, 4 cr
- r5347 Baroque Art in France, England, and Lowlands** (prereq 3011 or grad student or #)
542218 0905-0955 MWF, JonesH 207B, Stoughton, 5 cr
- r5521 20th Century Art in the United States** (prereq 4 cr of art hist)
342219 1115-1205 MWF, JonesH 207B, Marling, 5 cr
- r5643 Prehistoric Art of Northern Europe**
742220 1115-1230 TTh, JonesH 207A, Nelson, 4 cr
- r5725 Ceramics in the Far East**
342222 0945-1100 TTh, JonesH 207A, Poor, 4 cr
- r5776 The Art and Architecture of Hindu India** (prereq 4 cr art history or #)
142223 0815-0930 TTh, JonesH 207B, Asher F., 5 cr
- r5950 Topics in Art History: Kiefer, Polke, Richter** (prereq grad stu or #)
422754 1325-1415 MWF, JonesH 207A, Haxthausen, 4 cr
- 5970 Directed Readings** (prereq sr, #, Δ, CLA approval)
216907 1-5 cr
- 5990 Directed Research** (prereq sr, #, Δ, CLA approval)
213134 1-5 cr
- r8190 Seminar: Problems in Ancient Art** (prereq #) (A-F only)
944354 1400-1600 Th, JonesH 202, Cooper, 4 cr
- r8400 Seminar: Problems in 19th Century Art: Commodification of History: Historic Preservation and Other Uses of the Past** (§CSDS 8910, sec 2; prereq #)
145339 1220-1520 F, FordH 50, Archer, 4 cr
- r8520 Seminar: American Art: America in the 1950's** (§AmSt 8249; prereq #)
215711 1400-1600 M, JonesH 202, Marling, 4 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
619769 1-36 cr
- 8970 Directed Studies** (prereq #)
218348 1-5 cr

ART, STUDIO (Arts) Liberal Arts

Materials fees are assessed at the time of registration for many Studio Arts courses. See Section 2, Course Fees, for course numbers and fee amounts.

Written permission from the instructor is required for all students to register for a Studio Arts course after the first class meeting.

Open labs are scheduled for two hours each week for all 1000- and 3000-level Studio Arts courses. Labs are staffed by teaching assistants who can answer both aesthetic and technical questions and help with course work. You may attend the lab scheduled for your course or any lab scheduled in the same media (drawing/painting, ceramics, glass, photography, printmaking, or sculpture). Attendance at more than one lab is also possible. A listing of the days and times of labs will be on the fact sheet given to you the first day of class. Attendance at labs is strongly encouraged to achieve a passing grade.

- r1101 Drawing I**
613115 -1 1010-1205 MW, ArtB 150, 4 cr (ArtS, pre-maj ArtS, ArEd, or MLK stu only)
323038 -2 1010-1205 MW, ArtB 150, 4 cr (Pre-Arch, Arch or Landscape Arch maj only)
618430 -3 1010-1205 MW, ArtB 150, 4 cr
021020 -4 1010-1205 MW, ArtB 160, 4 cr (ArtS, pre-maj ArtS, ArEd, or MLK stu only)
821746 -5 1010-1205 MW, ArtB 160, 4 cr (Pre-Arch, Arch or Landscape Arch maj only)
715907 -6 1010-1205 MW, ArtB 160, 4 cr
714501 -7 1325-1520 MW, ArtB 150, 4 cr (ArtS, pre-maj ArtS, ArEd, or MLK stu only)
618816 -8 1325-1520 MW, ArtB 150, 4 cr (Pre-Arch, Arch or Landscape Arch maj only)
322052 -9 1325-1520 MW, ArtB 150, 4 cr
015122 -10 1010-1205 TTh, ArtB 160, 4 cr (ArtS, pre-maj ArtS, ArEd, or MLK stu only)
817051 -11 1010-1205 TTh, ArtB 160, 4 cr (Pre-Arch, Arch or Landscape Arch maj only)
519425 -12 1010-1205 TTh, ArtB 160, 4 cr
612949 -13 1010-1205 TTh, ArtB 150, 4 cr (ArtS, pre-maj ArtS, ArEd, or MLK stu only)
216759 -14 1010-1205 TTh, ArtB 150, 4 cr (Pre-Arch, Arch or Landscape Arch maj only)
423435 -15 1010-1205 TTh, ArtB 150, 4 cr
019199 -16 1325-1520 TTh, ArtB 160, 4 cr (Arts, pre-maj ArtS, ArEd, or MLK stu only)
823075 -17 1325-1520 TTh, ArtB 160, 4 cr (Pre-Arch, Arch or Landscape Arch maj only)
213960 -18 1325-1520 TTh, ArtB 160, 4 cr
- r1102 Drawing II** (prereq 1101)
313223 -1 1010-1205 MW, ArtB 160, 4 cr (ArtS, pre-maj ArtS, or MLK stu only)
017081 -2 1010-1205 MW, ArtB 160, 4 cr
914741 -3 1325-1520 MW, ArtB 140, 4 cr (ArtS, pre-maj ArtS, or MLK stu only)
014424 -4 1325-1520 MW, ArtB 140, 4 cr
414427 -5 1325-1520 TTh, ArtB 150, 4 cr (ArtS, pre-maj ArtS, or MLK stu only)
520011 -6 1325-1520 TTh, ArtB 150, 4 cr
- r1301 Sculpture**
615933 -1 1010-1205 MW, ArtB 65, Baldwin, 4 cr (ArtS, pre-maj ArtS, or MLK stu only)
923326 -2 1010-1205 MW, ArtB 65, Baldwin, 4 cr
142237 -3 1010-1205 TTh, ArtB 65, 4 cr (ArtS, pre-maj Arts, or MLK stu only)
042238 -4 1010-1205 TTh, ArtB 65, 4 cr
- r1302 Sculpture**
413715 -1 1010-1205 MW, ArtB 50, 4 cr (ArtS, pre-maj ArtS, ArEd, or MLK stu only)
317417 -2 1010-1205 MW, ArtB 50, 4 cr
- r1401 Introduction to Studio Arts**
♦014035 -1 LECT 1430-1625 TTh, WilleyH 125, 4 cr
- r1404 Color** (§1104; prereq 1101)
214008 -1 1010-1205 MW, ArtB 140, 4 cr (ArtS, pre-maj ArtS, or MLK stu only)
720296 -2 1010-1205 MW, ArtB 140, 4 cr (Pre-Arch, Arch or Landscape Arch maj only)
113832 -3 1010-1205 MW, ArtB 140, 4 cr
216874 -4 1325-1520 TTh, ArtB 140, 4 cr (ArtS, pre-maj ArtS, or MLK stu only)
- 620260 -5 1325-1520 TTh, ArtB 140, 4 cr (Pre-Arch, Arch or Landscape Arch maj only)
518145 -6 1325-1520 TTh, ArtB 140, 4 cr
- r1510 Printmaking: Intaglio** (max 8 cr)
913489 -1 0800-0955 TTh, ArtB 170, Bethke, 4 cr (ArtS, pre-maj ArtS, or MLK stu only)
022572 -2 0800-0955 TTh, ArtB 170, Bethke, 4 cr
- r1520 Printmaking: Lithography** (max 8 cr)
618685 -1 1325-1520 MW, ArtB 170, Krepps, 4 cr (ArtS, pre-maj ArtS, or MLK stu only)
916635 -2 1325-1520 MW, ArtB 170, Krepps, 4 cr
- r1701 Photo Medium**
417277 -1 1010-1205 MW, ArtB 120, Hallman, 4 cr (ArtS, pre-maj ArtS, or MLK stu only)
121792 -2 1010-1205 MW, ArtB 120, Hallman, 4 cr (CLA students only)
218897 -3 1010-1205 TTh, ArtB 120, Henkel, 4 cr (ArtS, pre-maj ArtS, or MLK stu only)
120335 -4 1010-1205 TTh, ArtB 120, Henkel, 4 cr (CLA students only)
- r1811 Ceramics: Handbuilding**
114048 -1 1325-1520 TTh, ArtB 10, 4 cr (ArtS or MLK stu only)
712828 -2 1325-1520 TTh, ArtB 10, 4 cr
- r1812 Ceramics: Wheel Throwing**
921432 -1 1010-1205 MW, ArtB 10, Hoard, 4 cr (ArtS, pre-maj ArtS, or MLK stu only)
716409 -2 1010-1205 MW, ArtB 10, Hoard, 4 cr
544549 -3 1325-1520 TTh, ArtB 10, Pharis, 4 cr (ArtS, pre-maj ArtS, or MLK stu only)
944550 -4 1325-1520 TTh, ArtB 10, Pharis, 4 cr
- r3105 Introduction to Painting** (prereq 1101, 1102, 1401, 1404)
723540 -1 1010-1205 MW, ArtB 151, 4 cr (ArtS, pre-maj ArtS, or MLK stu only)
914822 -2 1010-1205 MW, ArtB 151, 4 cr (Pre-Arch, Arch, or Landscape Arch maj only)
315201 -3 1010-1205 MW, ArtB 151, 4 cr
720850 -4 1010-1205 TTh, ArtB 151, Rowan, 4 cr (ArtS, pre-maj ArtS, or MLK stu only)
914433 -5 1010-1205 TTh, ArtB 151, Rowan, 4 cr (Pre-Arch, Arch or Landscape Arch maj only)
823139 -6 1010-1205 TTh, ArtB 151, Rowan, 4 cr
- r3110 Drawing** (max 12 cr; prereq 1102, 1401)
021115 -1 1010-1205 MW, ArtB 141, Katsiaticas, 4 cr (ArtS, pre-maj ArtS, or MLK stu only)
014567 -2 1010-1205 MW, ArtB 141, Katsiaticas, 4 cr
413455 -3 1325-1520 TTh, ArtB 141, Rowan, 4 cr (ArtS, pre-maj ArtS, or MLK stu only)
415206 -4 1325-1520 TTh, ArtB 141, Rowan, 4 cr
- r3120 Painting** (max 12 cr; prereq 1101, 1102, 1401, 1404, 3105, 4 cr of 3110 or 3110)
219080 -1 1325-1520 MW, ArtB 151, 4 cr (ArtS, pre-maj ArtS, or MLK stu only)
121445 -2 1325-1520 MW, ArtB 151, 4 cr
020532 -3 1325-1520 TTh, ArtB 151, Caglioti, 4 cr (ArtS, pre-maj ArtS, or MLK stu only)
422995 -4 1325-1520 TTh, ArtB 151, Caglioti, 4 cr
- r3160 Watercolor** (max 12 cr; prereq 1101, 1102, 1401, 1404)
216132 1010-1205 TTh, ArtB 141, Caglioti, 4 cr
- 3411H Honors: Tutorial** (prereq honors program candidate) (A-F only)
516170 2-4 cr
- 3412H Honors: Tutorial** (prereq honors program candidate) (A-F only)
119064 2-4 cr
- 3413H Honors: Cross-Media Project** (prereq honors program candidate) (A-F only)
514001 2-4 cr
- 3414H Honors: Cross-Media Project** (prereq honors program candidate) (A-F only)
921785 2-4 cr
- 3415H Honors: Thesis** (prereq honors program candidate) (A-F only)
117041 2 cr
- 3416H Honors: Thesis** (prereq honors program summa candidate) (A-F only)
522907 2 cr

3444 Senior Project (prereq sr art studio maj, #, Δ) (S-N only)
 314744 -1 Baldwin, 2 cr
 913170 -2 Bethke, 2 cr
 817308 -3 Caglioti, 2 cr
 320012 -4 Cowette, 2 cr
 822928 -5 Feinberg, 2 cr
 321418 -7 Hallman, 2 cr
 420406 -8 Henkel, 2 cr
 117170 -9 Hoard, 2 cr
 442244 -10 Katsiaficas, 2 cr
 116012 -11 Krepps, 2 cr
 819446 -12 Lane, 2 cr
 521174 -13 Lucey, 2 cr
 117749 -15 Pharis, 2 cr
 312850 -18 Rose, 2 cr
 121498 -19 Rowan, 2 cr
 713445 -20 2 cr
 519893 -21 2 cr

r3520 Printmaking: Lithography (max 12 cr; prereq 1401, 4 cr of 1520 or #)
 113918 -1 1010-1205 MW, ArtB 170, Krepps, 4 cr (ArtS, premaj ArtS, or MLK stu only)
 122482 -2 1010-1205 MW, ArtB 170, Krepps, 4 cr

r3530 Printmaking: Relief (max 12 cr; prereq 1401, 4 cr of 1530 or #)
 021504 -1 1325-1520 TTh, ArtB 170, Bethke, 4 cr (ArtS, premaj ArtS, or MLK stu only)
 414153 -2 1325-1520 TTh, ArtB 170, Bethke, 4 cr

r3710 Photography (max 12 cr; prereq 1401, 1701 or Jour 3301 or #)
 817907 -1 1325-1520 TTh, ArtB 120, Henkel, 4 cr (ArtS, premaj ArtS, or MLK stu only)
 213411 -2 1325-1520 TTh, ArtB 120, Henkel, 4 cr (CLA students only)

r3810 Intermediate Ceramics (max 12 cr; prereq 1401, 1811, 1812 or #)
 744551 -1 1010-1205 TTh, ArtB 10, Pharis, 4 cr (ArtS, pre-maj ArtS, or MLK stu only)
 544552 -2 1010-1205 TTh, ArtB 10, Pharis, 4 cr

r3820 Glassworking (max 12 cr; prereq 1401, 1301 or 1302 or 1811 or 1812 or 1802)
 042241 -1 1010-1205 MW, ArtB 186, Lane, 4 cr (ArtS maj or premaj ArtS only)
 842242 -2 1010-1205 MW, ArtB 186, Lane, 4 cr

r3830 Glass: Introduction to Neon (max 12 cr; prereq 1401)
 116446 1325-1520 MW, ArtB 186, Lane, 4 cr

3970 Directed Study (max 8 cr; prereq 24 cr studio arts, #, Δ, □)
 219158 -1 Baldwin, 1-5 cr
 117976 -2 Bethke, 1-5 cr
 615995 -3 Caglioti, 1-5 cr
 220486 -4 Cowette, 1-5 cr
 119968 -5 Feinberg, 1-5 cr
 321063 -7 Hallman, 1-5 cr
 523040 -8 Henkel, 1-5 cr
 823349 -9 Hoard, 1-5 cr
 242245 -10 Katsiaficas, 1-5 cr
 617729 -11 Krepps, 1-5 cr
 913234 -12 Lane, 1-5 cr
 517917 -13 Lucey, 1-5 cr
 723442 -15 Pharis, 1-5 cr
 517898 -18 Rose, 1-5 cr
 514693 -19 Rowan, 1-5 cr
 120898 -20 1-5 cr
 323105 -21 1-5 cr
 323010 -22 1-5 cr

3990 Directed Instruction (max 8 cr; prereq #, Δ, □)
 514225 -1 Baldwin, 1-5 cr
 917798 -2 Bethke, 1-5 cr
 318499 -3 Caglioti, 1-5 cr
 217426 -4 Cowette, 1-5 cr
 220195 -5 Feinberg, 1-5 cr
 413021 -7 Hallman, 1-5 cr
 016089 -8 Henkel, 1-5 cr
 720329 -9 Hoard, 1-5 cr
 142246 -10 Katsiaficas, 1-5 cr
 118357 -11 Krepps, 1-5 cr
 021812 -12 Lane, 1-5 cr
 423211 -13 Lucey, 1-5 cr
 414752 -15 Pharis, 1-5 cr
 119288 -18 Rose, 1-5 cr
 717379 -19 Rowan, 1-5 cr
 720153 -20 1-5 cr
 920023 -21 1-5 cr
 320835 -22 1-5 cr

r5110 Drawing (max 16 cr; prereq 12 cr of 3110 or #)
 115233 1010-1205 TTh, ArtB 140, Cowette, 4 cr

r5120 Painting (max 16 cr; prereq 12 cr of 3120 or #)
 820872 1325-1520 TTh, ArtB 161, Cowette, 4 cr

r5160 Watercolor (max 16 cr; prereq 12 cr of 3160 or #)
 313741 1010-1205 TTh, ArtB 141, Caglioti, 4 cr

5190 Advanced Entry: Drawing and Painting (max 16 cr; prereq #, Δ)
 217121 -3 Caglioti, 4 cr
 117922 -4 Cowette, 4 cr
 823318 -5 Feinberg, 4 cr
 742248 -10 Katsiaficas, 4 cr
 615964 -19 Rowan, 4 cr

r5310 Sculpture: Direct Metal (max 16 cr; prereq 3301)
 423709 1325-1520 MW, ArtB 50, Baldwin, 4 cr

r5320 Sculpture: Spatial Projects and Problems (max 16 cr; prereq 3302)
 716636 1010-1205 TTh, ArtB 50, Rose, 4 cr

5390 Advanced Entry: Sculpture (max 16 cr; prereq #, Δ)
 620033 -1 Baldwin, 4 cr
 115085 -13 Lucey, 4 cr
 418381 -18 Rose, 4 cr

r5420 Studio Arts Workshop
 712702 1010-1205 MW, ArtB 161, 4 cr

r5520 Printmaking: Lithography (max 16 cr; prereq 12 cr of 3520 or #)
 016254 1010-1205 MW, ArtB 170, Krepps, 4 cr

r5530 Printmaking: Relief (max 16 cr; prereq 12 cr of 3530 or #)
 115829 1325-1520 TTh, ArtB 170, Bethke, 4 cr

5590 Advanced Entry: Printmaking (max 16 cr; prereq #, Δ)
 618363 -2 Bethke, 4 cr
 118996 -11 Krepps, 4 cr

r5710 Photography (max 16 cr; prereq 12 cr of 3710 or #)
 817762 1325-1520 MW, ArtB 120, Hallman, 4 cr

5790 Advanced Entry: Photography (max 16 cr; prereq #, Δ)
 219189 -7 Hallman, 4 cr
 018232 -8 Henkel, 4 cr

r5810 Advanced Ceramics (max 16 cr; prereq 12 cr of 3810 or #)
 344553 1325-1520 MW, ArtB 10, Hoard, 4 cr

r5820 Glass Working (max 16 cr; prereq 12 cr of 3820)
 642243 1010-1205 MW, ArtB 186, Lane, 4 cr

r5830 Glass: Neon (max 16 cr; prereq 12 cr of 3830)
 517321 1325-1520 MW, ArtB 186, Lane, 4 cr

5890 Advanced Entry: Ceramics/Glass (max 16 cr; prereq #, Δ)
 115989 -9 Hoard, 4 cr
 119329 -12 Lane, 4 cr
 618105 -15 Pharis, 4 cr

5970 Directed Studies (max 12 cr; prereq 24 cr studio arts, #, Δ, CLA approval)
 120487 -1 Baldwin, 1-5 cr
 417960 -2 Bethke, 1-5 cr
 923455 -3 Caglioti, 1-5 cr
 218057 -4 Cowette, 1-5 cr
 023317 -5 Feinberg, 1-5 cr
 816031 -7 Hallman, 1-5 cr
 016464 -8 Henkel, 1-5 cr
 620890 -9 Hoard, 1-5 cr
 942247 -10 Katsiaficas, 1-5 cr
 815753 -11 Krepps, 1-5 cr
 119024 -12 Lane, 1-5 cr
 523118 -13 Lucey, 1-5 cr
 321404 -15 Pharis, 1-5 cr
 219593 -18 Rose, 1-5 cr
 722114 -19 Rowan, 1-5 cr
 422950 -20 1-5 cr
 723361 -21 1-5 cr
 614412 -22 1-5 cr

r8110 Drawing (max 12 cr)
 919972 -1 1010-1205 TTh, ArtB 140, Cowette, 4 cr
 213361 -3 Caglioti, 4 cr
 423449 -4 Cowette, 4 cr
 119430 -5 Feinberg, 4 cr
 542249 -10 Katsiaficas, 4 cr
 821245 -19 Rowan, 4 cr

8120 Painting (max 24 cr)
 717351 -3 Caglioti, 4 cr
 313156 -4 Cowette, 4 cr
 217071 -5 Feinberg, 4 cr
 942250 -10 Katsiaficas, 4 cr
 014097 -19 Rowan, 4 cr

r8300 20th Century Art Theories in Sculpture (prereq MFA candidate in studio arts or #) (A-F only)
 523295 1215-1310 TTh, ArtB 70, Lucey, 2 cr

r8310 Sculpture: Direct Metal (max 12 cr)
 845433 1325-1520 MW, ArtB 50, Baldwin, 4 cr

r8400 Concepts in Contemporary Art (prereq art studio grad or #)
 919292 0905-1310 F, Law 1, Katsiaficas, 4 cr

8510 Printmaking (max 36 cr)
 017999 -2 Bethke, 4 cr
 517786 -11 Krepps, 4 cr

8710 Photography (max 24 cr)
 914772 1800-2000 Th, ArtB 120, Hallman, 4 cr

r8810 Ceramics (max 24 cr)
 412743 1325-1520 MW, ArtB 10, Hoard, 4 cr

8820 Glassworking (max 24 cr)
 615897 Lane, 4 cr

ASTRONOMY (Ast) Institute of Technology

r1011 Descriptive Astronomy (§1021)
 114088 -1 0905-0955 MTWTh, Phys 150, Jones T.J., 4 cr
 021373 -2 1010-1100 MTWTh, Phys 166, Gehr, 4 cr
 522518 -3 1115-1205 MTWTh, Phys 166, Humphreys, 4 cr
 620324 -4 1830-2010 MW, Phys 150, Skillman, 4 cr

r1015 Descriptive Astronomy Laboratories (§1025H; prereq high school algebra...high school trigonometry rec)
 419319 Dickey, 1 cr (lab time assigned first 2 days of quarter in Phys 450) (min one night obs req)

3970 Directed Studies (prereq #, Δ)
 221377 1-5 cr

r5062 Computational Methods in the Physical Sciences II (§Phys 5062; prereq IT/CLA upper div or grad, 5061 or Phys 5061 or #)
 423581 -1 1130-1300 Th, MechE 102, Woodward, 4 cr

5299H Senior Honors Astrophysics Research Seminar (prereq IT or CLA upper div honors stu, #) (S-N only)
 616953 1535-1635 Th, Phys 210, Davidson, 1 cr

5321 Radiation Processes in Astrophysics (prereq Phys 5024, 5102 or #)
 144465 1325-1415 MW, Phys 143, Davidson, 4 cr

5970 Directed Studies (prereq #, Δ)
 420504 1-5 cr

5990 Directed Research (prereq #, Δ)
 817423 ar cr

8200 Seminar
 823416 1535-1635 Th, Phys 210, Davidson, 1-3 cr

8482 Topics in Astrophysics (prereq #)
 012947 0945-1100 TTh, Phys 157, Odewahn S., 3 cr

8777 Thesis Credits: Masters
 519120 1-16 cr

8888 Thesis Credits: Doctoral (max 18 cr per qtr)
 118982 1-36 cr

8990 Research in Astronomy and Astrophysics (prereq #)
 416436 ar cr

BIOCHEMISTRY (BioC) Biological Sciences

3001 Elementary Biological Chemistry (prereq 1 qtr college chem)
 617259 0935-1025 MTWF, ClaOff B35, Anderson, 4 cr

3960 Research Topics in Biochemistry (S-N only)
 017310 1605-1655 Th, GorL 342, Tsong, 1 cr

5002 Biochemistry Topics (prereq Biol 5001 or 3031 with grade of B or better)
 112753 1040-1130 MW, ClaOff B35, Bernlohr, 3 cr

n5025 Laboratory In Biochemistry (prereq Biol 5001 or 1 or 3031 with grade of B or better)
 ★LECT 1145-1235 T, BioSci 12, Conti-Tronconi
 623286 -1 LAB 0800-1140 T, BioSci 192, 198, 2 cr
 823206 -2 LAB 1240-1620 T, BioSci 192, 198, 2 cr
 ★LECT 1730-1820 T, BioSci 70, Tsong
 915520 -3 LAB 1830-2200 T, BioSci 192, 198, Tsong, 2 cr

5526 Physical Biochemistry: Spectroscopic Methods I (§MdBc 5526, Chem 5526; prereq 2 qtrs physical chemistry)
 344519 1230-1400 MW, KoltH S134, Ugurbil, 4 cr (Mpls)

5528 Physical Biochemistry: Enzyme Kinetics (§MdBc 5528; prereq 2 qtrs of physical chem...5002 or equiv or 5751 or MdBc 5751 desirable)
 544521 0930-1100 TTh, MoosT 2580, Lipscomb, 4 cr (Mpls)

n5744 Analytical Biochemistry (prereq previous lab work in analytical, organic chemistry, #)
 ★LECT 1245-1335 MW, BioSci 6, Lovrien, Flickinger, 4 cr
 318390 -1 LAB 1340-1740 MW, SnH 28

5752 General Biochemistry (§MdBc 5752; prereq 5751)
 217152 0815-0920 MWF, McNH 33, Nelsestuen, LaPorte, 4 cr

5970 Directed Studies (prereq #, Δ)
 116477 ar cr

5990 Directed Research (prereq #, Δ)
 722386 Lovrien, ar cr

8094 Research and Literature Reports (S-N only)
 723327 1 cr

8194 Graduate Seminar (S-N only)
 020854 1605-1715 W, BorH 335, Conti-Tronconi, 1 cr

n8214 Advanced Molecular Biology II (§MdBc 8214, GCB 8214; prereq BioC/MdBc 5753 or GCB 8132 or #)
 213781 0930-1110 MW, BioSci 70, Schottel, Livingston, others, 4 cr

8230 Advanced Topics In Membrane Biochemistry (§MdBc 8230; prereq 5753 or #)
 744520 1515-1645 TTh, BioSci 70, Thomas, others, 3 cr

8290 Current Research Techniques (prereq grad maj in biochem) (S-N only)
 622994 1-3 cr

8777 Thesis Credit: Masters
 123073 1-16 cr

8888 Thesis Credits: Doctoral (max 18 cr per qtr)
 816160 1-36 cr

8990 Graduate Research (prereq #)
 919941 2-5 cr

BIOCHEMISTRY, MEDICAL (MdBc) Medical School

5053 Problems in Biochemistry (prereq 5100 or 5753; biochem grad stu must register S-N)
 713185 1-10 cr

5101 Human Nutrition (prereq 5100)
 142268 0905-0955 T, PWB 2470, Bodley, 1 cr (Jan 6-Mar 21)

5301 Biochemistry (prereq 5300, recommended for med tech)
 ★LECT 1010-1100 MWF, MoosT 2520, Oegema, 3 cr
 342270 -1 REC 1115-1205 M, MoosT 2520, Roon

5526 Physical Biochemistry: Spectroscopic Methods I (§BioC 5526, Chem 5526; prereq 2 qtrs physical chemistry)
 042269 1230-1400 MW, KoltH S134, Ugurbil, Que, 4 cr

5528 Physical Biochemistry: Enzyme Kinetics (§BioC 5528; prereq 2 qtrs of physical chem...5751 or BioC 5751 or 5002 or equiv desirable)
 223582 0930-1100 TTh, MoosT 2580, Lipscomb, 4 cr

5752 General Biochemistry (§BioC 5752; prereq 5751)
 312668 0815-0920 MWF, McNH 33, Nelsestuen, LaPorte, 4 cr (SIP)

8150 Seminar: Biochemistry (S-N only)
 517836 1220-1310 T, OwreH 4218, Siliciano, 1 cr

n8214 Advanced Molecular Biology II (§BioC 8214, GCB 8214; prereq BioC/MdBc 5753 or GCB 8132 or #)
 422866 0930-1110 MW, BioSci 70, Livingston, Schottel, 4 cr (SIP)

8230 Membrane Biochemistry (§BioC 8230; prereq 5751 or #)
 744503 1515-1645 TTh, MoosT 2107, Thomas, others, 3 cr

8290 Current Research Techniques (prereq grad maj in biochem, #) (S-N only)
 514807 1-3 cr

8300 Research
 116892 ar cr

BIOLOGY (Biol) Biological Sciences

r1008 Introductory Biology: An Evolutionary Approach

★LECT 1220-1310 MWF, MoosT 2650
 123325 -1 REC 0800-0850 T, AmundH 124, 4 cr
 516718 -2 REC 0905-0955 T, SciCB 375, 4 cr
 220150 -3 REC 1010-1100 T, SmithH 231, 4 cr
 421961 -4 REC 1115-1205 T, ChDev 218, 4 cr
 319393 -5 REC 1220-1310 T, JonesH 4, 4 cr
 920250 -6 REC 1325-1415 T, SciCB 175, 4 cr
 714062 -7 REC 0800-0850 W, LindH 303, 4 cr
 118450 -8 REC 0905-0955 W, LindH 303, 4 cr
 814263 -9 REC 1010-1100 W, LindH 303, 4 cr
 121369 -10 REC 1115-1205 W, CivMinE 212, 4 cr
 117919 -11 REC 1115-1205 W, Zoology 313, 4 cr
 713378 -12 REC 1325-1415 W, Phys 133, 4 cr

r1009 General Biology (§1011)

★LECT 0800-0850 MWF, WilleyH 175
 113409 -1 LAB 0800-0945 TTh, KoltH S160, 5 cr
 914495 -2 LAB 0800-0945 TTh, KoltH S167, 5 cr
 017100 -3 LAB 0800-0945 TTh, KoltH S170, 5 cr
 113393 -4 LAB 1010-1155 TTh, KoltH S160, 5 cr
 623255 -5 LAB 1010-1155 TTh, KoltH S167, 5 cr
 922399 -6 LAB 1010-1155 TTh, KoltH S170, 5 cr
 218026 -7 LAB 1220-1405 TTh, KoltH S167, 5 cr
 914397 -8 LAB 1220-1405 TTh, KoltH S170, 5 cr
 914111 -9 LAB 1010-1155 WF, KoltH S160, 5 cr
 814828 -10 LAB 1010-1155 WF, KoltH S167, 5 cr
 519070 -11 LAB 1220-1405 WF, KoltH S160, 5 cr
 ★LECT 1220-1310 MWF, WilleyH 125
 620307 -12 LAB 0800-0945 TTh, KoltH S177, 5 cr
 520915 -13 LAB 0800-0945 TTh, KoltH S179, 5 cr
 720475 -14 LAB 1010-1155 TTh, KoltH S177, 5 cr
 313125 -15 LAB 1010-1155 TTh, KoltH S179, 5 cr
 712988 -16 LAB 1010-1155 TTh, KoltH S183, 5 cr
 919860 -17 LAB 1220-1405 TTh, KoltH S177, 5 cr
 115984 -18 LAB 1220-1405 TTh, KoltH S179, 5 cr
 018294 -19 LAB 1220-1405 TTh, KoltH S183, 5 cr
 119847 -20 LAB 1430-1615 TTh, KoltH S160, 5 cr
 422480 -21 LAB 1430-1615 TTh, KoltH S167, 5 cr
 213053 -22 LAB 0800-0945 WF, KoltH S160, 5 cr
 016920 -23 LAB 1010-1155 WF, KoltH S170, 5 cr
 618296 -24 LAB 1010-1155 WF, KoltH S177, 5 cr
 120067 -25 LAB 1010-1155 WF, KoltH S179, 5 cr
 814778 -26 LAB 1430-1615 WF, KoltH S160, 5 cr
 122045 -27 LAB 1430-1615 WF, KoltH S167, 5 cr
 ★LECT 1800-1915 TTh, MoosT 2650
 122966 -28 LAB 1930-2115 TTh, KoltH S160, 5 cr

r1009H General Biology (prereq honors division or 3-4 yrs high school math, high school chem or Δ)
 ★LECT 1220-1310 MWF, WilleyH 125
 020028 -81 LAB 1220-1405 TTh, KoltH S160, 5 cr

r1101 Heredity and Human Society (§GCB 3002, no cr if taken after 5003 or GCB 3022)
 917199 1220-1310 MTWTh, WilleyH 175, Woodward V., 4 cr

r1103 General Botany (§3012; prereq 1009)

★LECT 1250-1340 MWF, BorH 335, Koukari, (SIP)

822315 -1 LAB 1040-1340 T, BioSci 182, 5 cr (SIP)

421751 -2 LAB 1355-1655 T, BioSci 182, 5 cr (SIP)

720993 -3 LAB 0935-1235 W, BioSci 182, 5 cr (SIP)

022992 -4 LAB 1355-1655 W, BioSci 182, 5 cr (SIP)

714742 -5 LAB 1040-1340 Th, BioSci 182, 5 cr (SIP)

r1106 General Zoology (prereq 1009)

★LECT 0800-0850 MWF, Botany B6, Schmid

221041 -1 LAB 0905-1205 T, Zoology 101D, 5 cr

015881 -2 LAB 1325-1625 T, Zoology 101D, 5 cr

116043 -3 LAB 0905-1205 W, Zoology 101D, 5 cr

414847 -4 LAB 1220-1520 W, Zoology 101D, 5 cr

214039 -5 LAB 0905-1205 Th, Zoology 101D, 5 cr

223422 -6 LAB 1325-1625 Th, Zoology 101D, 5 cr

1301 Human Reproduction and Development (prereq 1009 or equiv)

314114 1600-1740 TTh, Phys 166, McKinnell, 4 cr

r1952 Biology Colloquium (S-N only)

317269 -1 1430-1625 M, Phys 210, Parmelee, Underhill, others, 1-2 cr

118884 -2 1430-1625 T, SmithH 331, Parmelee, Underhill, others, 1-2 cr

913623 -3 1500-1655 W, BioSci 12, Parmelee, Underhill, others, 1-2 cr (SIP)

r3011 Animal Biology (§1106; prereq 1009, Chem 1005)

★LECT 0935-1025 MWF, GrnH 110, Rosenberg, (SIP)

123168 -1 LAB 0940-1120 TTh, BioSci 107, 5 cr (SIP)

117161 -2 LAB 1250-1430 TTh, BioSci 107, 5 cr (SIP)

722856 -3 LAB 1800-1940 TTh, BioSci 107, 5 cr (SIP)

720380 -4 LAB 1040-1200 WF, BioSci 107, 5 cr (SIP)

919731 -5 LAB 1230-1410 WF, BioSci 107, 5 cr (SIP)

r3012 Plant Biology (§1103, 3812; prereq 1009, Chem 1005)

★LECT 1250-1340 MWF, HodsonH 495, Pratt, Soulen, (SIP)

620369 -1 LAB 1040-1235 MW, BioSci 163, 5 cr (SIP)

014360 -2 LAB 1355-1550 MW, BioSci 151, 5 cr (SIP)

517206 -3 LAB 1355-1550 MW, BioSci 163, 5 cr (SIP)

622395 -4 LAB 1605-1800 MW, BioSci 151, 5 cr (SIP)

115242 -5 LAB 1605-1800 MW, BioSci 163, 5 cr (SIP)

3111 Animal Biology (§3011; prereq 1009, 1106, Chem 1005)

915226 0935-1025 MWF, GrnH 110, Rosenberg, 4 cr (SIP) (addtl 1 hr ar)

r3950H Undergraduate Seminar (S-N only)

813873 -81 1355-1535 T, BioSci 260, Herman W., 2 cr (GCB) (SIP) (Communication in Plants)

115208 -82 1355-1535 M, BioSci 260, Blumenfeld, 2 cr (GCB) (SIP)

120246 -83 1430-1545 T, Zoology 10, 2 cr (EEB)

118657 -85 1355-1535 W, BioSci 756, Olszewski, 2 cr (PBio) (SIP)

3980 Directed Instruction (prereq #) (S-N only)

112843 Parmelee, Underhill, 1-3 cr

r5001 Biochemistry (§3021, BioC 5001; prereq 1009, 12 cr organic chem or #)

822976 1730-1910 MW, GrnH 110, Rafferty, 4 cr (SIP)

5003 Genetics (§GCB 3022, 5022; prereq 5001)

122143 1350-1455 MWF, BorH 335, Snustad, 4 cr (SIP)

5004 Cell Biology (prereq 5001)

922970 1145-1235 MWF, HodsonH 495, Cunningham, 3 cr (SIP)

r5013 Microbiology (§MlCb 3103, 5105, VPB 3103; prereq 5001)

★LECT 1245-1400 TTh, MoosT 2530, Sherman, 5 cr

822251 -1 LAB 0905-1100 TTh, MoosT 2252, Sherman

- 85041 Ecology** (§5841; prereq 1103 or 1106 or 3011 or 3012, Math 1142 or Math 1211) (A-F only)
★LECT 1010-1100 MWF, Zoology 313, Siniff, Morrow
923519 -1 LAB 1115-1255 M, Zoology 101C, 102, 4 cr
222352 -2 LAB 0905-1045 T, Zoology 101C, 102, 4 cr
722209 -3 LAB 1325-1505 T, Zoology 101C, 108, 4 cr
013001 -4 LAB 1115-1255 W, Zoology 101C, 102, 4 cr
422902 -5 LAB 0905-1045 Th, Zoology 101C, 102, 4 cr
416744 -6 LAB 1325-1505 Th, Zoology 101C, 102, 4 cr
- 85125 Recombinant DNA Laboratory** (§MicB 5125; prereq application necessary, Δ)
123316 1250-1750 TTh, BioSci 245, Pruitt, 4 cr (StP)

BIOMEDICAL ENGINEERING (BME)

Mechanical Engineering Institute of Technology

- 85002 Biomaterials II** (§Mats 5483; prereq upper div IT or grad or med stu or #) (A-F only)
921270 1535-1625 MW, AmundH B75, Eaton, 3 cr
- 8002 Internship in Biomedical Engineering** (prereq biomed engineering grad stu or Δ) (S-N only)
921267 Blackshear, 3 cr
- 8100 Biomedical Engineering Seminar** (§ME 8485) (S-N only)
113286 1530-1645 T, MirdH 5276, Finkelstein, Blackshear, 1 cr
- 8200 Biomedical Engineering Seminar** (§ME 8486) (S-N only)
020210 1530-1645 T, MirdH 5276, Finkelstein, Blackshear, 1 cr
- 8300 Biomedical Engineering Seminar** (§ME 8487) (S-N only)
418042 1530-1645 T, MirdH 5276, Finkelstein, Blackshear, 1 cr
- 8770 Plan B Project** (no cr toward PhD; prereq #) (A-F only)
219130 4 cr
- 8777 Thesis Credit: Masters**
823142 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
122885 1-36 cr
- 8970 Independent Study** (prereq #) (A-F only)
414203 1-4 cr
- 8990 Directed Research** (prereq #) (A-F only)
121890 1-4 cr

BIOMEDICAL SCIENCE (BMSc)

- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
043891 1-36 cr

BIOPHYSICAL SCIENCES (BPhy)

Medical School

- 5138 Seminar: Biophysical Sciences**
216857 1535-1625 Th, MoosT 2116, O'Leary, ar cr
- 5156 Biophysics** (prereq 28 cr between physics, biology, #...physical chemistry, physiology rec)
117282 1325-1520 TTh, MusEd 2, Schmitt, 3 cr
- 5171 Physics of Nuclear Medicine** (§Rad 5171, TRad 5171; prereq 5170, #)
818457 1400-1530 TTh, Mayo B261, Ritenour, 3 cr
- 5173 Physics of Radiation Therapy** (§Rad 5173, TRad 5173; prereq 5170 or #)
023205 0730-0845 W, 1600-1715 F, UHosp 1243, Khan, 3 cr
- 8222 Research**
714983 ar cr
- 8297 Seminar**
515732 1430-1625 F, MusEd 2, Schmitt, ar cr

- 8777 Thesis Credits: Masters**
214610 1-16 cr

- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
220858 1-36 cr

BUSINESS ADMINISTRATION (BA)

Management

- 83998 Independent Study** (prereq SMgt approval)
814540 ar cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
823366 1-36 cr

BUSINESS AND MARKETING EDUCATION (BME)

Vocational And Technical Education Education

- 3260 Professional Sales Education** (§5260) (A-F only)
719665 0830-1115 T, VoTech 220, 3 cr
- 3303 Teaching Accounting and Data Processing** (§BDE 3303) (A-F only)
821794 1530-1815 M, VoTech 230, 240, Beldin, 3 cr
- 85160 Advanced Word Processing Practicum** (prereq 1101 or equiv) (A-F only)
618368 1530-1815 T, VoTech 230, Weisensel, 3 cr
- 5182 Research and Methods in Teaching Accounting and Data Processing** (§5150, 5350, BDE 5150, BDE 5350) (A-F only)
815574 1530-1815 M, VoTech 230, 240, Beldin, 4 cr
- 85310 Introduction to Microcomputer Applications in Business and Marketing Education** (§5310, BDE 5310) (A-F only)
945259 1830-2115 W, VoTech 230, Weisensel, 3 cr
- 85330 Spreadsheet Analysis Using Microcomputers in Business and Marketing Education** (prereq 5310 or equiv) (A-F only)
213196 1530-1815 W, VoTech 230, Chen, 3 cr
- 5355 Adult Business and Marketing Education Programs** (§BDE 5355) (A-F only)
942278 1830-2115 Th, VoTech 220, Wonser, 3 cr
- 85370 Special Topics in Instruction**
742279 1530-1815 Th, VoTech 230, Chen, 3 cr
- 5380 Special Topics in Curriculum**
615320 1830-2115 M, VoTech R285, 3 cr
- 85600 Field-Based Projects in Business and Marketing Education** (max 12 cr) (A-F only)
619089 1-12 cr
- 85604 Clinical Experience in Business or Marketing Education** (prereq Δ)
113622 1500-1700 T, VoTech R275, Beldin, Wonser, 4 cr
- 85605 Clinical Experience in Business or Marketing Education** (prereq Δ)
022698 1500-1700 T, VoTech R275, Beldin, Wonser, 4 cr
- 85606 Clinical Experience in Business or Marketing Education** (prereq Δ)
320687 1500-1700 T, VoTech R275, Beldin, Wonser, 4 cr
- 85900 Directed Study in Business and Marketing Education** (max 6 cr; prereq Δ) (S-N optional)
721495 1-6 cr
- 8300 Seminar: Research in Business, Marketing, and Economic Education** (S-N only)
023091 Hopkins, 1 cr (VoTech 420C)
- 86600 Internship: Business and Marketing Education**
420034 1-12 cr
- 8777 Thesis Credits: Masters**
113952 1-16 cr
- 88900 Problems: Business and Marketing Education** (max 9 cr)
316817 1-9 cr

BUSINESS LAW (BLaw)

Management

Non-SMgt students should refer to page 9, Carlson School of Management Courses, before attempting to register for BLaw courses.

- 83058 Introduction to Law, the Law of Contracts and Sales Contracts** (§8158; prereq Econ 1002) (A-F only)
421233 -1 0800-0930 TTh, BlegH 335, Andrews, 4 cr
317384 -2 0945-1115 TTh, BlegH 340, Andrews, 4 cr
- 83078 Agency, Partnerships, Corporations and Commercial Paper** (§8278; prereq 3058)
921544 1800-2100 M, BlegH 205, Eastlund, 4 cr

BUSINESS, GOVERNMENT AND SOCIETY (BGS)

Management

Non-SMgt students should refer to page 9, Carlson School of Management Courses, before attempting to register for BGS courses.

- 83004 International Business**
421085 -1 0945-1115 TTh, BlegH 110, Jacque, 4 cr
113305 -2 1315-1445 TTh, BlegH 240, Jacque, 4 cr
- 83019 Topics in Business, Government and Society** (prereq 3002 or #) (A-F only)
142280 0800-0930 MW, BlegH 255, Seeley, 4 cr
- 83019H Topics in Business, Government, and Society** (prereq 3002 or #) (A-F only)
544504 1300-1430 MW, HHHCtr 20, Maitland, 4 cr
- 88017 Organizational Politics and Management** (prereq grad mgmt student or grad SMgt approval)
112669 -1 1730-2100 W, AndH 370, Erickson, 4 cr

CELL AND DEVELOPMENTAL BIOLOGY (CDB)

- 8777 Thesis Credits: Masters**
621120 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
816949 1-36 cr

CELL BIOLOGY AND NEUROANATOMY (CBN)

Medical School

- 3970 Special Problems** (prereq #)
123462 2 cr
- 5101 Human Gross Anatomy B** (§5109; prereq regis med fr or grad stu with #, 5100)
045317 1010-1205 TTh, PWB 2470, 4 cr (Jan 6-March 21)
- 5109 Gross Anatomy for Dental Students: Head and Neck** (§5101; prereq 5107, 5108, regis dent fr) (A-F only)
845318 1010-1205 TTh, PWB 2470, 4 cr (Jan 6-March 21)
- 5111 Human Neuroscience A** (CBN 5111-Phsl 5112†, §NSc 5111; prereq regis med fr or grad, #)
★LECT 0905-0955 MWF, PWB 2470, Seybold, Ebner, (Jan 6-Mar 21)
712683 -1 LAB 1430-1625 T, OwreH 2112, 2114, 2116, JOAd 2118, 2120, 3-4 cr
313769 -2 LAB 1430-1625 Th, OwreH 2112, 2114, 2116, JOAd 2118, 2120, 3-4 cr
- 5190 Advanced Anatomy** (prereq regis med, 5103, #)
419918 1-10 cr
- 5500 General Gross Anatomy** (prereq Phase D medical student or #)
017288 Robertson, ar cr
- 5501 The Extremities** (prereq Phase D medical student or #)
715146 Robertson, ar cr

- 5502 Head and Neck** (prereq Phase D medical student or #)
818491 Robertson, ar cr
- 5504 The Endocrine System** (prereq Phase D or #)
013306 Hamilton, ar cr
- 5508 The Thorax** (prereq Phase D or #)
122319 Robertson, ar cr
- 5509 The Abdomen** (prereq Phase D or #)
922287 Robertson, ar cr
- 5510 Perineum, Genital-Urinary System and Pelvis** (prereq Phase D or #)
419031 Robertson, ar cr
- 8135 Biological Electron Microscopy: Technics** (prereq #)
542283 Eriandson, 1-5 cr
- 8148 Advanced Cell Biology I** (§GCB 5048, GCB 8148; prereq 5004 or #)
322696 0950-1130 TTh, BioSci 12, Iwanij, 4 cr (S/P)
- 8154 Advanced Anatomy** (prereq #)
716751 1-6 cr
- 8166 Seminar: Pancreatic Islet Biology** (prereq #)
342284 Bauer, 3 cr
- 8202 Research in Anatomy** (prereq #)
813453 1-10 cr
- 8206 Seminar: Cell Biology and Neuroanatomy** (prereq #) (S-N only)
820144 Hamilton, 1 cr
- 8777 Thesis Credits: Masters**
217748 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
614748 1-36 cr

CHEMICAL ENGINEERING

(ChEn)

Chemical Engineering & Materials Science Institute of Technology

- r3091 Industrial Employment**
420521 1-2 cr
- r5102 Principles of Chemical Engineering II** (prereq 5001, 5101, upper division chem engr or mat sci maj)
★LECT 1220-1310 MWF, AmundH B75, Smyrl
120375 -1 REC 0800-0850 TTh, AmundH 116, 4 cr
015170 -2 REC 0905-0955 TTh, AmundH 124, 4 cr
516721 -3 REC 0905-0955 TTh, AmundH 162, 4 cr
714935 -4 REC 1220-1310 TTh, AmundH 116, 4 cr
118133 -5 REC 1430-1520 TTh, AmundH 156, 4 cr
115998 -6 REC 1430-1520 TTh, EE/CSci 3115, 4 cr
- r5201 Thermodynamics and Materials States** (prereq 5001, 5101, Chem 5534, upper division chem engr or mat sci maj)
★LECT 0905-0955 MWF, AmundH B75, Fredrickson
815168 -1 REC 0800-0850 TTh, AmundH 120, 4 cr
516783 -2 REC 0905-0955 TTh, AmundH 120, 4 cr
819494 -3 REC 1010-1100 TTh, AmundH 162, 4 cr
720072 -4 REC 1220-1310 TTh, AmundH 120, 4 cr
020076 -5 REC 1220-1310 TTh, AmundH 124, 4 cr
621182 -6 REC 1535-1625 TTh, AmundH 120, 4 cr
- r5302 Applied Reactor Analysis** (prereq 5301)
444608 1115-1205 MWF, AmundH 124, Schmidt, 4 cr
- r5501 Process Evaluation and Design** (prereq 4th yr or #, upper division chem engr or mat sci maj)
★LECT 1010-1100 MWF, AmundH B75, Derby
716734 -1 REC 1430-1625 T, AmundH 162, 4 cr
113708 -2 REC 1430-1625 T, AmundH 124, 4 cr
320933 -3 REC 1430-1625 Th, AmundH 124, 4 cr
613373 -4 REC 1430-1625 Th, AmundH 162, 4 cr

- r5601 Process Control** (prereq 4th yr or #, upper division chem engr or mat sci maj)
★LECT 0800-0850 MWF, AmundH B75, Carr
218124 -1 REC 0800-0850 TTh, AmundH 104, Aris, 4 cr
623305 -2 REC 0905-0955 TTh, AmundH 104, 4 cr
616967 -3 REC 1010-1100 TTh, AmundH 104, 4 cr
115121 -4 REC 1115-1205 TTh, AkerH 319, 4 cr
214722 -5 REC 1220-1310 TTh, AmundH B75, 4 cr
314291 -6 REC 1220-1310 TTh, AmundH 104, 4 cr
- r5620 Processing of Polymers and Their Composites** (3 cr without lab by dept perm; prereq heat transfer and fluid mechanics or #)
644610 -1 1115-1230 TTh, MechE 108, Macosko, 4 cr
- r5753 Biochemical Engineering III** (prereq 5001, grad or sr in chemical engineering or #)
415321 1325-1520 MW, AmundH 120, Hu, 3 cr
- r5754 Food Processing Technology** (prereq 5103 or #)
921253 1220-1415 MW, AmundH 116, Valentas, 4 cr
- r5780 Principles of Mass Transfer in Engineering and Biological Engineering** (prereq upper division engineering or science)
713252 0905-0955 MWF, AmundH 120, Geankoplis, 3 cr
- r5902 Special Topics**
118433 ar cr
- r5903 Special Topics**
119503 ar cr
- r8004 Physical Rate Processes** (prereq 5103, #)
119377 1115-1205 MWF, AmundH 240, Tranquillo, 3 cr
- r8104 Interfaces and Interfacial Phenomena** (prereq 8101)
244609 0905-0955 MWF, Arch 30, Scriven, 3 cr
- r8202 Advanced Mathematics for Chemical Engineers** (prereq 8201)
413844 0800-0955 TTh, AmundH B75, Aris, 3 cr
- r8301 Physical and Chemical Thermodynamics** (prereq 5202 or #)
122028 1010-1205 TTh, AmundH 124, Fredrickson, 3 cr
- r8402 Chemical Reaction Kinetics-Surface Chemistry** (prereq #)
118438 0800-0850 MWF, AmundH 120, McCormick, 3 cr
- r8602 Molecular Theory of Equilibrium and Nonequilibrium Processes** (prereq 8601)
121896 1010-1100 MWF, AmundH 124, Davis, 3 cr
- r8702 Advanced Topics in Chemical Engineering**
918501 1325-1520 Th, AmundH 104, Scriven, 1-3 cr
- 8777 Thesis Credits: Masters**
920491 1-16 cr
- 8802 Seminar** (S-N only)
721822 1325-1520 TTh, AmundH B75, 1 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
421331 1-36 cr
- 8901 Research in Chemical Engineering**
914979 ar cr
- 8902 Research in Chemical Engineering**
418283 1430-1730 MWF, AmundH 162, ar cr

CHEMICAL PHYSICS (ChPh)

- 8777 Thesis Credits: Masters**
619335 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
616161 1-36 cr

CHEMISTRY (Chem) Institute of Technology

Note:

Each student registering for a laboratory course must purchase a \$30 Chemistry Deposit Card from the bursar and present that card to the instructor in order to be admitted to a lab section. Students without cards will not be permitted to check into lab and will forfeit their desk assignments. A student with a deposit card used in a previous chemistry lab must have at least a \$10 balance remaining on that card to use it again; if the balance is less than \$10, the student must purchase a second card. See Section 2, Deposit Cards. Every student who checks into a lab must check out of the lab before the end of the quarter, even if she or he drops the course, or be charged a \$20 check-out fee.

- r1001 Chemical Principles and Covalent Systems** (1001-1002†, §1004, 1014, 1031, no IT stu; prereq 2 yrs high schl math...high schl chem rec)
★LECT 1430-1520 TWThF, SciCB 325, Edgar, 5 cr
213201 -1 REC 1220-1310 M, KoltH S132
117144 -2 REC 1325-1415 M, LindH 302
★LAB 1430-1715 M, SmithH 110
815946 -3 REC 0800-0850 T, Phys 157
★LAB 0905-1150 T, SmithH 110
518758 -4 REC 0800-0850 F, VinH 207
★LAB 0905-1150 F, SmithH 110
- r1004 General Principles of Chemistry** (1004-1005†, §1001-1002, 1014, 1031-1032; prereq hs chem or equiv, placement index of Y or predicted Math GPA 1.90 on ACT or Math 0009 or college algebra...hs phys, 4 yrs math rec)
★LECT 1010-1100 MTWF, SciCB 375, Ellis, 5 cr
344763 -1 REC 1325-1415 M, FordH 115
144764 -2 REC 1325-1415 M, FordH 130
★LAB 1430-1715 M, SmithH 210
044765 -3 REC 1325-1415 T, LindH 315
844766 -4 REC 1325-1415 T, Phys 133
★LAB 1430-1715 T, SmithH 210
644767 -5 REC 1325-1415 W, FordH 175
444768 -6 REC 1325-1415 W, FordH 170
★LAB 1430-1715 W, SmithH 210
144773 -7 REC 0800-0850 Th, KoltH S139
944774 -8 REC 0800-0850 Th, KoltH S135
744775 -9 REC 0800-0850 Th, KoltH S132
★LAB 0905-1150 Th, SmithH 210
544776 -10 REC 1325-1415 Th, CivMinE 213
344777 -11 REC 1325-1415 Th, LindH 325
★LAB 1430-1715 Th, SmithH 210
545118 -12 REC 1325-1415 F, AkerH 313
★LAB 1430-1715 F, SmithH 210
★LECT 1220-1310 MWThF, SciCB 375, Barbara, 5 cr
745120 -13 REC 1325-1415 M, SciCB 325
★LAB 1430-1715 M, SmithH 210
344875 -14 REC 0800-0850 T, SciCB 175
844878 -15 REC 0800-0850 T, KoltH S139
844881 -16 REC 0800-0850 T, KoltH S135
★LAB 0905-1150 T, SmithH 210
444883 -17 REC 1325-1415 T, LindH 325
144885 -18 REC 1325-1415 T, Phys 157
★LAB 1430-1715 T, SmithH 210
544888 -19 REC 1325-1415 W, FoilH 138
744890 -20 REC 1325-1415 W, PeikH 155
★LAB 1430-1715 W, SmithH 210
344892 -21 REC 1325-1415 Th, SmithH 331
144893 -22 REC 1325-1415 Th, SciCB 375
★LAB 1430-1715 Th, SmithH 210
844895 -23 REC 1325-1415 F, SciCB 325
444897 -24 REC 1325-1415 F, SciCB 375
★LAB 1430-1715 F, SmithH 210
- r1005 General Principles of Chemistry** (1004-1005†, §1001-1002, 1014, 1031-1032; prereq 1004)
★LECT 0905-0955 MWThF, SciCB 375, Amlot, 5 cr
144814 -1 REC 1325-1415 M, SmithH 231
★LAB 1430-1715 M, SmithH 110
144854 -2 REC 0800-0850 T, EE/CSci 3115
944855 -3 REC 0800-0850 T, SmithH 231
★LAB 0905-1150 T, SmithH 110
744856 -4 REC 1325-1415 T, EE/CSci 3115
544857 -5 REC 1325-1415 T, SmithH 231
★LAB 1430-1715 T, SmithH 110
344858 -6 REC 1325-1415 W, JonesH 2
144859 -7 REC 1325-1415 W, SmithH 231
★LAB 1430-1715 W, SmithH 110
544860 -8 REC 1325-1415 Th, Arch 50

- 344861 -9 REC 1325-1415 Th, SmithH 231
 *LAB 1430-1715 Th, SmithH 110
 144862 -10 REC 1325-1415 F, Phys 143
 *LAB 1430-1715 F, SmithH 110
 *LECT 1220-1310 MTWF, SciCB 175, Matachek, 5 cr
- 844864 -11 REC 1325-1415 M, Phys 133
 *LAB 1430-1715 M, SmithH 110
 244903 -12 REC 1325-1415 T, Kolth S132
 944905 -13 REC 1325-1415 T, SciCB 375
 *LAB 1430-1715 T, SmithH 110
 544907 -14 REC 1325-1415 W, SciCB 375
 344908 -15 REC 1325-1415 W, SciCB 325
 *LAB 1430-1715 W, SmithH 110
 144909 -16 REC 0800-0850 Th, SmithH 331
 544910 -17 REC 0800-0850 Th, SmithH 231
 *LAB 0905-1150 Th, SmithH 110
 344911 -18 REC 1325-1415 Th, SciCB 325
 144912 -19 REC 1325-1415 Th, Kolth S132
 *LAB 1430-1715 Th, SmithH 110
 844914 -20 REC 1325-1415 F, Kolth S134
 *LAB 1430-1715 F, SmithH 110
- r1032 Chemical Principles II** (1031-1032); prereq 1031, chem or chem eng or bioc maj or pre-maj chem) (A-F only)
 *LECT 0800-0850 MWThF, SciCB 375, Britton, 5 cr
 *REC 0800-0850 T, SciCB 375
 712909 -1 LAB 1430-1715 T, SmithH 249
 219418 -2 LAB 1430-1715 W, SmithH 249
 114446 -3 LAB 1430-1715 Th, SmithH 249
- r1032H Honors Chemical Principles II Laboratory** (prereq r1032, #) (A-F only)
 214655 -80 1430-1715 T, Kolth 250, Leopold, 1 cr
 718760 -81 1430-1715 Th, Kolth 250, 1 cr
- r1041 Honors Chemistry I** (1041-1042), §1001-1002, 1004-1005, 1014, 1031-1032; prereq selection for IT Honors Curriculum or consent of IT Honors Office, 4 yrs hs math, chem, and phys) (A-F only)
 *LECT 0905-0955 MTWF, SmithH 231, Swofford, Matachek
 719858 -1 REC 1010-1100 T, SmithH 121, 5 cr
 *LAB 1430-1715 T, SmithH 249A
 415755 -2 REC 1115-1205 T, Kolth S132, 5 cr
 *LAB 1430-1715 W, SmithH 249A
 020241 -3 REC 0905-0955 Th, SmithH 231, 5 cr
 *LAB 1430-1715 Th, SmithH 249A
 117189 -4 REC 1010-1100 Th, SmithH 121, 5 cr
 *LAB 1430-1715 F, SmithH 249A
- r3301 Elementary Organic Chemistry I** (§3301; prereq 1005 or 1032, non-chem maj)
 321290 0905-0955 TWThF, SciCB 325, Woods, 4 cr
- r3302 Elementary Organic Chemistry II** (prereq 3301, 3305 or f)
 514631 -1 0800-0850 TWThF, SciCB 325, Leete, 4 cr
 119243 -2 1115-1205 TWThF, SciCB 325, Barany, 4 cr
- r3305 Elementary Organic Chemistry Laboratory I** (prereq 3301 or f3301)
 *LECT 0905-0955 M, SciCB 325, Gray, 2 cr
 114552 -1 LAB 1325-1715 M, SmithH 349
 912875 -2 LAB 1325-1715 T, SmithH 349
 513320 -3 LAB 1325-1715 W, SmithH 349
 413200 -4 LAB 0905-1255 Th, SmithH 349
 413939 -5 LAB 1325-1715 Th, SmithH 349
- r3306 Elementary Organic Chemistry Laboratory II** (prereq 3305, 3302 or f3302)
 ♦713929 -1 LECT 0800-0850 M, SciCB 325, Barany, 2 cr (registration for a lab section is also required)
 ♦114163 -2 LECT 1115-1205 M, SciCB 325, Barany, 2 cr (registration for a lab section is also required)
 714353 -1 LAB 1325-1715 M, SmithH 349
 315795 -2 LAB 0905-1255 T, SmithH 349
 823500 -3 LAB 1325-1715 T, SmithH 349
 021440 -4 LAB 1325-1715 W, SmithH 349
 920992 -5 LAB 0905-1255 Th, SmithH 349
 418378 -6 LAB 1325-1715 Th, SmithH 349
- r3332 Introductory Organic Chemistry II** (3332-3335); prereq 3331, chem or chem eng or bioc maj) (A-F only)
 714465 0800-0850 MWF, SmithH 231, Kass, 3 cr
- r3335 Introductory Organic Chemistry II Laboratory** (3332-3335); prereq 3332 or f3332, chem or chem eng or bioc maj... f3332 rec) (A-F only)
 *LECT 1220-1310 M, SmithH 231, Noland
 617102 -1 LAB 1325-1715 MW, Kolth 398, 2 cr
 220780 -2 LAB 0800-1155 TTh, Kolth 398, 2 cr
 519134 -3 LAB 1325-1715 TTh, Kolth 398, 2 cr
- r3335H Honors Introductory Organic Chemistry I Laboratory** (prereq 3332 or f3332, #, Chem or ChEn or BioC maj) (A-F only)
 017839 0800-0850 T, Kolth S132, Gassman, 2 cr (lab ar)
- r3336H Honors Introductory Organic Chemistry II Laboratory** (prereq 3332 or f3332, #, Chem or ChEn or BioC maj) (A-F only)
 617021 0800-0850 T, Kolth S132, Gassman, 3 cr (lab ar)
- 3970 Directed Study** (prereq #)
 217068 ar cr
- 3992 Special Topics in Chemistry** (prereq #)
 944337 1220-1310 Th, SmithH 331, ar cr
- r5127 Analog Instrumentation** (prereq Phys 1291, Math 1231 or Math 1241 or equiv or #, chem maj or grad stu) (A-F only)
 017131 0815-0945 MWF, SmithH 331, Carr, 5 cr (lab ar)
- r5140 Chemical Instrumentation and Analysis Laboratory** (prereq 5133, chemistry maj) (A-F only)
 *LECT 1325-1415 F, SmithH 231, Evans
 012916 -1 LAB 1325-1715 MW, Kolth 297, 3 cr
 312797 -2 LAB 1325-1715 TTh, Kolth 297, 3 cr
- r5344 Heterocyclic Compounds** (prereq 3303 or 3333)
 742301 0905-1020 TTh, SmithH 111, Noland, 3 cr
- r5521 Elementary Physical Chemistry** (prereq 5520)
 815803 1430-1520 MWF, SmithH 231, Miller W., 3 cr
- 5526 Physical Biochemistry: Spectroscopic Methods I** (§BioC 5526, MdBc 5526; prereq 2 qtrs physical chemistry)
 542302 1230-1400 MW, Kolth S134, Que, 4 cr
- r5534 Chemical Thermodynamics** (prereq IT upper div or CLA chem maj or Δ, Phys 1291 or fPhys 1291, or Phys 1106 with #, Math 3211 or Math 3311)
 915985 1010-1100 MTWF, SmithH 331, Mead, 4 cr
- r5535 Statistical Mechanics and Reaction Kinetics** (prereq 5534)
 717219 1115-1205 MTWF, SciCB 375, Leopold D., 4 cr
- r5732 Transition Metal Inorganic Chemistry** (prereq 5533 or 5534 or f5533 or f5534, chem or chem engr maj) (A-F only)
 *LECT 1220-1310 MWF, SmithH 331, Pignolet, 3 cr
 915789 -1 REC 1220-1310 T, SmithH 331
- 8133 Modern Electroanalytical Techniques, Principles and Practice** (prereq 5122)
 342303 1220-1310 MWF, SmithH 111, Stankovich, 3 cr
- 8190 Seminar: Modern Problems in Chemical Instrumentation and Analysis** (prereq #)
 513057 1515-1630 F, SmithH 331, 1 cr
- 8290 Seminar: Materials Chemistry** (prereq chem grad stu) (S-N only)
 215532 1 cr
- 8305 Advanced Organic Chemistry III** (prereq 8304 or #)
 444916 0905-0955 MWF, Kolth S134, Rychnovsky, 4 cr
- 8390 Seminar: Organic Chemistry**
 416114 1615-1800 F, SmithH 231, 1 cr
- 8402 Bioorganic Chemistry II** (prereq 3303 or 3333 or equiv)
 244917 1010-1100 MWF, SmithH 121, Gray, 4 cr
- 8532 Introductory Quantum Mechanics and Spectroscopy** (prereq 8531)
 *LECT 1115-1205 MWF, SmithH 111, Lipsky, 4 cr
 515780 -1 REC 1115-1205 T, SmithH 111
- 8545 Reaction Dynamics** (prereq undergrad physical chemistry) (A-F only)
 742296 1010-1100 MWF, SmithH 111, Barbara, 4 cr
- 8560 Seminar: Biological Systems**
 013273 1530-1645 Th, SmithH 331, 1 cr
- 8590 Seminar: Physical Chemistry** (prereq #) (S-N only)
 012723 1615-1800 M, SmithH 331, 1 cr
- 8611 Introduction To Polymer Properties** (prereq 5534 or #)
 015234 1430-1600 TTh, SmithH 111, Miller W., 3 cr
- 8752 Physical Inorganic Chemistry II** (prereq chem grad stu or #)
 945522 1220-1310 MTWF, Phys 143, Tolman, 4 cr
- 8766 Solid State Chemistry** (prereq chem grad stu or #)
 745523 1115-1205 MWF, VinH 209, Gladfeiter, 4 cr
- 8777 Thesis Credits: Masters**
 714188 1-16 cr
- 8790 Seminar: Modern Problems in Inorganic Chemistry** (prereq Δ)
 913458 1700-1900 Th, SmithH 231, 1 cr
- 8881 M.S. Plan B Project I** (prereq grad chem or grad chem phys maj, Δ) (A-F only)
 319622 4 cr
- 8882 M.S. Plan B Project II** (prereq grad chem or grad chem phys maj, Δ) (A-F only)
 917610 4 cr
- 8883 M.S. Plan B Project III** (prereq grad chem or grad chem phys, Δ) (A-F only)
 615480 4 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
 118870 1-36 cr
- 8990 Research in Chemistry** (prereq Δ)
 713056 ar cr

CHICANO STUDIES (Chic) Liberal Arts

- r3107 Introduction to Chicano Studies: Chicano In Contemporary Society** (§AmSt 3107)
 823710 -1 0800-0850 MWF, ScottH 4, Green, 4 cr
 644140 -2 0800-0850 MWF, WullH 130, 4 cr
- r3442 Chicano History Since 1900** (§Hist 3442)
 420082 1220-1310 MWF, ScottH 4, Valdes, 4 cr
- r3712 Chicanos: Psychological Perspectives**
 943947 1325-1415 MWF, ScottH 4, Arevalo, 4 cr
- 3970 Directed Studies** (prereq #, Δ, □)
 419174 ar cr
- r5305 Folk Narratives** (§LAS 5305, AmSt 5920, sec 3)
 744565 0945-1100 TTh, ScottH 4, Montana, 4 cr
- r5920 Topics in Chicano Studies: Modernity and Post Modernity: Literature and Film**
 242312 1115-1205 MWF, ScottH 4, Rojas, 4 cr
- 5970 Directed Studies** (prereq #, Δ, CLA approval)
 716894 ar cr

CHILD AND ADOLESCENT PSYCHIATRY (CAPY) Medical School

- 5201 Diagnostic Practicum in Child and Adolescent Psychiatry** (prereq #) (A-F only)
 123017 Garfinkel, ar cr
- r5203 Child and Adolescent Psychiatry for Psychology Interns** (prereq #)
 614166 Garfinkel, 1-5 cr
- r5204 Diagnostic Methods in Child and Adolescent Psychiatry** (prereq med student, #)
 420177 Garfinkel, 1 cr
- r5520 Outpatient Clinical Child and Adolescent Psychiatry for Primary Care Physicians** (prereq regis med student) (A-F only)
 513852 Realmuto, 4.5-9 cr
- r5603 Inpatient Clinical Child Psychiatry for Primary Care Physicians** (prereq med student, #)
 913802 Jensen, ar cr
- 5624 Eating Disorders in Children and Adolescents: Medical and Psychological Perspectives**
 844296 0830-1530 S, MoosT 2620, Hoberman, 1 cr (Feb 1)
- 5635 Cognitive-Behavioral Therapy for Children and Adolescents**
 644297 0830-1530 S, MoosT 2620, Bloomquist, 1 cr (Feb 29)

- 8100 Readings in Child, Adolescent, and Family Psychiatry** (prereq MD, #)
422446 Garfinkel, 1 cr
- 8110 Diagnostic Methods in Child, Adolescent, and Family Psychiatry** (prereq MD, #)
415724 Garfinkel, 1 cr
- 8120 Therapeutic Methods in Child and Adolescent Psychiatry** (prereq MD, #)
812982 Leffert, 1 cr
- 8200 Outpatient Clinical Child and Adolescent Psychiatry** (prereq MD, #)
219046 Jensen, 3 cr
- 8212 Clinical Inpatient Child Psychiatry** (prereq MD, #)
321046 Jensen, 3 cr
- 8223 Family Therapy** (prereq MD, #)
214249 Garfinkel, 1 cr
- 8228 Research in Child and Adolescent Psychiatry** (prereq MD, #)
714529 Jensen, 1 cr
- 8233 Mental Health Administration and Training Seminar** (prereq MD, #)
923407 Jensen, 1 cr
- 8248 Residential Child and Adolescent Treatment** (prereq MD, #)
116357 Jensen, 3 cr
- 8253 Child and Adolescent Community Psychiatry** (prereq MD, #)
822380 Jensen, 2 cr
- 8301 Seminar in Child, Adolescent, and Family Psychiatry** (prereq MD, #)
121283 Jensen, 1 cr

CHILD PSYCHOLOGY (CPsy) Education

- 1301 Introductory Child Psychology** (§3309, 5301; prereq 5 cr introductory psychology)
618945 -1 1010-1100 MWF, SmithH 100, Charlesworth, 4 cr (addtl hr ar)
116754 -2 1325-1415 MWF, BuH 120, Schmit, 4 cr (addtl hr ar)
816921 -3 1820-2050 W, NichH 211, Ellis, 4 cr
- 81970 Directed Study** (prereq #)
713705 ar cr
- 3303 Adolescent Psychology** (§5303; prereq 5 cr introductory psychology)
520798 1820-2050 T, NichH 211, Neemann, 4 cr
- 83308 Research Methods in Child Psychology** (prereq 1301, Psy 1004) (S-N optional)
721903 -1 1325-1440 MW, ChDev 216, Pick A., 4 cr
220066 -2 1820-2050 T, ChDev 105, Travis, 4 cr
- 3309 Introductory Child Psychology for the Social Sciences** (§1301, 5301; prereq Psy 1001)
913895 -1 1010-1100 MWF, SmithH 100, Charlesworth, 4 cr (addtl hr ar)
221752 -2 1325-1415 MWF, BuH 120, Schmit, 4 cr (addtl hr ar)
323492 -3 1820-2050 W, NichH 211, Ellis, 4 cr
- 83330 Directed Experiences** (prereq 1301 or equiv) (S-N optional)
542316 1615-1845 W, ChDev 216, Mooney-McLoone, 1-4 cr
- 3331 Introduction to Social Development** (§5331; prereq 1301 or equiv)
618508 1820-2050 Th, Arch 25, Stansbury, 4 cr
- 3960 Senior Project in Child Psychology** (†3960; max 4 cr; prereq 1301, sr, #) (A-F only)
723487 -1 1220-1310 T, NichH 209, Englund, 1-4 cr (1st qtr only)
119881 -2 1325-1415 T, ChDev 218, Englund, 1-4 cr (2nd qtr only)
019669 -3 1820-1910 Th, ChDev 218, Englund, 1-4 cr
- 83980 Directed Instruction** (max 4 cr; prereq #) (A-F only)
318065 1-4 cr
- 5301 Advanced Child Development** (§1301, 3309, 8301; prereq 5 cr introductory psychology)
123583 1820-2050 M, ChDev 218, Reittinger, 4 cr
- 5303 Adolescent Psychology** (§3303; prereq 5 cr introductory psychology)
423340 1820-2050 T, NichH 211, Neemann, 4 cr

- 5315 Introduction to Mental Retardation** (§EPsy 5620 or PsyS 5120; prereq 1301 or equiv)
318163 1640-2030 T, Peikh 155, Turnure, 4 cr
- 5319 Introduction to Clinical Child Psychology** (prereq 12 cr psychology or educational psychology or sociology or child psychology)
021258 0900-1130 S, BuH 120, Gross, 4 cr
- 5322 Motor Development** (§PE 5131, PE 5132; prereq PE 3132 or #) (A-F only)
945293 1615-1815 W, CookeH 215, Wade, 3 cr
- 5331 Processes of Social Development** (§3331; prereq 1301 or equiv)
421328 0915-1030 TTh, ChDev 216, Collins, 4 cr (addtl hr ar)
- 5334 Children and Youth in Society** (prereq 4 cr in child psychology)
444706 0905-0955 MWF, ChDev 216, Oberg, 4 cr
- 5343 Cognitive Development** (§3343; prereq 1301 or #, 3308 or Psy 1005)
119900 1045-1200 TTh, ChDev 216, Bauer, 4 cr
- 85970 Directed Study** (prereq #)
517450 ar cr
- 85990 Directed Research** (prereq #)
716278 ar cr
- 8310 Seminar: History of Child Development**
513317 1415-1630 T, BuH 123, Hartup, Weinberg, 1 cr
- 8333 Advanced Social Development I**
942314 1315-1430 MW, ChDev 105, Hartup, 3 cr
- 8341 Advanced Perceptual Development** (prereq 5031)
215322 1315-1430 TTh, ChDev 105, Pick H., 3 cr
- 8360 Seminar: Developmental Psychology**
620145 -1 Sera, ar cr
016450 -2 Sroufe, ar cr
742315 -3 Yonas, 3 cr
- 8606 New Approaches to Psychopathology in Children and Adolescents** (§EPsy 8853, PsyS 8153)
721349 0945-1100 TTh, ChDev 105, Masten, 3 cr
- 8777 Thesis Credit: Masters**
512913 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
013953 1-36 cr
- 8970 Independent Study**
114860 ar cr
- 8980 Research Problems**
314453 ar cr

CHINESE (Chn) East Asian Studies Liberal Arts

- 81012 Beginning Modern Chinese** (prereq 1011)
★LECT 0905-0955 TTh, KoIH S134
017422 -1 REC 0800-0850 MTWThF, KoIH S136, 5 cr
019493 -2 REC 1010-1100 MTWThF, KoIH S136, 5 cr
★LECT 1115-1205 TTh, KoIH S137
715020 -3 REC 1220-1310 MTWThF, KoIH S136, 5 cr
213490 -4 REC 1010-1100 MTWThF, KoIH S136, 5 cr
- 83022 Intermediate Modern Chinese** (prereq 3021)
★LECT 0905-0955 TTh, FoIH 340, Decker
822833 -1 REC 0800-0850 MWF, FoIH 134, 5 cr
614457 -2 REC 0905-0955 MWF, FoIH 240, 5 cr
- 3032 Introductory Classical Chinese** (prereq 3031 or #)
119492 1325-1415 MWF, FoIH 116, Wang, 4 cr
- 3042 Third Year Modern Chinese** (prereq 3041)
920314 1115-1205 MWF, FoIH 426, Liu, 4 cr
- 3090H Honors Tutorial** (prereq Δ)
113703 1-4 cr
- 83162 Chinese Fiction in English Translation**
444141 1430-1545 TTh, FoIH 104, Besio, 4 cr
- 3970 Directed Studies** (prereq #, Δ, □)
013192 1-15 cr
- 5042 Third Year Modern Chinese** (prereq 3031)
020904 1115-1205 MWF, FoIH 426, Liu, 4 cr

- 5252 History of the Chinese Language** (prereq 3031...Ling 3601 rec)
142321 1115-1205 MWF, FoIH 246, Wang, 4 cr
- 5970 Directed Studies** (prereq #, Δ, CLA approval)
115264 1-4 cr
- 8777 Thesis Credits: Masters**
318177 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
621053 1-36 cr
- 8960 Seminar in Chinese Literature** (prereq 2 qtrs from 51xx courses)
115323 1325-1520 T, FoIH 138, Decker, 4 cr

CIVIL ENGINEERING (CE) Civil And Mineral Engineering Institute of Technology

- 83200 Introduction to Transportation Engineering** (prereq Phys 1271, IT stu) (A-F only)
442325 1010-1205 TTh, CivMinE 210, Davis, 4 cr
- 83301 Soil Mechanics Laboratory** (prereq 3300, IT stu) (A-F only)
418459 -1 LAB 0905-1205 T, CivMinE 350, Labuz, 1 cr
423418 -2 LAB 1325-1625 T, CivMinE 350, Labuz, 1 cr
418767 -3 LAB 0905-1205 Th, CivMinE 350, Labuz, 1 cr
619786 -4 LAB 1325-1625 Th, CivMinE 350, Labuz, 1 cr
- 83400 Fluid Mechanics** (§AEM 5200; prereq Math 3221, AEM 1015 or 3016, IT stu or forest products maj) (A-F only)
★LECT 1325-1415 MWF, CivMinE 210, Song
118934 -1 LAB 1430-1730 M, CivMinE 277, Song, 4 cr
114356 -2 LAB 1430-1730 T, CivMinE 277, Song, 4 cr
212761 -3 LAB 1430-1730 W, CivMinE 277, Song, 4 cr
420812 -4 LAB 1430-1730 Th, CivMinE 277, Song, 4 cr
- 3601 Structural Design for Architects** (prereq architecture maj or adult special, AEM 3092, 3093, CE 3600) (A-F only)
115328 0905-0955 M, 0800-0955 TTh, Arch 55, 4 cr
- 5010 Senior Design Project** (prereq CE sr) (A-F only)
615740 1220-1310 MTWF, CivMinE 210, 5 cr
- 5021 Computer Applications in Civil Engineering II** (prereq 3020, Math 3221 or 3212 or #, upper div civil engr, geo-engr or mining engr maj) (A-F only)
842337 1010-1205 MW, CivMinE 210, Voller, 4 cr
- 5055 Engineering Geostatistics** (§GeoE 5555; prereq Stat 3091 or #, sr or grad in CE or GeoE or Mine or Geo) (A-F only)
042336 1220-1415 TTh, CivMinE 205, Barnes, 4 cr
- 85098 Advanced Design, Analysis, Research or Tutorial in Civil Engineering** (prereq approval of faculty adviser) (A-F only)
916134 -1 0800-0955 WF, CivMinE 210, Strack, 4 cr
122756 -2 ar cr
- 85102 Site and Route Engineering** (prereq 3100, IT or grad stu) (A-F only)
142327 1325-1520 TTh, CivMinE 210, Johnson, 4 cr
- 85301 Foundation Engineering** (prereq 3300, 3301, IT upper div stu or grad) (A-F only)
413553 0800-0955 MW, CivMinE 205, Sterling, 4 cr
- 85401 Water Resources Engineering** (prereq 3400 or #, IT or grad stu) (A-F only)
★LECT 1325-1415 MWF, CivMinE 212, Arndt
617374 -1 LAB 1430-1730 M, CivMinE 202, Arndt, 4 cr
614278 -2 LAB 1430-1730 W, CivMinE 202, Arndt, 4 cr
218978 -3 LAB 1430-1730 F, CivMinE 202, Arndt, 4 cr
- 5426 Computer Modeling of Groundwater Flow** (prereq 5425 or #, IT upper div stu or grad) (A-F only)
242326 1430-1625 MW, CivMinE 210, Strack, 4 cr

- 85515 Water and Wastewater Microbiology** (prereq Math 1221, 1222, 1231, Chem 1004, 1005) (A-F only)
122375 1640-1835 MF, CivMinE 210, Shamat, 4 cr
- 5540 Analysis of Groundwater-Soil Pollution Abatement Technology** (prereq 5401, 5501 or #, IT maj or grad) (A-F only)
113751 0800-0955 MW, CivMinE 212, Maier, 4 cr
- 85600 Linear Structural Systems** (prereq AEM 1015, 3016, IT stu or grad) (A-F only)
★LECT 0800-0955 TTh, CivMinE 210, French
542333 -1 REC 1220-1310 M, CivMinE 212, French, 4 cr
342334 -2 REC 1220-1310 W, CivMinE 212, French, 4 cr
- 85601 Matrix Analysis of Structures** (prereq 5600, upper division IT or grad) (A-F only)
123266 1010-1205 MW, CivMinE 205, Leon, 4 cr
- 85603 Introduction to Construction Materials** (prereq IT upper div stu, AEM 3016) (A-F only)
★LECT 0800-0955 M, CivMinE 210, Cerny
023348 -1 LAB 1010-1205 M, CivMinE 350, Cerny, 4 cr
018344 -2 LAB 1430-1625 M, CivMinE 350, Cerny, 4 cr
123356 -3 LAB 1010-1205 W, CivMinE 350, Cerny, 4 cr
942328 -4 LAB 1430-1625 W, CivMinE 350, Cerny, 4 cr
- 85611 Design of Reinforced Concrete Structures** (prereq 5600, 5603, upper division IT stu or grad) (A-F only)
★LECT 1010-1205 TTh, CivMinE 212, Cerny
142330 -1 REC 1640-1735 T, CivMinE 212, Cerny, 4 cr
942331 -2 REC 1640-1735 Th, CivMinE 212, Cerny, 4 cr
- 5612 Design of Metal Structures: Intermediate** (prereq 5610, IT or grad stu) (A-F only)
142335 1535-1730 MW, CivMinE 205, Leon, 4 cr
- 85700 Systems Analysis for Civil Engineers** (§GeoE 5700; prereq IT upper div or grad) (A-F only)
313917 0800-0955 TTh, CivMinE 205, Smith, 4 cr
- 5701 Cemented Materials: Properties, Evaluation and Mixture Design** (prereq 5603, IT upper division stu or grad) (A-F only)
918188 1640-1830 MW, CivMinE 212, Newcomb, 4 cr
- 8098 Civil Engineering Research** (prereq #)
614958 1-5 cr
- 8214 Transportation Systems Dynamics and Control** (prereq Math 3221 or #) (A-F only)
642338 1430-1625 TTh, CivMinE 213, Stephanedes, 4 cr
- 8401 Intermediate Fluid Mechanics II** (prereq 5435 or #)
442339 0905-1100 TTh, CivMinE 202, Parker, 4 cr
- 8407 Stochastic Hydrology** (prereq 5021 or #) (A-F only)
114771 0905-1100 MW, CivMinE 202, Foufoula, 4 cr
- 8502 Biological and Chemical Processes for Wastewater Treatment** (prereq 5501 or #) (A-F only)
944466 0800-0955 TTh, CivMinE 214, Maier, 3 cr
- 8505 Aquatic Chemistry for Environmental Engineers** (prereq 5506)
744467 1010-1205 TTh, CivMinE 214, Brezonik, 4 cr
- 8550 Analysis and Modeling of Aquatic Environments** (prereq #) (A-F only)
817941 1535-1730 TF, CivMinE 205, Stefan, 4 cr
- 8606 Approximate Methods of Structural Analysis** (prereq #)
642341 1010-1205 TTh, CivMinE 205, Stolarski, 4 cr
- 8620 Structural Dynamics I** (prereq AEM 3036 or #)
818202 1325-1520 MW, CivMinE 205, Galambos, 4 cr
- 8626 Behavior of Reinforced Concrete Structures II** (prereq 8625 or #)
442342 1010-1205 MW, CivMinE 213, Krauthammer, 4 cr

- 8698 Seminar: Structures (S-N only)**
317918 1325-1415 F, CivMinE 205, French, 1 cr
- 8777 Thesis Credits: Masters**
513205 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
319121 1-36 cr

CLASSICAL CIVILIZATION (CICv)

- Liberal Arts**
- 3940 Proseminar: Classical Traditions in Western Culture** (prereq #)
142358 1415-1615 T, FolH 246, Clayton, 4 cr
- 83950 Topics in Classical Civilization: Survey of Islamic Art** (§ArH 3015; prereq CICv maj or #)
645319 0945-1100 TTh, FordH 155, Asher C., 4 cr
- 3970 Directed Studies** (prereq #, Δ, □)
923035 1-15 cr
- 3980 Directed Instruction** (prereq #)
318387 ar cr
- 3990 Directed Research** (prereq #, Δ, □)
717348 1-15 cr

CLASSICS (Clas)

Classical & Near Eastern Studies

Liberal Arts

- 81042 Greek and Roman Mythology**
923097 0800-0850 MWF, NichH 45, Hershbell, 4 cr
- 1043 Introduction to Greek and Roman Archaeology**
942362 0800-0850 MWF, Arch 25, Alchermes, 4 cr
- 1045 Basic Program in Technical Terminology and Word Study**
319460 1535-1700 TW, FolH 306, 3 cr
- 1048 Greek and Latin Terminology in the Medical and Biological Sciences** (§1141; prereq 1045 or #)
323430 1535-1700 TW, FolH 306, 2 cr
- 1141 Greek and Latin Terminology for Nursing** (§1048)
314551 1535-1700 TW, FolH 306, 3 cr
- 83008 History of Ancient Art** (§ArH 3008)
★LECT 1115-1205 MWF, FolH 306, McNally
642369 -1 REC 1010-1100 Th, FolH 50, McNally, 4 cr
042370 -2 REC 1115-1205 Th, FolH 50, McNally, 4 cr
842371 -3 REC 1220-1310 Th, FolH 50, McNally, 4 cr
- 3046 Advanced Etymology: Vocabulary of the Sciences and Humanities** (prereq 1045 or #)
417103 1535-1700 TW, FolH 306, 2 cr
- 3081 Classical Epic in Translation** (§5081)
744338 1820-2050 Th, FolH 50, Clayton, 4 cr
- 3970 Directed Studies** (prereq #, Δ, □)
713932 1-5 cr
- 5081 Classical Epic in Translation** (§3081)
544339 1820-2050 Th, FolH 50, Clayton, 4 cr
- 5252 History of Early Christian and Byzantine Art** (§ArH 5252, MeSt 5610, sec 6)
142366 0945-1100 TTh, Arch 45, Alchermes, 4 cr
- 5970 Directed Studies** (prereq #, Δ, CLA approval)
321371 1-5 cr
- 5980 Directed Instruction** (prereq #, Δ, CLA approval)
514077 4 cr
- 5990 Directed Research** (prereq #, Δ, CLA approval)
012835 4 cr
- 88190 Seminar: Problems in Ancient Art** (§ArH 8190; prereq #)
144353 1400-1600 Th, JonesH 202, Cooper, 4 cr
- 8777 Thesis Credits: Masters**
714322 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
116830 1-36 cr

- 8910 Seminar: Problems in Classical Archaeology** (§ArH 8910; prereq #)
842368 1430-1700 W, FolH 334, Sellew, Zahavy, 4 cr

CLINICAL AND POPULATION SCIENCES (CAPS)

Veterinary Medicine

- 3502 Animal Health and Disease**
141212 1300-1350 MTWThF, HckrH 100, Olson, 5 cr
- 5000 Clinical Large Animal Medicine** (prereq #) (S-N only)
941213 Ames, 6 cr
- 5002 Clinical Large Animal Surgery** (prereq #) (S-N only)
741214 Larson V., 6 cr
- 5004 Clinical Theriogenology** (prereq #) (S-N only)
541215 6 cr
- 5006 Clinical Herd Medicine** (prereq #) (S-N only)
341216 6 cr
- 5009 Veterinary Public Health** (prereq #) (S-N only)
141217 4 cr
- 5151 Diagnostic and Therapeutic Techniques I** (prereq CVM 5150 or #)
041218 -1 LAB 1400-1450 W, AnScVM 125, 1500-1650 W, VetTchHos C238, Ames, Larson V., others, 1 cr
841219 -2 LAB 1400-1450 Th, AnScVM 125, 1500-1650 Th, VetTchHos C238, Ames, Larson V., others, 1 cr
- 5162 Large Animal Medicine** (prereq 5161 or #) (A-F only)
141220 1000-1050 MTWThF, 1100-1150 M, AnScVM 135, Plijoan, Larson V., others, 6 cr
- 5181 Beef Herd Health Management** (prereq regis 3rd or 4th yr vet med or grad or #) (A-F only)
041221 1300-1450 M, PetH 110, Haggard, 2 cr
- 5182 Sheep and Goat Herd Health Management** (prereq regis 3rd or 4th yr vet med or grad or #) (A-F only)
841222 1500-1650 M, AnScVM 335K, 385J, Wolf, Robinson R., 1 cr (2nd 5 weeks)
- 5187 Swine Herd Health Management II** (prereq 5185, regis 3rd or 4th yr vet med or grad or #) (A-F only)
641223 1500-1650 M, AnScVM 335K, 385J, Dial, Morrison, 1 cr (1st 5 weeks)
- 5190 Analytical Techniques in Veterinary Medicine I** (prereq regis 3rd or 4th yr vet med or grad or #) (A-F only)
441224 1300-1450 TTh, VetS 436, Marsh, 4 cr
- 5274 Understanding the Business of Veterinary Practice** (prereq 5270 or #) (S-N only)
241225 1300-1450 M, AnScVM 125, Beery, 1 cr (1st 5 weeks)
- 5275 Diseases of Zoo Animals and Exotic Pets** (prereq regis 3rd or 4th yr vet med or grad or #) (A-F only)
141226 1300-1350 M, VetTchHos A325, Farnsworth, 1 cr
- 5355 Equine Colic Management** (prereq 1st yr vet med stu) (S-N only)
841253 1700-1850 M, AnScVM 125, Trent, Steckel, others, 2 cr
- 5364 Equine Lameness** (prereq regis 3rd or 4th yr vet med, SACS 5352 or #) (S-N only)
941227 1500-1650 M, AnScVM 125, Kobluk, Trent, others, 2 cr
- 5562 Infertility Clinics** (prereq 5560, 5570, or #)
741228 Momont, ar cr
- 5570 Reproductive Diseases of Domestic Animals** (prereq 5550 or #)
541229 0800-0850 MTWThF, VetTchHos A325, Fahning, others, 5 cr (1 hr ar)
- 5665 Monitoring and Surveillance of Disease** (prereq #)
941230 Diesch, Robinson R., others, ar cr
- 5680 Problems in Veterinary Epidemiology and Public Health** (prereq 5650 or equiv or #)
741231 Diesch, Pullen, others, ar cr

- r5810 Large Animal Internal Medicine I** (prereq DVM, enrolled in SACS or LACS clinical residency) (A-F only)
541232 1300-1450 M, VetTchHsp 225K, Geor, 3 cr
- 5951 Directed Studies** (prereq #, Δ)
341233 Larson V., Pijoan, others, 1-5 cr
- 8193 Advances in Clinical Immunobiology** (prereq grad or #)
141234 Molitor, ar cr
- 8194 Problems in Diagnostic Virology, Serology and Immunology** (prereq grad or #)
041235 Ames, Joo, others, ar cr
- 8195 Preventive Veterinary Medicine**
841236 Anderson J., ar cr
- 8197 Metabolic and Nutritionally Induced Diseases of Cattle** (prereq grad student, #)
641237 2 cr
- 8199 Problems in Economics of Animal Health**
441238 1-3 cr
- 8290 Advanced Veterinary Medicine** (prereq 5162, SACS 5172, #)
241239 Larson V., Ames, others, ar cr
- 8291 Advanced Diagnosis and Therapeutics of Animal Diseases** (prereq 5162, SACS 5172, #)
641240 Larson V., Ames, others, ar cr
- 8292 Seminar: Veterinary Medicine** (prereq #)
441241 Larson V., ar cr
- 8293 Medical Conference** (prereq 5162, SACS 5172, #)
241242 Larson V., ar cr
- 8299 Research in Veterinary Medicine**
141243 Larson V., Ames, ar cr
- 8390 Seminar: Veterinary Surgery** (prereq DVM degree or equiv)
941244 Trent, Kobluk, others, ar cr
- 8392 Advanced Large Animal Surgery** (prereq DVM degree or equiv, #)
741245 Trent, Kobluk, others, ar cr
- 8393 Problems in Large Animal Orthopedics** (prereq 5365, #)
541246 Kobluk, Trent, others, 3 cr
- 8397 Large Animal Anesthesia** (prereq SACS 5380, #)
341247 Raffae, Robinson E., ar cr
- 8590 Advanced Diagnostic Methods in Reproductive Diseases** (prereq 5570 or #)
141248 Johnston S., others, ar cr
- 8592 Advanced Endocrinology of Reproduction** (prereq grad student) (A-F only)
041249 Fahning, others, 2 cr
- 8594 Special Problems in Animal Reproduction** (prereq 5570, #)
341250 ar cr
- 8595 Seminar: Veterinary Obstetrics** (prereq #)
141251 Seguin, 1 cr
- r8790 Problems in Veterinary Clinical Pharmacology and Therapeutics** (prereq grad or #)
041252 3 cr

CLINICAL LABORATORY SCIENCE (CLS) Laboratory Medicine And Pathology Medical School

- 5078 Hematology II: Hemostasis/Instrumentation** (prereq 5077, MedT 5077, 5078, Δ)
★LECT 1115-1205 TTh, MoosT 2530, Swinehart
213814 -1 LAB 0905-1205 W, MoosT 3349, Swinehart, 3 cr
820130 -2 LAB 1220-1520 W, MoosT 3349, 3 cr
- 5090 Special Laboratory Methods** (§MedT 5090; prereq #)
514645 2 cr
- 5103 Principles of Diagnostic Microbiology** (§MedT 5102; prereq MdBc 3103, 5232 or #)
★LECT 0905-0955 MTh, MoosT 2520, Wells
520364 -1 LAB 1300-1455 TWTh, MoosT 3349, Wells, 5 cr

- 520249 -2 LAB 1510-1705 TWTh, MoosT 3349, Wells, 5 cr
- 5112 Introduction to Clinical Chemistry** (§MedT 5112; prereq Chem 3100, 3101, MdBc 5300, 5301, MedT 5011, Phst 3051, Δ)
713624 0905-0955 MTh, MoosT 3317, Tsai, 3 cr
- 5120 Seminar: Clinical Laboratory Science** (§MedT 5120) (S-N only)
123535 1200-1300 W, Jach 3145, Hallgren, 1 cr
- 5125 Practicum Teaching** (§MedT 5125)
918191 1-3 cr
- 5135 Advanced Clinical Microbiology** (§MedT 5135; prereq #)
117234 Wells, 1-5 cr
- 5138 Clinical Microbiology Seminar** (§MedT 5138)
016111 1115-1205 F, PWB 15194, Wells, Ferrieri, 1 cr
- 5145 Development of Medical Technology** (§MedT 5145)
722131 3 cr
- 5155 Advanced Clinical Hematology** (§MedT 5155; prereq #)
121901 5 cr
- 5165 Advanced Clinical Immunohematology** (§MedT 5165; prereq #)
217765 Hallgren, 5 cr
- 5175 Advanced Clinical Chemistry** (§MedT 5175; prereq #)
922516 5 cr
- 5179 Chemistry Seminar** (§MedT 5179; prereq #)
523054 Steffes, 1 cr
- 5180 Advanced Chemistry** (prereq #)
419904 Yasmineh, 1-5 cr
- 5273 Immunohematology II: Blood Group Systems** (A-F only)
414704 Lasky, 3 cr
- 5281 Advanced Immunohematology Practicum II** (prereq #) (S-N only)
923083 Lasky, 2 cr
- 5768 Advanced Hematology** (prereq #)
016822 Brunning, ar cr
- 5864 Research Seminar** (prereq #)
022846 1200-1300 M, Mayo C231, Boyd, Rich, 1 cr (Todd Amph)
- 5865 Departmental Seminar** (prereq #)
521367 0800-0900 W, Mayo D230, Manivel, 1 cr (Eustis Amph)
- 8236 Research on Clinical Laboratory Problems**
418123 1-10 cr
- 8777 Thesis Credits: Masters**
522275 1-16 cr

COGNITIVE SCIENCE (CgSc) Liberal Arts

- 8001 Proseminar in Cognitive Science** (prereq CgSc minor) (S-N only)
914996 1900-2100 T, EIH 204, Pick, 1 cr

COMMUNICATION DISORDERS (CDIs) Liberal Arts

- r3100 Clinical and Research Observation** (prereq Δ) (S-N only)
914206 -1 0800-1200 W, MoosT 6274, Starr, Moller, 2 cr
715163 -2 1700-1900 W, 0900-1000 F, ShevH 125, Haroldson, 2 cr (or ar)
813890 -3 1230-1600 Th, MoosT 6274, Starr, Moller, 2 cr
417344 -4 Carlstrom, 2 cr (ShevH 119)
323556 -5 Hinderscheit, 2 cr (off-campus)
917204 -6 Doyle S., 2 cr
214672 -7 van Deusen, 2 cr (ShevH 119)
- 5304 Speech Science** (prereq 5301, 5302, 5303 or #)
523250 0905-1100 MW, FolH 340, Speaks, 4 cr
- 5504 Normal and Disordered Child Phonology** (prereq 5302, 5303, or #)
418106 1115-1310 WF, FolH 340, Broen, 4 cr
- 5508 Voice Disorders** (prereq 5304 or #)
218298 1430-1625 TTh, FolH 340, Starr, Haroldson, 4 cr

- 5606 Language Assessment, Intervention: Early Stages** (prereq CDIs 5305 or #)
023351 1630-1930 Th, BuH 120, Reichle, 4 cr (addtl lab hr per week ar)
- r5701 Hearing Loss and Audiometry** (prereq 5301, 5302, or #)
★LECT 1010-1205 TTh, FolH 340, Schlauch
123252 -1 LAB 1115-1310 W, ShevH 119, Schlauch, 5 cr
514094 -2 LAB 1325-1520 W, ShevH 119, Schlauch, 5 cr
318244 -3 LAB 1535-1730 W, ShevH 119, Schlauch, 5 cr
- 5703 Communication Problems of the Hearing-Impaired** (prereq 5701 or #)
719164 1325-1520 MW, 1325-1415 F, FolH 340, Carlstrom, van Deusen, 5 cr
- 5900 Topics in Communication Disorders: Motor Speech Disorders** (prereq 5304 or 15304)
223677 1640-1940 M, FolH 340, Liss, 4 cr (addtl lab hr per week ar)
- 5970 Directed Studies** (prereq #, Δ, CLA approval)
319796 ar cr
- r8507 Seminar: Cleft Palate** (prereq 5507 or #)
813775 0905-1100 F, MoosT 6274, Starr, 3 cr (addtl lab hr per week ar)
- 8520 Clinical Education in Speech-Language Pathology** (prereq communication disorders grad stu)
519330 1-6 cr
- 8521 Clinical Education in Speech-Language Pathology** (prereq communication disorders grad stu)
520445 1-6 cr
- 8605 Seminar: Language Disorders** (prereq 5305 or #)
319541 0800-1100 F, ShevH 102, Siegel, 3 cr
- 8607 Seminar: Language Disorders** (prereq 5305 or #)
342382 1640-1940 T, ShevH 125, Windsor, 3 cr
- 8720 Clinical Education in Audiology** (prereq CDIs grad stu)
714837 1-6 cr
- 8721 Clinical Education in Audiology** (prereq CDIs grad maj)
220925 1-6 cr
- 8777 Thesis Credits: Masters**
215739 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
922421 1-36 cr
- 8990 Research**
716071 ar cr

COMPARATIVE LITERATURE (CLit) Liberal Arts

- r3910 Issues in the Study of Literature and Ideology** (prereq jr or sr or #) (A-F only)
520719 -1 1010-1100 MWF, FolH 246, Jha, 4 cr (Literature and Ideology)
645532 -2 1430-1625 M, 1430-1520 W, FolH 208, Melehy, 4 cr (Critical Mass Markets: Science Fiction's Fields of Representation)
- r5910 Topics in Comparative Literature** (prereq reading knowledge of French or German or Spanish, or #) (A-F only)
320950 -1 1325-1625 MW, FolH 426, Chow, 4 cr (Introduction to Literary Theory for Students of Modern Chinese Literature) (§Chn 5460)
922919 -2 1430-1730 T, FolH 334, Schulte-Sasse, 4 cr (Popular Narratives, Popular Images)
019476 -3 1245-1400 TTh, FolH 134, Monnet, 4 cr (Literature by Twentieth-Century Japanese Women) (§Jpn 5166, WoSt 5300)
- r8002 Seminar in Comparative Literature** (8001-8002-8003-8004; prereq 8001)
118066 1325-1625 W, FolH 344, Chow, 4 cr
- 8125 On Discourse and Language**
220567 1430-1730 Th, FolH 334, Saries, 4 cr

- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
620419 1-36 cr
- r8910 Advanced Comparative Literature Seminar** (prereq 8001-8002-8003 or #)
317448 -1 1430-1625 M, FolH 334, Zipes, 4 cr
(Introduction to German Literature and Theory of Criticism: Sociology of Literature) (§Ger 8113)
313626 -2 1325-1625 T, FolH 214, Jha, 4 cr
(Postcoloniality)
- 8970 Directed Reading** (prereq grad student in comparative lit, Δ)
123292 1-4 cr

COMPARATIVE STUDIES IN DISCOURSE AND SOCIETY (CSDS)

Humanities Liberal Arts

- r5711 Interpretation of Myth** (§RelS 5111, Hum 5711; prereq jr or sr or grad)
442390 1220-1310 MWF, FordH 349, Josephides, 4 cr
- r5910 Topics in Comparative Studies in Discourse and Society: Popular Narratives, Popular Images** (§CLit 5910, sec 2; prereq jr or sr or grad stu) (A-F only)
520770 1430-1730 T, FolH 334, Schulte-Sasse, 4 cr
- 5970 Directed Studies** (prereq grad student, #)
020255 ar cr
- r8002 Basic Research Seminar in Comparative Studies in Discourse and Society** (prereq Δ) (A-F only)
616435 1325-1625 M, FordH 50, Mowitt, 4 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
618475 1-36 cr
- r8910 Advanced Topics in the Comparative Study of Discourse and Society** (A-F only)
242391 -1 1325-1625 W, FordH 50, Leppert, 4 cr
(Music: Society, Sonority and Identity)
142392 -2 1220-1520 F, FordH 50, Archer, 4 cr
(Commodification of History: Historic Preservation and Other Uses of the Past) (§ArH 8400, sec 1)
- 8970 Directed Studies** (prereq grad student or #)
816109 ar cr

COMPOSITION AND COMMUNICATION (Comp)

Liberal Arts

- r0011 Preparation for Writing Practice** (prereq assignment to category 4; # after first day of class) (S-N only) (course fee)
619447 0905-0955 MWF, Phsy 143, 0 cr
- r1011 Writing Practice I** (prereq assignment to category 2 or 3)
519764 -1 0800-0850 MTWF, NichH 109, 5 cr
115135 -2 0800-0850 MTWF, VinH 213, 5 cr
018912 -3 0800-0850 MF, 0800-0955 T, LindH 303, 5 cr
812738 -4 0800-0850 MWThF, AmundH 124, 5 cr
018375 -5 0800-0850 MF, 0800-0955 Th, LindH 315, 5 cr
613129 -6 0905-0955 MF, 0905-1100 T, LindH 320, 5 cr
813405 -7 0905-0955 MF, 0905-1100 T, LindH 315, 5 cr
213800 -8 0905-0955 MF, 0905-1100 W, JonesH 4, 5 cr
213943 -9 0905-0955 MF, 0905-1100 W, VinH 301, 5 cr
121493 -10 0905-0955 MWThF, FordH 170, 5 cr
323542 -11 0905-0955 MF, 0905-1100 Th, LindH 303, 5 cr
717205 -12 0905-0955 MF, 0905-1100 Th, LindH 325, 5 cr
917428 -13 1010-1100 MTWF, PeikH 315, 5 cr
423533 -14 1010-1100 MF, 1010-1205 T, LindH 303, 5 cr
112972 -15 1010-1100 MWThF, VinH 213, 5 cr
816790 -16 1010-1100 MF, 1010-1205 W, LindH 315, 5 cr
119484 -17 1010-1100 MF, 1010-1205 W, LindH 325, 5 cr

- 414430 -18 1115-1205 MTWF, VinH 301, 5 cr
(non-native English speakers only) (go to KlaCt 175 for override permit)
- 814117 -19 1115-1205 MF, 1115-1310 T, LindH 315, 5 cr
520784 -20 1115-1205 MWThF, VinH 314, 5 cr
818930 -21 1115-1205 MF, 1115-1310 W, AmundH 120, 5 cr
718497 -22 1115-1205 MF, 1115-1310 W, BuH 123, 5 cr
721027 -23 1115-1205 MF, 1115-1310 W, LindH 303, 5 cr
118240 -24 1115-1205 MF, 1115-1310 Th, LindH 325, 5 cr
319071 -25 1220-1310 MTWF, LindH 325, 5 cr
(non-native English speakers only) (go to KlaCt 175 for override permit)
- 513382 -26 1220-1310 MF, 1220-1415 T, LindH 303, 5 cr
514824 -27 1220-1310 MWThF, LindH 315, 5 cr
118089 -28 1220-1310 MF, 1220-1415 W, LindH 320, 5 cr (ICI students only)
821973 -29 1220-1310 MF, 1220-1415 W, AmundH 104, 5 cr
420325 -30 1325-1415 MTWF, JonesH 4, 5 cr
212971 -31 1325-1415 MF, 1325-1520 T, LindH 340, 5 cr
122160 -32 1325-1415 MWThF, LindH 315, 5 cr
713204 -33 1325-1415 MWThF, VinH 20, 5 cr
522146 -34 1325-1415 MWThF, LindH 303, 5 cr
819169 -35 1430-1520 MTWF, MurH 308, 5 cr
616208 -36 1430-1520 MTWF, VinH 209, 5 cr
219483 -37 1430-1520 MTWF, SmithH 121, 5 cr
819396 -38 1430-1520 MTWF, FordH 40, 5 cr
- r1011H Writing Practice I** (prereq assignment to category 2 or 3, honors student)
019297 0905-0955 MTWF, PeikH 315, 5 cr
- 1013 Writing Practice II** (prereq grade of X in 1011 or 1012, Δ)
1178104 cr
- r1027 Intermediate Expository Writing** (prereq fulfillment of Writing Practice req)
022328 -1 0905-0955 MWF, KohH S132, 4 cr
216793 -2 1010-1100 MWF, KohH S132, 4 cr (MLK Program only)
019834 -3 1325-1415 MWF, KohH S132, 4 cr
020935 -4 0815-0930 TTh, FordH 120, 4 cr
319376 -5 0945-1100 TTh, VinH 314, 4 cr
914819 -6 1115-1230 TTh, FordH 50, 4 cr
721352 -7 1245-1400 TTh, NichH 201, 4 cr
- r3011 Writing about Literature** (prereq fulfillment of Writing Practice req, jr)
518954 -1 0905-0955 MWF, BuH 125, 4 cr
923424 -2 1115-1205 MWF, KohH S132, 4 cr
617746 -3 1325-1415 MWF, AkerH 209, 4 cr
815008 -4 0945-1100 TTh, FordH 50, 4 cr
023527 -5 1115-1230 TTh, FordH 70, 4 cr
016349 -6 1245-1400 TTh, FordH 170, 4 cr
- r3012 Writing in the Humanities** (prereq fulfillment of Writing Practice req, jr)
820922 -1 0800-0850 MWF, LindH 320, 4 cr
114681 -2 0905-0955 MWF, NichH 122, 4 cr
023396 -3 1115-1205 MWF, FordH 349, 4 cr
116804 -4 0815-0930 TTh, FordH 285, 4 cr
922712 -5 1115-1230 TTh, AkerH 317, 4 cr
- r3013 Writing for the Arts** (prereq fulfillment of Writing Practice req, jr)
318924 -1 0905-0955 MWF, FordH 175, 4 cr
220083 -2 1115-1205 MWF, FordH 50, 4 cr
112834 -3 1325-1415 MWF, AkerH 309, 4 cr
917767 -4 0815-0930 TTh, FordH 70, 4 cr
914951 -5 0815-0930 TTh, FordH 60, 4 cr
742394 -6 0945-1100 TTh, LindH 302, 4 cr
- r3014 Writing in the Social Sciences** (prereq fulfillment of Writing Practice req, jr)
914710 -1 0800-0850 MWF, LindH 217, 4 cr
715888 -2 0905-0955 MWF, FordH 50, 4 cr
116723 -3 1010-1100 MWF, AmundH 162, 4 cr
120053 -4 1010-1100 MWF, AkerH 309, 4 cr
220519 -5 1115-1205 MWF, FordH 70, 4 cr
917333 -6 1115-1205 MWF, ChDev 216, 4 cr
422771 -7 1220-1310 MWF, BuH 125, 4 cr
513933 -8 1325-1415 MWF, LindH 325, 4 cr
512975 -9 1430-1520 MWF, LindH 303, 4 cr
723263 -10 0815-0930 TTh, LindH 302, 4 cr
318325 -11 0815-0930 TTh, FordH 50, 4 cr
721478 -12 0945-1100 TTh, JonesH 4, 4 cr
720699 -13 0945-1100 TTh, JonesH 11, 4 cr
313674 -14 1115-1230 TTh, MurH 308, 4 cr
622753 -15 1245-1400 TTh, FordH 349, 4 cr
542395 -16 1245-1400 TTh, FordH 285, 4 cr
- r3015 Writing about Science** (prereq fulfillment of writing practice req, jr)
213859 -1 0800-0850 MWF, LindH 340, 4 cr
615267 -2 0905-0955 MWF, AmundH 124, 4 cr

- 319135 -3 1010-1100 MWF, ChDev 216, 4 cr
112969 -4 1220-1310 MWF, FordH 175, 4 cr
916330 -5 0815-0930 TTh, LindH 229, 4 cr
916389 -6 0945-1100 TTh, JonesH 10, 4 cr
818698 -7 1115-1230 TTh, LindH 302, 4 cr
- r3022 Critical Reading and Writing for Management** (prereq 1011 or equiv, Mgmt or Pre-Mgmt stu with more than 60 credits)
220777 -1 0905-0955 MWF, LindH 229, 4 cr
622431 -2 1010-1100 MWF, FordH 285, 4 cr
119279 -3 1220-1310 MWF, MurH 308, 4 cr
913072 -4 1325-1415 MWF, PeikH 315, 4 cr
312928 -5 0815-0930 TTh, LindH 203, 4 cr
021891 -6 0945-1100 TTh, FordH 70, 4 cr
216616 -7 1115-1230 TTh, LindH 340, 4 cr
216650 -8 1245-1400 TTh, FordH 60, 4 cr
- r3027 Advanced Expository Writing** (prereq fulfillment of Writing Practice req, jr)
420468 -1 0800-0850 MWF, LindH 325, 4 cr
520154 -2 0905-0955 MWF, LindH 203, 4 cr
118245 -3 1010-1100 MWF, LindH 320, 4 cr
321368 -4 1115-1205 MWF, FordH 60, 4 cr
419384 -5 1220-1310 MWF, LindH 229, 4 cr
619383 -6 1325-1415 MWF, PeikH 225, 4 cr
522793 -7 1430-1520 MWF, LindH 325, 4 cr
(non-native English speakers only) (go to KlaCt 175 for override permit)
014245 -8 0815-0930 TTh, LindH 340, 4 cr
619836 -9 1115-1230 TTh, LindH 229, 4 cr
114390 -10 1115-1230 TTh, LindH 203, 4 cr
112719 -11 1245-1400 TTh, FolH 114, 4 cr
323721 -12 1245-1400 TTh, LindH 229, 4 cr
- r3031 Technical Writing for Engineers** (prereq fulfillment of Writing Practice req, jr, IT stu)
123476 -1 0800-0850 MWF, LindH 302, 4 cr
112874 -2 0905-0955 MWF, LindH 340, 4 cr
319104 -3 1010-1100 MWF, LindH 340, 4 cr
218060 -4 1115-1205 MWF, LindH 340, 4 cr
018229 -5 1115-1205 MWF, LindH 320, 4 cr
(non-native English speakers only) (go to KlaCt 175 for override permit)
318129 -6 1220-1310 MWF, LindH 340, 4 cr
621067 -7 0815-0930 TTh, ChDev 105, 4 cr
812951 -8 1115-1230 TTh, FolH 426, 4 cr
023334 -9 1245-1400 TTh, LindH 320, 4 cr
- r3032 Preprofessional Writing for Business** (prereq fulfillment of Writing Practice req, School of Mgmt or BIS stu, jr)
923214 -1 0905-0955 MWF, RarigC 616, 4 cr
921754 -2 1010-1100 MWF, RarigC 616, 4 cr
617116 -3 1115-1205 MWF, RarigC 616, 4 cr
319295 -4 1220-1310 MWF, RarigC 616, 4 cr
814912 -5 0945-1100 TTh, RarigC 616, 4 cr
114180 -6 1115-1230 TTh, RarigC 616, 4 cr
713896 -7 1245-1400 TTh, RarigC 616, 4 cr
- r3033 Writing for the Health Sciences** (prereq fulfillment of Writing Practice req, more than 60 credits)
119055 -1 0800-0850 MWF, LindH 229, 4 cr
915842 -2 1010-1100 MWF, MurH 311, 4 cr
318549 -3 1115-1205 MWF, LindH 229, 4 cr
115541 -4 0945-1100 TTh, LindH 340, 4 cr
919681 -5 1115-1230 TTh, LindH 320, 4 cr
- r3051 Feminist Expository Writing** (§WSt 3104; prereq fulfillment of writing practice requirement, jr)
342396 1015-1130 MW, AkerH 215, 4 cr
- 3085 Conference Course in Advanced Composition** (prereq fulfillment of Writing Practice req, jr, written permission of major advisor, Δ)
815915 4 cr

COMPUTER SCIENCE (CSci) Institute of Technology

- r3101 A FORTRAN Introduction to Computer Programming** (prereq Math 1111 or 1201 or equiv or #)
313013 -1 0800-0850 MWF, EE/CSci 3115, 4 cr
123042 -2 0905-0955 MWF, EE/CSci 3115, 4 cr
917185 -3 1010-1100 MWF, EE/CSci 3115, 4 cr
118738 -4 1115-1205 MWF, EE/CSci 3115, 4 cr
- r3102 Introduction to Pascal Programming** (prereq non-computer science maj, Math 1111 or 1201 or equiv or #)
014519 -1 0800-0850 MWF, EE/CSci 3111, 4 cr
017372 -2 0900-0955 MWF, EE/CSci 3111, 4 cr

r3113 Introduction to Programming in C (prereq 3101 or 3102 or any programming exp, precalc or #)
043888 -1 1010-1100 MWF, EE/CSci 3111, 4 cr
843889 -2 1115-1205 MWF, EE/CSci 3111, 4 cr
245422 -3 1220-1310 MWF, LindH 305, 4 cr

r3121 Survey of Data Structures and Algorithms (§3105, 3321; prereq 3102 or 3113 or #)
143890 0945-1100 TTh, EE/CSci 3115, Kumar, 4 cr

r3204H Introduction to Programming and Problem Solving in Science and Engineering, Part I (prereq honors calculus 1)
422107 1220-1310 TTh, AmundH 240, Fox, 2 cr

r3311 Discrete Structures of Computer Science (§3400; prereq 1 qtr calc or #)
★LECT 1220-1310 MWF, EE/CSci 3115, Tsai W.
443894 -1 REC 0800-0850 T, EE/CSci 3111, Tsai, W., 4 cr
143896 -2 REC 0800-0850 Th, EE/CSci 3111, Tsai W., 4 cr

r3317 The Structure of Computer Programming II (prereq 3316)
★LECT 1325-1415 MWF, EE/CSci 3115, Gini
945424 -1 REC 1115-1205 T, EE/CSci 3111, 4 cr
745425 -2 REC 1115-1205 Th, EE/CSci 3111, 4 cr

r3321 Algorithms and Data Structures I (§3105, 3113; prereq 3311 or 3400 or 3106 or #)
★LECT 1220-1310 MW, EE/CSci 3111, Riedl
743903 -1 REC 1220-1310 TTh, EE/CSci 3111, Riedl, 4 cr
343905 -2 REC 1220-1310 TTh, EE/CSci 3115, Riedl, 4 cr

r3322 Algorithms and Data Structures II (§5121; prereq 3321)
★LECT 1325-1415 MWF, EE/CSci 3111, Sturivant
143915 -1 REC 1325-1415 T, EE/CSci 3111, Sturivant, 4 cr
743917 -2 REC 1325-1415 Th, EE/CSci 3111, Sturivant, 4 cr

r3327 Introduction to the Organization of Computer Systems (§3107, 5101; prereq 3316 or 3121 or #)
★LECT 1115-1205 MWF, AmundH 116, Stein
343919 -1 REC 1115-1205 T, EE/CSci 3115, Stein, 4 cr
743920 -2 REC 1115-1205 Th, EE/CSci 3115, Stein, 4 cr

r5107 Computer Graphics I (prereq 3322, 3327 or #)
623482 -1 1115-1230 TTh, EE/CSci 3125, Barry, 4 cr

r5117 Computer Graphics II (prereq 5107 or #)
842399 0815-0930 TTh, LindH 305, Barry, 4 cr

r5121 Algorithms and Data Structures II (§3322; prereq non-CSci maj, 3321)
045706 1245-1400 TTh, MechE 108, 4 cr

r5151 Introduction to Parallel Computing I (prereq 3121 or 3322)
044149 -1 1430-1545 TTh, MechE 102, Kumar, 4 cr

r5181 Software Engineering II (prereq 5180)
515861 1430-1545 WF, EE/CSci 3111, Tsai W., 5 cr

r5205 Parallel Computer Architecture (prereq 5201 or #)
542400 1430-1545 WF, EE/CSci 3115, Choi, 4 cr

r5281 Computer Aided Design of VLSI (prereq experience with data structures)
023480 -1 1600-1715 TTh, MechE 212, Shragowitz E., 4 cr

r5301 Numerical Analysis (prereq Math 3321 or #...knowledge of Pascal or FORTRAN is assumed)
315019 1115-1230 WF, FordH 120, Boley, 4 cr

r5304 Computational Aspects of Matrix Theory (prereq 5302 or #)
144224 0945-1100 MW, LindH 305, Park H., 4 cr

r5305 Numerical Methods for Ordinary Differential Equations (prereq 5302 or #)
142402 -1 0945-1100 TTh, MechE 108, Petzold, 4 cr

r5400 Introduction to Automata Theory (prereq 3311, 3321 or #)
042403 0945-1100 TTh, EE/CSci 3111, Du, 4 cr

r5502 Introduction to Operating Systems (prereq 3322, 5102 or #)
821259 0945-1100 MW, EE/CSci 2260, Tripathi, 4 cr

r5505 Introduction to Compilers (prereq 5504 or #)
642405 -1 1245-1400 TTh, EE/CSci 3125, Li, 4 cr

r5512 Artificial Intelligence II (prereq 5511 or #)
814036 -1 0945-1100 WF, MechE 102, 4 cr

r5571 Expert Systems (prereq 5511 or #) (A-F only)
545426 -1 1600-1715 WF, EE/CSci 3125, Slagle, 4 cr

r5599 Problems: Artificial Intelligence (prereq #)
822721 1-4 cr

r5702 The Principles of Database Systems (prereq 5122 or #)
420292 -1 0815-0930 TTh, EE/CSci 3125, Carlis, 4 cr

r5703 Database System Design (prereq 5702 or #)
145428 1630-1915 M, Shekhar, 4 cr (off-campus) (Rochester)

r8102 Operating Systems Theory (prereq 5502, 5104)
944144 -1 1245-1400 MW, MechE 212, Tripathi, 3 cr

r8199 Seminar: Languages and Systems (prereq #)
220715 1-3 cr

r8307 Advanced Parallel Numerical Methods (prereq 5301, 5307 or 3322 or 5121)
045429 Saad, 3 cr

r8399 Seminar: Numerical Analysis (prereq #)
914173 -1 Saad Y., 1-3 cr
145543 -2 1415-1545 TTh, LindH 320, Chronopoulos, 1-3 cr

r8402 Algorithms-Techniques and Theory (prereq 8401)
442406 -1 1245-1400 TTh, MechE 212, Sturivant, 3 cr

r8404 Theory of Computation (prereq 8403)
944340 1535-1650 TTh, EE/CSci 3115, Du, 3 cr

r8499 Seminar: Computational Theory and Logic (prereq #)
318647 0930-1200 M, Janardan, 1-3 cr

8777 Thesis Credits: Masters
217104 1-16 cr

8888 Thesis Credits: Doctoral (max 18 cr per qtr)
116950 1-36 cr

r8899 Computer Science Colloquium (prereq grad) (S-N only)
818927 -1 1430-1530 M, MechE 108, 1 cr

CONSERVATION BIOLOGY (CBio)

8777 Thesis Credits: Masters
643893 1-16 cr

8888 Thesis Credits: Doctoral (max 18 cr per qtr)
243895 1-36 cr

CONTROL SCIENCE AND DYNAMICAL SYSTEMS (CSDy) Institute of Technology

8888 Thesis Credits: Doctoral (max 18 cr per qtr)
114611 1-36 cr

8899 Seminar in Control and Dynamical Systems (prereq #)
444592 1430-1520 F, AkerH 211, Georgiou, 1-3 cr

COPTIC (Copt) Classical & Near Eastern Studies Liberal Arts

5300 Readings in Coptic (prereq 5012 or equiv)
544468 Sellow, 4 cr

CURRICULUM AND INSTRUCTIONAL SYSTEMS (CISy) Curriculum And Instruction Education

r5003 Introduction to Computers and Their Uses (S-N only)
420311 -1 0905-0955 T, PeikH 355, 1 cr
514158 -2 1915-2005 T, PeikH 355, 1 cr

5004 Introduction to Interactive Video Instruction (A-F only)
118214 1915-2005 W, PeikH 335, Tsai, 1 cr

r5006 Introduction to Instructional Computer Programming (prereq 5003 or #) (A-F only)
220455 1630-1915 W, EdHAn 62, Hooper, 3 cr

r5205 Computer-Based Instruction: Introduction to Design (prereq 5006 or #) (A-F only)
820810 1630-1915 Th, PeikH 355, Johnston, 3 cr

r5206 Microcomputer Uses in Elementary Classrooms (§Elem 5140) (A-F only)
042417 1630-1915 M, PeikH 355, Sales, 3 cr

5209 Principles and Procedures in Designing Instruction (prereq 5000) (A-F only)
842418 1630-2000 W, PeikH 225, Sales, 4 cr

5216 Computer-Based Instructional Simulations (prereq 5212 or #) (A-F only)
913492 1630-1915 T, PeikH 335, Johnston, 3 cr

5509 Directed Individual Study (max 6 cr; prereq #) (A-F only)
720783 -1 Anderson E., 1-6 cr
620758 -2 Hooper, 1-6 cr
517349 -3 Kimpston, 1-6 cr
821150 -4 Sales, 1-6 cr

r5605 Principles and Procedures in Designing Curriculum (A-F only)
115250 1630-1915 W, PeikH 315, Kimpston, 3 cr

5800 Supervision of Secondary and Post-Secondary Instruction (prereq 5800) (A-F only)
114639 1630-1915 T, ChDev 216, Anderson E., 3 cr

8305 Instructional Delivery Systems (§SEd 8305)
222576 1630-1915 M, PeikH 335, Hooper, 3 cr

8501 Problems: Curriculum and Instructional Systems (prereq #)
117010 -1 Hooper, ar cr
322455 -2 Kimpston, ar cr
712716 -3 Sales, ar cr

8620 The Domain of Curriculum Theory and Research: Alternative Paradigms and Research Methods (max 6 cr; prereq #) (A-F only)
642419 1630-1915 M, PeikH 27, Kimpston, Harris, 3 cr

8700 Curriculum and Instructional Systems Field Experience (max 6 cr; prereq #)
915971 -1 Anderson E., 3-6 cr
620050 -2 Hooper, 3-6 cr
714840 -3 Kimpston, 3-6 cr
716393 -4 Sales, 3-6 cr

8800 Problems: Secondary School Supervision (prereq Δ)
815011 Anderson E., ar cr

DANCE (Dnce) Theatre Arts Liberal Arts

r1001 Fundamentals of Modern Dance I (§1012)
419126 0825-0955 MW, NorrisH M153, 1 cr

r1002 Fundamentals of Modern Dance II (§1013; prereq 1001 or #)
519991 0905-1035 TTh, NorrisH M153, Maddux, 1 cr

r1005 Fundamentals of Ballet II (§1016; prereq 1004 or equiv)
320866 1325-1500 TTh, NorrisH 67, Stanchfield, 1 cr

r1020 Beginning Modern Technique II (6 cr max; prereq 1010 or #)
914898 0825-0955 MTThF, NorrisH 67, Cheng, 2 cr

- r1031 Ballroom Dance I**
020322 -1 1115-1205 MW, NorrisH M151, Lampe, 1 cr (men only)
314579 -2 1115-1205 MW, NorrisH M151, Lampe, 1 cr (women only)
- r1032 Ballroom Dance II (prereq 1031)**
015251 -1 1010-1100 MW, NorrisH M151, Lampe, 1 cr (men only)
521806 -2 1010-1100 MW, NorrisH M151, Lampe, 1 cr (women only)
- 1034 International Folk Dance I**
514533 -1 1115-1205 TTh, NorrisH M153, Maddux, 1 cr (men only)
412712 -2 1115-1205 TTh, NorrisH M153, Maddux, 1 cr (women only)
- r1050 Beginning Ballet Technique II (max 3 cr; prereq 1040 or #)**
517108 1145-1315 TTh, NorrisH 67, Stanchfield, 1 cr
- r1080 Beginning Jazz II (max 6 cr; prereq 1070 or equiv)**
616838 1010-1140 MW, PeikG G65, Sealy, 1 cr
- r1110 Topics in Dance Theory (max 3 cr; prereq 1003 or 1006)**
923004 -1 0825-0955 W, NorrisH 67, Sealy, 1 cr
042420 -2 1745-1915 W, NorrisH 201, Dissette, 1 cr
- r3020 Intermediate Modern Technique II (6 cr max; §3120; prereq 3010 or #)**
618878 1325-1500 MTThF, NorrisH 67, Richard, 2 cr
- r3078 Intermediate Tap II (prereq 3077 or equiv, #)**
113594 0900-0955 MF, PeikG G65, Sealy, 1 cr
- r3080 Intermediate Jazz II (max 3 cr; prereq 3070 or equiv)**
019543 1010-1140 TTh, NorrisH 67, Sealy, 1 cr
- r3312 Dance Composition II (prereq 3311 or equiv) ★LECT 1010-1140 MF, NorrisH M153, Maddux**
942426 -1 LAB 1010-1140 W, NorrisH M153, Maddux, 2 cr
- r3330 Topics in Dance Theory (max 3 cr; prereq 1030, #)**
513981 -1 0825-0955 W, NorrisH 67, Sealy, 1 cr
744470 -2 1325-1500 W, NorrisH 67, Richard, 1 cr
- r3402 Dance History II (prereq 1101)**
344469 0800-0955 TTh, NorrisH 201, Shapiro, 4 cr
- r3700 Dance Repertory Theatre and Reconstruction (prereq audition) (A-F only)**
022233 -1 1515-1700 MTWThF, NorrisH M153, Cheng, Morgan, 1 cr (Jan 6-24)
- r3901 Theatre Arts/Dance Senior Seminar (prereq sr, theatre or dance maj) (A-F only)**
318616 1010-1205 TTh, NorrisH 201, Shapiro, 4 cr
- 5020 Advanced Modern Technique II (9 cr max; §5120; prereq 5010 or #)**
814618 1325-1500 MTWThF, NorrisH M153, 3 cr
- 5100 Dance Practicum**
613678 Cheng, 1-6 cr
- r5313 Advanced Composition V (prereq 5312 or equiv) ★LECT 1010-1140 MF, NorrisH 67, Richard**
742427 -1 LAB 1010-1140 W, NorrisH 67, Richard, 2 cr
- r5487 World Dance Studies**
121548 0800-0955 MW, NorrisH 201, Maddux, 4 cr
- r5700 Workshop: Dance Performance (max 12 cr; prereq 1101, #, concurrent registration in a technique class, audition)**
623384 -1 1500-1700 MTWThF, NorrisH M153, Sealy, Cheng, 1-2 cr
045334 -2 1515-1700 MTWThF, NorrisH M153, Cheng, Morgan, 1 cr (Jan 6-24)
- r5910 Topics in Dance (max 12 cr; prereq #, Δ)**
845335 1515-1700 MTWThF, NorrisH M153, Cheng, Morgan, 1 cr (Jan 6-24)
- r5950 Topics in Dance (max 12 cr)**
222268 2 cr
- 5970 Directed Studies (prereq 9 cr in dance, #, Δ, CLA approval)**
519148 -1 4 cr

DANISH (Dan) Scandinavian Studies Liberal Arts

- r1102 Beginning Danish (prereq 1101)**
218205 0905-0955 MTWThF, CivMinE 213, Gram, 5 cr
- r1105 Intermediate Danish (prereq 1104)**
118309 0800-0850 MTWThF, FolH 246, Staur, 5 cr
- 3670 Readings in Danish Literary Texts (max 28 cr; prereq 1106 or equiv)**
417831 1245-1400 TTh, FolH 246, Houe, 4 cr

DENTAL HYGIENE (DH) Dentistry

- 1092 Introduction to Dental Hygienist-Patient Relationships (prereq 1190) (A-F only) ★LECT 1010-1205 F, MoosT 4160, Ingebritson, 3 cr**
021499 -1 LAB 1325-1505 F, MoosT 4160, Ingebritson
- 1191 The Dental Hygiene Care Process: Clinical Application I (prereq 1190) (S-N only) ★LECT 0800-0850 T, MoosT 5125, Stoltenberg, 3 cr**
621750 -1 CLN 1315-1600 MTWTh, Stoltenberg
- 1202 Introduction to Biomaterials (A-F only) ★LECT 0905-0955 Th, 1215-1300 Th, MoosT 5125, Hampel, 3 cr**
144506 -1 LAB 1325-1520 Th, MoosT 4160
- 3171 Patient Assessment (prereq 1191) (A-F only)**
322147 0800-0850 WTh, OwreH 2210, Rhodus, 2 cr (Jan 3-31)
- 3175 Oral Histology and Embryology (A-F only)**
116513 -1 LECT 0800-0850 MF, MoosT 2620, Sedano, 3 cr
★LAB 1000-1205 Th, MoosT 5125
- 3194 The Dental Hygiene Care Process: Clinical Application IV (prereq 3193) (A-F only) ★LECT 0800-0850 M, MoosT 5125, Osborn, 4 cr**
318437 -1 CLN 0930-1200 MTW, 1315-1600 MTWTh, Stoltenberg, others
- 3203 Dental Hygiene Care for the Older Adult Patient (prereq 3193) (A-F only)**
044507 0800-0940 F, MoosT 5125, 2 cr
- 3278 Radiographic Analysis (A-F only)**
719973 0800-0850 W, MoosT 5125, Kuba, 1 cr

DENTISTRY (Dent) Dentistry

- 5002 Fixed Prosthodontics Techniques Lectures (A-F only)**
642436 1325-1415 W, MoosT 2690, 1 cr
- 5005 Fixed Prosthodontics Laboratories (A-F only)**
113961 1430-1700 MW, MoosT 4210A, 4210, 4222, 2 cr
- 5006 Fixed Prosthodontics I (A-F only)**
118318 0745-0835 T, MoosT 2530, 1 cr
- 5009 Fixed Prosthodontics: Independent Study**
522003 ar cr
- 5011 Fixed Prosthodontics Clinic (prereq 5010) (A-F only)**
423144 0930-1215 MTWThF, 1315-1615 MTWThF, MoosT 9139, 9160, 9346, 3 cr
- 5016 Fixed Prosthodontics Clinic (prereq 5015) (A-F only)**
515956 0845-1200 MTWThF, 1300-1600 MTWThF, MoosT 9139, 9160, 9346, ar cr
- 5026 Introduction to Dental Care Delivery (A-F only)**
519506 0900-0950 MWF, MoosT 2620, 2 cr
- 5027 Epidemiology, Prevention and Dental Public Health (A-F only)**
015329 0840-0930 MWThF, MoosT 2530, 4 cr
- 5052 Dental Auxiliary Utilization Clinic (DAU I, II) (S-N only)**
322889 0930-1215 MTWThF, 1315-1615 MTWThF, MoosT 8223, 0 cr
- 5055 Health Ecology: Independent Study**
613308 ar cr
- 5070 Health Ecology Elective**
022474 ar cr
- 5093 Professional Problem Solving (prereq 5092) (A-F only)**
118388 0 cr
- 5095 Professional Problem Solving (A-F only)**
116673 0 cr
- 5098 Professional Problem Solving (prereq 5097) (A-F only)**
544471 0 cr
- 5100 Genetics: An Introduction for Dental Students (A-F only)**
414055 0900-0950 M, 1325-1415 M, MoosT 2690, 1 cr
- 5102 Human and Oral Genetics: Independent Study**
221282 ar cr
- 5152 Operative Dentistry I (prereq 5151) (A-F only)**
023060 0900-0950 T, MoosT 2690, 1 cr
- 5154 Operative Dentistry Laboratory (†5154-5155; prereq 5153) (A-F only)**
715843 3 cr
- 5155 Operative Dentistry Laboratory (†5154-5155; prereq 5154) (A-F only)**
020191 1000-1230 TTh, MoosT 4210A, 4210, 4222, 2 cr
- 5158 Operative Dentistry: Independent Study**
221914 ar cr
- 5162 Operative Clinic (prereq 5161) (A-F only)**
717463 0930-1215 MTWThF, 1315-1615 MTWThF, MoosT 8127, 8150, 8327, 8348, 3 cr
- 5166 Clinical Operative Dentistry (†5165-5166-5167; prereq 5165) (A-F only)**
014892 0845-1200 MTWThF, 1300-1600 MTWThF, MoosT 8127, 8150, 8327, 8348, ar cr
- 5170 Seminar: Operative Dentistry**
721772 1 cr
- 5172 Esthetic Direct Anterior Restoratives (prereq 5160)**
215806 1 cr
- 5173 Clerkship in Operative Dentistry (prereq 5160, 5165)**
116407 2 cr
- 5175 Esthetic Dentistry Clinic (prereq 5172)**
314615 1 cr
- 5181 Patient Management III (prereq 5180) (S-N only)**
945133 1 cr
- 5185 Patient Management IV (prereq 5184) (S-N only)**
745134 1 cr
- 5200 Current Literature Seminars (S-N only)**
315053 1000-1200 MWF, 2 cr
- 5201 Current Literature Seminars (S-N only)**
713493 1325-1415 TF, MoosT 2690, 2 cr
- 5210 Introduction to Clinics (S-N only)**
820287 1000-1200 MWF, 1 cr
- 5250 Oral Pathology: Independent Study**
121817 ar cr
- 5311 Oral Surgery II (A-F only)**
213084 0745-0835 Th, MoosT 2530, 1 cr
- 5318 Oral Surgery Clinic Rotation (A-F only)**
614328 0845-1200 MTWThF, 1300-1600 MTWThF, MoosT 7407, 7411, 7412, 7413, 7415, 7416, 7417, 7430, 7434, 7438, 7442, 7446, 7448, 1 cr
- 5320 Oral Surgery: Independent Study**
013015 ar cr
- 5328 Medical Emergencies in the Dental Office (A-F only)**
814490 0745-0835 T, MoosT 2520, 1 cr
- 5335 Oral Surgery Clinic Elective Rotation (prereq 5310, 5311, 5315) (S-N only)**
044362 ar cr (Jan 1-Mar 27)
- 5371 Orthodontics I (A-F only)**
014696 0745-0835 MWF, MoosT 2530, 3 cr

- 5380 **Orthodontics**
916733 2 cr
- 5381 **Head and Neck Anatomy Review**
019266 1 cr
- 5385 **Orthodontics: Independent Study**
316834 ar cr
- 5402 **Pediatric Dentistry II (A-F only)**
919776 0800-0850 M, MoosT 2690, 1 cr
- 5404 **Dental Care for the Handicapped (A-F only)**
622428 0745-0835 W, MoosT 2520, 1 cr
- 5407 **Minor Tooth Movement**
615902 1 cr
- 5410 **Clinical Pediatric Dentistry (prereq 5409) (A-F only)**
913962 0930-1215 MTWThF, 1315-1615 MTWThF, MoosT 6125, 0 cr
- 5413 **Clinical Pediatric Dentistry (prereq 5412) (A-F only)**
442437 0845-1200 MTWThF, 1300-1600 MTWThF, MoosT 6125, 0 cr
- 5420 **Pediatric Dentistry: Independent Study**
320513 ar cr
- 5451 **Periodontology I Lecture (A-F only)**
113241 0800-0850 TTh, MoosT 2690, 2 cr
- 5460 **Periodontology: Independent Study**
716930 ar cr
- 5464 **Periodontology Technique (Lab) (S-N only)**
916084 1000-1230 M, MoosT 4210A, 4210, 4222, 1 cr
- 5466 **Periodontology Clinic (prereq 5465) (A-F only)**
144330 0930-1215 MTWThF, 1315-1615 MTWThF, MoosT 8127, 8327, 9139, 9227, 1 cr
- 5469 **Periodontology Clinic (prereq 5468) (A-F only)**
044331 0845-1200 MTWThF, 1300-1615 MTWThF, MoosT 8127, 8327, 9139, 9227, 1 cr
- 5550 **Removable Prosthodontics I Lecture (A-F only)**
717995 0900-0950 WF, MoosT 2690, 2 cr
- 5553 **Removable Prosthodontics: Independent Study**
221458 ar cr
- 5554 **Removable Prosthodontics I Laboratory (A-F only)**
819270 1000-1230 WF, MoosT 4210A, 4210, 4222, 2 cr
- 5562 **Removable Prosthodontics Clinic (A-F only)**
221122 3 cr
- 5563 **Removable Prosthodontics Clinic (prereq 5562) (A-F only)**
219404 0930-1215 MTWThF, 1315-1615 MTWThF, MoosT 9160, 9327, 9346, 3 cr
- 5566 **Removable Prosthodontics Clinic (A-F only)**
917252 0845-1200 MTWThF, 1300-1600 MTWThF, MoosT 9160, 9327, 9346, ar cr
- 5600 **Introduction to Biomaterials I (A-F only)**
715972 1430-1520 W, MoosT 2650, 1 cr
- 5602 **Biomaterials: Independent Study**
720413 ar cr
- 5624 **Endodontic Technique (prereq 5623) (A-F only)**
416985 1430-1700 Th, MoosT 4210A, 4210, 4222, ar cr
- 5627 **Endodontics Clinic (prereq 5626) (S-N only)**
019123 0845-1200 MTWThF, 1300-1600 MTWThF, MoosT 8127, 8150, 8368, 1 cr
- 5630 **Endodontics: Independent Study**
214736 ar cr
- 5643 **Hospital Dentistry (prereq 5642) (S-N only)**
514192 0 cr
- 5649 **Oral Anatomy II (†5648-5649; prereq 5648) (A-F only)**
★LECT 0900-0950 T, MoosT 2620, Jan 7-Feb 4; 0800-0850 Th, MoosT 2620, Feb 13-Mar 12
222299 -1 LAB 0900-1205 Th, MoosT 4144A, 4160, 4170A, 4170, (Feb 13-Mar 12)
- 5654 **Oral Anatomy: Independent Study**
717415 ar cr
- 5675 **Oral Biology: Fundamental and Applied (A-F only)**
421104 0745-0835 MF, MoosT 2520, 2 cr
- 5680 **Oral Biology: Independent Study**
712778 ar cr
- 5725 **Oral Histology and Embryology (A-F only)**
★LECT 0800-0850 MWF, MoosT 2620
917378 -1 LAB 1000-1200 MWF, MoosT 5125, ar cr
- 5753 **Temporomandibular Disorders: Diagnosis and Treatment (prereq 5751) (A-F only)**
017503 0745-0835 Th, MoosT 2520, 1 cr
- 5755 **Occlusion: Independent Study**
323315 2 cr
- 5760 **Public Communication**
517495 1220-1310 M, MoosT 2530, 1 cr
- 5776 **Oral Radiology II (A-F only)**
522163 2 cr
- 5777 **Oral Radiology III (A-F only)**
319359 0840-0930 T, MoosT 2530, 1 cr
- 5779 **Oral Radiology Clinic (A-F only)**
722890 0930-1215 MTWThF, 1315-1615 MTWThF, MoosT 7221, 7223, 7225, 7226, 7227, 7234, 7235, 7238, 7240, 7241, 7245, 1 cr
- 5781 **Advanced Clinical Roentgenology**
521479 ar cr
- 5784 **TMJ Pathology and Facial Pain**
417487 1 cr
- 5785 **Oral Radiology: Independent Study**
113899 ar cr
- 5801 **Initial Examination Clinic I (prereq 5800) (S-N only)**
118326 0930-1215 MTWThF, 1315-1615 MTWThF, MoosT 7555, 1 cr
- 5805 **Emergency Clinic (prereq 5804) (S-N only)**
713140 0845-1200 MTWThF, 1300-1600 MTWThF, MoosT 7555, 1 cr
- 5807 **Treatment Planning: Independent Study**
321354 ar cr
- 5810 **Physical Evaluation I (A-F only)**
313352 0800-0850 T, MoosT 2620, 1 cr
- 5811 **Physical Evaluation II (A-F only)**
119274 0800-0850 W, 0900-0950 Th, MoosT 2690, 3 cr
- 5900 **Dental Clinic**
620498 ar cr
- 5927 **The Use of Business Theory in Dental Practice (S-N only)**
315506# cr
- 5930 **Hennepin County Medical Center Clinical Oral and Maxillofacial Surgery (S-N only)**
112994 10 cr
- 5935 **Hennepin County Medical Center Clinical Hospital Dentistry I (S-N only)**
622008 10 cr
- 5936 **Hennepin County Medical Center Clinical Hospital Dentistry II (S-N only)**
120862 10 cr
- 5937 **Hennepin County Medical Center Clinical Hospital Dentistry III (S-N only)**
119470 10 cr
- 5945 **Geriatric Hospital Dentistry**
116584 ar cr
- 5952 **Advanced General Dentistry Seminar III (S-N only)**
817096 ar cr
- 5957 **Advanced General Dentistry Clinical Administration III (S-N only)**
022202 ar cr
- 5962 **Advanced General Dentistry Clinic III (S-N only)**
117032 ar cr
- 5966 **Advanced General Dentistry Clinic VII (S-N only)**
318874 ar cr
- 5972 **General Practice Seminar III**
823044 ar cr
- 5976 **General Practice Clinical Administration III**
118772 ar cr
- 5982 **General Practice Clinic III**
917395 ar cr
- 5986 **General Practice Clinic VII**
223145 ar cr
- 5989 **Advanced Clinical Geriatric Dentistry**
813209 ar cr
- 5990 **Field Experience: Administration in a Multidisciplinary Health Center**
313285 ar cr
- 5993 **Oral Health Services for Older Adults II**
122529 ar cr
- 5995 **Advanced Clinical Restorative Dentistry**
722999 ar cr
- 5997 **Operative Dentistry: Philosophy, Principles, Rationale and Techniques (prereq #) (A-F only)**
219032 ar cr
- 8126 **Teaching and Evaluation: Dentistry I (prereq #)**
212968 3 cr
- 8129 **Topics and Problems in Dental Education (prereq #)**
822864 ar cr
- 8140 **Topics: Restorative Dentistry**
613924 ar cr
- 8150 **Research: Restorative Dentistry**
618895 ar cr
- 8400 **Cranio-mandibular Disorders: Selected Topics (prereq 8440) (A-F only)**
022832 3 cr
- 8441 **Seminars in TMJ and Craniofacial Pain (prereq #) (A-F only)**
522972 1 cr
- 8442 **Advanced Clinical TMJ and Craniofacial Pain (prereq #) (A-F only)**
214753 1-4 cr
- 8443 **Current Literature in TMJ and Craniofacial Pain (prereq #) (A-F only)**
823173 1 cr
- 8777 **Thesis Credits: Masters**
721402 1-16 cr

DERMATOLOGY (Derm) Medical School

- 5182 **Preceptorship in Dermatology (prereq regis med)**
819026 1325-1415 W, 1535-1625 W, 1430-1520 W, DiehlH 220, PWB 4274, Lynch, Bloom, others, 4.5 cr
- 5183 **Advanced Dermatology (prereq 5181 or 5182)**
114650 Lynch, ar cr
- 5184 **Special Course in Dermatology**
221427 Bloom, ar cr
- 5185 **Research in Dermatology (prereq 5182)**
319300 Dahl, Hordinsky, 9 cr
- 8225 **Clinical Dermatology**
916988 Lynch, Bloom, others, ar cr
- 8226 **Clinical Seminar**
514810 1325-1415 WF, PWB 4272, Lynch, Dahl, ar cr
- 8227 **Histology of the Skin**
318423 1535-1625 WF, PWB 4272, Rest, ar cr
- 8228 **Research: Dermatology and Related Basic Sciences**
622767 Dahl, Nelson, others, ar cr
- 8229 **Electron Microscopy in Dermatology**
019784 Zelickson, ar cr
- 8230 **Functional Biology of the Skin**
912729 Dahl, Lynch, ar cr
- 8231 **Clinics in Dermatology for Non-Dermatologists**
117984 Lynch, ar cr
- 8232 **Seminar: Dermatologic Histopathology and Mycology**
312752 Rest, ar cr
- 8777 **Thesis Credits: Masters**
813064 1-16 cr

DESIGN (Dsgn) Design, Housing, And Apparel Human Ecology

- r1501 Introduction to Design**
321385 0935-1025 MWF, McNH 33, Blade, 3 cr
- r1523 Design Process: Drawing I** (prereq design, pre-design, housing, retail merch, pre-retail merch, or textc maj or Δ)
317000 0830-1130 TTh, McNH 258, 4 cr
- r1525 Design Process: Two Dimensional Design** (prereq design, pre-design, housing, retail merch, pre-retail merch, or textc maj or Δ)
342446 0830-1130 TTh, McNH 333, 4 cr
- r1528 Design Process: Color** (prereq 1501, 1523 or 1525, dsgn, pre-dsgn, hsg, ret merch, pre-ret merch, or textc maj or Δ)
819818 0830-1025 MWF, McNH 262, 4 cr
- r1531 Surface Fabric Design I** (prereq 1521 or 1528, 1523, 1525, des, pre-des, hsg, ret mer, pre-ret mer, or textc maj or Δ)
415805 1250-1550 MW, McNH B9, Abell, 4 cr
- r1544 Costume Design: Special Techniques** (prereq 1531, 1541, dsgn, pre-dsgn, hsg, retail merch, pre-retail merch, or textc maj or Δ)
822461 0935-1130 MWF, McNH 205, 212, Amir-Fazli, 4 cr
- r3523 Design Process: Drawing II** (prereq 1523, pass portfolio review, app des, cost des, hsg, int des, ret merch or textc maj)
517075 -1 LAB 0935-1130 MWF, McNH 258, Eckersley, 4 cr
845688 -2 LAB 1250-1550 TTh, McNH 262, Bagley, 4 cr
- r3525 Design Process: Two Dimensional Design II** (prereq 1525 or equiv, appl dsgn, costume dsgn, hsg, int dsgn, ret merch, or textc maj, or Δ, pass portfolio review)
142447 1250-1445 MWF, McNH 333, Eckersley, 4 cr
- r3527 Design Process: Three Dimensional Design** (prereq 1523, 1525, 1528, appl dsgn, cost dsgn, hsg, int dsgn, ret merch, or textc maj, or Δ, pass portfolio review)
117760 0935-1235 TTh, VoTech 120, 4 cr
- r3528 Design Process: Color II** (prereq 1523, 1528, appl dsgn, cost dsgn, hsg, int dsgn, ret merch, or textc maj, or Δ, pass portfolio review)
042448 0830-1130 TTh, McNH 262, 4 cr
- r3531 Surface-Fabric Design II** (prereq 1531, appl dsgn, cost dsgn, hsg, int dsgn, ret merch or textc maj, or Δ, pass portfolio review)
842449 1250-1550 MW, McNH B9, Abell, 4 cr
- r3541 Costume Design II** (prereq 1543, 1544, dsgn, pre-dsgn, hsg, ret merch, pre-ret merch, or textc maj, or Δ)
123275 0935-1235 TTh, McNH 205, 212, Amir-Fazli, 4 cr
- r3553 Interior Design III: Intermediate Interior Design Problems** (prereq 3550 or #)
216261 0935-1130 MWF, McNH 475, Ginthner, 4 cr
- 3576 Internship in Interior Design** (max 15 cr; prereq 3553, pass portfolio review) (S-N only)
721724 8-15 cr
- r3583 Field Experience in Costume Design** (prereq completion of at least one-half of professional sequence, dsgn, pre-dsgn, hsg, retail merch, pre-retail merch or textc maj, or Δ) (S-N only)
116852 1145-1235 M, McNH 205, Amir-Fazli, 4 cr
- 3584 Field Experience in Design** (max 8 cr; prereq 3571 or r3571, #, plan submitted and approved in advance by adviser and employer) (S-N only)
722968 -1 Abell, ar cr
114423 -2 ar cr
- 3586 Design Problems**
819334 1-3 cr
- r5507 History of Decorative Arts: Textiles** (prereq ArH 1002 or equiv)
314503 1355-1445 MWF, McNH 33, Erickson, 4 cr
- r5514 History of American Furniture and Interiors** (prereq 5512, ArH 1002 or equiv)
222366 1145-1235 MWF, McNH 33, Blade, 4 cr
- r5552 Interior Design IV: Residential Design** (prereq 3553, 3557, TexC 3621, Hsg 1801, or #...3554, TexC 3622 rec)
913413 0935-1130 MWF, McNH 480, Guerin, 4 cr
- 5584 Readings in Design** (no srs; prereq #)
114124 1-3 cr
- 5585 Problems in Design: Visual Communication** (max 12 cr; prereq #, Δ)
913251 -1 2-4 cr
817163 -2 2-4 cr
618024 -3 Blade, 2-4 cr
- 5586 Problems in Design: Interiors** (max 12 cr; prereq #, Δ)
919020 -1 Erickson, 2-4 cr
715924 -2 Ginthner, 2-4 cr
523684 -3 Guerin, 2-4 cr
- 5588 Problems in Design: Textiles** (max 12 cr; prereq #, Δ, passed portfolio review)
014259 Abell, 3-4 cr
- r5589 Problems in Design: Costume** (max 12 cr; prereq appl dsgn, cost dsgn, hsg, int dsgn, ret merch, or textc maj, or #)
021809 1250-1340 W, McNH 205, Amir-Fazli, 3-4 cr
- r8523 Design Process: Drawing** (prereq 1501, 1521, 1523, 1525, 3527, 5505 or equiv, Δ)
645689 1250-1550 TTh, McNH 262, Bagley, 4 cr
- 8576 Seminar: Design Instruction** (max 6 cr)
123387 -1 1145-1235 W, McNH B3, Bagley, 1 cr
019722 -2 1 cr
- 8584 Readings in Design** (prereq #)
712831 1-3 cr
- 8585 Problems in Design** (prereq #)
417098 1-5 cr
- 8586 Problems in Interior Design** (prereq #)
822881 1-5 cr
- 8587 Problems in Design** (prereq #)
216972 1-5 cr
- 8588 Directed Study in Design** (prereq #) (A-F only)
416355 -1 LAB 1145-1235 T, McNH 262, Bagley, 1-5 cr
715714 -2 LAB Blade, Ginthner, others, 1-5 cr

DESIGN, HOUSING, AND APPAREL (DHA) Human Ecology

- 8777 Thesis Credits: Masters**
820208 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
716023 1-36 cr

DUTCH (Dtch) German Liberal Arts

- r1102 Beginning Dutch** (§1110; prereq 1101)
215076 1600-1730 MWTh, FolH 234, Van der Sanden, 5 cr
- r1105 Intermediate Dutch** (prereq 1104)
514726 1750-2000 MW, FolH 234, Van der Sanden, 5 cr
- r3310 Studies in Dutch Authors** (prereq 1103 or 15 or 1110 or #)
920457 1535-1730 T, FolH 234, Sanders, 4 cr
- r3610 Dutch Authors in Translation** (no knowledge of Dutch req)
314548 1535-1730 T, FolH 234, Sanders, 4 cr
- 3970 Directed Studies** (prereq 1105, #, Δ, □)
512782 1-5 cr

EAST ASIAN STUDIES (EAS) East Asian Studies Liberal Arts

- r1483 Introduction to East Asia in Modern Times** (§Hist 1463, 3463)
★LECT 1325-1415 MWF, AndH 350, Marshall, Farmer
842452 -1 REC 1220-1310 M, BlegH 330, 4 cr
642453 -2 REC 1430-1520 M, BlegH 210, 4 cr
442454 -3 REC 1220-1310 W, SocSci 101, 4 cr
242455 -4 REC 1430-1520 W, BlegH 155, 4 cr
142456 -5 REC 1220-1310 F, SocSci 101, 4 cr
942457 -6 REC 1430-1520 F, Law 3, 4 cr

- 3013 Introduction to Far Eastern Art** (§ArH 1016, ArH 3013)
742458 1245-1400 TTh, AndH 310, Poor, 4 cr
- 3301 Senior Project** (†3301-3302; prereq sr in EAS) (A-F only)
145261 1415-1530 T, BlegH 230, Kagan, 4 cr
- r3467 The Nationalist Revolution in China, 1900 to Present** (§Hist 3467, Hist 5467)
621215 0945-1100 TTh, BlegH 155, McDonald, 4 cr
- r3474 Rise of Modern Japan, 1853-1914** (§Hist 3474)
542459 1115-1205 MWF, BlegH 135, Marshall, 4 cr
- 3970 Directed Studies** (prereq #, Δ, □)
522857 1-15 cr
- r5481 Comparative Asian Development** (§Soc 5481; prereq sociology of development, asian related courses or #)
844556 1325-1415 MWF, BlegH 120, Broadbent, 4 cr
- 8777 Thesis Credits: Masters**
022345 1-16 cr

ECOLOGY, EVOLUTION AND BEHAVIOR (EEB) Biological Sciences

- r3001 Introduction to Ecology** (open to jrs and above but not to biol maj)s
★LECT 1010-1150 TTh, Zoology 313, Tester
844475 -1 REC 1220-1310 T, Zoology 102, 4 cr
644476 -2 REC 1115-1205 W, Zoology 108, 4 cr
444477 -3 REC 1220-1310 Th, Zoology 313, 4 cr
244478 -4 REC 1010-1100 F, Zoology 108, 4 cr
- r5008 Quaternary Ecology** (prereq Biol 5041 or Biol 5841 or #)
145123 1010-1205 TTh, Zoology 10, Cushing, 4 cr
- r5136 Ichthyology** (prereq 15 cr incl Biol 1106 or Biol 3011)
★LECT 1315-1445 TTh, Zoology 313, Underhill
419546 -1 LAB 1315-1615 M, Zoology S3, 4 cr
215627 -2 LAB 1315-1615 W, Zoology S3, 4 cr
- r5321 Evolution of Social Behavior** (prereq Biol 1106 or Biol 3011 or #)
★LECT 1325-1415 MWF, BellMus 311
217538 -1 REC 1515-1700 M, BellMus 311, McKinney, 4 cr
- r5325 Behavioral Ecology** (prereq 3111 or 5321 or Biol 5041 or Biol 5841 or #)
★LECT 1325-1510 T, 1325-1415 Th, Zoology 108, Packer
144473 -1 REC 1430-1520 Th, Zoology 108, 4 cr
- r5601 Limnology** (§Geo 5601; prereq Chem 1005 or #)
417537 0905-0955 MWF, Zoology 313, Megard, 4 cr
- r5608 Ecosystems: Form and Function** (prereq 5601 or Biol 5041 or Biol 5841 or equiv)
315330 1325-1415 MWF, Zoology 108, Gorham, 4 cr
- 5970 Directed Studies** (prereq #, Δ)
922578 1535-1715 T, 1115-1310 Th, Zoology 102, ar cr
- 5990 Directed Research** (prereq #, Δ)
920569 ar cr
- 8004 Topics in Ecological Genetics** (S-N only)
518551 Schmid, Underhill, 1 cr
- 8390 Graduate Seminar** (prereq #)
016514 ar cr
- 8391 Advanced Work in Ecology and Behavioral Biology** (prereq #)
220570 ar cr
- r8602 Advanced Limnology** (§Geo 8602; prereq 5601 or Geo 5601 or equiv) (A-F only)
318552 1430-1730 T, PillsH 121, Shapiro, Megard, 3 cr
- 8777 Thesis Credits: Masters**
816515 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
115331 1-36 cr

8990 Graduate Research (prereq #)
323587 ar cr

ECONOMICS (Econ) Liberal Arts

- r1101 Principles of Microeconomics** (§1002, 1005, 1104; prereq plane geometry and interm algebra at GC 0623 and GC 0631 level)
★LECT 0800-0850 MWF, WilleyH 125
917350 -1 REC 0905-0955 M, BlegH 215, 4 cr
014214 -2 REC 1010-1100 M, BlegH 115, 4 cr
212985 -3 REC 1115-1205 M, BlegH 105, 4 cr
119226 -4 REC 1220-1310 M, BlegH 105, 4 cr
021907 -5 REC 0905-0955 F, BlegH 130, 4 cr
213926 -6 REC 1010-1100 F, BlegH 150, 4 cr
920331 -7 REC 1115-1205 F, BlegH 255, 4 cr
923178 -8 REC 1220-1310 F, BlegH 250, 4 cr
★LECT 0815-0930 TTh, WilleyH 175
215210 -9 REC 0800-0850 M, BlegH 420, 4 cr
423158 -10 REC 0905-0955 M, BlegH 155, 4 cr
418848 -11 REC 1010-1100 M, BlegH 155, 4 cr
817082 -12 REC 1115-1205 M, BlegH 125, 4 cr
513348 -13 REC 1220-1310 M, BlegH 240, 4 cr
312931 -14 REC 0800-0850 W, BlegH 250, 4 cr
120523 -15 REC 0905-0955 W, BlegH 220, 4 cr
821553 -16 REC 1010-1100 W, BlegH 145, 4 cr
815333 -17 REC 1115-1205 W, BlegH 145, 4 cr
642467 -3 LECT 1220-1310 MWF, BlegH 420, Dore, 4 cr (MLK students only)
- r1101H Honors Course: Principles of Microeconomics** (§1002, 1005, 1104; prereq plane geom and interm alg at GC 0623, GC 0631 level...B avg rec)
★LECT 1115-1205 MWF, BlegH 330, Pan
317935 -80 REC 1115-1205 Th, BlegH 420, 5 cr
- r1102 Principles of Macroeconomics** (§1001, 1004, 1105; prereq 1101 or equiv, plane geom, interm alg at GC 0623, GC 0631 level)
★LECT 0905-0955 MWF, AndH 350
118061 -1 REC 0800-0850 M, BlegH 425, 4 cr
714921 -2 REC 1115-1205 M, BlegH 230, 4 cr
121767 -3 REC 1220-1310 M, BlegH 115, 4 cr
118156 -4 REC 1010-1100 F, BlegH 145, 4 cr
721447 -5 REC 1115-1205 F, BlegH 145, 4 cr
★LECT 1010-1100 MWF, WilleyH 175
721013 -6 REC 0800-0850 W, BlegH 420, 4 cr
018022 -7 REC 0905-0955 W, BlegH 105, 4 cr
821830 -8 REC 1220-1310 W, BlegH 125, 4 cr
314002 -9 REC 0800-0850 F, BlegH 230, 4 cr
015007 -10 REC 0905-0955 F, BlegH 230, 4 cr
113319 -11 REC 1115-1205 F, BlegH 230, 4 cr
814358 -12 REC 1220-1310 F, BlegH 115, 4 cr
- r1102H Honors Course: Principles of Macroeconomics** (§1001, 1004, 1105; prereq 1101 or equiv, plane geometry and interm algebra at GC 0623 and GC 0631 level...B avg rec)
★LECT 0905-0955 MWF, BlegH 330, Huang
622946 -80 REC 1115-1205 F, BlegH 105, 5 cr
- r1104 Principles of Microeconomics** (§1002, 1005, 1101; prereq 1 qtr calc)
821102 -1 1325-1415 MWF, BlegH 145, Chiang, 4 cr
644557 -2 1325-1415 MWF, AndH 330, 4 cr
- r1105 Principles of Macroeconomics** (§1001, 1004, 1102; prereq 1104 or equiv, 1 qtr calc)
418817 1430-1520 MWF, BlegH 145, Renero, 4 cr
- r3101 Microeconomic Theory** (§3105; prereq 1101, 1102 or equiv, 1 qtr calc)
318292 -1 0800-0850 MWF, BlegH 415, 4 cr
516766 -2 0905-0955 MWF, BlegH 415, 4 cr
219340 -3 1010-1100 MWF, BlegH 250, 4 cr
621201 -4 1115-1205 MWF, BlegH 250, 4 cr
- r3101H Honors Course: Microeconomic Theory** (prereq 1101, 1102, or equiv, 1 qtr calc...B avg rec)
921236 0900-0850 MWF, BlegH 350, Gjerstad, 5 cr
- r3102 Macroeconomic Theory** (prereq 3101 or equiv)
614507 -1 0905-0955 MWF, BlegH 440, 4 cr
115247 -2 1115-1205 MWF, BlegH 440, 4 cr
- r3103 Welfare Economics** (prereq 3101 or equiv)
812755 -1 0905-0955 MWF, BlegH 135, 4 cr
817857 -2 0945-1100 TTh, BlegH 240, 4 cr
- r3103H Honors Course: Welfare Economics** (prereq 3101 or equiv, 1 qtr calc...B avg rec)
815977 1115-1205 MWF, BlegH 205, Diaz, 5 cr
- r3105 Managerial Economics** (§3101, BGS 3001; not open to Econ maj; prereq 1101, 1102 or equiv, 1 qtr calc)
★LECT 0815-0930 TTh, BlegH 145, Choe
121123 -1 REC 0905-0955 F, BlegH 255, 4 cr
320124 -2 REC 1010-1100 F, BlegH 255, 4 cr
- r3231 Principles of Econometrics** (§5231; prereq 1101, 1102 or equiv, 1 qtr calc, Stat 3011-3012 or equiv, familiarity with computers, MIS 1070 or equiv, ACSS short courses)
★LECT 0905-0955 MWF, BlegH 225, Kim
445404 -1 REC 0905-0955 Th, BlegH 205, 4 cr
- r3501 Labor Economics** (§5531; not open to Econ maj; prereq 1101, 1102 or equiv)
644574 1115-1205 MWF, BlegH 155, Zarazaga, 4 cr
- r3701 Money and Banking** (§5701, 5721; not open to Econ maj; prereq 1101, 1102 or equiv)
★LECT 1115-1230 TTh, BlegH 5, Tobin
315957 -1 REC 0800-0850 M, BlegH 230, 4 cr
314954 -2 REC 0905-0955 M, BlegH 220, 4 cr
113782 -3 REC 1115-1205 M, BlegH 145, 4 cr
713963 -4 REC 0905-0955 W, BlegH 250, 4 cr
423189 -5 REC 1115-1205 W, BlegH 105, 4 cr
- r3751 Financial Economics I** (prereq 3101 or 3105 or equiv, 1 qtr statistics, 1 qtr calculus)
123560 1115-1205 MWF, BlegH 215, Jain, 4 cr
- r3752 Financial Economics II** (§5752H; prereq 3751)
621554 1325-1415 MWF, BlegH 135, Kwok, 4 cr
- r3801 Elements of Public Finance** (§5821; not open to Econ maj; prereq 1101, 1102 or equiv)
118495 1010-1100 MWF, BlegH 225, Anderson, 4 cr
- 3951 Major Project Seminar** (prereq 3101, 3102, 3103 or equiv)
518467 Banerjee, 2 cr
- 3970 Directed Studies** (prereq #, Δ, □)
616063 ar cr
- r5107H Honors Course: Game Theory and Its Applications** (prereq 3101, 3102, 3103, or equiv, Math 1211-1221-1241 or equiv)
244576 -80 1430-1545 TTh, BlegH 105, 5 cr (undergrads only)
144577 -81 1430-1545 TTh, BlegH 105, 4 cr (grad stu only)
- r5113 Introduction to Mathematical Economics** (prereq 3101, 3102, 3103, or equiv, Math 1211-1221-1241-3311 or equiv)
342477 1115-1230 TTh, BlegH 250, Gata, 4 cr
- r5152 Elements of Economic Analysis: Income and Employment** (prereq 3101, 3102 or equiv, 1 qtr calc, 1 qtr linear algebra, grad stu or #)
017260 1115-1230 TTh, BlegH 150, Kiyotaki, 3 cr
- 5162 Microeconomic Theory** (prereq 5161)
★LECT 0945-1100 TTh, BlegH 260, Hurwicz
221511 -1 REC 1545-1700 Th, BlegH 230, 5 cr
★LECT 1115-1230 TTh, BlegH 105, Jordan
618492 -2 REC 1545-1700 Th, BlegH 145, 5 cr
- 5165 Macroeconomic Theory** (prereq 5164)
★LECT 1415-1530 TTh, BlegH 255, Prescott
414346 -1 REC 1545-1700 T, BlegH 330, 5 cr
- r5171 History of Economic Thought** (prereq 3101, 3102, 3103, or equiv)
618654 1115-1205 MWF, BlegH 220, Aziz, 4 cr
- r5231 Introduction to Econometrics** (prereq 3101 or equiv, Stat 5121-5122 or Stat 5131-5132-5133; Math 1211-1221-1241 or equiv or #)
★LECT 0945-1100 TTh, BlegH 245, Ichimura
814893 -1 REC 0800-0850 F, BlegH 250, 4 cr
- 5262 Applied Econometrics** (no grad cr; prereq 5261)
★LECT 1445-1600 MW, BlegH 135, Geweke
822850 -1 REC 1445-1600 F, BlegH 135, 5 cr
- r5301 Economic Development** (§5331; not open to Econ maj; prereq 1101, 1102 or equiv)
517464 1220-1310 MWF, AndH 370, Olson, 4 cr
- r5312 Technology and Development** (prereq 3101, 3102 or equiv or #)
113272 1315-1430 WF, BlegH 330, Ruitan, 4 cr
- r5337 Comparative Economic Systems** (§5307; prereq 3101, 3102 or equiv)
545345 1430-1520 MWF, BlegH 120, Bandyopadhyay, 4 cr
- r5401 International Economics** (§5429, 5431, 5432; not open to Econ maj; prereq 1101, 1102 or equiv)
613700 0905-0955 MWF, AndH 370, Brantley, 4 cr
- r5431 International Trade** (§5401, 5429; prereq 3101, 3102, 3103 or equiv)
823089 0815-0930 TTh, BlegH 220, Ihrig, 4 cr
- r5431H Honors Course: International Trade** (§5401, 5429; prereq 3101, 3102, 3103 or equiv, 1 qtr calc...B avg rec)
044572 -80 0945-1100 TTh, AndH 310, Thompson, 5 cr (undergrads only)
844573 -81 0945-1100 TTh, AndH 310, Thompson, 4 cr (grad stu only)
- r5432 International Finance** (prereq 3101, 3102, 3103 or equiv; 5431 or equiv recommended)
920989 0800-0850 MWF, BlegH 135, Dore, 4 cr
- r5531 Labor Economics** (§3501; prereq 3101, 3102 or equiv)
444558 1245-1400 TTh, BlegH 250, Rogerson, 4 cr
- r5611 Resource and Environmental Economics** (prereq 3101 or equiv, 1 qtr calc)
342480 0945-1100 TTh, BlegH 250, Mohring, 4 cr
- r5631H Honors Course: Industrial Organization and Antitrust Policy** (prereq 3101, 3103 or equiv, 1 qtr calculus...B avg rec)
244559 -80 1245-1400 TTh, BlegH 155, Mohring, 5 cr (undergrads only)
644560 -81 1245-1400 TTh, BlegH 155, Mohring, 4 cr (grad stu only)
- r5721 Money and Banking** (§3701, 5701; prereq 3101, 3102 or equiv)
312749 0800-0850 MWF, BlegH 150, Li, 4 cr
- r5731H Honors Course: Macroeconomic Policy** (prereq 3101, 3102 or equiv, 1 qtr calculus...B avg rec)
421653 -80 0815-0930 TTh, BlegH 260, Wang Y., 5 cr (undergrads only)
819642 -81 0815-0930 TTh, BlegH 260, Wang Y., 4 cr (grad stu only)
- r5733 Intertemporal Economics and Money** (prereq 3101, 3103, Math 1211-1221-1241 or equiv)
417943 1220-1310 MWF, BlegH 255, Le, 4 cr
- r5821 Elements of Public Finance** (§3801; prereq 3101, 3103 or equiv)
521465 1245-1400 TTh, BlegH 230, Boswell, 4 cr
- r5831H Honors Course: Cost Benefit Analysis** (prereq 3101 or 3103 or equiv, 1 qtr calc...B avg rec)
117628 -80 1010-1100 MWF, BlegH 240, Breton, 5 cr (undergrads only)
221654 -81 1010-1100 MWF, BlegH 240, Breton, 4 cr (grad stu only)
- r5960 Topics in Economics: Economic Problems in Central and Eastern Europe** (prereq 3101, 3102, 3103, or equiv)
045348 0815-0930 TTh, BlegH 230, Bochniarz, 4 cr
- 5970 Directed Studies** (prereq #, Δ, CLA approval)
715132 ar cr
- 8102 Microeconomic Theory** (prereq 8101)
★LECT 0945-1100 TTh, BlegH 260, Hurwicz
015928 -1 REC 1545-1700 Th, BlegH 230, 4 cr
★LECT 1115-1230 TTh, BlegH 105, Jordan
422463 -2 REC 1545-1700 Th, BlegH 145, 4 cr
- 8105 Macroeconomic Theory** (prereq 8104)
★LECT 1415-1530 TTh, BlegH 255, Prescott
919826 -1 REC 1545-1700 T, BlegH 330, 4 cr
- 8112 Introduction to Mathematical Economics** (prereq 8111)
821987 1245-1400 TTh, BlegH 115, Werner, 3 cr
- 8117 Non-Cooperative Game Theory** (prereq Math 5614 or equiv or #)
819608 1115-1230 TTh, BlegH 135, McLennan, 3 cr
- 8182 Advanced Topics in Microeconomics** (prereq 8181)
723165 1530-1645 TTh, BlegH 350, Hurwicz, 3 cr
- 8185 Advanced Topics in Macroeconomics**
444575 Marimon, 3 cr
- 8192 Workshop in Mathematical Economics** (prereq 8191)
416064 1530-1700 M, BlegH 260, ar cr

- 8202 Applied Econometrics** (prereq 8201)
★LECT 1445-1600 MW, BlegH 135,
Geweke
222383 -1 REC 1445-1600 F, BlegH 135, 4 cr
- 8212 Econometrics** (prereq 8211)
416789 1245-1400 TTh, BlegH 105, Thompson,
3 cr
- 8282 Advanced Topics in Econometrics** (prereq
8281)
845349 1415-1530 TTh, RarigC 616, Ichimura,
3 cr
- 8402 International Trade and Payments Theory**
(prereq 8401)
120571 0945-1100 TTh, BlegH 255, Chipman,
3 cr
- 8492 Workshop in Trade and Development** (prereq
8491)
914738 1530-1700 T, BlegH 225, ar cr
- 8502 Wages and Employment** (prereq 8501)
918921 1615-1830 M, Law 1, Rogerson, 3 cr
- 8602 Industrial Organization and Government
Regulation** (prereq 8601)
019252 0945-1100 TTh, SocSci 101, Prescott,
3 cr
- 8692 Workshop in Applied Microeconomics**
(prereq 8691)
121834 1530-1700 W, BlegH 415, ar cr
- 8702 Monetary Economics** (prereq 8701)
912956 1415-1530 TTh, BlegH 420, Kiyotaki, 3 cr
- 8705 Financial Economics** (prereq 8102, 8105)
315568 0945-1100 TTh, BlegH 120, Werner, 3 cr
- 8777 Thesis Credits: Masters**
913136 1-16 cr
- 8792 Workshop in Macroeconomics** (prereq 8791)
213828 1530-1700 Th, BlegH 125, ar cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
317028 1-36 cr
- 8990 Individual Research**
315165 ar cr

EDUCATION (Educ) Education

- 8777 Thesis Credits: Masters**
543899 1-16 cr (Vocational Education)
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
619402 -1 1-36 cr (Higher Education)
421622 -2 1-36 cr (Curriculum and Instruction)
817597 -3 1-36 cr (Vocational Education)
415450 -4 1-36 cr (Recreation, Park, and Leisure
Studies)
213554 -5 1-36 cr (Social and Philosophical
Foundations of Education)

EDUCATIONAL ADMINISTRATION (EdAd)

Educational Policy And Administration Education

- 8777 Thesis Credits: Masters**
718869 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
413746 1-36 cr

EDUCATIONAL POLICY AND ADMINISTRATION (EdPA)

Educational Policy And Administration Education

- r5090 School and Society** (§SPFE 3090, SPFE
5090; prereq sr or post BA in education or CLA
music ed maj or □) (A-F only)
119548 -1 1535-1650 MW, PeikH 28, Mueller,
3 cr
117539 -2 1220-1450 Th, PeikH 28, Dobbert, 3 cr
- 5099 Directed Study** (max 9 cr; §SPFE 5099; prereq
#) (S-N optional)
615334 -1 1630-1830 T, PeikH 25, Harkins,
Johnson J., 3 cr
242486 -2 ar cr

- 5101 Historical Foundations of Modern Education**
(§SPFE 5101) (S-N optional)
113496 1630-1830 M, PeikH 46, Bagley, 3 cr
- 5102 Education Imagery in Europe and America**
(§SPFE 5102) (S-N optional)
722579 1630-1900 T, JonesH 11, Bagley, 3 cr
- 5128 Workshop: Educational Administration**
(§EdAd 5128)
118553 -1 1900-2100 Th, PeikH 225, Nickerson,
3 cr
142487 -2 1030-1300 S, BuH 240, Johnson J.,
3 cr
- 5141 Critical Issues in Contemporary Education**
(§SPFE 5141) (S-N optional)
818555 1900-2130 W, PeikH 46, Lum, 3 cr
- 5167 The American Middle School** (§EdAd 5167)
(S-N optional)
616516 0800-1000 S, PeikH 225, Nickerson, 3 cr
- 5171 Anthropology and Education** (§SPFE 5171,
Anth 5145) (S-N optional)
720573 1515-1730 W, PeikH 31, Dobbert, 4 cr
(addtl hrs ar)
- r5173 Case Studies for Policy Research** (prereq
educ or grad student or #) (A-F only)
942488 1630-1830 T, PeikH 48, Turner, 3 cr (addtl
hrs ar)
- 5180 Seminar: Administration of Special
Education** (§EdAd 5180, EdAd 5181, EPsy
8760, EPsy 8761; prereq 5103 or EdAd 5103 or
EPsy 5660 or #) (S-N optional)
018554 1900-2100 M, PeikH 25, Weatherman,
3 cr (addtl hr ar)
- 5182 Comparative Philosophies of Education**
(§SPFE 5182) (S-N optional)
742489 1630-1830 Th, PeikH 28, Lum, 3 cr
- 5202 Politics of Education** (§EdAd 5202, EdAd
8202, SPFE 5202, SPFE 8202) (S-N optional)
323590 1900-2100 T, PeikH 28, Sullivan, 3 cr
- 5210 Social Forecasting and Educational Futures**
(§SPFE 5210) (S-N optional)
919549 1630-1830 M, Harkins, 3 cr (Capitol View
School, Roseville)
- 5213 Financial Resource Management** (§EdAd
5213, EdAd 8213)
142490 1630-1830 W, PeikH 27, Sederberg, 3 cr
- 5216 Recent Research in Elementary School
Administration** (§EdAd 5216, EdAd 8216;
prereq 5215 or EdAd 5215) (S-N optional)
215336 1630-1830 W, PeikH 25, Alkire, 3 cr
- 5225 Educational Policy and the Law** (§EdAd 5225,
EdAd 8225) (A-F only)
013497 1630-1830 M, BlegH 225, Hooker, 3 cr
- 5260 Introduction to Educational Planning**
218284 1630-1830 T, PeikH 28, Ammentorp, 3 cr
- 5274 Two-Year Postsecondary Institutions**
(§EdAd 5274, VoEd 5274) (S-N optional)
742492 1400-1630 Th, PeikH 31, Turner, 3 cr
- r8221 Quantitative Models for Program Analysis
and Research** (§EdAd 8221; prereq 8220 or
EdAd 8220)
122580 1630-1830 M, EdHAN 64, Hendrix, 3 cr
(addtl hrs ar)
- 8228 Problems: Higher Education** (§HiEd 8228,
EdAd 8228; prereq #)
520574 ar cr
- 8229 Seminar: Higher Education** (§EdAd 8229,
HiEd 8229; prereq #)
542493 -1 1530-1800 Th, BuH 240, Anderson,
3 cr
342494 -2 1-4 cr
- 8238 Seminar: Theory and Research** (§EdAd 8238;
prereq educ admin maj or #)
120660 1900-2100 W, PeikH 31, Hendrix, 3 cr
- 8240 Seminar: Clinical Experiences in
Educational Administration** (§EdAd 8240)
(S-N only)
915338 1630-1830 Th, PeikH 31, Sederberg,
1-9 cr
- 8241 Seminar: Internship in Educational
Administration** (§EdAd 8241) (S-N only)
123591 1630-1830 Th, PeikH 31, Sederberg,
0-9 cr
- 8242 Seminar: Public School Personnel Programs**
(§EdAd 8242; prereq 5227 or EdAd 5227 or #)
142495 1630-1830 Th, PeikH 33, Alkire, 3 cr

- 8250 The Higher Education Institution:
Organization and Environment** (§HiEd 8250,
Educ 8250; prereq 5201, 5250 or HiEd 5250 or
EdAd 5250)
221556 1430-1700 M, PeikH 31, Turner, 3 cr
- 8251 Development and Evaluation of Academic
Programs** (§HiEd 8251, Educ 8251; prereq
5250 or EdAd 5250 or HiEd 5250)
715339 1400-1630 T, BuH 240, Louis, Hendl,
3 cr
- 8252 Instruction and Learning in Higher
Education** (§HiEd 8252, Educ 8252; prereq
5250 or EdAd 5250 or HiEd 5250)
023592 1710-1940 W, BioSci 70, Zurcher, 3 cr
(SP)
- 8260 Seminar: Social and Philosophic
Foundations of Education** (§SPFE 8260)
121557 1900-2100 Th, PeikH 33, Harkins, 3 cr
- 8261 Problems: History and Philosophy of
Education** (§SPFE 8241; prereq #)
219550 ar cr
- 8270 Problems: Elementary School
Administration** (§EdAd 8270; prereq #)
115340 ar cr
- 8271 Problems: Secondary School
Administration** (§EdAd 8271; prereq #)
613499 ar cr
- 8272 Problems: Educational Administration**
(§EdAd 8272)
922581 1-3 cr
- 8273 Field Study** (§EdAd 8273; prereq #)
320575 0-10 cr
- 8341 Analysis of Education Policy Systems**
(§EdAd 8341; prereq 8340 or EdAd 8340)
415139 1630-1830 Th, EdHAN 64, Ammentorp,
3 cr

EDUCATIONAL PSYCHOLOGY (EPsy) Education

- r1601 American Sign Language I**
220732 0905-1030 MWF, JonesH 10, 5 cr
- r1602 American Sign Language II** (prereq 1601 or #)
715678 -1 0905-1030 MWF, JonesH 2, 5 cr
123759 -2 1325-1450 MWF, BuH 123, 5 cr
- 1604 Workshop: Developing Educational and
Human Service Programs** (§PsyS 1304) (S-N
only)
921558 Abern, ar cr
- r3602 American Sign Language V** (prereq 3601)
642646 -1 0800-1005 TTh, BuH 123, 5 cr
442647 -2 0800-1005 TTh, BuH 120, 5 cr
242648 -3 1220-1425 TTh, BuH 120, 5 cr
- 3603 Cultural Perspectives of Deafness** (prereq
1603 or #)
142649 0800-0915 MW, BuH 123, 3 cr
- r3606 Exceptional Students in Regular Classes**
(§5606, PsyS 3106, PsyS 5106) (A-F only)
114602 1640-1830 T, NichH 207, York, 2 cr
- 5113 Introduction to the Psychology of
Instruction** (§PsyF 5153) (A-F only)
713123 1615-1815 T, Arch 35, Tennyson R., 3 cr
- r5114 Psychology of Student Learning** (§PsyF
5182) (A-F only)
918241 1630-1830 W, BuH 120, van den Broek,
3 cr
- r5119 Learning and Cognitive Foundations of
Education** (prereq educ stu or CLA music ed
maj or □...one prior course in psy rec) (A-F
only)
★LECT 1500-1650 T, 1500-1550 Th, Arch
40, Samuels
544650 -1 LAB 1600-1650 Th, NichH 122, 4 cr
344651 -2 LAB 1600-1650 Th, NichH 109, 4 cr
144652 -3 LAB 1600-1650 Th, ChDev 105, 4 cr
- 5130 Personality and Social Development** (§PsyF
5162; prereq 5 or introductory psychology) (A-F
only)
820077 1630-1900 T, ChDev 218, Rest, 3 cr
- r5139 Interpersonal and Personality Effects on
Learning** (prereq sr or Post BA in Educ or CLA
music ed maj or □, one psy course) (A-F only)
943611 -1 0905-1105 MW, FordH 120, Rest, 4 cr
344648 -2 1535-1735 MW, NichH 211, Rest, 4 cr

- r5151 Structuring Learning: Social Psychological Approaches** (§PsyF 5172) (A-F only)
922404 0800-1600 S, PeikH 28, Johnson D.W., 3 cr (Jan 11-25, Mar 14)
- 5220 Educational Measurement in the Classroom** (§PsyF 5120) (S-N optional)
113692 1630-1830 MW, PillisH 110, Joselyn, 4 cr
- 5222 Modern Measurement Theory and Practice** (prereq 5221, 8260, 8261 or equiv)
722582 1430-1520 MW, Pih 204, 1430-1520 F, EdHAn 64, Davison, 3 cr
- r5229 Classroom Assessment Methods** (prereq concurrent participation in practice tchg or similar field exp) (A-F only)
743612 -1 1220-1415 T, Arch 50, 2 cr
943950 -2 1500-1700 T, Arch 50, Terwilliger, 2 cr
- r5240 Principles and Methods of Evaluation** (§PsyF 5125) (S-N optional)
613860 1615-1730 MW, FolH 218, Bosma, 3 cr
- 5243 Practicum: Survey and Observational Research Methods** (prereq 5220 or 5221 or equiv)
116074 1010-1125 TTh, JonesH 2, Dunham, 3 cr
- r5260 Introductory Statistical Methods** (§PsyF 5110) (S-N optional)
019364 -1 1010-1205 MW, ChDev 218, Davenport, 4 cr
620274 -2 1615-1800 MW, WullH 230, Robey, 4 cr
- 5261 Applied Matrix and Vector Concepts** (§PsyF 5111) (S-N only)
614796 1220-1310 F, EitH N647, Terwilliger, 1 cr (Jan 10-31)
- 5281 Introduction to Computer Operations: U of M Systems, SPSS** (§PsyF 5333) (S-N only)
018313 1500-1555 MTWThF, EitH N647, Li, 1 cr (Jan 13-27)
- r5401 Counseling Procedures** (§PsyS 5110) (A-F only)
417988 -1 1615-1845 T, BuH 125, Erickson V.L., 3 cr
221038 -2 1325-1555 Th, ChDev 218, Wambach C., 3 cr
- r5417 Clinical Use of Tests in Psychological Services** (prereq 5260 or PsyF 5110 or Psy 3801, 5221 and PsyF 5121 or Psy 5862 or #) (A-F only)
416484 1430-1545 TF, BuH 125, Hummel, 3 cr
- r5431 Career Development: Theory and Counseling Applications** (§PsyS 5331) (A-F only)
112681 1615-1830 T, BuH 120, Hansen L., 3 cr
- r5606 Exceptional Students in Regular Classes** (§3606, PsyS 3106, 5106) (A-F only)
123171 1640-1830 T, NichH 207, York, 2 cr
- r5609 Family-Professional Planning for Persons with Severe Handicaps** (A-F only)
423368 1640-1930 W, WullH 130, McEvoy, 3 cr
- r5612 Education of Learning-Disabled Children** (§PsyS 5112) (A-F only)
117192 1640-1930 T, BuH 123, Deno, 3 cr
- r5615 Educational Interventions for Learning Disabilities** (prereq 5612) (A-F only)
222951 1640-1930 Th, ChDev 218, Espin, 3 cr
- 5620 Introduction to Mental Retardation** (§PsyS 5120, CPsy 5315; prereq 5601 or PsyS 5101 or #) (A-F only)
721285 1640-2030 T, PeikH 155, Turnure, 4 cr
- 5626 Instruction for Learners with Severe Handicaps** (prereq 5622, 5700 or 1) (S-N optional)
120232 1610-1930 T, PeikH 315, Hupp, 4 cr
- 5636 Education of Multihandicapped Learners with Sensory Impairments** (prereq 5601) (S-N optional)
119551 1610-1840 M, PeikH 225, Hupp, 3 cr
- 5644 Language Programming for Children With Hearing Impairments** (§PsyS 5144) (A-F only)
313691 1640-1930 M, ChDev 216, Rose, 3 cr
- 5646 Reading and Instructional Practices with Hearing Impaired Students** (A-F only)
342527 1640-2030 T, Pih 204, 4 cr
- 5648 Modes of Communication for the Handicapped** (§PsyS 5148) (A-F only)
114535 1640-1930 Th, WullH 130, Rose, 3 cr
- r5656 Educational Needs of Students with Emotional Disturbances or Behavioral Disorders** (A-F only)
916960 1640-1930 M, BuH 125, Wood, 3 cr
- r5657 Educational Interventions for Students with Emotional Disturbances or Behavioral Disorders** (prereq 5656) (A-F only)
415187 1640-1930 W, NichH 209, Wilderson, 3 cr
- 5671 Literary Braille** (§PsyS 5171; prereq 5670 or PsyS 5170) (A-F only)
412757 1640-1930 Th, BuH 123, Knowlton, 3 cr
- 5680 Education of the Disadvantaged** (§PsyS 5180; prereq 12 cr in sociology, psychology, educational psychology) (A-F only)
917543 1640-1930 Th, PeikH 155, McKee, 3 cr
- 5700 Assessment and Decision Making in Special Education** (§PsyS 5200) (A-F only)
721559 1640-1930 W, PeikH 155, 3 cr
- 5701 Practicum: Special Education** (prereq #) (S-N only)
923276 -1 Espin, ar cr
513804 -2 Knowlton, ar cr
618069 -3 Rose, ar cr
722307 -4 Wilderson, ar cr
- 5703 Practicum Experience: Special Education** (prereq #) (A-F only)
321340 -1 Hupp, ar cr
313809 -2 Rynders, ar cr
- r5704 Workshop: Interventions and Practices in Educational and Human Service Programs** (S-N only)
817678 Abery, ar cr
- r5900 Independent Study** (max 12 cr; prereq #) (A-F only)
321922 -1 ar cr (special ad maj only)
916005 -2 ar cr (counseling maj only)
820256 -3 ar cr (school psych maj only)
015721 -4 ar cr (psych foundations)
913850 -5 1100-1230 TTh, EddyH 102, Weinsheimer, ar cr
- r8129 Research Problems: Learning and Cognition** (prereq #)
615091 -1 1330-1600 M, PeikH 155, Bart, 3 cr
620212 -2 0825-0955 TTh, EitH N647, van den Broek, ar cr
844654 -3 Samuels, van den Broek, others, ar cr
- 8149 Research Problem: Personality** (max 9 cr; prereq #)
616869 Rest, ar cr
- 8151 Organizational Development and Change** (§PsyF 8572; prereq 5150 or PsyF 5170 or equiv)
742525 1325-1625 M, JonesH 11, Johnson D., 4 cr
- 8169 Research Problems: Social Psychology** (prereq #)
515892 Johnson D.W., ar cr
- 8239 Problems: Measurement** (max 9 cr)
520414 Davison, Terwilliger, 1-3 cr
- r8260 Statistical Methods** (§PsyF 8110; prereq 5260 or PsyF 5110 or Psy 3801 or equiv)
418834 -1 0800-0900 MWF, BuH 120, MacEachern, 3 cr
116236 -2 1615-1730 TTh, Arch 10, Garfield, 3 cr
- r8261 Statistical Methods** (§PsyF 8111; prereq 8260)
516346 -1 1615-1730 MW, EitH N647, Edwards, 3 cr
914917 -2 0905-0955 MWF, BuH 120, MacEachern, 3 cr
- 8264 Multiple Regression Analysis** (§PsyF 8114; prereq 5261, 8261 or 15261 or PsyF 5111, 8111 or #)
917784 1015-1200 MW, EitH N647, Terwilliger, 3 cr
- 8279 Problems: Statistics for Students in Education and Psychology**
919146 -1 1400-1600 T, BuH 329, Davenport, 3 cr
415125 -2 MacEachern, Edwards, others, ar cr
542526 -16 Edwards L., 3 cr
- r8403 Social/Cultural Contexts of Counseling: Theory and Procedures** (§PsyS 8303; prereq CSPP MA or PhD stu or #) (A-F only)
342530 1430-1730 Th, BuH 125, Hansen L., 3 cr
- r8411 Seminar: Advanced Counseling Research** (§PsyS 8511; prereq PhD student, #) (A-F only)
817938 1010-1205 WF, BuH 125, Hummel, 4 cr
- r8505 Field Placement in CSPP** (8505-8506-8507), max 9 cr; prereq MA student in CSPP, 18402, 18502
142531 2 cr
- 8510 Internship: CSPP** (max 9 cr for MA and spec students, 18 cr for PhD students)
015900 -1 Skovholt, 0-6 cr
319216 -2 Skovholt, 0-6 cr
- 8514 Counseling Practicum: University Counseling Services** (8513-8514-8515), max 9 cr, §PsyS 8614; prereq 8513) (S-N only)
120330 1430-1625 Th, EddyH 202, Loeffler, Loper, 3 cr
- 8515 Counseling Practicum: University Counseling Services** (8513-8514-8515), max 9 cr, §PsyS 8615; prereq 8514) (S-N only)
421314 Loeffler, Loper, 3 cr
- r8520 Counseling Practicum: Advanced** (max 9 cr; prereq #)
915341 -1 1010-1205 Th, BuH 240, Skovholt, 3 cr
842533 -2 1325-1530 M, BuH 125, Romano, 3 cr
- r8521 Practice in Student Personnel Work** (max 9 cr; prereq 8404, 8504, 8420, 5451 or PsyS 8304, 8604, 8140, 5540 or #)
313500 1-3 cr
- 8524 Clinical Practice in Diagnosis and Treatment of College Learning Difficulties** (§PsyS 8641; prereq 8424 or PsyS 8341)
119945 1430-1625 W, EddyH 202, Baldwin, 3 cr
- 8651 Theories of Educating Disturbed Children** (§PsyS 8151; prereq #)
042529 1640-1930 T, LindH 216, Wilderson, 3 cr
- 8702 Seminar: Special Education** (prereq #)
919552 1325-1620 W, BuH 125, 3 cr
- r8706 Behavioral Research with Handicapped Students** (max 4 cr; prereq 5601 or PsyS 5101 or Psy 5017 or #)
944645 1640-1930 W, JonesH 11, McConnell, ar cr
- r8760 Seminar: Administration of Special Education** (§PsyS 8560, EdAd 5180; prereq 5660 or PsyS 5160, EdAd 5103 or #)
916098 1900-2100 M, PeikH 165, Weatherman, 3 cr (addtl hr ar)
- 8770 Intervention Strategies for Persons with Developmental Disabilities: Interdisciplinary Perspectives** (prereq admission to educ or human serv grad training prog or #) (A-F only)
916909 1640-1930 Th, NichH 201, McConnell, 3 cr
- 8777 Thesis Credits: Masters**
117962 1-16 cr
- r8810 Assessment in School Psychology I** (§PsyS 8310; prereq admission to School Psychology program or #)
642534 1315-1600 T, 1315-1415 Th, EitH N508, Christenson, 5 cr
- r8816 School Consultation and Intervention Planning** (prereq EPsy maj with school psy subprogram) (A-F only)
442535 1325-1625 M, EitH N508, Christenson, 3 cr
- r8820 Seminar: Research in School Psychology** (max 6 cr, §PsyS 8520)
744646 1325-1520 F, EitH N508, Egeland, 2 cr
- 8831 Practicum: School Psychological Services** (prereq #)
819284 1-5 cr
- 8832 Clinical Practice in School Psychology** (prereq 8810 or PsyS 8310)
123431 1-5 cr
- 8840 Internship: School Psychological Services** (prereq 8831 or PsyS 8610, #) (S-N only)
721755 Ysseldyke, 5-15 cr
- 8841 Internship: Instruction and Supervision in School Psychology** (prereq 8840 or PsyS 8700, doctoral candidate in school psychology) (S-N only)
116276 Christenson, 1-9 cr

R8853 New Approaches to Psychopathology in Children and Adolescents (§CPsy 606, PsyS 8153)
119761 0945-1100 TTh, ChDev 105, Masten, 3 cr

8888 Thesis Credits: Doctoral (max 18 cr per qtr)
916828 1-36 cr

8900 Research Problems
513091 -1 ar cr (special ed maj only)
217300 -2 ar cr (counseling maj only)
214283 -3 ar cr (school psych maj only)
223405 -4 ar cr (psych foundations)

R8910 Directed Study (prereq #)
222769 -1 ar cr (special ed maj only)
814599 -2 ar cr (counseling maj only)
414122 -3 Ysseldyke, ar cr (school psych maj only)
018926 -4 ar cr (psych foundations)
514662 -5 1115-1205 T, BuH 125, Hansen L, 1 cr
544647 -6 1600-1800 W, Eth N508, Egeland, 2 cr

ELECTRICAL ENGINEERING (EE)

Institute of Technology

R1400 Circuits Laboratory (prereq 3009 or fl. IT maj)
312783 -1 LAB 1325-1520 M, EE/CSci 3170, 1 cr
721111 -2 LAB 1535-1730 M, EE/CSci 3170, 1 cr
916067 -3 LAB 0800-0955 T, EE/CSci 3170, 1 cr
115161 -4 LAB 1010-1205 T, EE/CSci 3170, 1 cr
423337 -5 LAB 1535-1730 T, EE/CSci 3170, 1 cr
822847 -6 LAB 1325-1520 W, EE/CSci 3170, 1 cr
515830 -7 LAB 1535-1730 W, EE/CSci 3170, 1 cr
720976 -8 LAB 0800-0955 Th, EE/CSci 3170, 1 cr
113420 -9 LAB 1325-1520 Th, EE/CSci 3170, 1 cr
919874 -10 LAB 1535-1730 Th, EE/CSci 3170, 1 cr
522499 -11 LAB 1430-1625 F, EE/CSci 3170, 1 cr
119338 -12 LAB 1615-1800 F, EE/CSci 3170, 1 cr

R3003 Circuits and Electronics (prereq non-EE IT stu, Phys 1291, Math 3321 or flMath 3321)
113720 1220-1310 TWTf, Arch 5, 4 cr

R3004 Circuits and Electronics Laboratory (non EE majs; prereq IT student, 3003 or fl)
715728 -1 LAB 1535-1730 M, EE/CSci 3170, 1 cr
114051 -2 LAB 0800-0955 T, EE/CSci 3170, 1 cr
223310 -3 LAB 1010-1205 T, EE/CSci 3170, 1 cr
519294 -4 LAB 1325-1520 T, EE/CSci 3170, 1 cr
316137 -5 LAB 1535-1730 T, EE/CSci 3170, 1 cr
019137 -6 LAB 0800-0955 Th, EE/CSci 3170, 1 cr

R3009 Linear Circuits I (prereq IT stu, Math 3321 or flMath 3321, Phys 1281 or flPhys 1281) (A-F only)
★LECT 1115-1205 MTWf, EE/CSci 3210, 4 cr

420180 -1 REC 1325-1415 T, LindH 305, (IT Honors stu)
722873 -2 REC 1430-1520 T, EE/CSci 3210, (prereq elec eng maj only)
020787 -3 REC 1535-1625 T, EE/CSci 3210, (prereq elec eng maj only)
717303 -4 REC 1535-1625 T, EE/CSci 3210
714515 -5 REC 1640-1730 T, EE/CSci 3210, (prereq elec engr maj only)
721786 -6 REC 1640-1730 T, EE/CSci 3111
517447 -7 REC 1325-1415 W, FordH 115, (prereq elec engr maj only)
512863 -8 REC 1430-1520 W, FordH 115, (prereq elec engr maj only)

R3010 Linear Circuits II (prereq IT stu, at least C grades in 3009, Math 3321, Phys 1291 or flPhys 1291) (A-F only)
★LECT 1115-1205 MTWf, PilišH 110, 4 cr
613292 -1 REC 1430-1520 M, EE/CSci 3111
718824 -2 REC 1535-1625 M, EE/CSci 3111
713817 -3 REC 1640-1730 M, EE/CSci 3111

R3011 Signal Analysis (prereq 3010, upper division elec engr maj)
★LECT 0905-0955 MTWf, EE/CSci 3230, 4 cr
317997 -1 REC 1325-1415 M, LindH 305
921026 -2 REC 1430-1520 M, EE/CSci 2260
121512 -3 REC 1535-1625 M, EE/CSci 3115
715177 -4 REC 1640-1730 M, EE/CSci 3115

R3012 System Design (prereq upper div EE maj, 3011, Math 3321) (A-F only)
★LECT 0800-0850 MWThF, EE/CSci 3210, 4 cr
216518 -1 REC 1325-1415 M, EE/CSci 2260
515343 -2 REC 1430-1520 M, EE/CSci 3115
113572 -3 REC 1535-1620 M, EE/CSci 3230

R3060 Semiconductor Devices (prereq 3010 or fl, Phys 1291, upper division elec engr, computer sci or mech engr maj)
★LECT 1325-1415 MTWf, EE/CSci 3230, 4 cr
616905 -1 REC 1430-1520 T, EE/CSci 2260
813856 -2 REC 1535-1625 T, EE/CSci 2260
116259 -3 REC 1640-1730 T, EE/CSci 2260

R3061 Analog Electronics (prereq upper div EE or CSci or ME maj, 3010, 3060, 3400 or fl3400) (A-F only)
★LECT 1115-1205 MWThF, EE/CSci 3230, 4 cr
220813 -1 REC 1325-1415 W, LindH 305
414282 -2 REC 1430-1520 W, EE/CSci 3230
123051 -3 REC 1535-1625 W, EE/CSci 3230
618072 -4 REC 1640-1730 W, EE/CSci 3115
021292 -5 REC 1325-1415 Th, Arch 25, (EE, CSci, ME Honors stu)
717947 -6 REC 1430-1520 Th, EE/CSci 3111

R3110 Electric and Magnetic Fields (prereq upper div EE or ME maj, at least C grades in Phys 1291, Math 3331 or flMath 3331) (A-F only)
★LECT 1010-1100 MWThF, SmithH 231, 4 cr
322858 -1 REC 1325-1415 M, Arch 30
114437 -2 REC 1430-1520 M, EE/CSci 3230
714014 -3 REC 1535-1625 M, EE/CSci 2260
123132 -4 REC 1640-1730 M, EE/CSci 2260
619190 -5 REC 1325-1415 T, Phys 143, (EE, ME Honors stu)
523488 -6 REC 1430-1520 T, EE/CSci 3111

R3351 Introduction to Logic Design (prereq IT soph) (A-F only)
★LECT 1010-1100 MWF, EE/CSci 3210, 4 cr
720816 -1 LAB 0800-0955 T, EE/CSci 2178
015217 -2 LAB 0800-0955 T, EE/CSci 2178
122174 -3 LAB 1325-1520 T, EE/CSci 2178
114317 -4 LAB 1325-1520 T, EE/CSci 2178
120237 -5 LAB 1535-1730 T, EE/CSci 2178
914786 -6 LAB 1535-1730 W, EE/CSci 2178
621859 -7 LAB 1535-1730 W, EE/CSci 2178
116195 -8 LAB 0800-0955 Th, EE/CSci 2178
121078 -9 LAB 0800-0955 Th, EE/CSci 2178
113742 -10 LAB 1325-1520 Th, EE/CSci 2178
022362 -11 LAB 1535-1730 Th, EE/CSci 2178
918997 -12 LAB 1430-1625 F, EE/CSci 2178
014018 -13 LAB 1430-1625 F, EE/CSci 2178

Registration in one of the REC sections is also required.

214705 -1 REC 1325-1415 W, EE/CSci 2260
414668 -2 REC 1430-1520 W, EE/CSci 2260
720847 -3 REC 1535-1625 W, EE/CSci 2260
921365 -4 REC 1640-1730 W, EE/CSci 2260
019106 -5 REC 1325-1415 Th, LindH 203
221363 -6 REC 1430-1520 Th, EE/CSci 2260

R3400 Junior Electrical Engineering Laboratory (prereq EE maj, 1400, 3060 or fl3060) (A-F only)
★LECT 1220-1310 W, EE/CSci 3210

321113 -1 LAB 0800-1100 Th, EE/CSci 3166, 2 cr
513785 -2 LAB 0800-1100 Th, EE/CSci 3166, 2 cr
819091 -3 LAB 1115-1415 Th, EE/CSci 3166, 2 cr
220407 -4 LAB 1115-1415 Th, EE/CSci 3166, 2 cr
514258 -5 LAB 1430-1730 Th, EE/CSci 3166, 2 cr
718290 -6 LAB 1430-1730 Th, EE/CSci 3166, 2 cr
120165 -7 LAB 1430-1730 F, EE/CSci 3166, 2 cr
817227 -8 LAB 1430-1730 F, EE/CSci 3166, 2 cr

R3401 Junior Electrical Engineering Laboratory (prereq 3400, 3061 or fl3061) (A-F only)
★LECT 1220-1310 M, EE/CSci 3210

522115 -1 LAB 1430-1730 M, EE/CSci 3166, 2 cr
121753 -2 LAB 1430-1730 M, EE/CSci 3166, 2 cr (EE Honors stu)
516217 -3 LAB 1715-2000 M, EE/CSci 3166, 2 cr
615981 -4 LAB 1715-2000 M, EE/CSci 3146, 2 cr
722100 -5 LAB 0800-1100 T, EE/CSci 3166, 2 cr
923410 -6 LAB 0800-1100 T, EE/CSci 3166, 2 cr
617830 -7 LAB 1115-1415 T, EE/CSci 3166, 2 cr
220200 -8 LAB 1115-1415 T, EE/CSci 3166, 2 cr

117340 -9 LAB 1430-1730 T, EE/CSci 3166, 2 cr
519845 -10 LAB 1430-1730 T, EE/CSci 3166, 2 cr
121333 -11 LAB 1715-2000 T, EE/CSci 3146, 2 cr
118178 -12 LAB 1430-1730 W, EE/CSci 3166, 2 cr
722064 -13 LAB 1430-1730 W, EE/CSci 3166, 2 cr

R3476 Industrial Assignment I (prereq regis in co-op program)
721853 2 cr

R5002 Digital Signal Processing (prereq upper division elec engr maj or grad IT maj, 3012 or #)
218933 0800-0850 MWF, EE/CSci 3230, 3 cr

R5003 Digital Signal Processing Laboratory (prereq upper division EE maj, 3402 or fl3402, 5002, or #) (A-F only)
723313 -1 LAB 1430-1625 M, EE/CSci 2170, 1 cr
722050 -2 LAB 0905-1100 T, EE/CSci 2170, 1 cr
917090 -3 LAB 1430-1625 T, EE/CSci 2170, 1 cr
117430 -4 LAB 1535-1730 W, EE/CSci 2170, 1 cr
216826 -5 LAB 1010-1205 Th, EE/CSci 2170, 1 cr
614975 -6 LAB 1325-1520 Th, EE/CSci 2170, 1 cr

R5055 Instrumentation and Control Electronics (prereq upper division elec engr maj or grad IT maj, 3012 or fl, 3062 or #)
721092 1115-1205 MTWf, FordH 55, 4 cr

R5056 Electronic Circuits Laboratory (prereq IT stu or grad IT maj, 3402 or fl3402, fl5055) (A-F only)
221430 -1 LAB 1325-1730 T, EE/CSci 3144, 1 cr (alt T)
312847 -2 LAB 0800-1205 Th, EE/CSci 3144, 1 cr (alt Th)
219760 -3 LAB 1325-1730 Th, EE/CSci 3144, 1 cr (alt Th)
917459 -4 LAB 1325-1730 Th, EE/CSci 3144, 1 cr (alt Th)

R5161 Materials and Devices II (prereq 5151 or #)
818183 0945-1100 TTh, Arch 15, 4 cr

R5203 Digital Communication (prereq upper division elec engr maj or grad IT maj, 3012, 5202, Stat 3091 or #) (A-F only)
642551 1325-1415 MWF, EE/CSci 3210, 3 cr

R5241 Data Communications Laboratory (prereq 3402 or fl3402, fl5203) (A-F only)
442552 1 cr (EE/CSci 2164)

R5253 Linear Control Systems (prereq upper division elec engr maj or grad IT maj, 3012 or #) (A-F only)
015735 0905-0955 MWF, EE/CSci 3210, 3 cr

R5291 Linear Control Systems Laboratory (prereq 3402 or fl3402, fl5253) (A-F only)
014522 1 cr (EE/CSci 2188)

R5310 Electric Power Systems (prereq IT stu or grad IT maj, 3402 or fl3402, 5300 or #) (A-F only)
014357 -1 LECT 0815-0930 TTh, Arch 15, 4 cr (lab ar)
★LAB (EE/CSci 2270)

R5332 Energy Conversion Methods (prereq 3060, 3111, Phys 3501 or ME 3301 or #) (A-F only)
242553 1325-1415 MTWf, AmundH 124, 4 cr

R5355 Microprocessor Interfacing and System Design (prereq upper division elec engr maj or grad IT maj, 3351, 3352, 3402 or fl3402, or #) (A-F only)
★LECT 1430-1520 MWF, EE/CSci 3210, 4 cr

714045 -1 LAB 1115-1310 M, EE/CSci 2182
016772 -2 LAB 1535-1730 M, EE/CSci 2182
714272 -3 LAB 0800-0955 T, EE/CSci 2182
413794 -4 LAB 1325-1520 T, EE/CSci 2182
323346 -5 LAB 1535-1730 T, EE/CSci 2182
816398 -6 LAB 1535-1730 W, EE/CSci 2182
513253 -7 LAB 0800-0955 Th, EE/CSci 2182
013029 -8 LAB 1010-1205 Th, EE/CSci 2182
622400 -9 LAB 1325-1520 Th, EE/CSci 2182
816353 -10 LAB 0800-0955 F, EE/CSci 2182

R5450 Senior Design Project (prereq elec engr sr, 3012, 3062, 3110, 3351, 3352, 3402)
313898 1430-1730 T, EE/CSci 3230, 2 cr

R5470 Directed Study (prereq Δ)
116172 -1 ar cr

R5478 Industrial Assignment III (prereq 3477, regis in co-op program) (A-F only)
314159 2 cr

n5479 Industrial Assignment IV (prereq 5478)
117273 2 cr

n5491H Honors Project (prereq 5490H)
517061 1325-1625 Th, EE/CSci 3230, 3 cr

n5512 Adaptive Digital Filter Theory (prereq grad IT maj, 5511, 5702 or #)
513396 -1 1115-1230 TTh, MechE 212, 3 cr

n5572 VLSI Design II (prereq 5571 or #)
521398 -1 1220-1310 MWF, MechE 108, 3 cr

n5576 VLSI Modeling and Processing (prereq 5572 or #)
522583 0815-0930 TTh, EE/CSci 2260, 3 cr

n5605 Microwave Devices and Circuit Applications (prereq 3111, 5604 or equiv, or #, IT sr or IT grad stu)
115345 -1 1115-1205 MWF, EE/CSci 3125, 3 cr

n5630 Contemporary Optics (prereq 3111 or Phys 5024 or #)
017727 -1 1430-1545 MWF, EE/CSci 3125, 4 cr

n5651 Physical Methods in Solid State Materials II (prereq 5650 or #, EE sr or grad stu or adult special)
113501 1010-1100 MWF, EE/CSci 3230, 3 cr

n5661 Semiconductor Properties and Devices I (prereq EE sr or grad stu or adult special, 5650, 3111 or #)
122117 -1 0905-0955 MWF, MechE 212, 3 cr

n5667 Magnetic Properties of Materials and Applications (prereq 5668)
322018 0945-1100 TTh, EE/CSci 3210, 3 cr

n5670 Basic Microelectronics (prereq #)
★LECT 0800-0850 TTh, EE/CSci 3230, 4 cr
315344 -1 LAB 1430-1730 M, ElectE 413
823593 -2 LAB 1430-1730 T, ElectE 413
121560 -3 LAB 1430-1730 W, ElectE 413
519554 -4 LAB 1430-1730 Th, ElectE 413
317546 -5 LAB 1430-1730 F, ElectE 413

n5700 Information Theory and Coding (prereq Stat 3091 or #, IT sr, grad or adult special)
913752 -1 1220-1310 MWF, MechE 102, 3 cr

n5751 Linear Optimal Control (prereq grad IT maj, 5750, Math 5243 or Math 5243 or #)
723134 1220-1310 MWF, EE/CSci 2260, 3 cr

n5815 Switched Mode Power Electronics II (prereq 5814 or #, IT sr, adult special or grad IT maj)
843813 -1 0800-0850 MWF, MechE 102, 3 cr

n5825 Finite-Element Methods in Electrical Engineering (prereq IT grad or EE sr or #)
942555 1115-1230 TTh, LindH 215, 3 cr

n5852 Digital Computer Systems (prereq 5851 or #)
122322 -1 1325-1415 MWF, MechE 108, 3 cr

n5856 Parallel Computing (prereq 5852, 5853 or #, grad IT maj)
716586 1245-1400 TTh, Arch 15, 3 cr

n5962 Design Studies in Engineering (prereq Δ)
013984 1325-1715 F, EE/CSci 2260, Peria, Sparrow, 3 cr

n8090 Electronics Seminar (prereq #) (S-N only)
420938 1535-1625 F, EE/CSci 3230, 1 cr

n8154 Properties of Semiconductors (prereq #)
742556 0945-1100 TTh, EE/CSci 2260, 3 cr

n8157 Ferromagnetism and Related Phenomena (prereq 8156)
542557 1245-1400 TTh, EE/CSci 3210, 3 cr

n8192 Seminar: Magnetism (prereq #) (S-N only)
120327 -1 1325-1415 F, EE/CSci 3125, Judy, ar cr

n8203 Signal Detection and Estimation Theory with Applications (prereq 5702 or #)
020336 -1 0945-1100 TTh, MechE 102, 3 cr

n8207 VLSI Signal Processing (prereq IT grad stu, 5571 or #)
342558 -1 1430-1520 MWF, MechE 102, 3 cr

n8240 Seminar: Communication (prereq #) (S-N only)
018392 Kaveh, ar cr

n8258 Advanced Systems Theory II (prereq grad student in IT program, #) (A-F only)
819124 1115-1230 TTh, EE/CSci 2260, 3 cr

n8290 Seminar: Control Theory (prereq #) (S-N only)
918062 -1 1430-1520 F, MechE 108, Georgiou, ar cr

n8301 Advanced Power-System Topics (prereq 8300)
142559 1245-1400 TTh, EE/CSci 2260, 3 cr

n8355 Computer Architecture I (prereq 5853, CSci 5101 or #)
314064 1325-1415 MWF, AmundH 162, 3rd cr

n8451 Advanced Topics in Electrical Engineering (prereq #)
616886 -1 Kinney, 3 cr
121016 -2 Harjani, ar cr

8460 Plan B Project (prereq #) (A-F only)
712845 4 cr

n8491 Graduate Seminar (prereq 8490) (S-N only)
021146 -1 1535-1705 Th, MechE 108, 1 cr

8777 Thesis Credits: Masters
619268 1-16 cr

8888 Thesis Credits: Doctoral (max 18 cr per qtr)
322133 1-36 cr

ELEMENTARY EDUCATION (Elem) Curriculum And Instruction Education

n3300 Children's Literature (A-F only)
122384 -1 0905-0955 MWF, PeikH 48, Clark, 3 cr
920118 -2 1325-1440 TTh, PeikH 315, Phinney, 3 cr

n3316 Teaching English in the Elementary School (prereq 3100, 3101, Engl 3851) (A-F only)
216762 -1 1010-1100 MWF, PeikH 40, Dykstra, 3 cr (fsec 1, 3331)
422236 -2 1010-1100 MWF, PeikH 46, Cerra, 3 cr (fsec 2, 3331)

n3331 Teaching Reading in the Elementary School (prereq 3100, 3101) (A-F only)
919938 -1 1115-1205 MWF, PeikH 40, Manning, 3 cr (fsec 1, 3316)
013337 -2 1115-1205 MWF, PeikH 46, Watts, 3 cr (fsec 2, 3316)

n3346 Teaching Science in the Elementary School (prereq 3100, 3101, 10 cr in natural science) (A-F only)
413018 -1 1010-1205 MWF, PeikH 385, Finley, 3 cr (fsec 1, 3361, sec 1, 3391) (IIIA)
116066 -2 1010-1205 MWF, PeikH 365, Olness, 3 cr (fsec 2, 3361, sec 2, 3391) (IIIA2)

n3361 Teaching Social Studies in the Elementary School (prereq 3100, 3101) (A-F only)
520185 -1 0905-0955 MWF, PeikH 375, Avery, 3 cr (fsec 1, 3346, sec 1, 3391) (IIIA)
119153 -2 0905-0955 MWF, PeikH 385, Cogan, 3 cr (fsec 2, 3346, sec 2, 3391) (IIIA)

n3376 Nursery School-Kindergarten Curriculum I (prereq 3100) (A-F only)
114616 1325-1625 T, PeikH 40, Hansen, 3 cr

n3377 Nursery School-Kindergarten Curriculum II (prereq 3376) (A-F only)
120058 1325-1625 Th, PeikH 40, Hansen, 3 cr

n3378 Social Learning in Early Childhood Education (prereq CPsy 1301 or 5301) (A-F only)
718855 1645-1815 TTh, AkerH 215, 3 cr

n3391 Teaching Mathematics in the Elementary School (prereq 3100, 3101, Math 1005, 1006) (A-F only)
116472 -1 0800-0850 MWF, PeikH 375, Jackson, 3 cr (fsec 1, 3346, sec 1, 3361) (IIIA)
914514 -2 0800-0850 MWF, PeikH 385, 3 cr (fsec 2, 3346, sec 2, 3361) (IIIA)

3600 Student Teaching in the Elementary School, Half Days (prereq 12 cr methods, Δ) (S-N only)
222416 6 cr

3603 Student Teaching in the Kindergarten (prereq 6 cr elem student tchg, Δ) (S-N only)
723070 6 cr

3604 Student Teaching in the Nursery School (prereq approval of major adviser, director student teaching) (S-N only)
317210 -1 1630-1815 W, ChDev 105, Galle, 3-6 cr
423483 -2 3-6 cr

3605 Student Teaching in Elementary School: Half Days, Full Days (prereq 15 cr methods, Δ) (S-N only)
113152 9 cr

3607 Student Teaching in Elementary School: Full Days (prereq 18 cr methods, Δ) (S-N only)
123011 12 cr

3621 Junior Practicum in Elementary Education (max 6 cr; prereq elementary education maj) (S-N only)
822962 1-2 cr

3634 Student Teaching in Elementary School Science (prereq 10 cr in elem student tchg, Δ) (S-N only)
219919 3 cr

3636 Student Teaching in Elementary School Social Studies (prereq 10 cr in elem student tchg, Δ) (S-N only)
816773 3 cr

3900 Directed Study (max 6 cr; prereq elementary maj, Δ) (A-F only)
013189 1-3 cr

n5000 Introduction to Elementary School Teaching (§3101, 5211; prereq elem ed or CLA mus ed maj or □) (A-F only)
945438 1325-1415 MWF, PeikH 28, Buggiey, 3 cr

n5100 Elementary School Curriculum (prereq 3101) (A-F only)
942572 1630-1900 Th, PeikH 40, Buggiey, 3 cr

n5211 Applying Instructional Methods (S-N only)
645322 Buggiey, 2 cr (off-campus) (ar, following 1st session of Elem 5000)

n5305 Survey of Special Collections in Children's Literature (prereq 5300 or #) (A-F only)
416520 1830-2100 Th, BuH 125, Hoyle, 3 cr

n5316 Teaching and Supervision of English in the Elementary Schools (prereq 3316 or elementary school teaching experience) (A-F only)
218981 1630-1900 W, PeikH 40, Dykstra, 3 cr

5320 Practicum: Teaching Second Languages and Cultures in Elementary Schools (prereq 5319 or #, #) (S-N only)
117791 Jorstad, 3 cr

n5337 Beginning Reading Instruction (prereq 3331 or elem teacher or #) (A-F only)
914254 1630-1900 M, PeikH 48, Manning, 3 cr

n5338 Teaching Reading in the Intermediate Grades (prereq 3331 or elem teaching experience or #) (A-F only)
121212 1630-1900 W, PeikH 40, Watts, 3 cr

n5348 Workshop: Outdoor Science Education (prereq elementary teaching experience) (A-F only)
920474 Johnson, 3 cr (1800-2100 Jan 24, 0830-1630 Jan 25-26, 1800-2100 Mar 2, Woodlake Nature Center, Richfield; 1800-2100 Feb 7, 0830-1630 Feb 8-9, Long Lake Conservation Ctr, Aitkin)

5378 Contemporary Programs for Young Children (max 3 cr; prereq MED student in early childhood education) (A-F only)
742573 1630-1815 W, JonesH 10, Galle, 3 cr

n5602 Practicum: Improvement of Teaching (prereq MED student in elementary education) (S-N only)
022457 -1 Avery, 3 cr
118559 -2 Cogan, 3 cr
216521 -3 Dykstra, 3 cr
015346 -4 Finley, 3 cr
623594 -5 Hansen, 3 cr
921561 -6 Heller, 3 cr
319555 -7 Jackson, 3 cr
117547 -8 Johnson, 3 cr
815347 -9 Phinney, 3 cr
013502 -10 Manning, 3 cr
122585 -11 Orton, 3 cr
615348 -12 Post, 3 cr
813503 -13 Stochl, 3 cr
022586 -14 Taylor, 3 cr
620579 -15 Watts, 3 cr

8332 Recent Research in Reading (prereq #)
542574 1630-1900 T, JonesH 10, Taylor, 3 cr

8346 Research Foundations of Elementary School Science Teaching (prereq 5346 or #)
342575 1630-1915 M, PeikH 385, Johnson, 3 cr

n8916 Problems: Teaching English (prereq #)
614989 -1 Dykstra, ar cr
418560 -2 Phinney, ar cr

- r8931 Problems: Teaching Reading** (prereq 5331 or SeEd 5344, #)
014116 -1 Manning, ar cr
415349 -2 Taylor, ar cr
- r8961 Problems: Teaching Social Studies** (prereq 5361 or SeEd 5155 or 8104, #)
222044 -1 Avery, ar cr
116522 -2 Cogan, ar cr
- r8976 Problems: Teaching Kindergarten** (prereq #)
113028 Hansen, 3 cr
- r8991 Problems: Improvement of Instruction** (prereq #)
417926 -1 Avery, ar cr
318650 -2 Cogan, ar cr
916599 -3 Dykstra, ar cr
815512 -4 Hansen, ar cr
123681 -5 Jackson, ar cr
621649 -6 Johnson, ar cr
119637 -7 Manning, ar cr
217622 -8 Phinney, ar cr
615513 -9 Post, ar cr
923682 -10 Stochl, ar cr
018733 -11 Taylor, ar cr
344620 -12 Watts, ar cr

ENDODONTICS (Endo) Dentistry

- 5301 Advanced Clinical Endodontics** (A-F only)
314095 ar cr
- 5305 Advanced Clinical Endodontics** (A-F only)
915758 ar cr
- 5311 Advanced Endodontic Emergency** (S-N only)
412726 1 cr
- 5315 Advanced Endodontic Emergency** (S-N only)
115863 1 cr
- 5331 Review of Cases** (S-N only)
712750 1 cr
- 5335 Review of Cases** (S-N only)
319961 1 cr
- 5400 Advanced Endodontics for Postgraduate Dental Fellows** (S-N only)
113653 1 cr
- 8006 Research in Endodontics**
613891 ar cr
- 8311 Seminar: Endodontics** (A-F only)
619755 2 cr
- 8315 Seminar: Endodontics** (A-F only)
913704 2 cr
- 8321 Advanced Endodontic Lectures** (A-F only)
017484 1 cr

ENGLISH AS A SECOND LANGUAGE (ESL) Linguistics Liberal Arts

- 0100 English as a Second Language** (prereq Δ)
- 0110 English as a Second Language** (prereq Δ)
- 0120 English as a Second Language** (prereq Δ)
- 0130 English as a Second Language** (prereq Δ)
- 8777 Thesis Credits: Masters**
217460 1-16 cr

ENGLISH LANGUAGE AND LITERATURE (Engl) Liberal Arts

- r1005 Introduction to Literature**
721657 -1 0800-0850 MWF, LindH 215, 4 cr
744498 -2 1325-1415 MWF, LindH 229, Paynick,
4 cr
944497 -3 0815-0930 TTh, LindH 217, Legler,
4 cr
- r1005H Honors Course: introduction to the Study of Literature**
142612 1010-1100 MWF, LindH 203, 4 cr
- r1017 Introduction to Modern Poetry**
715048 1010-1100 MWF, BuH 120, Luke, 4 cr
- r1018 Introduction to Modern Fiction**
042613 0815-0930 TTh, Arch 5, Weinsheimer,
4 cr

- r1241 Introduction to Shakespeare**
216647 1115-1205 MWF, LindH 302, Haley, 4 cr
- r1591 Literature of American Minorities**
614281 -1 0800-0850 MWF, FordH 55, Allison,
4 cr
715664 -2 1325-1415 MWF, LindH 215, Viragos,
4 cr
442583 -3 0815-0930 TTh, LindH 215, 4 cr
544499 -4 1245-1400 TTh, LindH 215, Gustafson,
4 cr
244500 -5 1430-1545 TTh, LindH 305, Beruvides,
4 cr
- r1671 The Short Story**
242584 0945-1100 TTh, LindH 203, Herbst, 4 cr
- r3008 Techniques of Literary Study** (prereq pre-Engl or Engl maj or min only)
222898 0800-0850 MWF, LindH 203, Sutphen,
4 cr
- r3115 The Middle Ages**
142585 -1 0905-0955 MWF, LindH 217,
MacLeish, 4 cr
942586 -2 0905-0955 MWF, LindH 217,
MacLeish, 4 cr (Engl maj/premaj only)
- r3118 The Romantic Age**
742587 -1 1220-1310 MWF, LindH 215, Luke,
4 cr
542588 -2 1220-1310 MWF, LindH 215, Luke,
4 cr (Engl maj/premaj only)
- r3241 Shakespeare (§3243)**
617388 -1 1010-1100 MWF, LindH 215, Geffen,
4 cr
214557 -2 1010-1100 MWF, LindH 215, Geffen,
4 cr (Engl maj/premaj only, Δ)
(concurrent registration in Comp 3011,
sec 4 is required)
422589 -3 0815-0930 TTh, FolH 134, Clayton,
4 cr
620582 -4 0815-0930 TTh, FolH 134, Clayton,
4 cr (Engl maj/premaj only)
745327 -5 1430-1545 TTh, LindH 229, 4 cr
545328 -6 1430-1545 TTh, LindH 229, 4 cr (Engl
maj/premaj only)
- r3242 Shakespeare (§3243)**
213991 -1 0905-0955 MWF, FolH 116, 4 cr
115192 -2 0905-0955 MWF, FolH 116, 4 cr (Engl
maj/premaj only)
445323 -3 1220-1310 MWF, VinH 206, 4 cr
245324 -4 1220-1310 MWF, VinH 206, 4 cr (Engl
maj/premaj only)
145325 -5 0945-1100 TTh, LindH 305, 4 cr
945326 -6 0945-1100 TTh, LindH 305, 4 cr (Engl
maj/premaj only)
- r3356 Modern British Literature, 1920-1950**
820421 1115-1205 MWF, LindH.305, Firchow,
4 cr
- r3412 Survey of American Literature, 1850-1900**
719875 0945-1100 TTh, SciCB 175, Rabinowitz,
4 cr
- r3671 The Novel**
317661 0905-0955 MWF, NichH 211, Hirsch, 4 cr
- r3711 Classics of Literary Criticism (§5711, CICv 3711, CICv 5711)**
742590 1220-1310 MWF, LindH 217, Copeland,
4 cr
- r3851 The English Language (§5851)**
122336 -1 1325-1415 MWF, LindH 217,
Brownlee, 4 cr
844492 -2 0945-1100 TTh, LindH 229, Moses,
4 cr
- r3920 Topics in Anglophone Literature: Latino American Literature and Culture**
316610 0905-0955 MWF, LindH 215, Cooper, 4 cr
- r3960 Junior-Senior Seminar** (prereq Engl maj jr or sr, Comp 3011 or Comp 3012 or Comp 3013, Δ)
342592 -1 1115-1230 MW, LindH 203, Kendall,
4 cr (Medieval Narrative)
542591 -2 0905-0955 MWF, LindH 216, Firchow,
4 cr (Modernist Poetry: Yeats, Eliot and Auden)
144496 -3 1115-1230 TTh, LindH 216, Furia, 4 cr
(Frost and Stevens)
- 3961 Senior Paper** (prereq Engl maj, sr, 3960 or fl or 3960H or fl or 3931-3932 or fl or EngW 3960 or fl, Δ) (S-N only)
112809 1 cr
- 3963H Honors Thesis** (prereq honors candidacy in Engl, consent of Engl honors adviser)
314856 4 cr

- 3970 Directed Studies** (prereq #, Δ, □)
314801 1-15 cr
- 3980 Directed Instruction** (prereq #, Δ, □)
921074 ar cr
- r5211 Old English (Anglo-Saxon)** (prereq grad stu or Engl maj or Δ)
644493 0905-1020 MWF, LindH 302, Kendall, 5 cr
- r5215 Major Types of Middle English Literature** (prereq 5221, grad stu or Engl maj or Δ)
020580 1010-1100 MWF, LindH 229, Copeland,
4 cr
- r5221 Chaucer: The Canterbury Tales** (prereq grad stu or Engl undergrad maj or Δ)
142593 0945-1150 TTh, LindH 217, Wallace, 5 cr
- r5363 James Joyce** (prereq grad stu or Engl maj or Δ)
842595 1010-1100 MWF, LindH 217, Anderson,
4 cr
- r5482 Folklore** (prereq grad stu or Engl maj or Δ)
642596 1115-1230 TTh, LindH 305, Stekert, 4 cr
- r5597 Harlem Renaissance Seminar (§Afro 5597; prereq grad stu or Engl maj or Δ)**
442597 1115-1230 TTh, BlegH 255, Wright J., 4 cr
- r5712 Literary Criticism: Plato to Dryden** (prereq grad stu or Engl maj or Δ)
242598 0945-1100 TTh, LindH 215, Weinsheimer,
4 cr
- r5815 History of English Language** (prereq grad stu or Engl maj or Δ)
142599 1115-1205 MWF, LindH 217, MacLeish,
4 cr
- r5910 Topics in English and North American Literature: Myth in 20th-Century American Literature** (prereq grad stu or Engl maj or Δ)
842600 1115-1205 MWF, LindH 215, Viragos, 4 cr
- r5940 Figures in English and North American Literature: Hopkins and the Pre-Raphaelites** (prereq grad stu or Engl undergrad maj or Δ)
642601 1220-1310 MWF, LindH 302, Anderson,
4 cr
- 5970 Directed Studies** (prereq #, Δ, CLA approval)
413701 1-4 cr
- r8112 Proseminar in Renaissance Studies**
444494 1245-1500 T, LindH 217, Wright T., 4 cr
- r8119 Proseminar in 20th-Century British, American Literature: 20th-Century Canadian Literature**
242603 1245-1500 T, LindH 302, Hoy, 4 cr
- r8220 Chaucer: Canterbury Tales (§MeSt 5610, sec 5)**
142604 1245-1500 T, LindH 203, Wallace, 4 cr
- r8250 Seminar in 17th-Century Studies: Milton, Dryden and Marvell**
942605 1325-1540 W, LindH 340, Haley, 4 cr
- r8480 Studies in Folklore: Terror/Horror in Oral and Written Narrative**
742606 1430-1645 Th, LindH 215, Stekert, 4 cr
- r8510 Studies in Early American Literature: Colonial Literary Culture in the 18th-Century**
542607 1430-1645 T, LindH 303, Griffin, 4 cr
- r8530 Studies in 19th-Century American Literature: American Transcendentalists**
342608 1325-1540 M, LindH 320, Ross, 4 cr
- r8610 Studies in 20th-Century British and American Literature: Dickinson**
321564 1245-1500 Th, LindH 216, McNaron, 4 cr
- r8710 Studies in Criticism**
119556 -1 1220-1435 M, LindH 216, Hancher,
4 cr (Illustration and Interpretation)
542610 -2 1330-1545 W, LindH 216,
Messer-Davidow, 4 cr
(Theorizing as Praxis)
- r8810 Studies in the English Language: Introduction to Composition Research**
814473 1325-1540 W, LindH 302, Anson, 4 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
119985 1-36 cr
- 8970 Independent Reading** (prereq #, Δ)
922208 1-15 cr

ENGLISH: CREATIVE & PROFESSIONAL WRITING

(EngW)

English Language and Literature Liberal Arts

- r1103 Introduction to Poetry Writing** (§Engl 1104; prereq writing practice or 1101)
122523 -1 1245-1400 MW, LindH 203, Sine, 4 cr
(Engl maj only)
314758 -2 1245-1400 MW, LindH 203, Sine, 4 cr
- r5102 Advanced Fiction Writing** (§Engl 5102; prereq Δ)
816143 1615-1845 T, LindH 215, Alden, 4 cr
- r5120 Topics in Advanced Poetry Writing: Translation and Recent American Poetry** (prereq #)
345251 1820-2050 T, LindH 305, Browne, 4 cr
- r5130 Topics in Advanced Creative Writing: Russian Models** (prereq Δ)
744341 1615-1845 W, FordH 60, Iossel, 4 cr
- r5204 Advanced Playwriting** (prereq Δ)
120982 1615-1845 W, BlegH 440, 4 cr
- 5970 Directed Study in Writing** (prereq #)
018750 1-4 cr

ENTOMOLOGY (Ent)

Agriculture

- 5030 Insect Physiology** (prereq #...BioC 5001, 5002 or MdBc 5100 rec)
214624 1250-1340 MWF, HodsonH 490, Kurtti, Mesce, 3 cr
- 5200 Apiculture** (prereq 9 cr entomology or biology)
★LECT 0830-0920 MWF, HodsonH 480, Furgala, 4 cr
419014 -1 LAB 0935-1130 F, HodsonH 480
- 5210 Insect Pest Management** (prereq 1005 or #)
913699 0815-1005 TTh, HodsonH 490, Radcliffe, 4 cr
- 5280 Livestock Entomology**
715938 0935-1025 MWF, HodsonH 485, Moon, 3 cr
- 5310 Sampling Biological Populations** (prereq Stat 5021 or equiv)
014178 1355-1445 MWF, HodsonH 480, Moon, 4 cr (addtl hr ar)
- 5480 Invertebrate Neurobiology** (§NSc 5480)
017548 1355-1445 WF, HodsonH 490, Mesce, 2 cr
- 5910 Special Problems in Entomology** (prereq #)
117306 ar cr
- 8200 Colloquium in Apiculture** (prereq 3005, 5200 or #)
122991 1145-1340 W, HodsonH 480, Furgala, 1-3 cr
- 8240 Colloquium in Insect Ecology** (prereq 5040 or #) (S-N only)
916313 Andow, 1-2 cr
- 8300 Graduate Seminar** (prereq #) (S-N only)
322777 1500-1600 Th, HodsonH 490, Ragsdale, 1 cr
- 8500 Research in Entomology** (prereq #) (S-N only)
117833 ar cr
- 8777 Thesis Credits: Masters**
216230 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
820127 1-36 cr

FAMILY PRACTICE AND COMMUNITY HEALTH (FPCH)

Medical School

- 5500 Preceptorship in Clinical Practice** (prereq regis med)
615916 Seim, 9 cr
- 5501 Rural Physician Associate Program** (§15501; prereq completion of 8 academic quarters of medical school)
514449 -1 Verby, 18 cr
316705 -2 9 cr
- 5502 Physician as Counselor in Marriage and Family Problems** (prereq regis 5501)
518162 MacDonald, 1 cr
- 5503 RPAP Research Paper** (§15503; prereq §15501 or Med 5592) (S-N only)
221296 Verby, 1 cr
- 5505 Problem - Focused Interactive Learning** (prereq medicine, pediatrics, surgery and neurology)
313111 Seim, 4.5 cr
- 5514 Introduction to Family Practice** (prereq previous clinical rotations)
414279 O'Neil, 4.5 cr
- 5515 Preceptorship in Gerontology Community Health** (prereq regis med)
821956 O'Neil, 9 cr
- 5516 Research in Human Sexuality** (prereq #)
923102 ar cr
- 5520 Rural Rotation in Family Practice** (prereq regis med)
119072 Seim, McConnell, 9 cr
- 5525 Management of Patients with Cardiovascular Problems by the Family Physician** (prereq regis med)
119744 Nesvacil, Sharkey, 9 cr
- 5530 Clinical Problems in Family Practice** (prereq regis med)
814148 Daly, 9 cr
- 5535 Community Health in Family Practice** (prereq minimum of two 6-week rotations from the following: Med, Ped, Obst or Surg)
516265 Thorson, 4.5-9 cr
- 5537 Primary Care Sports Medicine** (prereq 3rd or 4th yr regis med stu) (S-N only)
420065 9 cr
- 5540 Ambulatory HMO Rotation/Family Practice** (prereq minimum of two 6-week rotations from the following: med, pediatrics, OB/Gyn or surg)
319166 Keenan, 9 cr
- 5545 Family Practice in a Community Clinic** (prereq minimum of two 6-week rotations from the following: Med, Ped, Obst or Surg)
919356 Richardson, Raines, 9 cr
- 5550 Ambulatory Care Rotation/Family Practice** (prereq minimum of two 6-week rotations from the following: med, peds, OB/Gyn or surgery)
223095 Seim, others, 9 cr
- 5560 Alcohol and Drug Addiction Treatment Center** (prereq regis med)
313450 Nesvacil, Briggs, 4.5 cr
- 5562 Medical Interviewing: Dealing with Problem Patients in a Holistic Approach** (§15562; prereq regis med)
318941 Verby, others, 2 cr
- 5564 Family Practice Seminar** (prereq med stu) (A-F only)
244173 1-3 cr
- 5570 Practicum in Counseling Techniques** (prereq compl of 1st yr residency)
913394 1 cr
- 5580 Community Emergency Medicine**
118917 Seim, 9 cr (StP)
- 5582 Practice Management Workshop** (prereq 2nd or 3rd yr of residency)
416923 Lindblom, 2 cr (StP)
- 5585 Sexual Problems in Clinical Practice** (prereq med student, #)
717382 ar cr
- 5595 Research in Family Practice: Independent Study**
516881 Seim, ar cr
- 5597 Clinical Decision Making** (prereq # or 2nd or 3rd yr resident)
912973 Daly, 2 cr
- 5599 Undergraduate Independent Study**
022099 Ciriacy, ar cr
- 5903 Community Health Rotation** (prereq #)
915078 Ciriacy, ar cr
- 5955 Directed Study** (prereq #)
323122 Coleman, 1-15 cr
- 5960 Basic Research Methods Seminar and Practicum**
715941 Ciriacy, others, 4 cr

- 5965 Seminar on Psychological Medicine: Principles of Human Development Through Life Cycles** (prereq 1st yr family practice residency)
918336 -1 Houge, 2 cr
422818 -2 Houge, 2 cr
- 5967 Introduction to Health Data Systems** (prereq completion of first yr residency in family practice and community health or #)
818863 O'Leary, ar cr
- 5969 Independent Study**
114463 Nelson, ar cr
- 5970 Psychological Crisis Intervention Workshop** (prereq 1st yr resident in family practice)
119372 Ireton, others, 2 cr
- 8201 Clinical Family Medicine**
217233 Ciriacy, ar cr
- 8204 Seminar: Quantitative Strategies in Health Care Practice and Research**
615057 Weckwerth, 2 cr
- 8205 Medical Records Systems**
214560 Asp, 2 cr
- 8207 Seminar: Common Diseases Seen in Family Practice**
118925 Seim, 1 cr
- 8208 Family Medicine Conferences**
422916 Seim, 1 cr
- 8209 Family Medicine X-Ray Conference**
718337 Ciriacy, 1 cr
- 8210 Family Medicine Grand Rounds**
214378 1230-1330 W, Krogh, 0-1 cr (3rd W per month, ar)
- 8212 Clinical Psychiatry Rounds** (prereq 1st yr resident in family practice)
316994 Kelly, 1 cr
- 8223 Introduction to Gerontology, Geriatric Medicine** (prereq 2nd yr FPCH resident or #)
823397 Pattee, others, 2 cr
- 8225 Medical Sociology**
320379 Kelly, 3 cr
- 8226 Seminar: Medical Sociology**
620114 Kelly, 2 cr
- 8228 Seminar: Interdisciplinary Health** (prereq #)
219113 Kelly, 2 cr
- 8240 Community Resources**
414573 Kelly, 2 cr
- 8243 Family Medicine in Rural Area**
118455 Hunt, ar cr
- 8245 Analysis of Instruction, Educational Evaluation**
922371 Seim, others, 2 cr
- 8250 Quantitative Strategies in Health Care Practice and Research II** (prereq 8204)
017498 Weckwerth, 2 cr
- 8253 Research Problems**
119444 O'Leary, ar cr

FAMILY SOCIAL SCIENCE (FSoS)

Human Ecology

- r1001 Dynamics of Family Relationships** (§1002)
120019 -1 1220-1415 MW, BlegH 155, Hagemeister, 4 cr (Mpls)
717186 -2 1040-1220 TTh, AlderH 415, 4 cr
- r3260 Family Resource Management** (prereq AgEc 1101, Psy 1001, Soc 1001...Anth 1002, Pol 1001 rec)
417859 1050-1230 MW, McNH 197, Dobbins, 4 cr
- r5001 Human Sexual Behavior** (prereq 90 cr, 3600 or grad stu in social, behavioral, educational, health science, human service program, or #)
942653 0930-1135 TTh, McNH 33, Maddock, 5 cr
- 5206 Developing and Evaluating Family Research Project** (prereq 5205)
044510 1010-1150 MW, McNH 375, Titus, 4 cr
- 5230 Independent Study in Family Social Science** (max 16 cr)
922774 1-5 cr

- 5249 Fieldwork: Directed Community Work Experience** (max 15 cr; prereq 5231, human relationships maj or #)
422026 1000-1130 T, McNH, Goodman, 5 cr
- 5253 Humanities, Aging and Family Living** (prereq 5200 or SW 5024 or equiv)
821598 1605-1930 Th, McNH 197, Yahnke, 4 cr
- r5255 Approaches to Family Policy** (prereq SW 3101 or Pol 3321 or #)
419093 0900-1040 MW, McNH 197, Zimmerman, 4 cr
- 8200 Seminar: Research, Interpretation**
644509 1300-1430 TTh, McNH 375, Rosenblatt, 3 cr
- r8214 Theories of Marital and Family Therapy** (prereq 8255) (A-F only)
317126 0900-1220 Th, McNH 180, Doherty, 4 cr
- 8222 Internship in Teaching College Level Family Courses II** (prereq 8221)
115524 4 cr
- 8223 Internship in Teaching College Level Family Courses III** (prereq 8222)
218656 4 cr
- 8230 Directed Study** (prereq #)
721321 1-5 cr
- 8251 Problems: Family Social Science: Research and Theory in Family Economics/Management** (prereq 5220, 5260, or 5241 or equiv or #)
019770 0900-1130 T, McNH 375, Rettig, 3 cr
- r8262 Process Seminar for Family II** (prereq #)
317823 1330-1510 M, McNH 375, Grotevant, 2 cr
- 8552 Internship in Marital and Family Therapy II** (prereq 8214, 8215, family therapy interns only) (A-F only)
819933 7 cr
- 8777 Thesis Credits: Masters**
814747 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
018103 1-36 cr

FINANCE (BFin) Management

Non-SMgt students should refer to page 9, Carlson School of Management Courses, before attempting to register for BFin courses.

- r3000 Finance Fundamentals** (\$MBA 8040; prereq Acct 1025) (A-F only)
013113 -1 0915-1015 MWF, BlegH 120, Lee, 4 cr
522938 -2 1030-1130 MWF, BlegH 120, Lee, 4 cr
720752 -3 1145-1315 TTh, BlegH 120, Harris, 4 cr
- r3602 Regulation of Depository Institutions** (prereq 3000 or #) (A-F only)
315411 1730-2000 T, BlegH 155, Carroll, 4 cr
- r8300 Investments and Portfolio Management** (prereq 8150, 8200 or #; grad mgmt student or grad SMgt approval) (A-F only)
814439 1300-1445 TTh, BlegH 125, Alexander, 4 cr
- r8602 Financial Management of Financial Institutions** (§8702; prereq 8150, 8200 or #; grad mgmt stu or grad SMgt approval...Econ 3103 or 3105 rec) (A-F only)
642663 1730-2100 Th, BlegH 420, Boyd, 4 cr
- r8603 Futures Markets** (§8703; prereq 8150, 8200 or #; grad mgmt student or grad SMgt approval) (A-F only)
042661 1730-2100 W, BlegH 145, Hess, 4 cr
- r8801 Introduction to the Theory of Capital Markets** (prereq Math 3211 or equiv or fl, Math 3221 or equiv or fl, Econ 8101 or fl, or #, PhD stu) (A-F only)
242665 1030-1145 TTh, Mgmt/Econ 731, Dothan, 4 cr
- r8850 Independent Study in Finance** (prereq #, grad mgmt student or grad SMgt approval)
845691 1-4 cr

FINNISH (Fin) Scandinavian Studies Liberal Arts

- r1102 Beginning Finnish** (prereq 1101)
221153 1325-1415 MTWThF, FolH 218, Markkanen, 5 cr
- r1105 Intermediate Finnish** (prereq 1104 or equiv)
617214 1115-1205 MTWThF, Arch 20, Sinks, 5 cr
- 3670 Readings: Finnish Texts** (max 28 cr; prereq 1106 or equiv)
114647 0945-1100 TTh, FolH 142, 4 cr

FISHERIES AND WILDLIFE (FW)

Natural Resources

- 5393 Special Problems in Fisheries Biology** (prereq #)
517013 ar cr
- 5398 Special Problems in Wildlife Biology** (prereq #)
823061 ar cr
- 5461 The Behavior of Fishes** (prereq EEB 3111 or FW 5459 or #) (A-F only)
644512 1040-1235 F, HodsonH 490, Sorensen, 2 cr
- 5601 Assessment and Management of Vertebrate Populations** (prereq Math 1142 or Math 1211, PubH 5450 or equiv) (A-F only)
★LECT 1145-1300 TTh, HodsonH 490, Pereira
018618 -1 LAB 1500-1700 T, HodsonH 480, 1315-1515 Th, NatResAd 35, Cooper, Pereira, 5 cr
042675 -2 LAB 1500-1700 T, HodsonH 480, 1500-1700 F, NatResAd 35, Cooper, Pereira, 5 cr
- 5604 Fishery and Wildlife Management** (prereq 5601 or #) (A-F only)
★LECT 0830-0920 MW, HodsonH 490, Newman, 4 cr
116553 -1 LAB 0830-1025 F, HodsonH 490, Newman
- 5702 Senior Project** (†5701-5702; prereq 5701) (A-F only)
414895 1500-1655 W, HodsonH 490, Cooper, 2 cr
- 8200 Seminar**
115807 -1 ar cr
122434 -2 ar cr
- 8364 Research in Fisheries Biology** (prereq fisheries grad)
513124 ar cr
- 8377 Research in Wildlife Biology** (prereq wildlife grad)
418509 ar cr
- r8576 Wildlife Management: Large Mammals** (prereq fisheries or wildlife or ecology or conservation biology grad stu or #) (A-F only)
★LECT 1250-1445 MW, HodsonH 485, Jordan, 4 cr
142674 -1 LAB 1250-1550 F, HodsonH 485, Jordan
- 8777 Thesis Credits: Masters**
115953 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
716829 1-36 cr

FLUID MECHANICS (FIME)

- 8777 Thesis Credits: Masters**
121193 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
114320 1-36 cr

FOOD SCIENCE AND NUTRITION (FScN)

Agriculture & Human Ecology

- 1500 Biotechnology: Basic Concepts and Applications** (\$Agro 1500, AnSc 1500, PIPa 1500, ScAg 1500, Soil 1500; prereq hi schl bio or chem or #) (A-F only)
122897 1355-1445 MWF, GrnH 110, Harlander, 3 cr

- 1612 Principles of Nutrition** (prereq high school chemistry and biology)
116780 1250-1340 MW, 1250-1445 F, FScN 15, Addis, 4 cr

- r3112 Food Analysis** (prereq 3102)
★LECT 0830-0920 MWF, FScN 15, Reineccius
020613 -1 LAB 0935-1235 M, ABLMS 135, 4 cr
718595 -2 LAB 0935-1235 W, ABLMS 135, 4 cr
- r3135 Food Processing I** (prereq 1102, 3102, Math 1111)
★LECT 0800-0915 TTh, FScN 15
442678 -1 LAB 0935-1235 T, FScN 150, Reineccius, Smith, 4 cr
- 3612 Biological Aspects of Nutrition** (prereq 1612, Chem 3302 or equiv)
915095 1355-1550 TTh, McNH 198, Savaiano, 4 cr
- 3703 Field Experience in Foodservice Management** (prereq regis in coordinated undergrad program in dietetics or #)
★LECT 1355-1445 M, ABLMS 222, Hanson, Olson
718984 -1 LAB 0700-1215 TTh, 3 cr (off-campus) (CUP students only)
- r3730 Quantity Food Production Management** (prereq 3102, 3472)
822623 0800-1235 TTh, DinC 152, Mullan, 3 cr
- 3732 Lecture in Quantity Food Production Management** (prereq 3102, 3472)
519084 1250-1340 TTh, DinC 152, Mullan, 2 cr
- 5000 Professional Experience Program** (prereq 15 cr in food science, nutrition, #) (A-F only)
242679 Smith, 4 cr
- r5100 General Seminar** (prereq sr or #) (A-F only)
621361 -1 1250-1340 T, McNH 144, Gallaher, 1 cr
316753 -2 1250-1340 W, McNH 144, Gallaher, 1 cr
- 5111 Independent Study in Food Science and Nutrition** (prereq Δ)
415772 1-5 cr
- r5120 Food Microbiology** (prereq 1102, 3112, VPB 3103 or MicB 5105 or #)
★LECT 1250-1340 MWF, ABLMS 125, Zottola, Tatini
014102 -1 LAB 1040-1235 MWF, FScN 218, Zottola, Tatini, 5 cr
123493 -2 LAB 1355-1550 MWF, FScN 218, Zottola, 5 cr
- r5136 Unit Operations Laboratory** (prereq 5135)
713168 1250-1550 T, FScN 150, Morey, 2 cr
- r5403 Experimental Study of Foods** (prereq 3102, 5110, 5360)
★LECT 0935-1025 TTh, McNH 144, Davis
823013 -1 LAB 1040-1340 TTh, McNH 126, 5 cr
- 5474 Food Marketing Economics** (\$AgEc 5550; prereq AgEc 3101 or AgEc 3001 or Econ 3101 or #)
122151 1630-1800 TTh, McNH 144, Asp, Senauer, 4 cr
- 5524 Sensory Evaluation of Dairy Products** (prereq 3102)
620405 1730-1930 W, FScN 150, Smith, 1 cr
- 5555 Freezing and Dehydration of Foods** (prereq 1102, 5135)
418395 1500-1800 TTh, ABLMS 125, Labuza, 5 cr
- 5562 Flavor Technology** (prereq 1102, 5110)
★LECT 1355-1445 MW, FScN 15, 1355-1445 F, ABLMS 125, Reineccius
442681 -1 LAB 1500-1655 W, FScN 111, 4 cr
- 5624 Human Protein and Energy Utilization** (prereq 5622, 5623)
444530 1630-1810 MW, ABLMS 125, Kurzer, 4 cr
- r5664 Field Experience in Clinical Nutrition** (prereq course in human nutrition, #)
★LECT 1430-1545 Th, ABLMS 222, Hanson, Olson, (CUP students only)
620131 -1 LAB 0800-1650 W, 3 cr (off-campus) (CUP students only)
- 5666 Applied Clinical Nutrition II** (prereq 5665, 5662 or †5662)
214882 1600-1830 Th, FScN 15, Hanson, 3 cr

- 5705 Field Experience In Foodservice Management** (prereq regis in coordinated undergrad prog in dietetics or #)
★LECT 1250-1340 M, DinC 152, Schaumann
021129 -1 LAB 0800-1650 F, Schaumann, 3 cr (off-campus)
- 5732 Principles of Foodservice Organization and Management** (prereq sr, 3732, Mgmt 3001, regis in coordinated undergrad program in dietetics)
616774 1605-1800 T, 1355-1535 M, DinC 152, Mullian, 4 cr
- 8101 Research Seminar** (prereq #) (S-N only)
614393 1 cr
- 8205 General Seminar** (prereq #) (S-N only)
422222 1605-1655 M, FScN 15, Fulcher, 1 cr
- 8322 Microbiology and Engineering of Food Sterilization Processes** (prereq 5120, 5122, Stat 3081 or 5021)
★LECT 0815-0930 TTh, VinH 314, Pflug, (Mpls)
745537 -1 LAB 1325-1625 F, ShepLab 506, 5 cr (Mpls)
- 8401 Independent Study: Food Science** (prereq Δ)
613888 1-5 cr
- 8403 Advanced Topics In Food Science** (prereq #)
720931 1-4 cr
- 8621 Independent Study: Nutrition** (prereq #)
718810 1-9 cr
- 8622 Carbohydrate and Lipid Metabolism** (prereq 5622, 5623 or equiv, #)
242682 Brady, Gannon, 3 cr
- 8777 Thesis Credits: Masters**
321774 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
217393 1-36 cr

FOREIGN STUDIES MANAGEMENT (FSMg)

- 3460 Institute of European Studies Program in Vienna, Austria** (prereq □)
314565 1-54 cr
- 3490 Institute of European Studies Program at the University of Singapore** (prereq □)
018943 1-45 cr
- 3590 IES Dijon International Business Management Program** (prereq □)
144479 1-24 cr
- 3620 Council on International Educational Exchange Japanese Business and Society Program** (prereq □)
113627 1-24 cr
- 3680 Council on International Educational Exchange Business and Society Program in Seville, Spain** (prereq □)
122702 1-26 cr
- 3820 Denmark's International Business Studies Program in Copenhagen** (prereq □)
823352 1-36 cr

FOREIGN STUDY (FoSt)

- 0010 Study Abroad** (prereq Δ) (S-N only)
014276 0 cr
- 0060 Study Abroad** (prereq Δ) (S-N only)
313190 0 cr
- 0090 Study Abroad** (prereq Δ) (S-N only)
716250 0 cr
- 0120 Study Abroad** (prereq Δ) (S-N only)
018165 0 cr
- 0150 Study Abroad** (prereq Δ) (S-N only)
521319 0 cr
- 3110 HECUA Scandinavian Urban Studies Term** (prereq Δ)
115032 1-24 cr
- 3130 HECUA Literature, Ideology, and Society in Latin America** (prereq Δ)
622848 1-24 cr

- 3210 Kansas Program in Costa Rica** (prereq Δ)
819754 1-54 cr
- 3230 Kansas Program in Great Britain** (prereq Δ)
118830 1-54 cr
- 3400 IAS Program at Nanzan University, Japan** (prereq Δ)
123025 1-45 cr
- 3410 IES Program in Durham, England** (prereq Δ)
319037 1-45 cr
- 3420 IES Program in London** (prereq Δ)
521966 1-54 cr
- 3430 IES Program in Nantes, France** (prereq Δ)
312900 1-54 cr
- 3440 IES Program in Paris** (prereq Δ)
020451 1-54 cr
- 3450 IES Program in Madrid** (prereq Δ)
314436 1-54 cr
- 3460 IES Program in Vienna** (prereq Δ)
919793 1-54 cr
- 3470 IES Program in Freiburg, Germany** (prereq Δ)
214851 1-54 cr
- 3480 IES European Community Program in Germany** (prereq Δ)
820080 1-27 cr
- 3490 IAS Program at the University of Singapore** (prereq Δ)
817373 1-45 cr
- 3500 IES Program in Milan, Italy** (prereq Δ)
720508 1-54 cr
- 3510 IES London University and Fine Arts Program** (prereq Δ)
616841 1-54 cr
- 3520 IAS: Southeast Asia Program** (prereq Δ)
113555 1-24 cr
- 3530 IAS Program in Beijing, China** (prereq Δ)
418641 1-54 cr
- 3540 IAS Program in Taipei, Taiwan** (prereq Δ)
116592 1-54 cr
- 3550 IAS Program in Tokyo** (prereq Δ)
115497 1-54 cr
- 3560 IES Program in Australia** (prereq Δ)
644395 1-54 cr
- 3570 IES Program in Salamanca, Spain** (prereq Δ)
444396 1-54 cr
- 3600 CIEE: Summer/Semester Program in the Soviet Union** (prereq Δ)
123672 1-27 cr
- 3610 CIEE Academic Year Program in Leningrad** (prereq Δ)
221640 1-54 cr
- 3620 CIEE Business and Society Program in Tokyo, Japan** (prereq Δ)
119629 1-36 cr
- 3630 CIEE Language and Culture Program in Rennes, Brittany, France** (prereq Δ)
016593 1-54 cr
- 3640 CIEE Critical Studies Program in Paris** (prereq Δ)
915498 1-54 cr
- 3650 CIEE Paris Internship and Study Program** (prereq Δ)
821679 1-24 cr
- 3660 CIEE Language Area Studies Program in Alicante, Spain** (prereq Δ)
023673 1-27 cr
- 3670 CIEE Language, Society and Liberal Arts Programs in Seville, Spain** (prereq Δ)
121641 1-54 cr
- 3680 CIEE Business and Society Program in Seville, Spain** (prereq Δ)
419830 1-27 cr
- 3690 CIEE Dominican Republic Language/Caribbean Studies Program** (prereq Δ)
519621 1-27 cr
- 3700 CIEE Area Studies Program in Prague, Czechoslovakia** (prereq Δ)
244397 1-27 cr

- 3710 CIEE Area Studies Program in Budapest, Hungary** (prereq Δ)
144398 1-27 cr
- 3720 CIEE Area Studies Program in Warsaw, Poland** (prereq Δ)
944399 1-27 cr
- 3740 CIEE Program at Murdoch University, Perth, Australia** (prereq Δ)
644400 1-54 cr
- 3810 Bologna Cooperative Studies Program, Italy** (prereq Δ)
616404 1-54 cr
- 3820 Denmark's International Study Program** (prereq Δ)
122103 1-54 cr
- 3830 Study at the University of Oslo, Norway** (prereq Δ)
815767 1-54 cr
- 3900 Exchange Study in British Universities** (prereq Δ)
914366 1-54 cr

FOREST PRODUCTS (ForP) Natural Resources

- r1303 Wood Structure and Identification** (prereq 1301 or #)
★LECT 1355-1445 T, KaufL 125, Seavey, 2 cr
614233 -1 LAB 1500-1800 T, KaufL 125, Seavey
- 3301 Industrial Internship** (prereq forest products student, registration in cooperative education program) (A-F only)
120948 Bowyer, Rouda, 2 cr
- 3303 Forest Products Marketing**
115757 1040-1130 MWF, KaufL 125, Petersen, 3 cr
- 3325 Directed Study Experience** (prereq #)
014441 1-5 cr
- 5302 Wood Chemistry I** (prereq Chem 3302)
944516 0915-1030 TTh, NatResAd 100, Saranen, 3 cr
- 5305 Pulp and Paper Technology** (prereq 5300 or #)
★LECT 0830-0920 MWF, KaufL 302, Gertjeansen, 4 cr
523328 -1 LAB 1500-1655 Th, KaufL 125, Gertjeansen
- 5306 Analysis of Production Systems** (prereq 1301 or #...3300 rec)
517903 0935-1025 MWF, KaufL 302, Stekienski, 3 cr
- 5307 Wood Base Panel Technology** (prereq 5300, 5301 or #)
★LECT 0830-0945 TTh, KaufL 125, Gertjeansen, 4 cr
922953 -1 LAB 0945-1025 TTh, KaufL 125, Gertjeansen
- 5312 Pulp and Paper Process Engineering Calculations II** (prereq 5311 or ChEn 5101, ME 3301 or #; CE 3400, ChEn 5001, CSci 3101 or AgET 3030 rec)
★LECT 1355-1445 MWF, KaufL 125, Rouda, 4 cr
623224 -1 LAB 1500-1550 M, KaufL 125, Rouda
- 5313 Pulp and Paper Process Operations** (prereq 5305, 5312, 5353, CE 3400, ME 3301, ME 5342 or ChEn 5102 or #)
223629 1040-1130 MWThF, KaufL 302, Rouda, 4 cr
- 5314 Pulp and Paper Process Operations II: Paper Machine Operations, Finishing and Converting** (prereq 5305, 5310, 5311-5312, 5315, 5321, 5359, CE 3400, ME 3301, ME 5342)
★LECT 1250-1340 TTh, KaufL 125, Wells, 4 cr
744517 -1 LAB 1355-1545 Th, KaufL 65
- 5320 Biological and Environmental Science of Pulp and Paper** (prereq ForP sr or grad stu)
144515 1250-1340 MWF, KaufL 125, Schmidt, 4 cr
- 5321 Material Science of Paper: Paper and Fiber Physics and Properties** (prereq 5305, 5310, 5311-5312, 5315, CE 3400, ME 3301, ME 5342, Chem 5520, or #)
444513 1145-1235 MWF, KaufL 302, Muvundamina, 4 cr

- 5401 **Senior Topics** (prereq sr, #)
916926 ar cr
- 8300 **Research Problems**
921012 ar cr
- 8301 **Research Problems**
417778 ar cr
- 8302 **Research Problems**
119184 ar cr

FOREST RESOURCES (FR) Natural Resources

- r1201 **Conservation of Natural Resources**
713820 1040-1130 MWF, GrnH 110, Splett, 3 cr
- 3225 **Directed Study Experience** (prereq #)
917364 -1 1-5 cr
312833 -2 1-5 cr
- 5100 **Silviculture** (prereq for FR maj, 1100, 3104, Itasca Session; for non-maj, 3104 or equiv, #)
114177 1040-1130 T, 1240-1400 T, 1220-1340 W, GrnH 110, Alm, 4 cr
- 5106 **Senior Silviculture Seminar** (prereq sr, 5100 or #) (A-F only)
620632 1415-1600 T, GrnH 19, Alm, 2-3 cr
- 5110 **Forestry Applications of Microcomputers** (prereq Stat 3011 or equiv, AgET 3030 or equiv)
545698 1605-1655 MW, 0935-1130 F, NatResAd 35, Blinn, Burk, 4 cr
- 5114 **Forest Hydrology** (Itasca Session; prereq Geo 1001, FR 3103 or #)
942832 0830-0920 M, 0845-1000 TTh, GrnH 110, Brooks, 4 cr
- 5120 **Introductory Tree Physiology and Genetics** (prereq Chem 1001 or 1004, 10 cr biology) (A-F only)
414363 0800-0920 MWF, GrnH 203, Mohn, Sucoff, 4 cr
- 5200 **Aerial Photo Interpretation** (prereq #)
★LECT 1145-1235 MW, GrnH 203
023172 -1 LAB 1415-1715 W, GrnH 203, 3 cr
815171 -2 LAB 1355-1655 Th, GrnH 203, 3 cr
- 5221 **Plant Molecular Evolution** (§PBio 5221; prereq Biol 5003 or GCB 3022 or GCB 5022)
542834 1250-1340 MWF, BioSci 818, Furnier, Doebley, 3 cr
- 5225 **Directed Study Experience** (prereq #)
342835 1-5 cr
- 5240 **Natural Resource Policy and Administration** (prereq jr or sr or #) (A-F only)
320219 1040-1130 MWF, AlderH 415, Ellefson, 3 cr
- 5257 **Recreational Land Policy** (prereq 3232 or #)
344522 0845-1000 TTh, GrnH 203, Anderson, Lime, 3 cr
- r5262 **Remote Sensing of Natural Resources**
015976 1250-1340 MWF, GrnH 203, 1355-1550 Th, GrnH 110, Bauer, Martin, 4 cr
- 5401 **Senior Topics** (prereq forestry sr or #)
413925 ar cr
- 5703 **Colloquium in Forest Biology**
420101 -1 1250-1430 F, NatResAd 100, Brooks, 2 cr (prereq #)
545992 -2 Furnier, Howe, 2 cr (S-N only)
- 8100 **Research Problems: Silviculture**
416078 Alm, Scholten, ar cr
- 8101 **Research Problems: Forest-Tree Physiology**
812934 Sucoff, ar cr
- 8102 **Problems: Forest-Tree Genetics**
819821 Furnier, Mohn, ar cr
- 8103 **Research Problems: Forest Hydrology**
812688 Brooks, Perry, ar cr
- 8106 **Topics in Silviculture-Forest Soils** (prereq 5100, 5 cr of soils or #)
742833 1230-1500 W, Soils S521, Grigal, 3 cr
- 8107 **Seminar: Forest Resources**
220021 1500-1550 MW, NatResAd 100, Ek, Furnier, 1 cr
- 8200 **Research Problems: Forest Management**
320091 Rose, Blinn, others, ar cr
- 8201 **Research Problems: Forest Economics**
317725 Gregersen, Ellefson, others, ar cr
- 8202 **Research Problems: Forest Biometry**
115922 Ek, Burk, ar cr

- 8203 **Research Problems: Forest Recreation**
523023 Anderson, Lime, ar cr
- 8204 **Research Problems: Forest Policy**
321919 Ellefson, Baughman, others, ar cr
- 8205 **Research Problems: Remote Sensing**
014813 Bauer, Martin, Queen, ar cr
- 8207 **Economic Analysis of Forestry Projects** (prereq #)
644266 Gregersen, 3 cr

FORESTRY (Fors)

- 8777 **Thesis Credits: Masters**
113949 1-16 cr
- 8888 **Thesis Credits: Doctoral** (max 18 cr per qtr)
612692 1-36 cr

FRENCH (Fren) French And Italian Liberal Arts

- r1101 **Beginning French** (Degree credit granted only according to Entrance Standard)
323086 -1 0800-0850 MTWThF, PeikH 225, 5 cr
021034 -2 0800-0850 MTWThF, FolH 344, 5 cr
115216 -3 1115-1205 MTWThF, AkerH 309, 5 cr
214459 -4 1220-1310 MTWThF, ChDev 216, 5 cr
519473 -5 1220-1310 MTWThF, PeikH 215, 5 cr
- r1102 **Beginning French** (Degree credit granted only according to Entrance Standard; prereq 1101 or equiv)
023284 -1 0800-0850 MTWThF, PeikH 215, 5 cr
716801 -2 0800-0850 MTWThF, Aph 226, 5 cr
418462 -3 0800-0850 MTWThF, FolH 214, 5 cr
023429 -4 0905-0955 MTWThF, Aph 226, 5 cr
313187 -5 1010-1100 MTWThF, AmundH 156, 5 cr (department approval and concurrent registration in 1103, sec 4 is required)
117072 -6 1115-1205 MTWThF, FordH 130, 5 cr
021051 -7 1220-1310 MTWThF, VinH 209, 5 cr
- r1103 **Beginning French** (prereq 1102 or Entrance Standard proficiency test)
322195 -1 0800-0850 MTWThF, AkerH 309, 5 cr
223100 -2 0905-0955 MTWThF, AmundH 156, 5 cr
718063 -3 1115-1205 MTWThF, PeikH 315, 5 cr
117489 -4 1115-1205 MTWThF, AmundH 156, 5 cr (department approval and concurrent registration in 1102, sec 5 is required)
- r1104 **Intermediate French** (prereq 1103 or three yrs high school Fren)
522020 -1 0815-0930 MWF, JonesH 11, 5 cr
212758 -2 0945-1100 MWF, JonesH 11, 5 cr
121520 -3 1115-1230 MWF, Phys 236A, 5 cr
614717 -4 1140-1255 MWF, FolH 208, 5 cr
114227 -5 1245-1400 MWF, AkerH 215, 5 cr
112803 -6 1245-1400 MWF, FordH 120, 5 cr
- r1105 **Intermediate French** (prereq 1104)
118464 -1 0815-0930 MWF, VinH 314, 5 cr
223193 -2 0815-0930 MWF, Phys 157, 5 cr
122031 -3 0815-0930 MWF, EE/CSci 2260, 5 cr
819964 -4 0815-0930 MWF, AkerH 317, 5 cr
614653 -5 1115-1230 MWF, JonesH 10, 5 cr
514869 -6 1115-1230 MWF, JonesH 2, 5 cr
421880 -7 1245-1400 MWF, JonesH 10, 5 cr
318776 -8 1245-1400 MWF, FolH 104, 5 cr
- r1106 **Intermediate French** (prereq 1105)
114132 -1 0815-0930 MWF, LindH 305, 5 cr
923066 -2 0815-0930 MWF, MurH 308, 5 cr
018974 -3 1115-1230 MWF, PeikH 155, 5 cr
- r3015 **French Composition and Conversation** (prereq 1106)
514709 -1 0905-1100 MW, FolH 50, Brewer D., 4 cr
321239 -2 1010-1205 MW, FolH 344, Barnes, 4 cr
617164 -3 1010-1205 TTh, FolH 334, Akehurst, 4 cr
- r3016 **Advanced French Composition and Conversation** (prereq 3015 or #)
414928 -1 1315-1430 MW, FolH 134, Reeve, 4 cr
120674 -2 1030-1145 TTh, FolH 116, Sivert, 4 cr
- r3017 **Stylistics Through Translation** (prereq 3016 or superior achievement in 3015 or #)
117578 1045-1200 MW, FolH 214, 4 cr

- r3101 **Introduction to French Literary Texts: Poetry** (prereq 3015 or equiv)
816269 -1 1010-1125 MW, FolH 116, Estrem, 4 cr
342690 -2 1300-1415 TTh, FolH 340, Akehurst, 4 cr
- r3103 **French Literary Texts: Novel** (prereq 3101 or equiv)
817812 -1 1045-1200 MW, FolH 142, Brewer M., 4 cr
113269 -2 0900-1015 TTh, FolH 116, Estrem, 4 cr
- r3269 **Topics in 19th-Century French Literature** (prereq 3101, 3103)
142691 1010-1125 MW, FolH 208, Robinson, 4 cr
- r3299 **Themes in French Literature** (prereq 3102, 3103)
123008 1325-1440 TTh, FolH 426, Sivert, 4 cr (Quebecois Literature)
- r3513 **French Civilization and Culture** (prereq 3015)
245520 1115-1230 MW, FolH 104, Reeve, 4 cr
- r3701 **The Development of the French Language** (prereq 3015 or #)
716376 0905-1020 MW, FolH 214, Wieland, 4 cr
- 3800 **CIEE Language/Culture Program in Brittany** (prereq 1105)
117838 1-54 cr
- 3970 **Directed Readings** (prereq undergrad student, #, Δ, □)
222447 -1 1-5 cr
613082 -2 1-5 cr
- 3980 **Directed Instruction** (prereq 3015, #, Δ, □)
021244 3-5 cr
- r5105 **Topics in Criticism** (prereq 3209 or above)
322620 1430-1545 MW, FolH 104, Brewer M., 4 cr
- r5355 **Novel of the 18th Century** (prereq 3209 or above)
042692 1430-1545 TTh, FolH 134, Waldauer, 4 cr
- r5702 **Structure of Modern French: Phonology, Morphology, Syntax** (prereq 3015 or #)
842693 1325-1440 MW, FolH 142, Barnes, 4 cr
- 5800 **CIEE Contemporary Film Program in Paris** (prereq 1105 or #)
716202 1-45 cr
- r5900 **Topics in French Literature** (max 15 cr; prereq 3209 or above)
119212 -1 1445-1600 MW, FolH 246, Paganini, 4 cr
322259 -2 1315-1430 TTh, FolH 208, Preckshot, 4 cr
- r8501 **Methodology and Bibliography**
642694 1600-1730 MW, FolH 138, Brewer D., 4 cr
- 8777 **Thesis Credits: Masters**
512992 1-16 cr
- 8888 **Thesis Credits: Doctoral** (max 18 cr per qtr)
112793 1-36 cr
- 8970 **Directed Readings**
022331 1-5 cr
- 8980 **Directed Teaching** (prereq #, Δ)
918854 1-5 cr

FRENCH AND ITALIAN (Frit) French And Italian Liberal Arts

- 3604 **Cinemas of the Real**
142702 1815-2030 MW, NichH 45, 4 cr

GENERAL COLLEGE (GC)

General College restricts some sections to certain groups of students. Sections and courses marked BC (Base Curriculum) are reserved for GC students who are in their first two quarters of enrollment or have fewer than 24 credits (or credit-equivalents in courses such as developmental math). Credits equivalents for noncredit courses in GC are as follows: 0401, 0402, 0641, 0643—4-credit equivalent; 0611, 0615, 0616, 0617, 0618, 0621, 0623, 0625, 0631—5-credit equivalent. For further information, check at 25 Appleby Hall.

- r0611 Mathematics Skills Review** (§0641, 0643, 1434; prereq GC math level B) (course fee)
623711 -1 1010-1205 MTWTh, NichH 201, 0 cr
244710 -2 1220-1415 MTWTh, FolH 148, 0 cr
- r0615 Arithmetic Problem Solving** (§0611; prereq GC math level B) (course fee)
120917 1430-1625 MTWTh, NichH 201, 0 cr
- r0616 Algebraic Problem Solving I** (§0621; prereq GC math level C or 0615, 0643) (course fee)
042935 -1 0800-0955 MWF, NichH 201, 0 cr
920622 -2 1010-1205 MWF, ApH 303, 0 cr
618606 -3 1220-1415 MWF, NichH 201, 0 cr
- r0621 Elementary Algebra** (§1435; prereq GC math level C or 0611 or 1434) (course fee)
022443 -1 1115-1205 MTWThF, NichH 213, 0 cr
818443 -2 0800-0955 MW, 0800-0850 F, FolH 148, 0 cr
020174 -3 1010-1205 MW, 1010-1100 F, FolH 148, 0 cr
423032 -4 1430-1625 MW, 1430-1520 F, FolH 148, 0 cr
113457 -5 1010-1205 TTh, 1115-1205 F, FolH 148, 0 cr
842936 -6 1325-1520 TThF, NichH 213, 0 cr
642937 -7 1430-1625 TTh, 1535-1625 F, FolH 148, 0 cr
- r0625 Intermediate Algebra, Part 1** (§1445; prereq GC math level D or 0621 with grade of C or better or 0617) (course fee)
★LECT 0905-0955 MWF, WulH 230, 0 cr
215434 -1 REC 0800-0850 TTh, ApH 117, 0 cr
★LECT 0905-0955 MWF, WulH 230, 0 cr
823643 -2 REC 0905-0955 TTh, ApH 117, 0 cr
★LECT 0905-0955 MWF, WulH 230, 0 cr
721612 -3 REC 1010-1100 TTh, ApH 117, 0 cr
120772 -4 LECT 1010-1100 MTWThF, NichH 213, 0 cr
143873 -5 LECT 1115-1205 MTWThF, NichH 216, 0 cr
★LECT 1220-1310 MWF, WulH 230, 0 cr
623644 -6 REC 1115-1205 TTh, ApH 117, 0 cr
★LECT 1220-1310 MWF, WulH 230, 0 cr
219600 -7 REC 1220-1310 TTh, ApH 117, 0 cr
★LECT 1220-1310 MWF, WulH 230, 0 cr
343371 -8 REC 1325-1415 TTh, ApH 117, 0 cr
523751 -9 LECT 1220-1415 MTWThF, NichH 207, 0 cr
121719 -10 LECT 1430-1520 MTWThF, NichH 207, 0 cr
517691 -11 LECT 1535-1625 MTWThF, NichH 207, 0 cr
- r0631 Intermediate Algebra, Part II** (§1446; prereq GC math level E or 0625 or 1445) (course fee)
116835 -1 0800-0850 MTWThF, NichH 216, 0 cr
713753 -2 0800-0850 MTWThF, NichH 213, 0 cr
522065 -3 0905-0955 MTWThF, NichH 216, 0 cr
513964 -4 1010-1100 MTWThF, NichH 216, 0 cr
822797 -5 1115-1205 MTWThF, NichH 207, 0 cr
313349 -6 1220-1310 MTWThF, NichH 213, 0 cr
914755 -7 1220-1415 MTWThF, NichH 216, 0 cr
614474 -8 1430-1520 MTWThF, NichH 216, 0 cr
144711 -9 1535-1625 MTWThF, NichH 216, 0 cr
- r0641 Basic Mathematics I** (§1431; prereq □) (course fee)
115667 -1 1220-1310 MTWThF, ApH 303, 0 cr
015668 -2 1325-1415 MTWTh, ApH 9, 0 cr
442941 -3 1535-1625 MTWThF, ApH 303, 0 cr
- r0643 Basic Mathematics: Programmed Study** (prereq GC math level B or C or 0611 or 0641, □) (course fee)
221718 -1 1220-1310 MTWThF, ApH 303, 0 cr
919714 -2 1325-1415 MTWTh, ApH 9, 0 cr
842953 -3 1535-1625 MTWThF, ApH 303, 0 cr
- r1041 Developing College Reading** (prereq Commanding English enrollment)
717107 -1 1010-1205 MW, ApH 223, 3 cr (Commanding English students only)
612918 -2 0800-0955 TTh, ApH 223, 3 cr (Commanding English students only)
519876 -3 0800-0955 TTh, ApH 303, 3 cr (Commanding English students only)
123678 -4 1010-1205 TTh, ApH 223, 3 cr (Commanding English students only)
- r1043 Learning Strategies: Reading and Study Improvement** (prereq approval of adviser or #, concurrent reg in an approved GC subject-matter course) (S-N only)
218809 Healy, 2 cr (individual instruction ar, ApH 3) (prereq #, registration in an approved subject-matter course)
- r1045 Developing College Writing** (§1411) (S-N only)
420258 Healy, 3 cr (individual instruction ar, ApH 3) (prereq 1421, #)
- r1051 Introduction to College Reading and Writing**
414119 0800-0955 MW, 0905-0955 F, NichH 209A, 5 cr (requires referral from GC 1421 instructor)(BC)
- r1086 Higher Education Survival Seminar** (max 6 cr, §1702) (S-N only)
317014 -1 1325-1520 M, NichH 209A, 2 cr
420339 -2 1325-1520 W, NichH 209A, 2 cr
- r1111 Science in Context: Weather and Climate**
915436 1325-1415 MTWThF, SciCB 125, Johnson A., 5 cr (lab time assigned first two days of class) (BC)
- r1112 Ecological Evaluation of Environmental Problems**
642954 1430-1625 MWF, SciCB 125, Hatch, 5 cr
- r1131 Biological Science: Principles**
◆444687 -1 LECT 0905-0955 MTWThF, SciCB 125, Wilcox, 5 cr
◆244688 -2 LECT 1220-1310 MTWThF, SciCB 125, Hatch, 5 cr
144689 -1 LAB 0800-0955 MW, ApH 309
444690 -2 LAB 0905-1100 MW, ApH 309
244691 -3 LAB 1010-1205 MW, ApH 309
144692 -4 LAB 1115-1310 MW, ApH 309
944693 -5 LAB 1325-1520 MW, ApH 309
744694 -6 LAB 1430-1625 MW, ApH 309
544695 -7 LAB 1535-1730 MW, ApH 309
344696 -8 LAB 0800-0955 TTh, ApH 309
144697 -9 LAB 0905-1100 TTh, ApH 309
044698 -10 LAB 1010-1205 TTh, ApH 309
844699 -11 LAB 1115-1310 TTh, ApH 309
544700 -12 LAB 1325-1520 TTh, ApH 309
344701 -13 LAB 1430-1625 TTh, ApH 309
144702 -14 LAB 1535-1730 TTh, ApH 309
- r1132 Biological Science: The Human Body**
216048 -1 1220-1310 MTWThF, SciCB 325, Wilcox, 5 cr (BC)
044703 -2 1430-1520 MTWThF, SciCB 375, 5 cr
- r1137 Biological Science Laboratory: The Human Body** (prereq 1132)
343404 -1 LAB 0800-0955 MW, ApH 311, 2 cr
143405 -2 LAB 1010-1205 MW, ApH 311, 2 cr
043406 -3 LAB 1220-1415 MW, ApH 311, 2 cr
145302 -4 LAB 0800-0955 TTh, ApH 311, 2 cr
045303 -5 LAB 1010-1205 TTh, ApH 311, 2 cr
- r1160 Investigations in Physical Science** (prereq 1 yr high school algebra or 0616 or 0621 or equiv)
142957 -1 0905-1100 TWThF, ApH 322, Johnson A., 5 cr
942958 -2 1325-1520 TWThF, ApH 322, Uthe, 5 cr
- r1162 Physical Science: Stellar Astronomy**
742959 1325-1415 MTWThF, Phys 131, Policoff, 5 cr
- r1163 Physical Science: Principles of Physics** (prereq elementary algebra or 0621 or GC math level D)
817079 1010-1100 MTWThF, Phys 133, Policoff, 5 cr
- r1166 Physical Science: Principles of Chemistry**
819222 -1 0800-0850 MTWThF, SciCB 125, Snowden, 5 cr (BC)
514483 -2 1115-1205 MTWThF, SciCB 125, 5 cr
- r1172 Historical Geology**
845304 1010-1100 MTWThF, SciCB 125, Uthe, 5 cr (4 hr lab ar)
- r1211 People and Problems**
519960 -1 0905-1100 MW, NichH 109, Latts, 5 cr (addtl hr ar)
319670 -2 1115-1310 TTh, 1115-1205 F, ApH 103, Johnson F., 5 cr
844704 -3 1115-1310 TTh, 1115-1205 F, ApH 103, Johnson F., 5 cr (Commanding English students only)
- r1221 Minnesota History**
142960 1010-1205 MW, 1010-1100 F, VinH 1, Buckley, 5 cr
- r1231 United States: Growth of National Power**
★LECT 1325-1520 MW, NichH 213, Ghere, (BC)
919471 -1 REC 1220-1310 F, ApH 103, Ghere, 5 cr (BC)
921334 -2 REC 1325-1415 F, NichH 109, Ghere, 5 cr (BC)
318180 -3 REC 1430-1520 F, NichH 109, Ghere, 5 cr (BC)
- r1233 United States: Government and Politics**
942961 -1 0800-0850 MTWThF, ApH 103, 5 cr
742962 -2 1325-1520 MW, 1325-1415 F, ApH 103, Pringle, 5 cr
- r1235 United States: Law in Society**
315909 -1 0800-0955 TTh, 0800-0850 F, WulH 230, Stanford, 5 cr (BC)
117654 -2 1220-1415 TTh, 1325-1415 F, WulH 230, Kahn, 5 cr
- r1281 Psychology in Modern Society**
416341 -1 0800-0930 MWF, ApH 122, 128, Brothen, 5 cr
618038 -2 1010-1140 MWF, ApH 122, 128, Brothen, 5 cr
315845 -3 1220-1350 MWF, ApH 122, 128, Brothen, 5 cr
918773 -4 1425-1555 MWF, ApH 122, 128, Brothen, 5 cr
- r1284 Behavior Problems of Children**
713350 1325-1520 MW, NichH 109, Latts, 4 cr
- r1285 Cultural Anthropology**
714756 0905-1100 TTh, 0905-0955 F, ApH 103, Johnson F., 5 cr
- 1287 Teaching Internship: Introductory Psychology** (prereq 1281, #)
645305 Brothen, 3 cr (individual instruction ar, ApH 122, 128)
- r1291 The World Today: Geography at Home and Abroad**
722629 0905-0955 MTWThF, NichH 213, Tours, 5 cr (BC)
- r1295 Economic Perspectives: Micro Principles and History** (prereq GC math level D or 0621 or 0625 or 1435)
214512 0905-0955 MTWThF, Arch 35, Ghere, 5 cr
- r1311 Art: General Arts** (§3311)
819365 -1 1430-1520 MTWTh, ApH 302, Gates, 4 cr (BC)
318115 -2 1430-1520 MTWTh, ApH 302, Gates, 4 cr (Commanding English Students only)
413777 -3 1535-1625 MTWTh, ApH 302, Gates, 4 cr (BC)
622512 -4 1535-1625 MTWTh, ApH 302, Gates, 4 cr (Commanding English students only)
013211 -5 1220-1415 MW, ApH 302, Adamson, 4 cr (BC)
544714 -6 0800-0955 TTh, ApH 302, Houtz, 4 cr (BC)
344715 -7 1220-1415 TTh, ApH 302, Adamson, 4 cr
- r1331 Musical Heritage**
944709 1010-1205 TTh, ApH 302, Houtz, 4 cr
- r1365 Literatures of the United States**
313965 1010-1205 MW, ApH 226, Noble, 4 cr
- r1371 Literature: Reading Short Stories**
721142 -1 0800-0955 MW, ApH 223, Gidmark, 4 cr (seminar format with multicultural emphasis; prereq #, □)(BC)
222237 -2 1010-1205 TTh, Arch 40, Collins, 4 cr (BC)
412872 -3 1220-1415 TTh, Arch 40, Collins, 4 cr (BC)
- r1374 The Movies: An Introductory Course**
342964 0800-0955 MW, 0905-0955 F, ApH 302, Yahnke, 4 cr (BC)
- r1421 Writing Laboratory: Basic Writing** (§1412 prior to Fall 1981)
121218 -1 0800-0955 MWF, ApH 204, Healy, 4 cr (microcomputer instruction, uses IBM PC)(BC)
312718 -2 0800-0955 MWF, ApH 219, 4 cr (microcomputer instruction, uses Macintosh PC)(BC)
114012 -3 1010-1205 MWF, NichH 122, 4 cr (BC)
119260 -4 1010-1205 MWF, ApH 204, 4 cr (microcomputer instruction, uses IBM PC)(BC)
516945 -5 1010-1205 MWF, ApH 219, 4 cr (microcomputer instruction, uses Macintosh PC)(BC)
617052 -6 1010-1205 MWF, ApH 227, 4 cr (microcomputer instruction, uses IBM PC)(BC)
919082 -7 1010-1205 MWF, NichH 209A, 4 cr (BC)
323508 -8 1010-1205 MWF, NichH 209, 4 cr (Commanding English students only)
519098 -9 1220-1415 MWF, ApH 223, 4 cr (Commanding English students only)
823528 -10 1220-1415 MWF, ApH 204, 4 cr (microcomputer instruction, uses IBM PC)(BC)
513835 -11 1220-1415 MWF, ApH 219, 4 cr (microcomputer instruction, uses Macintosh PC)(BC)

- 523653 -12 1220-1415 MWF, ApH 227, 4 cr
(microcomputer instruction, uses IBM PC)(BC)
- 017078 -13 1220-1415 MWF, NichH 122, 4 cr
(Commanding English students only)
- 622266 -14 1430-1625 MWF, ApH 226, 4 cr (BC)
- 216776 -15 1430-1625 MWF, ApH 204, 4 cr
(microcomputer instruction, uses IBM PC)(BC)
- 915887 -16 1430-1625 MWF, ApH 223, 4 cr (BC)
- 021647 -17 1010-1205 TTh, NichH 122,
1010-1205 F, ApH 223, 4 cr
(Commanding English students only)
- r1422 Writing Laboratory: Communicating in Society (\$1421)**
- 417148 -1 0800-0955 MW, ApH 227, 4 cr
(microcomputer instruction, uses IBM PC)(BC)
- 314128 -2 0800-0955 MW, NichH 209, 4 cr (BC)
- 022054 -3 1430-1625 MW, ApH 227, 4 cr
(microcomputer instruction, uses IBM PC)(BC)
- 714398 -4 0800-0955 TTh, ApH 204, 4 cr
(microcomputer instruction, uses IBM PC)(BC)
- 719214 -5 0800-0955 TTh, NichH 209, 4 cr (BC)
- 115149 -6 0800-0955 TTh, NichH 122, 4 cr (BC)
- 917008 -7 1010-1205 TTh, ApH 219, 4 cr
(microcomputer instruction, uses Macintosh PC)(BC)
- 222867 -8 1010-1205 TTh, ApH 227, Kassner,
4 cr (community service emphasis with
field placement, prereq #, □)(BC)
- 118125 -9 1010-1205 TTh, ApH 204, 4 cr
(microcomputer instruction, uses IBM PC)(BC)
- 714725 -10 1220-1415 TTh, ApH 219, Albrecht,
4 cr (microcomputer instruction, uses
Macintosh PC)(BC)
- 614362 -11 1220-1415 TTh, ApH 204, 4 cr
(microcomputer instruction, uses IBM PC)(BC)
- 817244 -12 1220-1415 TTh, NichH 122, 4 cr (BC)
- 221508 -13 1220-1415 TTh, ApH 227, 4 cr
(microcomputer instruction, uses IBM PC)
(BC)
- 018389 -14 1220-1415 TTh, ApH 223, 4 cr (BC)
- 618170 -15 1220-1415 TTh, NichH 209A, 4 cr
(BC)
- 719021 -16 1325-1520 TTh, NichH 209, 4 cr (BC)
- 914593 -17 1430-1625 TTh, ApH 223, 4 cr (BC)
- 123056 -18 1430-1625 TTh, ApH 226, 4 cr (BC)
- 318745 -19 1430-1625 TTh, ApH 204, 4 cr
(microcomputer instruction, uses IBM PC)
(BC)
- 913315 -20 1430-1625 TTh, ApH 227, Kassner,
4 cr (community service emphasis with
placement; prereq #, □)(BC)
- r1454 Statistics (prereq GC math level D or
elementary algebra)**
- 020319 -1 0800-0955 MW, 0800-0850 F, ApH
303, 5 cr
- 142965 -2 1325-1520 TTh, 1325-1415 F, ApH
303, Garfield, 5 cr
- r1456 Functions and Problems of Logic (\$1442)**
- 442972 -1 1220-1310 MTWTh, ApH 226, 4 cr
(BC)
- 242973 -2 1325-1415 MTWTh, ApH 226, 4 cr
(BC)
- 142974 -3 1430-1625 TTh, ApH 219, Benson,
4 cr (BC)
- r1461 Oral Communication: Speaking and Creative
Thinking**
- 122238 -1 1430-1625 MW, ApH 102, 4 cr
- 317966 -2 0800-0955 TTh, ApH 102, 4 cr
- 115846 -3 1220-1415 TTh, ApH 102, 4 cr
- r1462 Oral Communication: Speaking and Critical
Thinking (prereq 1461)**
- 218608 -1 1010-1205 TTh, ApH 102, 4 cr
- 942975 -2 0800-0955 WF, ApH 102, 4 cr
- 742976 -3 1220-1415 WF, ApH 102, 4 cr
- r1464 Oral Communication: Group Process and
Discussion (prereq pre-nurs stu)**
- 319636 1010-1205 MW, ApH 102, Amram, 4 cr
(permission of CLA pre-nursing adviser
required)
- r1481 Creativity: Art Laboratory: Experiences in
the Media (max 9 cr)**
- 718001 -1 1220-1415 MW, ApH 202, 3 cr
- 821228 -2 1430-1625 MW, ApH 202, 3 cr
- 221962 -3 0800-0955 TTh, ApH 219, 0800-0955
W, ApH 202, 3 cr (computer art)
- 318275 -4 1010-1205 TTh, ApH 202, 3 cr

- r1511 Introduction to Business**
- 313884 -1 1010-1205 MW, 1010-1100 F, WullH
230, 5 cr (BC)
- 421765 -2 1325-1520 MW, 1430-1520 F, ApH
303, 5 cr
- r1513 Small Business Operations**
- 115958 0800-0955 MW, 0800-0850 F, NichH 207,
5 cr
- r1534 Practical Law**
- 744713 1010-1100 MTWTh, NichH 207, 5 cr
- r1537 Professional Selling**
- 821682 1010-1205 TTh, ApH 303, 4 cr
- r1540 Accounting Fundamentals I**
- 542977 0800-0955 TTh, FolH 148, 4 cr
- r1551 Marketing: Introduction**
- 119601 1325-1520 MW, 1430-1520 F, WullH 230,
5 cr
- r1571 Introduction to Microcomputer Applications
(prereq elementary algebra)**
- 342978 -1 0800-0955 MW, ApH 319, 5 cr (addtl
hr ar)
- 142979 -2 1325-1520 MW, ApH 319, 5 cr (addtl
hr ar)
- 542980 -3 0800-0955 TTh, ApH 319, 5 cr (addtl
hr ar)
- r1572 Introduction to Computer Programming
(\$3571; prereq 1571 or IBM microcomputer
experience)**
- 342981 1325-1520 TTh, ApH 319, 5 cr (addtl hr
ar)
- r1701 Psychology of Personal Effectiveness**
- 323170 -1 1115-1205 MTWTh, NichH 109,
Wambach, 4 cr (BC)
- 317806 -2 1220-1310 MTWTh, NichH 109,
Wambach, 4 cr (BC)
- 217894 -3 0905-1100 TTh, NichH 109, Wood,
4 cr (BC)
- 319782 -4 1325-1520 TTh, NichH 109, Wood,
4 cr (BC)
- 142982 -5 1325-1520 TTh, ApH 103, Latts, 4 cr
(BC)
- r1721 Marriage, Family and Personal Fulfillment**
- 042983 1115-1310 MW, ApH 103, Thoen, 5 cr
(addtl hr ar)
- r1731 Consumer Problems and Personal Finance**
- 717334 0800-0955 TTh, 0905-0955 F, NichH 207,
5 cr
- r1733 Contemporary Sex Roles**
- 842984 0905-1100 MW, ApH 103, Thoen, 5 cr
- r1816 African-American Literature**
- 618427 1010-1205 TTh, ApH 226, Bellamy, 4 cr
- r1836 Asian American Literature**
- 323153 1220-1415 MW, NichH 209, Gidmark, 4 cr

GENETICS (Gene)

- 8777 Thesis Credits: Masters**
- 415173 1-16 cr
- 8888 Thesis Credits: Doctoral (max 18 cr per qtr)**
- 120349 1-36 cr

GENETICS AND CELL BIOLOGY (GCB)

Biological Sciences

- 3022 Genetics** (\$Biol 5003; prereq Biol 1009,
non-biology maj)
- 518596 1730-1910 TTh, ClaOff B45, Snustad, 4 cr
- 3960 Research Topics (prereq 15 cr biology) (S-N
only)**
- 920149 1500-1550 M, BioSci 70, Fan, 1 cr
- r5002 Transmission Electron Microscopy Lab
(prereq #) (S-N only)**
- 513673 Kuehn, 4 cr (SnH 35)
- 5022 Genetics** (\$3022, Biol 5003, not open to grad
students in genetics)
- 616550 1730-1910 TTh, ClaOff B45, Snustad, 3 cr
- 5034 Intermediate Molecular Genetics (prereq Biol
5003, 5004)**
- 614264 1145-1250 MWF, ClaOff B45, Shaw, 4 cr
- r5915 Computer Applications in Molecular Biology
(prereq Biol 5003 or equiv)**
- 623756 1605-1745 M, BioSci 6, Saurugger, 2 cr

- 5970 Directed Studies (prereq #, Δ)**
- 618234 ar cr
- 5990 Directed Research (prereq #, Δ)**
- 423239 ar cr
- 8060 Current Topics**
- 642842 0950-1130 T, BioSci 260, Enfield, Stucker,
2 cr
- 8131 Advanced Genetics I** (\$5031; prereq 3022 or
Biol 5001, 5003 or BioC 5751 or #)
- 442843 1355-1500 MWF, BioSci 6, Lefebvre, 4 cr
- 8148 Advanced Cell Biology I** (\$5048, CBN 8148;
prereq Biol 5004 or #)
- 017355 0950-1130 TTh, BioSci 12, Iwanij, 4 cr
- 8214 Advanced Molecular Biology II** (\$BioC 8214,
MdBc 8214; prereq 8132 or BioC/MdBc 5753 or
#)
- 220276 0930-1110 MW, BioSci 70, 4 cr
- 8900 Seminar (S-N only)**
- 218463 -1 1200-1310 Th, MoosT 2520, King, 1 cr
(Mpls)
- 017033 -2 1530-1700 Th, McNH 33, 1 cr
- 8910 Journal Clubs (S-N only)**
- 718452 -1 1200-1250 T, BioSci 260, 1 cr
- 313531 -2 1145-1235 W, BioSci 260, 1 cr
- 8914 Genetic Counseling Seminar III (prereq
admission to genetic counseling emphasis
within genetics master's program or #)**
- 621652 1010-1150 F, MoosT 16104, Leroy, 2 cr
(Mpls)
- 8950 Practicum: Teaching in Genetics (S-N only)**
- 623434 1 cr
- 8960 Practicum: Teaching in Cell and
Developmental Biology (S-N only)**
- 122389 1 cr
- 8970 Directed Studies (prereq #)**
- 715261 ar cr
- 8990 Research (prereq #)**
- 720766 ar cr

GEO-ENGINEERING (GeoE) Civil And Mineral Engineering Institute of Technology

- 5218 Design of Underground Excavations (prereq
5302 or #, IT stu or grad IT)**
- 942703 1010-1205 TTh, CivMinE 213, Fairhurst,
4 cr
- 5437 Computer Applications in Geological
Engineering (prereq CE 3020, Math 3221 or
equiv or #) (A-F only)**
- 742704 1010-1205 MW, CivMinE 210, Voller, 4 cr
- 5555 Engineering Geostatistics (prereq Stat 3091
or #, IT upper div stu or grad) (A-F only)**
- 542705 1220-1415 TTh, CivMinE 205, Barnes,
4 cr
- 5661 Special Geo-Engineering Problems (prereq
IT sr or #) (A-F only)**
- 220309 ar cr
- 5700 Systems Analysis for Geological Engineers
(prereq IT upper division or grad) (A-F only)**
- 816868 0800-0955 TTh, CivMinE 205, Smith, 4 cr
- 8350 Advanced Rock Mechanics I (prereq 5302)**
- 342706 1220-1415 MW, CivMinE 214, Labuz, 4 cr
- 8602 Seminar: Geo-Engineering (prereq #) (S-N
only)**
- 115118 1115-1205 F, CivMinE 205, ar cr
- 8613 Geo-Engineering Research Problems (prereq
#) (A-F only)**
- 014598 ar cr
- 8777 Thesis Credits: Masters**
- 518324 1-16 cr
- 8888 Thesis Credits: Doctoral (max 18 cr per qtr)**
- 719195 1-36 cr

GEOGRAPHY (Geog) Liberal Arts

r1301 Human Geography

★LECT 1430-1545 TTh, WilleyH 175, Adams J.

- 942846 -1 REC 1115-1310 M, BlegH 245, 5 cr
742847 -2 REC 0905-1100 T, BlegH 125, 5 cr
542848 -3 REC 1115-1310 T, BlegH 245, 5 cr
342849 -4 REC 0905-1100 W, BlegH 215, 5 cr
742850 -5 REC 0905-1100 W, BlegH 155, 5 cr
542851 -6 REC 1015-1215, W, BlegH 210, 5 cr
342852 -7 REC 1115-1310 W, BlegH 230, 5 cr
142853 -8 REC 1430-1625 W, BlegH 210, 5 cr
042854 -9 REC 1115-1310 Th, BlegH 245, 5 cr
842855 -10 REC 0905-1100 F, BlegH 155, 5 cr
642856 -11 REC 0905-1100 F, BlegH 105, 5 cr
442857 -12 REC 1115-1310 F, BlegH 260, 5 cr

r1401 Physical Geography (§NSci 1501)

★LECT 0905-0955 MWF, AndH 310, Barrett

- 415075 -1 REC 0800-0850 TTh, BlegH 445, 5 cr
422270 -2 REC 0905-0955 TTh, BlegH 445, 5 cr
720119 -3 REC 1115-1205 TTh, BlegH 445, 5 cr
017386 -4 REC 1130-1220 TTh, BlegH 110, 5 cr
022037 -5 REC 1220-1310 TTh, RarigC 610, 5 cr
819186 -6 REC 1325-1415 TTh, BlegH 260, 5 cr
816871 -7 REC 0800-0850 WF, BlegH 445, 5 cr
616094 -8 REC 0800-0850 WF, BlegH 260, 5 cr
718435 -9 REC 1010-1100 WF, BlegH 260, 5 cr
414797 -10 REC 1115-1205 WF, BlegH 445, 5 cr
718340 -11 REC 1220-1310 WF, BlegH 225, 5 cr
214140 -12 REC 1220-1310 WF, BlegH 445, 5 cr

r1501 The Language of Maps (§3311)

★LECT 1010-1100 MWF, AndH 210, Gersmehl

- 621134 -1 REC 0800-0850 MW, BlegH 430, 5 cr
920409 -2 REC 0905-0955 MW, BlegH 430, 5 cr
512748 -3 REC 0905-0955 MW, HHHCtr 60, 5 cr
218513 -4 REC 1115-1205 MW, BlegH 430, 5 cr
814943 -5 REC 1115-1205 MW, BlegH 260, 5 cr
812917 -6 REC 1220-1310 MW, BlegH 430, 5 cr
313299 -7 REC 0800-0850 TTh, BlegH 430, 5 cr
919762 -8 REC 0905-0955 TTh, BlegH 430, 5 cr
815607 -9 REC 1010-1100 TTh, BlegH 430, 5 cr
419708 -10 REC 1010-1100 TTh, BlegH 445, 5 cr
117685 -11 REC 1115-1205 TTh, BlegH 430, 5 cr

1973 Geography of the Twin Cities (§3973)

242861 1820-2100 T, AndH 230, Adams J., 4 cr

r3001 Introduction to Geographic Inquiry

142862 1010-1125 TTh, BlegH 415, Porter, 4 cr

r3101 Geography of United States and Canada

922452 1115-1205 MWF, WilleyH 125, Gersmehl, 4 cr

r3141 Africa (§Afro 3141)

443958 1220-1310 MWF, BlegH 440, Porter, 4 cr

3213 Southeast Asia

942863 1010-1100 MWF, BlegH 330, Schwartzberg, 4 cr

3344 Land Use and the Federal Government

742864 1245-1430 TTh, BlegH 445, Squires, 4 cr

r3371 Introduction to Urban Geography

542865 0905-0955 MWF, BlegH 425, Miller, 4 cr

r3531 Quantitative Methods in Geography (A-F only)

★LECT 0945-1100 TTh, BlegH 330, McMaster

142867 -1 REC 1415-1530 T, BlegH 330, 4 cr

3940 Directed Field Study (prereq #) (A-F only)

216227 2-4 cr

3970 Directed Readings (prereq #, Δ, □)

021356 1-15 cr

3973 Geography of the Twin Cities (§1973)

042868 1820-2100 T, AndH 230, Adams J., 4 cr

r3985 Senior Project Seminar (prereq Geog maj and #) (A-F only)

445340 1325-1500 T, BlegH 430, Klink, 2 cr

3990 Directed Research (prereq #, Δ, □)

814361 1-15 cr

r5001 Geographical Analysis I

623627 1220-1310 MWF, BlegH 415, Sheppard, 4 cr

5102 Historical Geography of North America

842869 0815-0930 TTh, BlegH 330, Lukermann, 4 cr

5111 Selected Regions: Eastern United States

142870 1325-1415 MWF, BlegH 440, Hart, 4 cr

5311 Time-Geography I (prereq #)

842872 1325-1520 MF, BlegH 430, Miller, 4 cr

5372 Metro Analysis I: Population and Housing

642873 0800-1000 TTh, BlegH 415, Adams J., 4 cr

5393 Look of the Land

821147 1010-1100 MWF, BlegH 440, Hart, 4 cr

5423 Advanced Climatology (prereq 3421 or Soil 5420 or #)

319586 1325-1455 MF, BlegH 445, Skaggs, 4 cr

r5512 Cartography: Topics: Advanced Map Design and Production I (prereq 3511 or #)

317577 1445-1545 TTh, BlegH 460, Chu, 4 cr

r5522 Computer Cartography: Principles and Design Concepts (prereq 3511 or #) (A-F only)

★LECT 1115-1205 MWF, HHHCtr 25, Hsu

242875 -1 REC 1220-1415 W, BlegH 455, 4 cr

r5562 Introduction to Geographic Information Systems (§LA 5562; prereq jr or sr in Geog or LA or grad or #)

★LECT 1215-1410 Th, BlegH 415,

Nassauer, Brown

415190 -1 REC 1215-1430 T, BlegH 90, 4 cr

217328 -2 REC 1445-1700 T, BlegH 90, 4 cr

5606 Geographical Perspectives on Urban Planning II (prereq 5605)

142876 1325-1440 MF, BlegH 415, Leitner, 4 cr

r5808 Regional Analysis of North America (prereq #)

112896 1430-1625 W, BlegH 430, Gersmehl, 4 cr

r5900 Topics in Geography (prereq sr or grad, #)

942877 -1 LECT 1010-1100 MW, BlegH 350,

Craig, McMaster, 4 cr (Urban Geographic Information Systems and Analysis)

★REC 1200-1400 F, BlegH 455

145342 -2 LECT 1245-1400 TTh, BlegH 330,

Lukermann, 4 cr (Cultural Pluralism)

8010 Seminar: Theoretical Geography (prereq #)

742878 3 cr

8210 Seminar: South Asia (prereq #)

542879 Schwartzberg, 3 cr

8344 Seminar: Federal Public Land Policy (prereq #)

617424 1400-1630 W, BlegH 445, Squires, 3 cr

8350 Seminar: World Population Problems (prereq #)

123146 1325-1520 W, BlegH 460, Hsu, Rice, 3 cr

8777 Thesis Credits: Masters

922063 1-16 cr

8888 Thesis Credits: Doctoral (max 18 cr per qtr)

912794 1-36 cr

8970 Directed Readings

914870 1-5 cr

8980 Topics in Geography (prereq #)

119671 1300-1500 Th, BlegH 430, Leitner, 3 cr

8990 Research Problems

618864 ar cr

GEOLOGY AND GEOPHYSICS (Geo)

Institute of Technology

r1001 The Dynamic Earth: An Introduction to Geology

720363 -1 0905-0955 MTWF, SmithH 100, 4 cr

918157 -2 1115-1205 MTWF, SmithH 100, 4 cr

r1005 Geologic Perspectives on Energy

016075 0905-0955 MTWF, PillsH 110, Alexander, 4 cr

r1011 Volcanoes of the Earth

823447 1325-1415 MTWF, PillsH 110, Stout, 4 cr

r1021 Introduction to Geology Lab: Geology of Minnesota (prereq 1001 or f or #)

113093 -1 LAB 0905-1100 M, FordH 185, 1 cr

823335 -2 LAB 1220-1415 M, FordH 185, 1 cr

115071 -3 LAB 1325-1520 M, FordH 180, 1 cr

620811 -4 LAB 0800-0955 T, FordH 185, 1 cr

517335 -5 LAB 0905-1100 T, FordH 180, 1 cr

714112 -6 LAB 1220-1415 T, FordH 180, 1 cr

- 114236 -7 LAB 1325-1520 T, FordH 185, 1 cr
522812 -8 LAB 1430-1625 T, FordH 180, 1 cr
121042 -9 LAB 0905-1100 W, FordH 185, 1 cr
414508 -10 LAB 1535-1730 W, FordH 185, 1 cr
819415 -11 LAB 0800-0955 Th, FordH 180, 1 cr
512667 -12 LAB 0800-0955 Th, FordH 185, 1 cr
312766 -13 LAB 1010-1205 Th, FordH 185, 1 cr
816224 -14 LAB 1010-1205 Th, FordH 180, 1 cr
616418 -15 LAB 1220-1415 Th, FordH 180, 1 cr
313724 -16 LAB 1325-1520 Th, FordH 185, 1 cr

r1022 Historical Geology (§1002, 3112; prereq 1001, 1021, or 1111)

★LECT 1220-1310 MWF, PillsH 110, Sloan, 4 cr

142903 -1 LAB 1325-1520 M, FordH 80

042904 -2 LAB 0800-0955 T, FordH 80

842905 -3 LAB 1220-1415 T, FordH 80

642906 -4 LAB 1115-1310 Th, FordH 80

r1601 Oceanography

★LECT 1430-1520 MWF, Phys 131, Paola, Barnwell, others, 4 cr

721237 -1 LAB 0905-0955 Th, PillsH 207C

918238 -2 LAB 1220-1310 Th, PillsH 207C

220312 -3 LAB 1325-1415 Th, PillsH 207C

119217 -4 LAB 1430-1520 Th, PillsH 207C

214395 -5 LAB 1535-1625 Th, PillsH 207C

621909 -6 LAB 1640-1730 Th, PillsH 207C

r3401 Introductory Mineralogy (prereq 1001 or 1111 or #, 1 qtr college chemistry, Math 1221)

★LECT 1010-1100 MWF, PillsH 110,

Karato, 5 cr

521448 -1 LAB 1115-1310 MWF, PillsH 100

620470 -2 LAB 1325-1520 MWF, PillsH 100

3990 Problems in Geology and Geophysics (prereq #, Δ)

619187 1-6 cr

r5004 Mineralogy (§3401, no geo, geophys, geo-eng, min eng majs; prereq Math 1221, one term college chem, #)

★LECT 1010-1100 MWF, PillsH 110, Karato, 4 cr

018795 -1 LAB 1115-1310 MWF, PillsH 100

5100 Advanced General Geology (prereq 1001 or 1111) (S-N only)

442907 Stout, 1-2 cr

r5154 Vertebrate Paleontology I (prereq 5151 or EEB 5114)

220097 1430-1520 MWF, PillsH 105, Sloan, 5 cr

5255 Glaciology (prereq Math 3221 or #)

244481 Hooke, 4-5 cr

r5321 Nuclear Geology (prereq 5311 or #)

823559 1325-1520 TTh, PillsH 125, Murthy,

Edwards, 4 cr

r5405 Optical Mineralogy (prereq 3401 or 5404 or f)

★LECT 1535-1625 MF, PillsH 125,

Weiblen, 2 cr

142909 -1 LAB 1640-1730 MF, PillsH 125

r5501 Geophysical Methods in Geology (prereq 3102, Phys 1291, upper division stu or #)

521420 1115-1205 MWF, PillsH 207C, Banerjee,

Kohlstedt D., 4 cr

r5506 Solid Earth Geophysics II (prereq 1111, Phys 1291)

114284 1010-1205 TTh, PillsH 207C, Banerjee,

Karato, 4 cr

5601 Limnology (§EEB 5601; prereq Chem 1005 or equiv)

919809 0905-0955 MWF, Zoology 313, Megard,

4 cr

r5652 Sedimentary Petrology and Processes (prereq 3102, 5651 or #)

★LECT 1325-1415 MWF, PillsH 125, Paola, Kleinspehn, 5 cr

242911 -1 LAB 1430-1625 W, PillsH 125

r5654 Marine Sedimentary Environments (prereq 5651 or #)

142912 1010-1205 MW, PillsH 125, Kleinspehn,

4 cr

r5980 Seminar: Current Topics in Geology and Geophysics (prereq #)

415884 1-6 cr

5990 Senior Thesis (max 6 cr; prereq sr geology or geophysics maj, #)

813341 2 cr

8098 Seminar: Current Topics in Geology and Geophysics: Geomorphology/Glacial Geology (prereq #)

520803 1-6 cr

- 8099 Research in Geology and Geophysics** (prereq #)
113725 1-6 cr
- 8262 Quaternary Paleocology and Climate** (prereq 5261 or #)
513026 Wright, Kelts, 4 cr
- 8453 Phase Equilibrium in Mineral Systems** (prereq 5452, Chem 5520, Math 3221)
945343 Stout, 3 cr
- 8602 Advanced Limnology** (§EEB 8602; prereq 5601 or EEB 5601, #)
416257 1200-1430 T, PillsH 121, Shapiro, Megard, 3 cr
- 8612 Analytical Geochemistry** (4 cr with term paper; prereq Math 3221, CE 3400 or #)
942913 0800-0955 TTh, PillsH 121, Plannkuch, 3-4 cr
- 8777 Thesis Credits: Masters**
513950 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
113417 1-36 cr

GERMAN (Ger)

German Liberal Arts

- R1101 Beginning German** (§1000; CLA degree credit granted only according to entrance standard)
021955 -1 0800-0850 MTWThF, KolH S134, Thorson, 5 cr
816210 -2 0905-0955 MTWThF, AmundH 158, 5 cr
221198 -3 1220-1310 MTWThF, FordH 40, Kuss, 5 cr
514628 -4 1325-1415 MTWThF, FordH 40, Barthelmy, 5 cr
- R1102 Beginning German** (§1110; prereq 1101 or 1000; CLA degree credit granted only according to entrance standard)
121453 -1 0800-0850 MTWThF, KolH S140, Heaney, 5 cr
121350 -2 0800-0850 MTWThF, FordH 160, 5 cr
822265 -3 0905-0955 MTWThF, FordH 160, Fenner, 5 cr
513186 -4 1010-1100 MTWThF, FordH 160, Juengling, 5 cr
115569 -5 1010-1100 MTWThF, AmundH 158, 5 cr
819799 -6 1115-1205 MTWThF, FordH 40, Norton, 5 cr
814330 -7 1220-1310 MTWThF, AmundH 158, Garrott, 5 cr
421409 -8 1325-1415 MTWThF, AmundH 158, Jacobsen, 5 cr
- R1103 Beginning German** (§1110; prereq 1102 or 5 cr of 1110; degree cr granted only according to entrance standard)
823495 -1 0800-0850 MTWThF, AmundH 158, 5 cr
122093 -2 1115-1205 MTWThF, AmundH 158, Cameron, 5 cr
- R1104 Intermediate German** (prereq 1103 or 10 cr of 1110 or Entrance Standard proficiency test)
119850 -1 1010-1100 MTWThF, KolH S135, Eden, 5 cr
920006 -2 1115-1205 MTWThF, KolH S135, Dickerson, 5 cr
123039 -3 1220-1310 MTWThF, KolH S135, 5 cr
113071 -4 1325-1415 MTWThF, KolH S135, Dolaptsi, 5 cr
- R1105 Intermediate German** (prereq 1104 or placement)
520025 -1 0800-0850 MTWThF, Arch 20, Jakub, 5 cr
121310 -2 0905-0955 MTWThF, KolH S135, Barcouras, 5 cr
213280 -3 1115-1205 MTWThF, FordH 160, Kautz, 5 cr
420874 -4 1220-1310 MTWThF, FordH 160, Langbehn, 5 cr
115189 -5 1325-1415 MTWThF, FordH 160, Shandley, 5 cr
- R1106 Intermediate German** (prereq 1105 or placement)
114799 -1 0905-0955 MTWThF, Arch 20, Roetzel, 5 cr
414640 -2 1220-1310 MTWThF, Arch 30, 5 cr
- R3011 Conversation and Composition** (prereq 1106, graduation proficiency test)
417313 0800-0850 MTThF, FolH 240, Mueller, 4 cr

- R3012 Conversation and Composition** (prereq 3011)
920507 -1 1220-1415 MTh, FolH 138, Taraba, 4 cr
121090 -2 1715-1900 TTh, KolH S132, Grotans, 4 cr
- R3015 Conversation and Composition** (prereq 3013 or #)
319507 1115-1205 MWF, KolH S137, Rink, 4 cr
- R3021 Business German** (prereq 3013 or equiv)
513947 1820-2050 W, FolH 104, Zinggeler, 4 cr
- R3105 Reading and Analysis of Drama and Poetry** (prereq 1106 or #)
623630 0945-1100 TTh, FolH 134, Teraoka, 4 cr
- R3105H Honors Course: Reading and Analysis of Drama and Poetry** (prereq 1106, honors student or #)
121601 1115-1230 TTh, FolH 142, Schulte-Sasse, 4 cr
- 3342 Major Project in German** (prereq Δ) (A-F only)
920295 1010-1205 T, FolH 50, McCormick, 4 cr
- 3342H Major Project in German** (prereq #) (A-F only)
022541 1010-1205 T, FolH 50, McCormick, 4 cr
- R3442 Twentieth-Century Literature: 1918-1933** (prereq 3104, 3105)
442924 1245-1400 TTh, FolH 344, Teraoka, 4 cr
- R3512 German Civilization and Culture: Reformation to 1800** (prereq 3104, 3105, one additional 3xxx German lit course)
115726 1430-1520 MW, 1430-1625 F, FolH 218, Weiss, 4 cr
- 3590 Directed Studies: German-Speaking Countries** (prereq 3501, #)
616242 5 cr
- R3702 Beginning Middle High German** (prereq 3104, 3105)
942927 1325-1415 MWF, FolH 246, Fullerton, 4 cr
- 3970 Directed Studies** (prereq #, Δ, □)
116365 1-5 cr
- R5101 The Analysis of German** (prereq Ling 3001 or 5001, Ger 1105 or #)
742928 1430-1625 M, FolH 240, Firchow, 4 cr
- R5622 Nazi and Postwar German Cinema** (prereq 3XXX-level film studies course or #)
542929 1640-1835 M, 1915-2130 M, FolH 38, McCormick, 4 cr
- R5721 Middle High German Language**
942930 1430-1625 W, FolH 240, Fullerton, 4 cr
- 5970 Directed Studies** (prereq #, Δ, CLA approval)
823030 1-5 cr
- R8102 Bibliography and Proseminar** (prereq 1st or 2nd yr grad stu)
521661 1430-1625 Th, FolH 218, Duroche, 4 cr
- R8113 Introduction to German Literary Theory and Criticism**
742931 1430-1625 M, FolH 114, Zipes, 4 cr
- R8206 Topics in Middle High German Literature: Walthar von der Vogelweide** (§MeSt 5610, sec 10; prereq 8202, 8723 or #)
522079 1640-1835 Th, FolH 246, Wakefield, 4 cr
- R8210 Topics in 16th and 17th Century German Literature: Grimmelshausen and Early German Narrative** (max 12 cr)
020708 1640-1835 W, FolH 246, Parente, 4 cr
- R8742 Gothic and Methods of Comparative Germanic Linguistics** (prereq #)
342933 1640-1835 T, FolH 114, Liberman, 4 cr
- 8777 Thesis Credits: Masters**
819768 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
115029 1-36 cr
- 8990 Reading and Research** (prereq #)
615110 3-6 cr

GERMANIC PHILOLOGY (GPh)

- 8777 Thesis Credits: Masters**
723294 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
116091 1-36 cr

GREEK (Grk) Classical & Near Eastern Studies Liberal Arts

- 1102 Beginning Classical Greek** (§1020, 1101-1102; prereq 1101)
114432 -1 0800-0850 MTWThF, FolH 142, 5 cr
118254 -2 1010-1100 MTWThF, KolH S134, 5 cr
- 1122H Honors Course: Beginning Classical Greek** (prereq 1111H)
842709 0905-0955 MTWThF, FolH 114, Belfiore, 5 cr
- 3052 Beginning Ancient Greek: Accelerated** (3051-3052†; prereq 3051)
142710 0905-0955 MTWThF, FolH 114, Belfiore, 5 cr
- 3105 Greek Drama** (prereq 1104 or Δ)
514290 1010-1100 MWF, FolH 138, Keuls, 5 cr
- 3454 Advanced Undergraduate Greek: Thucydides** (prereq 3106 or 5 cr of 3120 or 3 yrs high school Greek or Δ)
042711 0905-0955 MWF, FolH 426, Hershbell, 5 cr
- 3951 Major Project** (prereq Grk-Lat or Grk maj, three 3xxx courses in Greek or #) (A-F only)
114785 5 cr
- 3960H Honors Tutorial** (prereq Δ)
416758 5 cr
- 3970 Directed Studies** (prereq #, Δ, □)
117945 1-5 cr
- 5012 Prose Composition** (prereq 3106 or Δ)
842712 1220-1310 MWF, FolH 114, Keuls, 4 cr
- 5970 Directed Studies** (prereq #, Δ, CLA approval)
914674 1-5 cr
- 5980 Directed Teaching** (prereq #, Δ, CLA approval)
314971 ar cr
- 5990 Directed Research** (prereq #, Δ, CLA approval)
119413 ar cr
- 8120 Greek Text Course** (prereq 3052 or Δ, non-maj)
918272 -1 0905-0955 MWF, FolH 426, Hershbell, 4 cr
713512 -2 1010-1100 MWF, FolH 138, Keuls, 4 cr
- 8265 Survey of Greek Literature: Literature of the Fifth Century**
642713 1415-1715 Th, FolH 214, Belfiore, 4 cr
- 8777 Thesis Credits: Masters**
713347 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
321256 1-36 cr

HEALTH INFORMATICS (HInf) Laboratory Medicine and Pathology Medical School

- 5431 Health Informatics II: Database Management Systems** (prereq 5430, PubH 5430, programming or #)
613017 0905-0955 MTWTh, PWB 5206, Gatewood, 4 cr
- 5436 Seminar: Health Informatics** (S-N only)
719438 1535-1625 Th, Mayo C231, Ellis, 1 cr (Todd Amph)
- 5470 Topics in Health Informatics** (prereq #)
418445 ar cr
- 8416 Mathematical Modeling in the Health Sciences II: Stochastic Models** (prereq 8415 or #, Math 3221, PubH 5450; majors must register A-F only)
045205 1325-1440 WF, PWB 6224, Altmann, 3 cr
- 8449 Advanced Readings in Health Informatics** (prereq 5432, PubH 5434, #)
722243 1-3 cr
- 8450 Research in Health Informatics** (prereq #)
821827 ar cr
- 8777 Thesis Credits: Masters**
321869 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
122496 1-36 cr

HEALTH SCIENCE UNITS (HSU)

Health Sciences

- r3005 Orientation to the Health Sciences** (S-N only)
417179 1615-1800 T, MoosT 2530, Newell, 2 cr
- r5007 Health Leadership and Effecting Change** (§PubH 5727; prereq public health grad or #)
913069 1640-1925 W, Mayo 1250, Spradley, 3 cr
- r5008 Social and Psychological Aspects of Physical Disability**
742718 1515-1700 TTh, MoosT 2690, Athelstan, 4 cr
- r5026 Program Evaluation in Health and Mental Health Settings** (§PubH 5852; prereq PubH or grad stu, PubH 5806 or equiv rsrch method course, stats course)
145292 1430-1625 MW, MoosT 2571, 2585, Garrard, 4 cr
- r5027 Human Sexual Behavior** (§FSoS 5001; prereq upper division, 12 cr in social, behavioral or health science or grad in behavioral, social, educational, health science or human service prog or #)
942717 0930-1135 TTh, McNH 197, Maddock, 5 cr (StP)
- r5031 Biology of Aging** (§SAHP 5007)
722193 1640-1825 Th, EE/CSci 3125, 2 cr
- r5040 Dying and Death in Contemporary Society** (§PubH 5040, Mort 5040; prereq hlth sci maj, school of public hlth maj, educ cr, mort sci maj or #)
116973 1640-1825 M, 1640-1730 W, MoosT 2690, Rothenberger, Burger, 3 cr
- 5210 Terminology of the Health Sciences** (§SAHP 5210)
716913 McKennell, 2 cr (for information go to HSUnitF 5-120 before first day of quarter or call 624-2442)

HEBREW (Hebr)

Classical & Near Eastern Studies

Liberal Arts

- r1013 Beginning Hebrew for Students with Prior Exposure** (prereq 1012)
112722 1220-1310 MTWThF, FolH 218, Shendar, 5 cr
- r1102 Beginning Hebrew** (prereq 1101)
423404 1220-1310 MTWThF, Arch 20, Dworsky, 5 cr
- r3012 Intermediate Hebrew** (prereq 3011)
421376 1115-1205 MTWThF, FolH 218, Shendar, 5 cr
- r3016 Advanced Modern Hebrew** (prereq 3015)
220388 0905-0955 MWF, FolH 234, Paradise, 4 cr
- 3980 Directed Instruction** (prereq #, Δ, □)
222108 1-5 cr
- 5970 Directed Readings** (prereq 3013, #, Δ, CLA approval)
212856 ar cr

HINDI (Hndi)

South Asian & Middle Eastern

Languages & Cultures

Liberal Arts

- 1102 Beginning Hindi** (prereq 1101)
918384 0905-0955 MTWThF, PeikH 225, Staneslow, 5 cr
- 5132 Intermediate Hindi** (§3032; prereq 5131)
219466 1010-1100 MTWThF, PeikH 225, Staneslow, 5 cr
- r5162 Advanced Hindi** (prereq 5161)
542722 1115-1230 TTh, FolH 114, Junghare, 4 cr

HISTORY (Hist)

Liberal Arts

- r1012 Introduction to World History** (A-F only)
★LECT 1115-1230 TTh, WilleyH 125, Farmer, Schwartz
320625 -1 REC 0800-0850 MW, HHCtr 60, 5 cr
118609 -2 REC 0800-0850 MW, BlegH 225, 5 cr
416565 -3 REC 0905-0955 MW, BlegH 230, 5 cr
715437 -4 REC 1220-1310 MW, BlegH 350, 5 cr
223646 -5 REC 1325-1415 MW, AndH 370, 5 cr
321614 -6 REC 0800-0850 TTh, BlegH 245, 5 cr
919602 -7 REC 0905-0955 TTh, Law 3, 5 cr
123647 -8 REC 0905-0955 TTh, BlegH 210, 5 cr
121615 -9 REC 1010-1100 TTh, Law 3, 5 cr
719603 -10 REC 1325-1415 TTh, AndH 370, 5 cr
917591 -11 REC 0800-0850 WF, BlegH 145, 5 cr
515438 -12 REC 0905-0955 WF, BlegH 235, 5 cr
013547 -13 REC 1010-1100 WF, BlegH 235, 5 cr
922631 -14 REC 1220-1310 WF, BlegH 105, 5 cr
120626 -15 REC 1325-1415 WF, BlegH 235, 5 cr
418610 -16 REC 1325-1415 WF, BlegH 5, 5 cr
- r1012H Honors: Introduction to World History** (A-F only)
★LECT 1115-1230 TTh, WilleyH 125, Farmer, Schwartz
722632 -80 REC 1325-1415 T, BlegH 245, 5 cr
- r1022 Introduction to Western Civilization** (§1022H) (A-F only)
★LECT 0945-1100 TTh, WilleyH 175, Metcalf
516301 -1 REC 0800-0850 MW, BlegH 105, 5 cr
319202 -2 REC 1010-1100 MW, HHCtr 60, 5 cr
817034 -3 REC 1115-1205 MW, BlegH 350, 5 cr
015847 -4 REC 1220-1310 MW, BlegH 235, 5 cr
417750 -5 REC 1325-1415 MW, BlegH 420, 5 cr
717396 -6 REC 0800-0850 TTh, BlegH 350, 5 cr
121280 -7 REC 0800-0850 TTh, BlegH 205, 5 cr
414475 -8 REC 0800-0850 TTh, HHCtr 60, 5 cr
013967 -9 REC 0800-0850 TTh, Law 3, 5 cr
215742 -10 REC 0800-0850 TTh, BlegH 255, 5 cr
515035 -11 REC 1115-1205 TTh, SocSci 1383, 5 cr
619271 -12 REC 0800-0850 WF, BlegH 205, 5 cr
213067 -13 REC 0905-0955 WF, BlegH 350, 5 cr
416954 -14 REC 1010-1100 WF, BlegH 115, 5 cr
322892 -15 REC 1115-1205 WF, BlegH 240, 5 cr
315179 -16 REC 1220-1310 WF, RarigC 610, 5 cr
- r1022H Honors: Introduction to Western Civilization** (§1022; prereq #) (A-F only)
★LECT 0945-1100 TTh, WilleyH 175, Metcalf
916652 -80 REC 1220-1310 MW, SocSci 1383, Metcalf, 5 cr
- r1302 American History** (§1302H)
★LECT 1115-1205 MWF, WilleyH 175, Green
820046 -1 REC 0800-0850 M, BlegH 205, 4 cr
214171 -2 REC 0800-0850 M, BlegH 115, 4 cr
515715 -3 REC 0905-0955 M, BlegH 105, 4 cr
418901 -4 REC 0905-0955 M, BlegH 240, 4 cr
614250 -5 REC 1010-1100 M, BlegH 105, 4 cr
314226 -6 REC 1010-1100 M, BlegH 145, 4 cr
321211 -7 REC 0905-0955 MW, SocSci 101, 4 cr (MLK only)
722128 -8 REC 0800-0850 T, BlegH 5, 4 cr
012785 -9 REC 0905-0955 T, BlegH 5, 4 cr
920359 -10 REC 1010-1100 T, BlegH 5, 4 cr
913105 -11 REC 1220-1310 T, BlegH 415, 4 cr
215014 -12 REC 0800-0850 W, BlegH 115, 4 cr
713235 -13 REC 0905-0955 W, BlegH 240, 4 cr
417814 -14 REC 1010-1100 W, BlegH 245, 4 cr
013838 -15 REC 1220-1310 W, BlegH 120, 4 cr
714028 -16 REC 0800-0850 Th, BlegH 240, 4 cr
115698 -17 REC 0905-0955 Th, BlegH 215, 4 cr
823769 -18 REC 0800-0850 F, BlegH 420, 4 cr
921740 -19 REC 1220-1310 F, BlegH 120, 4 cr
- r1302H Honors Course: American History** (§1302)
★LECT 1115-1205 MWF, WilleyH 175, Green
621005 -80 REC 1325-1415 M, BlegH 115, Green, 4 cr
- r3032 Medicine and Disease in History** (§HMed 3002)
113546 0905-0955 MWF, FordH 130, Tang, 4 cr
- 3052 Ancient Civilization** (§1052)
020627 1115-1230 TTh, BlegH 115, Kelly, 4 cr

- r3152 English History from the 17th Century to the Present** (§1152)
★LECT 1115-1205 MWF, AndH 330
921124 -1 REC 1220-1310 T, AndH 350, 4 cr
514421 -2 REC 1220-1310 W, BlegH 240, 4 cr
313805 -3 REC 1115-1205 Th, Law 3, 4 cr
- 3271 The Vikings at Home and Away** (§Scan 3271)
242990 0905-0955 MWF, BlegH 150, Metcalf, 4 cr
- 3282 Intellectual and Cultural History of Modern Europe**
121266 1010-1100 MWF, AndH 230, Thayer, 4 cr
- 3348 Women in Modern America, 1890-1980**
142991 0945-1100 TTh, AndH 330, Lindman, 4 cr
- r3402 Survey of Latin American History, 1800-1929** (§1402, LAS 3402)
★LECT 0945-1100 TTh, AndH 230, Hedberg
315439 -1 REC 0800-0850 M, BlegH 260, 4 cr
923648 -2 REC 1220-1310 T, BlegH 210, 4 cr
021616 -3 REC 1115-1205 W, BlegH 245, 4 cr
519604 -4 REC 1220-1310 W, BlegH 250, 4 cr
717592 -5 REC 1115-1205 Th, HHCtr 20, 4 cr
821617 -6 REC 1220-1310 Th, AndH 350, 4 cr
- 3421 The World and the West** (§1421)
942992 0945-1100 TTh, BlegH 420, Kopf, 4 cr
- r3431 History of Africa to 1800** (§1431)
★LECT 1115-1230 TTh, AndH 330, Sunseri
144594 -1 REC 1010-1100 W, BlegH 105, 4 cr
944595 -2 REC 1115-1205 W, BlegH 125, 4 cr
744596 -3 REC 1325-1415 Th, BlegH 350, 4 cr
544597 -4 REC 0905-0955 F, BlegH 220, 4 cr
344598 -5 REC 1010-1100 F, BlegH 215, 4 cr
- r3442 Survey of Chicano History, 1900 to Present** (§Chic 3442, LAS 3442)
216969 1220-1310 MWF, ScottH 4, Valdes, 4 cr
- r3463 Introduction to East Asia in Modern Times** (§1463, EAS 1463)
★LECT 1325-1415 MWF, AndH 210, Marshall, Farmer
042997 -1 REC 1220-1310 M, Law 1, 4 cr
842998 -2 REC 1430-1520 M, BlegH 115, 4 cr
642999 -3 REC 1220-1310 W, Law 1, 4 cr
543000 -4 REC 1430-1520 W, BlegH 420, 4 cr
343001 -5 REC 1220-1310 F, Law 3, 4 cr
143002 -6 REC 1430-1520 F, Law 1, 4 cr
- r3467 The Nationalist Revolution in China, 1900 to Present** (§5467, EAS 3467)
144599 0945-1100 TTh, BlegH 155, McDonald, 4 cr
- r3474 Rise of Modern Japan, 1853-1914** (§EAS 3474)
742993 1115-1205 MWF, BlegH 135, Marshall, 4 cr
- 3488 Modern India**
542994 0815-0930 TTh, BlegH 135, Kopf, 4 cr
- 3541 History of the Arabs: 500-800** (§MidE 3541)
143039 0915-1100 W, BlegH 205, Farah, 4 cr
- 3607 The History of the Jews in Medieval Europe**
342995 0815-0930 TTh, BlegH 115, Bachrach, 4 cr
- 3632 History of Germany: Reformation to Revolution, 1500-1848**
245534 -1 REC 1010-1100 MWF, BlegH 135, Maynes, 4 cr
★LECT 1010-1100 MWF, BlegH 135, Maynes
145431 -1 REC 1115-1205 F, BlegH 150, Maynes, 5 cr (prereq fluency in German, #)
- 3636 Russian History from the Origins to Peter the Great** (§5132)
543949 0905-0955 MWF, BlegH 260, Noonan, 4 cr
- 3641 Anglo-Saxon England: From King Arthur to William the Conqueror**
843004 0945-1100 TTh, BlegH 135, Bachrach, 4 cr
- 3652 England in the Age of Elizabeth I**
643005 0905-0955 MWF, BlegH 145, Lehmburg, 4 cr
- 3708 Social History of Modern Europe**
443006 0945-1100 TTh, BlegH 350, Rudolph, 4 cr
- 3722 Europe in the Era of World War II** (§3224)
916568 0905-0955 MWF, AndH 330, Munholland, 4 cr

- 3748 The Austrian Republic from World War I to Present**
521305 1245-1400 TTh, BlegH 135, Wright, 4 cr
- r3809 The Beginnings of American Politics: 1607-1787 (A-F only)**
944600 0945-1100 TTh, BlegH 105, Howe, 4 cr
- 3812 Civil War and Reconstruction**
744601 1115-1230 TTh, AndH 310, Peterson S., 4 cr
- 3822 United States in the 20th Century, 1932-1960**
143008 1010-1100 MWF, AndH 370, Berman, 4 cr
- 3834 History of Civil Liberties and Civil Rights in the United States**
943009 1115-1205 MWF, AndH 230, Murphy, 4 cr
- 3844 American Economic History, Colonial Period to Civil War**
243010 0905-0955 MWF, BlegH 245, Green, 4 cr
- 3862 European Americans: From Immigrants to Ethnics**
143011 1115-1230 TTh, BlegH 205, Vecoli, 4 cr
- 3867 American Jewish History**
743013 1115-1205 MWF, BlegH 115, Berman, 4 cr
- r3871 American Indian History from Mid-15th Century to 1850 (\$Amln 3111)**
220875 0945-1100 TTh, AndH 270, O'Brien, 4 cr
- 3883 History of American Foreign Relations**
543014 1115-1205 MWF, AndH 370, Brauer, 4 cr
- r3952H Honors Course: History (prereq 3951H)**
723649 1115-1230 T, HHCtr 20, Samaha, 4 cr
- r3955 Introduction to Historical Research (prereq Δ, to be taken prior to 3961)**
612711 -1 1325-1520 M, BlegH 205, 4 cr
220245 -2 1325-1520 T, BlegH 120, Gaut, 4 cr
544602 -3 1325-1520 W, Law 1, Buckley T., 4 cr
344603 -4 1325-1520 W, BlegH 240, Maynes, 4 cr
- r3961 Major Paper (prereq Δ)**
614068 -1 1325-1520 T, BlegH 415, 5 cr
443037 -2 1325-1520 W, BlegH 415, Brauer, 5 cr
243038 -3 1325-1520 W, AndH 230, Vecoli, 5 cr
144604 -4 1325-1520 W, SocSci 710, Thayer, 5 cr (1st meeting)
- 3970 Directed Studies (prereq #, Δ, □)**
914691 -1 1-15 cr
- 3990 Directed Research (prereq #, Δ, □)**
320995 1-15 cr
- 5011 Quantitative Methods in Historical Research (prereq #)**
343015 1515-1700 T, SocSci 1383, Ruggles, 4 cr
- 5135 From Khan to Tsar: Russia, 1240-1530**
043017 1115-1205 MWF, SocSci 101, Noonan, 4 cr
- 5248 The History of Poland, From its Origins to the Early Nineteenth Century**
845593 1500-1630 TTh, BlegH 335, Dymmel, 4 cr
- 5285 Diplomatic History of Europe, 1900-1945**
843018 1115-1230 TTh, AndH 230, Kieft, 4 cr
- 5295 Social History of Russia and Eastern Europe**
643019 1115-1230 TTh, SocSci 101, Rudolph, 4 cr
- 5447 Problems in East Africa**
345122 1430-1625 T, BlegH 135, Sheriff, 4 cr
- 5461 Ancient China**
043020 1010-1100 MWF, SocSci 101, Taylor R., 4 cr
- r5467 The Nationalist Revolution in China, 1900 to Present (\$3467, EAS 3467)**
644607 0945-1100 TTh, BlegH 155, McDonald, 4 cr
- 5511 Social and Intellectual Change in Late Chou and Han China (prereq #)**
843021 1325-1520 TTh, Law 1, Taylor R., 4 cr
- 5515 Proseminar: Local Institutions in Modern China (prereq #)**
643022 1400-1600 T, BlegH 130, 4 cr
- 5572 Proseminar: Roman History (5571-5572-5573; prereq 5571)**
113577 1600-1800 T, BlegH 255, Evans J., 4 cr
- 5612 Proseminar: Medieval History (prereq 1 yr of medieval history, reading knowledge of Fren or Ger, #)**
443023 1245-1500 T, BlegH 350, Phillips W., 4 cr
- 5616 Proseminar: Medieval Spain (prereq #) (A-F only)**
245114 1245-1500 T, BlegH 350, Phillips, 4 cr
- 5625 Proseminar: The German Reformation (prereq #)**
243024 1325-1520 W, BlegH 350, Tracy, 4 cr
- 5626 Proseminar: Renaissance France to Richelleu (prereq #)**
143025 1325-1520 W, BlegH 350, Tracy, 4 cr
- r5720 Introductory Proseminar in Contemporary Europe (prereq #)**
323766 1515-1700 T, BlegH 125, Munholland, 4 cr
- 5730 Proseminar in Middle East History: Social and Economic History of the Ottoman Empire: 16th to 18th-Centuries (max 12 cr; \$MidE 5730) (A-F only)**
643876 1315-1500 W, BlegH 115, Toprak, 4 cr
- 5762 Proseminar: Russian History (5761-5762-5763; prereq 5761)**
943026 1325-1520 M, SocSci 1383, Stavrou, 4 cr
- 5794 Readings in European Economic History, 1750-The Present (prereq #) (A-F only)**
543028 1325-1520 W, BlegH 255, Good, 4 cr
- 5801 Proseminar: 17th, 18th Century American History (5801-5802; prereq #)**
343029 1515-1700 T, BlegH 240, O'Brien, Menard, 4 cr
- 5832 Proseminar: American Political and Constitutional History (5831-5832; prereq 5831, #)**
015444 1520-1705 W, BlegH 340, Murphy, 4 cr
- 5844 Proseminar: American Labor History (prereq #)**
743030 1325-1520 M, BlegH 255, Berman, 4 cr
- 5858 Proseminar: Social History of American Women (5857-5858; prereq 5857, #)**
543031 1325-1520 Th, BlegH 120, Evans S., 4 cr
- 5930 Topics in Comparative Third World History (prereq #)**
044605 1535-1735 W, BlegH 105, Valdes, 4 cr (\$AmSt 5920, sec 2)
- 5960 Proseminar: Research in Quantitative History (prereq 5011 or 5012 or 5797, #)**
343032 1515-1700 T, BlegH 425, Ruggles, 4 cr
- 5970 Directed Studies (prereq #, Δ, CLA approval)**
713039 1-15 cr
- 5990 Directed Research (prereq #, Δ, CLA approval)**
514242 1-15 cr
- 8112 Medieval History (8111-8112-8113; prereq 8111, #)**
815445 1515-1700 Th, BlegH 330, Hanawalt, 3 cr
- r8239 Gender, Race, Class, and/or Ethnicity in America (\$AmSt 8239; prereq # or Δ) (A-F only)**
844606 1325-1525 W, ScottH 2, May E., 4 cr
- 8347 Social History of American Women (prereq 5857-5858 or #)**
744274 1325-1520 Th, BlegH 120, Evans S., 3 cr
- 8465 Research in Late Imperial China: Yuan, Ming and Qing (prereq reading knowledge of Chinese, #)**
143033 1515-1700 F, BlegH 245, Waltner, 3 cr
- 8777 Thesis Credits: Masters**
116298 1-16 cr
- 8888 Thesis Credits: Doctoral (max 18 cr per qtr)**
117175 1-36 cr
- 8945 African History (prereq #)**
043034 1325-1520 Th, SocSci 101, Isaacman, 3 cr
- 8970 Directed Studies (prereq #)**
820371 1-15 cr
- 8990 Directed Research (prereq #)**
223436 1-15 cr

HISTORY OF MEDICINE (HMed) Medical School

- r3002 Doctors and Disease in History (\$Hist 3032, primarily for CLA students)**
115368 0905-0955 MWF, FordH 130, Tang, 4 cr
- 5401 Medicine During Scientific Revolution 1500-1800**
342723 1430-1520 MWF, FordH 160, Wilson, 4 cr
- 8231 Readings: History of Science**
115158 Wilson, 3 cr
- 8631 Directed Study (prereq #)**
121185 Wilson, 3-15 cr
- 8777 Thesis Credits: Masters**
520056 1-16 cr
- 8888 Thesis Credits: Doctoral (max 18 cr per qtr)**
419868 1-36 cr

HISTORY OF SCIENCE AND TECHNOLOGY (HSci) Institute of Technology

- r1712 Technology and Western Civilization: Renaissance to Industrial Revolution (\$3712)**
★LECT 1325-1415 MWF, Phys 170, Layton
122269 -1 REC 1325-1415 T, Phys 170, 4 cr
016366 -2 REC 0905-0955 W, Arch 15, 4 cr
323279 -3 REC 1220-1310 W, AmundH 162, 4 cr
418154 -4 REC 1220-1310 Th, Phys 170, 4 cr
019218 -5 REC 1430-1520 Th, FordH 40, 4 cr
217006 -6 REC 1115-1205 F, Phys 166, 4 cr
- r1812 Introduction to History of Science: The Scientific Revolution (\$3812)**
★LECT 0905-0955 MWF, Phys 133, Shapiro
318373 -1 REC 1010-1100 M, AkerH 313, 4 cr
417456 -2 REC 0905-0955 T, Phys 143, 4 cr
920975 -3 REC 1325-1415 W, FordH 70, 4 cr
719150 -4 REC 0905-0955 Th, Phys 133, 4 cr
516038 -5 REC 1115-1205 Th, PillsH 110, 4 cr
213862 -6 REC 1220-1310 F, FordH 60, 4 cr
- r3202 History of Biology: Biology in the 19th and 20th Centuries (\$5202)**
917557 1115-1230 TTh, VinH 16, Beatty, 4 cr
- r3332 Science and American Culture**
118660 1245-1400 TTh, FordH 115, Norberg, 4 cr
- r3712 Technology and Western Civilization: Renaissance to Industrial Revolution (\$1712)**
★LECT 1325-1415 MWF, Phys 170, Layton
920927 -1 REC 1325-1415 T, Phys 170, 4 cr
716118 -2 REC 0905-0955 W, Arch-15, 4 cr
922340 -3 REC 1220-1310 W, AmundH 162, 4 cr
817230 -4 REC 1220-1310 Th, Phys 170, 4 cr
118472 -5 REC 1430-1520 Th, FordH 40, 4 cr
816045 -6 REC 1115-1205 F, Phys 166, 4 cr
- r3812 Introduction to History of Science: The Scientific Revolution (\$1812)**
★LECT 0905-0955 MWF, Phys 133, Shapiro
316218 -1 REC 1010-1100 M, AkerH 313, 4 cr
920216 -2 REC 0905-0955 T, Phys 143, 4 cr
016979 -3 REC 1325-1415 W, FordH 70, 4 cr
318440 -4 REC 0905-0955 Th, Phys 133, 4 cr
814456 -5 REC 1115-1205 Th, PillsH 110, 4 cr
615947 -6 REC 1220-1310 F, FordH 60, 4 cr
- r5202 History of Biology: Biology in the 19th and 20th Centuries (\$3202)**
915369 1115-1230 TTh, VinH 16, Beatty, 4 cr
- r5332 Science and American Culture**
920667 1245-1400 TTh, FordH 115, Norberg, 4 cr
- 5925 History of 20th Century Physics (\$Phys 5925; prereq general physics or #)**
943088 1245-1400 TTh, Phys 236A, Stuewer, 4 cr
- 5970 Directed Studies (prereq #, Δ, CLA approval)**
223470 -1 1-15 cr
116696 -2 1-15 cr
- 5990 Directed Research (prereq #, Δ, CLA approval)**
421071 1-15 cr
- 8122 Foundations for Research in the Scientific Revolution (prereq grad major or minor in HSci or #) (A-F only)**
120733 1535-1705 M, Phys 236A, Shapiro, 4 cr

- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
412693 1-36 cr
- 8910 Seminar: History of Modern Physical Sciences** (prereq #)
743089 1535-1730 Th, Phys 236A, Stuewer, 4 cr
- 8920 Seminar: History of Biological Sciences** (prereq #)
014908 Beatty, 4 cr
- 8930 Seminar: History of Technology** (prereq #)
115483 Layton, 4 cr
- 8940 Science and Technology in America** (prereq #)
544583 0945-1100 TTh, NichH 209A, Kohlstedt, 4 cr
- 8970 Directed Study** (max 15 cr; prereq #)
121364 1-5 cr
- 8990 Directed Research** (max 15 cr; prereq #)
715101 1-5 cr

HOME ECONOMICS (HE) Human Ecology

- 5130 Independent Study In Home Economics** (max 16 cr; prereq #)
414511 1-5 cr

HOME ECONOMICS EDUCATION (HEEd)

Vocational And Technical Education Education

- 85001 Special Topics** (S-N optional)
743092 1605-1850 Th, VoTech R370, McClelland, 1 cr (Jan 16, 23, Feb 13, 20)
- 85023 Extension Methods for Developing Countries** (§AgEd 5023) (A-F only)
519490 1500-1745 M, VoTech R385, Persons, 3 cr
- 85024 Extension History and Philosophy** (§AgEd 5024) (A-F only)
916800 1500-1745 Th, VoTech R385, 3 cr
- 85027 Practicum: Placement for Extension Experiences** (max 9 cr; §HEEd 3605, AgEd 5027) (S-N optional)
019249 Norenberg, 2-9 cr
- 5055 Methods in Farming Systems Research and Extension** (A-F only)
813727 0845-1000 TTh, VoTech R385, Leske, 3 cr
- 5310 Methods in Teaching Home Economics: Attitudes, Values, and Knowledge** (A-F only)
013578 1605-1850 W, VoTech R370, McClelland, 3 cr
- 5513 Clinical Seminar: Educational Practice** (§Ind 5513; prereq 5512 or Ind 5512) (S-N only)
019879 1250-1445 W, VoTech R370, Kate, 4 cr (addtl hrs ar)
- 85600 Practicum: Adult Education** (prereq #) (A-F only)
422530 1605-1850 Th, VoTech R380, Karls, 1-9 cr (Jan 9, Feb 27, Mar 5, 12)
- 85900 Readings: Home Economics Education** (max 12 cr; prereq #) (A-F only)
543093 1-3 cr
- 5920 Directed Studies** (prereq #) (S-N optional)
318048 1-6 cr (addtl hrs ar)
- 85820 Seminar: History and Philosophy of Home Economics Education** (prereq 5325, 8305)
744453 1605-1800 T, VoTech R380, Plihal, 2 cr
- 8777 Thesis Credits: Masters**
114468 1-16 cr
- 8900 Problems: Home Economics Education** (prereq 8300, #)
613612 1-9 cr

HONORS COLLOQUIA (HCoI) Honors Program Liberal Arts

- 81010 Ethical Judgments of Television News Broadcasting** (prereq fr, soph, regis honors div)
822203 1325-1520 W, FolH 214, Rebecca Lind, 2 cr

- 81020 Redefining the Terms: Women, Art, and Art Histories** (prereq fr, soph, regis honors div)
514127 1010-1205 Th, JonesH 202, Patricia Briggs, 2 cr
- 81030 Stress, Coping, and Health** (prereq fr, soph, regis honors div)
421300 1430-1625 T, JohH 125, Mariah Snyder, 3 cr
- 81040 The Empire Writes Back: Reading "Third World" Literature Against the Canon** (prereq fr, soph, regis honors div)
022412 1010-1205 T, JohH 125, Michael Eldridge, 2 cr
- 81050 Technology and the Environment** (prereq fr, soph, regis honors div)
519151 1430-1625 M, NichH 122, Steven Girschick, 2 cr
- 81060 The Life Sciences and the Liberal Arts Student: An Approach to Learning** (prereq fr, soph, regis honors div)
821908 1430-1625 M, JohH 125, Willard Koukari, 2 cr
- 1970 Honors Colloquium: Directed Studies** (prereq fr, soph, regis honors div, #, Δ)
114107 1-4 cr

HONORS SEMINAR (HSem) Honors Program Liberal Arts

- 83010 The American Domestic Environment, 1830 to the Present** (prereq jr or sr, reg honors div)
842726 1430-1625 TTh, CivMinE 214, Kathleen James, 4 cr
- 83020 Constructing Meaning: Dictionaries and Encyclopedias** (prereq jr or sr, reg honors div)
316123 1010-1205 WF, JohH 125, Michael Hancher, 4 cr
- 83030 Creative Problem-Solving** (prereq jr or sr, #)
215370 1325-1600 M, Law 1, Stuart Albert, 4 cr
- 83040 Western Science in an Eastern Society: A Clash of Values?** (prereq jr or sr, reg honors div)
715874 1430-1625 T, Zoology 10, Edward Cushing, 4 cr
- 83050 Honors Seminar** (prereq jr or sr, reg honors div)
122005 4 cr
- 3970 Honors Seminar: Directed Studies** (prereq jr, sr, reg honors div, #, Δ)
916151 1-5 cr

HORTICULTURAL SCIENCE (Hort) Agriculture

- 81036 Plant Propagation**
★LECT 1145-1235 TTh, HrG 172, Ascher
123390 -1 LAB 1250-1445 TTh, HrG 172, Ascher, 5 cr
- 3030 Landscape Design of Residential and Small Commercial Sites** (prereq 1021, LA 1025 or Ind 1600)
121932 1355-1550 MWF, AlderH 423, 4 cr
- 3097 Horticulture Practicum** (prereq upper division horticulture emphasis or sequence, Δ)
415951 2-4 cr
- 3099 Seminar** (max 2 cr; prereq jr)
018960 1250-1340 TTh, AlderH 415, Smith, 1 cr
- 5040 Plant Growth Regulation** (prereq 15 cr plant sciences including 3 cr plant physiology)
613194 1145-1340 M, 1145-1235 WF, AlderH 415, Brenner, Hackett, 4 cr
- 5047 Nursery Scheduling and Enterprise Development** (5046-5047-5048†; prereq 5046) (A-F only)
217572 0800-0920 TTh, AlderH 415, Swanson, 2 cr
- 5052 Physiological Manipulation of Flowering Plants** (prereq 3016, 1036, PIPh 3131) (A-F only)
★LECT 1040-1130 MWF, AlderH 423, Strefeler
843097 -1 LAB 1355-1655 W, HrG 172, Strefeler, 4 cr

- 5091 Directed Studies** (prereq 8 cr upper division hort course, Δ)
223114 2-6 cr
- 8007 Extension Horticulture Practicum** (max 6 cr; prereq 12 grad cr)
114115 1-5 cr
- 8041 Discussions in Administration Organization**
121114 Gardner, 1 cr
- 8042 Horticultural Seminar** (S-N only)
518789 1605-1655 W, AlderH 415, 1 cr
- 8051 Advanced Problems in Horticultural Crop Breeding** (prereq #)
321208 3-9 cr
- 8052 Advanced Problems in Physiology of Horticultural Crops** (prereq #)
314100 3-9 cr
- 8060 Discussions in Potato Research**
814084 Lauer, 1 cr
- 8061 Discussions in Plant Reproductive Biology** (prereq #)
519957 Smith, 1 cr
- 8062 Discussions in Plant Hardiness** (prereq #)
316249 1250-1340 F, AlderH 398, Li, 1 cr
- 8063 Discussions in Plant Breeding** (prereq #)
917381 Lauer, 1 cr
- 8064 Discussions in Floricultural Science** (prereq #)
117208 Strefeler, 1 cr
- 8065 Discussions in Postharvest Physiology** (prereq #)
016769 Li, 1 cr
- 8066 Discussions in Horticultural Research** (prereq #) (S-N only)
417733 1605-1655 Th, AlderH 394, Smith, 1 cr
- 8777 Thesis Credits: Masters**
914609 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
018036 1-36 cr

HOUSING (Hsg) Design, Housing, and Apparel Human Ecology

- 81851 Consumer Aspects of Housing**
013774 1040-1235 MW, McNH 198, Franklin, 4 cr
- 83880 Internship in Housing** (max 15 cr; prereq 3870, completion of one-half of professional sequence, #) (S-N only)
313772 1250-1340 M, McNH 363, Franklin, 5-15 cr
- 3888 Directed Study in Housing** (max 4 cr; prereq #)
616421 Franklin, Goetz, others, 1-4 cr
- 85867 Housing Alternatives for the Family** (prereq 3863 or #)
313335 1250-1445 MW, McNH 316, Morris, 4 cr
- 5881 Designed Environments and Aging** (prereq 3863 or Dsgn 1555 or #)
643098 1800-2100 Th, McNH 316, Franklin, 4 cr
- 5888 Directed Study in Housing** (max 4 cr; prereq #)
118956 Franklin, Goetz, others, 1-4 cr
- 8880 Directed Study in Housing** (max 8 cr; prereq #) (A-F only)
817356 Franklin, Goetz, others, 1-4 cr

HUMANITIES (Hum) Liberal Arts

- 81001 Humanities in the Modern World I** (§Rhet 1301)
443099 0905-0955 MWF, FordH 55, Leppert, 4 cr
- 81002 Humanities in the Modern World II** (§Rhet 1302)
143100 0945-1100 TTh, FordH 55, Archer, 4 cr
- 81005 Humanities in the Modern World V**
619559 1115-1230 TTh, FordH 155, Kliger, 4 cr
- 81117 European Heritage: Renaissance, Reformation** (§Rhet 3323)
043101 0945-1100 TTh, BlegH 225, Tracy, 4 cr

- R1301 Discourse and Society**
119808 -1 1010-1100 MWF, FordH 175,
Crawford, 4 cr
244562 -2 0815-0930 TTh, FordH 175, 4 cr
- R1302 Text and Context**
723599 -1 0905-0955 MWF, FordH 150, 4 cr
516525 -2 1115-1205 MWF, FordH 175, 4 cr
144563 -3 0945-1100 TTh, FordH 175, 4 cr
- R1303 Knowledge, Persuasion, Power**
423600 -1 1010-1100 MWF, FordH 150, 4 cr
944564 -2 1115-1230 TTh, FordH 175, 4 cr
- R3176 Cinematic Discourse and Cultural Politics**
(prereq 1301 or Arth 1921)
643103 1115-1230 TTh, FordH 115, Mowitt, 4 cr
- R3252 Culture and Society: England 1640-1688**
443104 1010-1100 MWF, FordH 50, Josephides,
4 cr
- R3366 Landscape and Ideology, 1600-1875 (\$3663)**
243105 1245-1400 TTh, FordH 120, Archer, 4 cr
- R3910 Topics in the Humanities: The Aesthetics,
Ideologies and Political Economies of
Advertising (\$Hum 5910, sec 1; prereq jr or sr
or #)**
143106 1245-1400 MW, FordH 285, Crawford,
4 cr
- 3970 Directed Studies** (prereq #, Δ)
813940 ar cr
- R5304 Theories of Ideology: Philosophical Views**
(prereq jr or sr or grad stu, or #)
221623 1430-1545 TTh, FordH 285, Kliger, 4 cr
- R5711 Interpretation of Myth (\$CSDS 5711, RelS
5111; prereq jr or sr or #)**
943107 1220-1310 MWF, FordH 349, Josephides,
4 cr
- R5910 Topics in the Humanities** (prereq jr or sr or
grad stu)
322410 -1 1245-1400 MW, FordH 285, Crawford,
4 cr (The Aesthetics, Ideologies and
Political Economies of Advertising) (\$Hum
3910, sec 1)
743108 -2 0945-1100 TTh, FordH 285, Joeres,
4 cr (Women and Madness in History and
Literature) (\$WoSt 5206, sec 1)
- 5970 Directed Studies** (prereq jr or sr or grad
student, #, Δ)
116035 ar cr

INDUSTRIAL EDUCATION (Ind) Vocational And Technical Education Education

- R1110 Introduction to Production Systems** (A-F
only)
823707 1630-1930 MW, VoTech 120, Jay, 4 cr
- R3020 Graphic Communication** (A-F only)
544454 1250-1550 TTh, VoTech 110, Nilsen, 3 cr
- 3200 Technical Development: Advanced** (max 33
cr; prereq 1000, 1001, #) (A-F only)
216633 Miletich, 1-9 cr
- 3900 Independent Study** (prereq #) (A-F only)
813033 3 cr
- 3901 Independent Study** (prereq #) (A-F only)
017212 3 cr
- R5000 Occupational Experience** (prereq #) (A-F
only)
015573 Miletich, 1-5 cr
- 5200 Technical Development: Specialized** (max 24
cr; prereq #) (A-F only)
623708 Miletich, 1-9 cr
- 5301 Tests in Industrial Subjects** (A-F only)
720251 1605-1850 M, VoTech R280, Pucel, 3 cr
- 5303 Instructional Aids** (prereq educ or grad stu)
(A-F only)
643117 1605-1805 W, VoTech R250, Nilsen, 3 cr
- 5344 Facilities and Management** (prereq 1300 or
5330 or #) (A-F only)
043115 1605-1850 Th, VoTech R280, Gagel, 3 cr
- 5360 Industrial Instruction** (A-F only)
818328 1605-1850 T, VoTech R270, Swanson,
3 cr
- 5900 Field-Based Projects in Industrial Education**
(max 12 cr; prereq 5305, 5325, MEEd student)
923553 1-6 cr

- 5901 Independent Study** (prereq Δ) (A-F only)
716216 1-6 cr
- 8700 Research Seminar** (max 6 cr) (S-N only)
615026 1250-1340 T, VoTech R280, Pucel, 1 cr
- 8777 Thesis Credits: Masters**
023141 1-16 cr
- 8900 Research Problems** (prereq approval of
candidacy)
020305 3-9 cr
- 8901 Research Problems** (prereq approval of
candidacy)
115894 3-9 cr

INDUSTRIAL ENGINEERING/OPERATIONS RESEARCH (IEOR) Mechanical Engineering Institute of Technology

- R3000 Introduction to Industrial Engineering
Analysis** (prereq IT stu)
822184 0800-0850 MWThF, MechE 18, Barnett,
4 cr
- R5010 Introduction to Work Analysis** (prereq 3000,
IT or grad)
★LECT 1430-1545 TTh, AkerH 309,
Kvalseth, 4 cr
218849 -1 LAB 1535-1730 W, Arch 20
- R5020 Engineering Cost Accounting, Analysis and
Control** (prereq 3000, IT or grad...ME 3900 rec)
812741 -1 1010-1100 MWThF, MechE 212,
Barnett, 4-5 cr
- R5030 Quality Control and Reliability** (prereq IT or
grad stu, Math 1241, ME 3900...IEOR 3000 rec)
117287 1535-1730 MW, MechE 18, Dooley, 4 cr
- R5030H Honors: Quality Control and Reliability**
(\$5030; prereq Math 1231, ME 3900, ME upper
div honors stu...3000 rec)
114138 1535-1730 MW, MechE 18, 4 cr
- R5180 Applied Industrial Engineering** (prereq 3000,
5010, 5020, 5030, 5040, Δ)
812979 3-5 cr
- R5181 Applied Industrial Engineering** (prereq 3000,
5010, 5020, 5030, 5040, submission of
approved departmental permission form)
412774 3-5 cr
- 5198H Industrial Engineering Upper Division Honor
Thesis I** (prereq upper div ME honors stu IEOR
option)
615043 4 cr
- 5199H Industrial Engineering Upper Division Honor
Thesis II** (prereq upper div ME/IEOR option
honors stu)
316235 4 cr
- R5221 Industrial Plants** (prereq 5010, IT stu or grad)
345590 1115-1205 MWThF, MechE 321, Irani,
3-5 cr
- R5254 Design Morphology with Applications**
(prereq completion of sequences ME 3201/3 or
5, ME 3303 or 5342, upper div mech engr maj)
★LECT 1325-1415 T, Arch 25, 4 cr
818832 -1 LAB 1430-1730 T, Arch 20, 1325-1730
Th, LindH 302
- R5361 Inventory and Production Control** (prereq
3000, 5040, ME 3900, IT stu or grad)
919308 1010-1100 MWThF, MechE 221, Arora,
4 cr
- R5441 Operations Research II** (prereq 5040, IT stu or
grad)
312721 0905-0955 MWThF, AkerH 313, Starr,
4 cr
- R5445 Topics in Management Science** (prereq 5010,
5020, 5030, 5040, IT stu or grad)
145591 1010-1100 MWThF, Mayo 100, Starr,
3-5 cr
- R5550 Design and Analysis of Experiments I** (prereq
ME 3900, IT stu or grad)
114583 1220-1415 MW, MechE 202, Dooley, 4 cr
- R5703 Engineering Project Management** (\$CE 5703;
prereq IT sr or grad stu) (A-F only)
045592 0905-0955 MWThF, Mayo 100, 4 cr
- 8110 Advanced Industrial Engineering** (prereq #)
016030 3 cr

- 8111 Advanced Industrial Engineering** (prereq
8110)
315084 3 cr
- 8310 Production Engineering Problems** (prereq #)
321757 3-5 cr
- 8311 Production Engineering Problems** (prereq
8310)
522194 3-5 cr
- 8410 Industrial Engineering Research** (prereq #)
019445 3-5 cr
- 8411 Industrial Engineering Research** (prereq
8410)
614524 4 cr
- 8773 Graduate Seminar** (S-N only)
323203 1525-1625 W, MechE 108, 1 cr
- 8774 Graduate Seminar** (S-N only)
720069 1525-1625 W, MechE 108, 1 cr
- 8775 Graduate Seminar** (S-N only)
514175 1525-1625 W, MechE 108, 1 cr
- 8777 Thesis Credits: Masters**
122420 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
419269 1-36 cr

INDUSTRIAL RELATIONS (IR) Management

Non-SMgt students should refer to page 9,
Carlson School of Management Courses, before
attempting to register for IR courses.

- R3002 Personnel and Industrial Relations** (\$8002;
prereq Econ 1101, 1102, Psy 1001)
922256 -1 0800-0945 TTh, BlegH 235, 4 cr
119296 -2 1000-1145 TTh, BlegH 235, 4 cr
- R3010 The Individual in the Organization**
523166 1000-1145 MW, HHHCTr 20, Parks, 4 cr
- R5000 Topics in Personnel and Industrial Relations**
915355 1730-2100 M, HHHCTr 15, Noe, 4 cr
- R5990 Independent Study in Personnel and
Industrial Relations** (prereq SMgt or grad
SMgt approval)
513172 1-8 cr
- R8001E Quantitative Methods in Industrial Relations**
(prereq 8002, Stat 5021, computer access
course or #, EMAIR student or Δ)
★LECT 1730-2100 T, HHHCTr 15, McCall
645353 -90 LAB 1730-2100 Th, HHHCTr 15, 4 cr
- R8003 Staffing, Training and Development** (prereq
8002 or #, IR MA student or Δ)
518422 1300-1445 MW, BlegH 215, Ostroff, 4 cr
- R8005 Employee Compensation and Reward**
(prereq 8002 or #, IR MA student or Δ)
114664 1000-1145 TTh, HHHCTr 15, Fossum, 4 cr
- R8006 Labor Market Analysis** (prereq 8002 or #, IR
MA student or Δ)
921446 1300-1445 TTh, HHHCTr 15, 4 cr
- R8007 Collective Bargaining in the Public and
Private Sectors** (prereq 8002 or #, IR MA
student or Δ)
621151 1500-1645 TTh, HHHCTr 15, Budd, 4 cr
- R8011 Intermediate Quantitative Methods and
Techniques for Industrial Relations** (prereq
8001, IR grad stu, or Δ) (A-F only)
★LECT 1000-1145 MW, HHHCTr 15, Keane
245355 -1 LAB 1000-1145 F, HHHCTr 15, 4 cr
- R8011E Intermediate Quantitative Methods and
Techniques for Industrial Relations** (prereq
8001, IR grad stu, or Δ) (A-F only)
★LECT 1730-2100 M, BlegH 220, Keane
945357 -90 LAB 1730-2100 W, HHHCTr 15, 4 cr
- R8012 Industrial Relations Systems** (prereq
completion of the core sequence in IR or #, IR
MA student or Δ)
218172 1730-2100 M, BlegH 260, Sackett, 4 cr
- R8015 Compensation, Reward, Motivation and
Performance** (prereq 8005 or #, IR MA student
or Δ)
642730 1730-2100 W, BlegH 260, Fossum, 4 cr
- R8016 Micro Labor Market Analysis** (prereq 8006 or
#, IR MA student or Δ)
613986 1500-1645 MW, HHHCTr 15, McCall, 4 cr

- R8017 Theories of Labor-Management Relationships and Negotiations** (prereq 8007 or #, IR MA student or Δ)
242732 1730-2100 Th, BlegH 255, Budd, 4 cr
- R8023 Training and Development** (prereq 8003 or #, IR MA student or Δ)
942734 1730-2100 Th, BlegH 260, Noe, 4 cr
- R8025 Employee Benefits Administration and Practice** (prereq 8005 or #, IR MA student or Δ)
623448 1300-1445 MW, HHCtr 15, Williams, 4 cr
- R8046 Human Resources and Firm Performance** (prereq 8006 or #, IR MA student or Δ)
517433 1800-2130 T, Law 1, Kleiner, 4 cr
- 8777 Thesis Credits: Masters**
417845 1-16 cr
- R8803 Seminar: Staffing, Training, and Development** (prereq 8003 or # and IR grad student or Δ)
542736 1500-1645 MW, Law 3, Sackett, 4 cr
- 8898 Thesis Credits: Doctoral** (max 18 cr per qtr)
120490 1-36 cr
- R8990 Independent Study in Industrial Relations** (prereq #)
721433 ar cr

INFORMATION AND DECISION SCIENCES (IDSc) Management

Non-SMgt students should refer to page 9, Carlson School of Management Courses, before attempting to register for IDSc courses.

- R1010 Fundamentals of Information Development and Use** (§MSci 1010; prereq 30 cr, Math 1111 or #) (A-F only)
★LECT 0800-0915 MW, BlegH 10
512698 -1 LAB 0800-0900 Th, BlegH 125, 4 cr
815039 -2 LAB 0915-1015 Th, BlegH 125, 4 cr
★LECT 0930-1045 MW, BlegH 10
621778 -3 LAB 1030-1130 Th, BlegH 125, 4 cr
513351 -4 LAB 1145-1245 Th, BlegH 125, 4 cr
★LECT 1100-1215 MW, BlegH 10
721125 -5 LAB 0800-0900 F, BlegH 125, 4 cr
221993 -6 LAB 0915-1015 F, BlegH 125, 4 cr
- R3030 Information Systems and Information Management** (§MIS 3300, MSci 3030; prereq IDSc 1020) (A-F only)
★LECT 1315-1430 MW, BlegH 130
813422 -1 LAB 0800-0900 Th, HHCtr 35, 4 cr
017324 -2 LAB 0915-1015 Th, HHCtr 35, 4 cr
★LECT 1445-1600 MW, BlegH 130
923374 -3 LAB 1030-1130 Th, HHCtr 35, 4 cr
123230 -4 LAB 1145-1245 Th, HHCtr 35, 4 cr
- R5102 Introduction to Information Systems Analysis** (§MIS 5102; prereq 3030 or 3001 or 3002) (A-F only)
422592 1000-1145 MW, BlegH 255, 4 cr
- R5410 Decision Support Systems** (prereq 3030 or MBA 8025 or equiv or #) (A-F only)
218477 1800-2130 T, HHCtr 25, 4 cr
- R8103 MIS: Information Systems Analysis, Design, and Development** (§MIS 8302; prereq MBA 8025 or #) (A-F only)
318261 1300-1445 MW, BlegH 340, 4 cr
- R8450 Telecommunications** (§MIS 8315; prereq MBA 8025 or equiv or #) (A-F only)
342740 1730-2100 Th, HHCtr 20, 4 cr
- R8501 Philosophy of Science and Survey of Research Methodologies** (§DSci 8600; prereq PhD stu or #) (A-F only)
919647 1500-1645 TTh, HHCtr 60, 4 cr
- R8601 System Development Seminar** (§MIS 8302; prereq PhD stu or #) (A-F only)
042742 1115-1415 Th, HHCtr 30, 4 cr
- R8990 Readings in Information and Decision Sciences** (§DSci 8990, MIS 8990; prereq PhD stu, #) (A-F only)
117256 ar cr
- R8995 Graduate Research in Information and Decision Sciences** (§DSci 8995, MIS 8995; prereq PhD stu, #) (A-F only)
914478 ar cr

INSTITUTE OF TECHNOLOGY (IoT)

Institute of Technology

- R1222 Introduction to Careers in Science and Engineering** (prereq IT student or Δ) (S-N only)
720900 1220-1310 TTh, CivMinE 212, Nutter, 2 cr

INSURANCE (Ins) Management

Non-SMgt students should refer to page 9, Carlson School of Management Courses, before attempting to register for Ins courses.

- R5100 Risk Management and Insurance** (§3100, 8100) (A-F only)
817969 0915-1015 MWF, BlegH 420, Whitman, 4 cr
- 8990 Readings in Risk Management and Insurance** (prereq consent of advisor, #, grad SMgt approval)
121039 ar cr
- 8995 Graduate Research in Risk Management and Insurance** (prereq grad SMgt approval)
420891 ar cr

INTERDEPARTMENTAL STUDY (ID)

Liberal Arts

- 3101 An Introduction to Marxism**
215773 1010-1100 MWF, VinH 20, Marquit, 4 cr
- 3180 HECUA Off-Campus Study Program: City Arts** (prereq #)
616595 1-24 cr (for information, contact Foreign Studies Office, NichH 104)
- R3251 Metro Internship Seminar** (3251-3252†; prereq #)
020160 Shapiro, 3 cr (for information call Tim Herwig, Director 625-3800)
- R3925 Life/Career Planning** (prereq sr or #)
743870 0905-1100 Th, LindH 320, Kline, 2 cr
- 3970 Directed Studies** (prereq consult with Office for Special Learning Opportunities, JohH 220, \square)
113183 1-15 cr
- 5970 Directed Studies** (prereq Δ)
220357 1-4 cr

INTERDISCIPLINARY MEDICINE (InMd)

Medical School

- 5115 Clinical Correlations** (prereq regis med, Medical School Curriculum Affairs Office Approval)
119105 1325-1520 M, 1010-1205 F, PWB 2470, Kaplan, 3 cr (Jan 6-Mar 20)
- 5202 Pathophysiology II** (prereq regis med, Medical School Curriculum Affairs Office Approval) (S-N only)
116141 0905-1100 MWF, 0800-0955 TTh, 1220-1310 Th, MoosT 2650, Soltis, 10 cr (Jan 2-Apr 3)
- 5203 Pathophysiology III** (prereq regis med, Medical School Curriculum Affairs Office Approval) (S-N only)
020000 0905-1100 MWF, 0800-0955 TTh, 1220-1310 Th, MoosT 2650, Soltis, 11 cr (Jan 2-Apr 3)
- 5500 Clinical Medicine IV/Ambulatory Medicine** (prereq regis med) (S-N only)
821522 0830-1600 W, PWB 8335, 9 cr (Jan 2-Apr 10)
- 5501 Emergency Room Externship** (prereq regis med, Med 5500)
144635 9 cr
- 5552 Indian Health Service Elective** (prereq regis med)
023544 ar cr

- 5559 Medical Consequences of Nuclear War** (prereq regis year 3 and 4 medical student or #) (S-N only)
018408 1 cr
- 5560 Elective Away at the National Institutes of Health**
522468 ar cr
- 5566 Clinical Experience in International Medicine** (prereq regis year 3 and 4 medical student)
115774 4.5-9 cr

INTERFACIAL ENGINEERING, CENTER FOR (CIE) Institute of Technology

- R5101 Fundamentals of Interfacial Engineering** (prereq IT sr or IT grad)
245176 1430-1625 MW, AmundH 156, Evans, 3 cr

INTERNATIONAL RELATIONS (IntR)

Liberal Arts

- R3840 Foreign Language Textbooks in International Relations** (prereq IntR maj or #, completion of college language requirement in language of course) (A-F only)
617598 1245-1400 TTh, Law 3, 4 cr
- R3900 Topics in International Relations: International Organizations and the Environment** (§Pol 3810; prereq 12 cr in social sciences)
117931 0815-0930 TTh, BlegH 105, Sampson, 4 cr
- 3960 Field Studies/Internship in International Studies** (max 8 cr for international relations maj; prereq Δ)
714966 1-8 cr
- 3970 Directed Studies** (prereq #, Δ , \square)
117153 1-15 cr
- R3981 Major Project Seminar** (prereq non-honors IntR maj, sr, or #) (A-F only)
518615 0905-0955 MWF, Law 3, Weil, 4 cr
- 3990H Honors Course: Supervised Research Paper** (†3990H; prereq sr honors candidate in international relations, Δ)
619948 1-5 cr

ITALIAN (Ital) French And Italian Liberal Arts

- R1102 Beginning Italian** (prereq 1101)
014925 -1 0800-0850 MTWThF, FordH 170, 5 cr
819253 -2 0800-0850 MTWThF, Arch 30, 5 cr
722288 -3 1010-1100 MTWThF, Arch 20, 5 cr
518453 -4 1010-1100 MTWThF, FordH 170, 5 cr
723330 -5 1115-1205 MTWThF, FordH 170, 5 cr
418722 -6 1220-1310 MTWThF, Kolth S137, 5 cr
815705 -7 1220-1310 MTWThF, AmundH 156, 5 cr
- R1105 Intermediate Italian** (prereq 1104)
321158 -1 0945-1100 MWF, BuH 123, 5 cr
917221 -2 1015-1130 MWF, AkerH 211, 5 cr
018179 -3 1115-1230 MWF, FordH 285, Noakes, 5 cr
417554 -4 1115-1230 MWF, AkerH 319, 5 cr
615706 -5 1145-1300 MWF, FolH 134, 5 cr
- R3015 Intermediate Italian Conversation and Composition** (prereq 1106)
519666 1015-1130 MW, FolH 134, 4 cr
- R3219 Renaissance and Post-Renaissance Literature** (prereq 3015)
143123 1015-1130 TTh, FolH 214, Martinez, 4 cr
- R3501 Italian Civilization and Culture** (prereq 3015)
943124 1325-1440 TTh, FolH 116, Martinez, 4 cr
- 3970 Directed Readings** (prereq undergrad, #, Δ , \square)
314288 1-5 cr
- 8777 Thesis Credits: Masters**
123437 1-16 cr
- 8970 Directed Readings**
613938 1-5 cr

JAPANESE (Jpn)
East Asian Studies
Liberal Arts

- r1012 Beginning Japanese** (prereq 1011)
 ★LECT 0905-0955 TTh, Arch 30
 720394 -1 REC 0800-0850 MTWThF, Arch 60, 5 cr
 023365 -2 REC 0800-0850 MTWThF, Arch 45, 5 cr
 713302 -3 REC 1010-1100 MTWThF, Arch 60, 5 cr
 ★LECT 1115-1205 TTh, Arch 5
 521840 -4 REC 0905-0955 MTWThF, Arch 60, 5 cr
 315246 -5 REC 1010-1100 MTWThF, Arch 60, 5 cr
- r3022 Intermediate Japanese** (prereq 3021)
 ★LECT 0800-0850 TTh, FolH 104
 913265 -1 REC 0800-0850 MWF, FolH 326, 5 cr
 214493 -2 REC 0800-0850 MWF, FolH 234, 5 cr
 ★LECT 0905-0955 TTh, FolH 104
 221265 -3 REC 0905-0955 MWF, FolH 134, 5 cr
 318566 -4 REC 0800-0850 MWF, FolH 234, 5 cr
- 3032 Third Year Japanese** (prereq 3031)
 120531 1115-1205 MWF, FolH 334, 5 cr
- 3052 Advanced Japanese Conversation and Composition** (§5052; prereq 3023 or #)
 522910 1220-1310 MWF, FolH 234, 4 cr
- 3090H Honors Course: Tutorial** (prereq Δ)
 213182 1-4 cr
- r3164 Modern Japanese Literature in English Translation**
 144523 1430-1545 TTh, FolH 318, Monnet, 4 cr
- 3970 Directed Studies** (prereq #, Δ, □)
 323413 1-15 cr
- 5042 Classical Japanese** (prereq 5041)
 515987 1325-1415 MWF, FolH 114, 5 cr
- 5052 Advanced Japanese Conversation and Composition** (§3052; prereq 3023 or #)
 817311 1220-1310 MWF, FolH 234, 4 cr
- r5166 Literature by 20th-Century Japanese Women** (prereq 3033 for Jpn maj, previous work in lit and feminist theory, or #)
 522616 1245-1400 TTh, FolH 134, Monnet, 4 cr
- 5451 Structure of Japanese-Syntax/Semantics** (prereq 3023, Ling 3001 or #)
 243122 1325-1440 TTh, FolH 419, Jacobsen, 4 cr
- 5650 Proseminar: Japanese Linguistics** (max 12 cr; prereq 5451 or #)
 621571 1530-1645 TTh, FolH 419, Szatrowski, 4 cr
- 5970 Directed Studies in Japanese** (prereq #, Δ, CLA approval)
 920264 1-15 cr
- 8777 Thesis Credits: Masters**
 215837 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
 615172 1-36 cr

JEWISH STUDIES (JwSt)
Classical & Near Eastern Studies
Liberal Arts

- 1034 Introduction to Judaism** (§3034, RelS 1034, RelS 3034)
 214400 1115-1205 MWF, NichH 45, Zahavy, 4 cr
- 3034 Introduction to Judaism** (§1034, RelS 1034, RelS 3034)
 322360 1115-1205 MWF, NichH 45, Zahavy, 4 cr
- 5970 Directed Readings** (max 12 cr; prereq #, Δ, CLA approval)
 514595 1-12 cr

JOURNALISM AND MASS COMMUNICATION (Jour)
Liberal Arts

- r1001 Introduction to Mass Communication** (A-F only)
 913007 0905-0955 MWF, MurH 105, Tichenor, 4 cr

- r3003 Producing Mass Media Messages** (§1003; prereq formal pre-jour prog filed, 1001, fr comp or exemption, Δ) (A-F only)
 ★LECT 1010-1100 MW, MurH 105, 4 cr
 441255 -1 LAB 1115-1205 T, MurH 435
 241256 -2 LAB 1220-1310 T, MurH 435
 141257 -3 LAB 1325-1415 W, MurH 435
 941258 -4 LAB 1430-1520 W, MurH 435
 741259 -5 LAB 1535-1625 W, MurH 435
 141260 -6 LAB 1115-1205 Th, MurH 435
 941261 -7 LAB 1220-1310 Th, MurH 435
 741262 -8 LAB 1535-1625 Th, MurH 435
 541263 -9 LAB 1115-1205 F, MurH 435
 043129 -10 LAB 1220-1310 F, MurH 435
 343130 -11 LAB 1325-1415 F, MurH 435
- r3003H Honors Course: Producing Mass Media Messages** (§1003H; prereq formal pre-jour prog filed, 1001, fr comp or exemp, honors div reg, #, Δ) (A-F only)
 ★LECT 1010-1100 MW, MurH 105, 4 cr
 043132 -80 LAB 1220-1310 W, MurH 435
- r3004 Information for Mass Communication** (§1004; prereq jour maj or min status, 3003, Δ) (A-F only)
 341264 1220-1310 MWF, MurH 105, Hansen, 4 cr
- r3006 Visual Communication** (§1002; prereq jour maj or min status, 3004 or §3004, Δ) (A-F only)
 843939 1010-1205 TTh, MurH 105, Griffin, 4 cr
- r3007 The Media in American History and Law: Case Studies** (prereq jour maj or min status, 3004, or §3004, Δ) (A-F only)
 622977 1535-1625 MWF, MurH 105, 4 cr
- r3101 Reporting** (prereq jour maj status, 3004, grad students must pass 30 wpm, Δ) (A-F only)
 413178 -1 0905-1205 MW, MurH 212, 4 cr
 414265 -2 0800-1100 TTh, MurH 212, 4 cr
- r3121 Public Affairs Reporting** (prereq jour maj status, 3004, 3101, grad students must pass 30 wpm, Δ) (A-F only)
 115961 0800-0955 WF, MurH 30, 4 cr
- r3155 Publications Editing** (prereq jour maj status, 3004, 3101, Δ) (A-F only)
 ★LECT 0800-1200 M, 0800-1100 W, MurH 315, Johnson, 4 cr
 712862 -1 LAB 0800-1100 F, MurH 315, (not all lab hrs required)
- r3241 Advertising Copywriting** (prereq jour maj status, 3004, 3201, Δ) (A-F only)
 218494 0905-1100 TTh, MurH 435, 4 cr
- r3321 Basic Media Graphics** (prereq jour maj status, 3004, Δ) (A-F only)
 643134 1220-1520 TTh, MurH 315, Craig, 4 cr
- r3614 History of Mass Communication Technology** (only officially admitted maj or min in SJMC prog may apply this course toward maj or min) (A-F only)
 918613 1245-1400 TTh, MurH 308, Fang, 4 cr
- r3796 Mass Media and Politics** (prereq 1001 or Pol 1001 or #; only officially admitted maj or min in SJMC prog may apply this course toward maj or min) (A-F only)
 443135 1415-1530 TTh, MurH 311, Soley, 4 cr
- r3970 Projects in Journalism** (max 8 cr; prereq jour maj or min status, 3004, #, Δ, □) (A-F only)
 723277 1-4 cr
- r5141 Opinion Writing in America** (prereq jour maj status, 3004, Δ) (A-F only)
 243136 1115-1205 MWF, MurH 311, Tichenor, 4 cr
- r5155 Advanced Reporting Methods** (prereq jour maj status, 3004, 3101 or professional exp with #, Δ) (A-F only)
 143137 0800-0955 TTh, MurH 30, 4 cr
- r5251 Psychology of Advertising** (prereq jour maj or min status, 3004, Psy 1001, Δ) (A-F only)
 943138 1115-1205 MWF, MurH 105, Tims, 4 cr
- r5261 Advertising: Media Analysis** (prereq jour maj status, 3004, 3201 or #, Δ) (A-F only)
 518128 1115-1230 TTh, MurH 311, Soley, 4 cr
- r5263 Advertising Campaign Planning** (prereq jour maj status, 3004, 5261, Mktg 3000 or #, Δ) (A-F only)
 818376 1630-1800 MW, MurH 311, 4 cr
- r5274 Advertising in Society** (prereq jour maj or min, 3004, sr, Δ) (A-F only)
 743139 0945-1100 MW, MurH 308, Busterna, 4 cr

- r5316 Theories of Visual Communication** (prereq jour maj or min status, 3004, 3006 or #, Δ) (A-F only)
 616256 1315-1500 TTh, MurH 105, Schwartz, 4 cr
- r5441 Electronic Newsgathering** (prereq jour maj status, 3004, 3451 or 5302, Δ) (A-F only)
 ★LECT 0905-1100 MF, MurH 207, 4 cr
 514502 -1 LAB 1030-1230 T, 0800-1205 W, MurH 207, 302
- r5501 Communication and Public Opinion I** (prereq jour maj or min status, 3004, Δ) (A-F only)
 121405 1115-1205 MWF, MurH 308, Lee, 4 cr
- r5541 Mass Communication and Public Health** (§PubH 5394; prereq 12 cr in social or behavioral sci, Δ)
 319667 1325-1415 T, 1325-1520 Th, Stad, Finnegan, 3 cr (Conf Rm C, Stad Gate 20)
- r5606 Literary Aspects of Journalism** (prereq jour maj or min status, 3004, #, Δ) (A-F only)
 414590 0945-1100 TTh, MurH 311, Roberts, 4 cr
- r5721 Mass Media and U.S. Society** (prereq jour maj or min status, 3004, Comp 3027 or #, Δ) (A-F only)
 723683 0945-1100 TTh, MurH 308, Gillmor, 4 cr
- r5726 Case Studies in Modern Media Management** (prereq jour maj or min status, 3004, #, Δ, .5725 rec) (A-F only)
 143140 0800-0930 TTh, MurH 311, 4 cr
- r5728 News Media Economics** (prereq jour maj or min status, 3004, Δ) (A-F only)
 943141 1415-1530 MW, MurH 311, Busterna, 4 cr
- r5731H Honors Course: Communications Problems and Issues** (prereq jour maj or min status, 3004, sr, #, Δ, honors div registration) (A-F only)
 118942 1010-1310 W, MurH 30, Roberts, 4 cr
- r5741 Minorities and Mass Media** (prereq jour maj or min status, 3004, 3007 or 3008 or #, Δ) (A-F only)
 743142 1245-1400 MW, MurH 311, Johnson, 4 cr
- r5801 International Communication** (prereq jour maj or min, 3004, Δ) (A-F only)
 821651 1325-1415 MWF, MurH 308, Lee, 4 cr
- r5970 Advanced Projects in Journalism** (max 8 cr; prereq jour maj or min status, 3004, #, B avg, Δ, □) (A-F only)
 919017 1-4 cr
- r5970H Honors Course: Advanced Projects in Journalism** (prereq jour maj or min status, 3004, #, B avg, Δ, □, honors div registration) (A-F only)
 316820 1-4 cr
- r5990 Special Topics in Mass Communication: Political Reporting** (max 8 cr; prereq jour maj or min status, 3004, 3101, 3121 or equiv, #, Δ) (A-F only)
 945178 1430-1730 T, MurH 435, Babcock, 4 cr
- 8020 Studies in Mass Communication** (prereq 8010) (A-F only)
 715499 1325-1520 MW, MurH 105, Griffin, 4 cr
- r8502 Seminar: Mass Communication Research Design** (prereq 8501, stat course or T) (A-F only)
 013581 0800-1100 F, MurH 435, Tims, 4 cr
- r8580 Seminar: Problems in International Communication Research** (prereq 5801 or 5825 or #, Δ) (A-F only)
 181111 1415-1530 TTh, MurH 30, Chang, 4 cr
- r8672 Communication Agencies as Social Institutions** (prereq 5721 or equiv, #, Δ) (A-F only)
 143128 0905-1205 W, MurH 30, Ward, 4 cr
- r8675 Seminar: Issues in Information Access and Communication** (prereq 5731 or equiv or #, Δ) (A-F only)
 318633 1415-1715 M, MurH 30, Hansen, 4 cr
- r8678 Government and Mass Communication: Constitutional Law** (prereq 5777 or #, Δ) (A-F only)
 122594 1245-1400 TTh, MurH 30, Gillmor, 4 cr
- 8777 Thesis Credits: Masters**
 013063 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
 821990 1-36 cr

R8970 Advanced Projects in Mass Communication (max 8 cr; prereq grad maj or min in mass comm, #, Δ) (A-F only)
812867 1-4 cr

KINESIOLOGY (Kin) School of Kinesiology & Leisure Studies Education (Also see PE)

R1871 Introduction to Kinesiology (§PE 1871) (A-F only)
741276 1010-1205 TTh, CookeH 215, 325, Rattigan, 3 cr

R1990 Directed Study (§PE 1990; prereq Δ) (A-F only)
541277 Serfass, 1-6 cr

R3111 Mechanics of Movement (§PE 3111; prereq CBN 1027; PEL) (A-F only)
341278 0800-0850 MWF, CookeH 215, Greer, 3 cr

R3114 Prevention and Care of Injuries (§PE 3114; prereq 3110 or CBN 1027; PEL) (A-F only)
141279 0800-0850 MWF, FbComp 210, 3 cr

R3131 History and Philosophy of Physical Education and Sport (§PE 3131)
543157 1430-1520 MWF, CookeH 214, Krotee, 4 cr (1 hr ar)

R3135 Motor Learning and Human Performance (§PE 3135) (A-F only)
541280 0905-0955 MWF, CookeH 215, Wade, 3 cr

R3143 Organization and Management of Sport (§PE 3143; prereq 2 cr coaching course; PEL) (A-F only)
341281 0905-0955 MWF, CookeH 214, Krotee, 3 cr

R3150 Introduction to Evaluation (§PE 3150) (A-F only)
343158 1010-1205 MW, CookeH 214, Greer, 4 cr

R3169 Volleyball Coaching (§PE 3169; prereq PE 1174 or #; PEL) (A-F only)
141282 0800-0855 TTh, BFAB 101, 285, Schleuder, Langley, 2 cr

R3178 Track and Field Coaching (§PE 3178; prereq PE 1654 or PE 1059 or #; PEL) (A-F only)
041283 0905-1000 TTh, FieldHse, BFAB 285, Griak, 2 cr

R3327 Teaching Physical Education in the Elementary School (§PE 3327; prereq elementary education maj) (A-F only)
841284 -1 1325-1415 MWF, NorrisH M151, Lampe, 3 cr (IIIA only)
641285 -2 1430-1520 MWF, NorrisH M151, Lampe, 3 cr (IIIA only)

R3386 Exercise Physiology (§PE 3386; prereq 3385 or equiv; PEL) (A-F only)
441286 1220-1310 MTWF, CookeH 214, 215, Serfass, Ekstrom, 4 cr

R3624 Student Teaching: Coaching (§PE 3624; prereq Δ; PEL) (S-N only)
241287 1830-2000 W, CookeH 215, Lamott, 3 cr (1 hr ar)

R3625 Supervised Practical Experience (§PE 3625; max 12 cr; prereq Δ) (S-N only)
141288 1615-1800 T, CookeH 214, Schulz, Serfass, 1-12 cr

R3900 Directed Study (§PE 3900; max 12 cr; prereq Δ) (A-F only)
941289 Serfass, 1-12 cr

5101 Physical Education Activities for the Handicapped (§PE 5101; prereq 5100 or EPsy 5601, educ or grad stu; PEL) (A-F only)
241290 1815-2045 M, CookeH 214, Burton, 3 cr

5102 Practicum: Developmental/Adapted Physical Education (§PE 5102; max 6 cr; prereq 5100, 5101 or #; PEL) (S-N only)
745330 1815-2045 T, CookeH 215, Burton, 3 cr (1 hr ar)

R5111 Sport Facilities (§PE 5111) (A-F only)
344455 1430-1600 TTh, CookeH 215, Anderson, 3 cr

R5126 Advanced Psychological and Sociological Dimensions of Physical Activity (§PE 5126) (A-F only)
941292 1325-1415 MWF, CookeH 214, Bjornstal, 3 cr

R5132 Motor Development (§CPsy 5322, PE 5131, PE 5132; prereq 3132 or #) (A-F only)
144456 1615-1815 W, CookeH 215, Wade, 3 cr

R5152 Curriculum Development (§PE 5152; prereq 5151 or #, educ or grad stu; PEL) (A-F only)
143159 1615-1815 M, CookeH 400, 3 cr

5387 Detection and Prevention of Coronary Heart Disease (§PE 5387; prereq 3386 or equiv or #) (A-F only)
541294 1615-1800 MW, CookeH 214, Serfass, 4 cr

5389 Practical Experience in Graded Exercise Testing, Prescription, and Direction (§PE 5389; max 6 cr; prereq 5388 or #) (A-F only)
341295 Serfass, 3-6 cr

5562 Clinical Experience II: Physical Education (prereq admission to post BA phys ed licensure prog or #, 5561; PEL) (A-F only)
543269 9 cr

R5720 Topics in Kinesiology: Human Factors Physiology (§PE 5720; max 12 cr; prereq #) (A-F only)
141296 1615-1815 Th, NorrisH 3, Hancock, 3 cr

5980 Research Methodology (§PE 5980; prereq educ or grad stu) (A-F only)
041297 1010-1140 TTh, CookeH 214, Kane, 3 cr (SES students only)

5981 Problems (§PE 5981; prereq MEd candidate, #) (A-F only)
841298 -21 Burton, ar cr
641299 -22 Greer, ar cr
341300 -23 Hancock, ar cr
141301 -24 Kane, ar cr
041302 -25 Krotee, ar cr
841303 -26 Serfass, ar cr
441305 -28 Wade, ar cr
241306 -29 Bjornstal, ar cr

5983 Readings: Kinesiology (§PE 5983; max 9 cr; prereq educ or grad stu) (A-F only)
141307 -21 Burton, ar cr
941308 -22 Greer, ar cr
741309 -23 Hancock, ar cr
141310 -24 Kane, ar cr
941311 -25 Krotee, ar cr
741312 -26 Serfass, ar cr
341314 -28 Wade, ar cr
141315 -29 Bjornstal, ar cr

R6128 Psychology of Sport (§PE 6128; prereq 5126 or equiv or #)
543160 1615-1815 T, CookeH 215, Bjornstal, 3 cr

8381 Laboratory Research Techniques (§PE 8381; prereq 5980 or I)
841317 1815-2015 W, NorrisH 4, Serfass, 1-3 cr

8382 Biomechanics: Research Techniques (§PE 8382; prereq 5120 or #)
641318 1325-1625 TTh, NorrisH 4, Greer, 3 cr

8777 Thesis Credits: Masters (§PE 8777)
441319 1-16 cr

8888 Thesis Credits: Doctoral (§PE 8888; max 18 cr per qtr)
841320 1-36 cr

8980 Graduate Research Seminar (§PE 8980; max 2 cr; prereq #) (S-N only)
641321 1430-1625 M, NorrisH 4, CookeH 109, 110, Wade, 1 cr

8981 Research Problems (§PE 8981; prereq 8980 or #) (S-N only)
441322 -21 Burton, ar cr
241323 -22 Greer, ar cr
141324 -23 Hancock, ar cr
941325 -24 Kane, ar cr
741326 -25 Krotee, ar cr
541327 -26 Serfass, ar cr
141329 -28 Wade, ar cr
541330 -29 Bjornstal, ar cr

LABORATORY MEDICINE AND PATHOLOGY (LaMP) Laboratory Medicine and Pathology Medical School

5099 General Pathology for Dental Students (prereq elementary anatomy, elementary microbiology) (A-F only)
613342 1325-1415 Th, 0800-0850 F, MoosT 2690, Estensen, 2 cr

5102 Organ System Pathology (prereq registered 2nd yr med student)
★LECT 0800-0850 M, 1325-1415 T, MoosT 2650, Perrone, (Jan 6-Apr 10)
518341 -1 LAB 1430-1625 T, MoosT 3317, 3337, 3343, 3349, 2-7 cr
717821 -2 LAB 1430-1625 Th, MoosT 3317, 3337, 3343, 3349, 2-7 cr

5113 Surgical Pathology: University Hospitals (prereq 3rd or 4th yr medical student)
318146 Snover, 6-9 cr

5114 Surgical Pathology: Hennepin County Medical Center (prereq 3rd or 4th yr medical student)
220214 Anderson, 6-9 cr

5115 Surgical Pathology: Veterans Administration Hospital (prereq 3rd or 4th yr medical student)
017937 Niehans, ar cr

5118 Endocrine Pathology: St. Paul Ramsey Hospital (prereq 3rd or 4th yr medical student)
322004 Lakatua, ar cr

5119 Forensic Pathology: Medical Examiner's Office, Hennepin County Medical Center (prereq 3rd or 4th yr medical student)
414878 ar cr

5125 Chronobiology (prereq 3rd or 4th yr medical student, #)
818510 Halberg, ar cr

5141 Problems in Experimental Pathology (prereq 3rd or 4th yr medical student, #)
713221 ar cr

5150 Anatomic Pathology in a Hospital Setting: University Hospitals (prereq 3rd or 4th yr medical student)
922483 Burke, 6-9 cr

5151 Anatomic Pathology in a Hospital Setting: Hennepin County Medical Center (prereq 3rd or 4th yr medical student)
815252 Anderson, Strom, 6-9 cr

5152 Anatomic Pathology in a Hospital Setting: Veterans Administration Hospital (prereq 3rd or 4th yr medical student)
114809 Posalaky I., ar cr

5153 Anatomic Pathology in a Hospital Setting: St. Paul-Ramsey Medical Center (prereq 3rd or 4th yr medical student)
116270 Posalaky Z., ar cr

5158 Cardiac Pathology: United Hospital (prereq 3rd or 4th yr medical student, #)
712781 Edwards, Titus, ar cr

5180 Anatomic and Clinical Pathology in a Hospital Setting (prereq 3rd or 4th yr medical student) (S-N only)
618007 Jones, 4-9 cr

5181 Laboratory and Clinical Hematology (prereq #)
313853 Brunning, ar cr

5182 Laboratory Studies of Genetic Disorders (prereq #)
913301 Eaton, ar cr

5184 Immunohematology in Blood Banking (prereq #)
120473 McCullough, ar cr

5186 Laboratory Medicine in a Community Hospital (prereq 4th yr medical student, #)
819012 Bandt, ar cr

5187 Clinical Pathology Externship (prereq #)
118352 Fuhrman, ar cr

5188 Clinical Pathology Externship: Methodist Hospital (prereq #)
817955 Segal, ar cr

- 5192 Laboratory Medicine for Primary Care: Virginia** (prereq 4th yr medical student, #) 517383 Knabe, ar cr
- 5193 Clinical Pathology Externship: Hibbing Hospital** (prereq #) 114043 Uncini, ar cr
- 5194 Computer Applications in Medicine** (prereq #) 620372 Ellis, ar cr
- 5195 Computer Applications in Medical Research** (prereq #) 119971 Ellis, ar cr
- 5210 Surgical Pathology for Post-M.D.s** (prereq regis med fellow special, #) (S-N only) 115152 1-10 cr
- 5211 Autopsies for Post-M.D.s** (prereq regis med fellow special, #) (S-N only) 120439 1-10 cr
- 5213 Laboratory Medicine for Post-M.D.s** (prereq regis med fellow special, #) (S-N only) 214297 1-10 cr

LANDSCAPE ARCHITECTURE (LA)

Arch & Landscape Arch

- r1023 History of Environmental Development: Planning** (§Arch 1023; prereq 1022) 317742 1115-1310 TTh, NichH 45, Satkowski, 4 cr (Mpls)
- 1024 Landscape Theory** 619562 1010-1205 MW, Arch 50, Hard, 4 cr (Mpls)
- r3065 Landscape Construction: Landform Systems** (prereq 3081 or #) (A-F only) ★LECT 1000-1200 M, NorH 315, Sykes 123602 -1 LAB 0830-1215 W, NorH 315, Sykes, 4 cr
- r3069 Landscape Construction: Mechanical Systems** (prereq 3091 or #) (A-F only) ★LECT 1355-1445 TTh, BorH 365, Sykes 444723 -1 LAB 1500-1655 TTh, AlderH 405, Sykes, 4 cr
- 3082 Basic Design** (prereq 3081) (A-F only) 114387 1400-1730 MWF, NorH 315, Sand, 6 cr
- 3092 Intermediate Design** (prereq 3091) (A-F only) 118416 1400-1730 MWF, AlderH 405, Moriarty, Cook, 6 cr
- 3094 Independent Study in Graphics** (prereq landscape architecture student, #) (A-F only) 718788 1-4 cr
- 3095 Independent Study in Planting Design** (prereq landscape architecture student, #) (A-F only) 013855 1-4 cr
- 3096 Independent Study in History or Theory** (prereq landscape architecture student, #) (A-F only) 012818 1-4 cr
- 3097 Independent Study in Computer Aided Design** (prereq landscape architecture, #) (A-F only) 912908 1-4 cr
- 3098 Independent Study in Design** (prereq landscape architecture student, #) (A-F only) 119928 1-4 cr
- 3099 Independent Study in Technology** (prereq landscape architecture student, #) (A-F only) 618282 1-4 cr
- 3200 Landscape Architecture Practicum** (prereq landscape architecture student, #) (S-N only) 023270 1-6 cr
- 5100 Resource and Community Development Interdisciplinary Seminar II** (§RCD 5100; prereq RCD sr or #) (A-F only) 112980 1605-1800 TTh, ClaOff B42, Sand, Adams, 4 cr
- 5105 Recreational Planning and Design I** (prereq 3093) (A-F only) 419563 1400-1730 MWF, NorH 305, Neckar, 6 cr
- 5109 Special Problems: Thesis Proposal** (A-F only) 521756 1040-1235 F, AlderH 405, Pitt, 2 cr

- 5131 Directed Studies in Landscape Architecture History and Theory** (prereq third yr landscape architecture student, Δ) (A-F only) 122997 1-6 cr
- 5132 Directed Studies in Landscape Architecture Design** (prereq third yr landscape architecture student, Δ) (A-F only) 512894 1-6 cr
- 5133 Directed Studies in Landscape Architecture Technology** (prereq third yr landscape architecture student, Δ) (A-F only) 114079 1-6 cr
- 5134 Directed Studies in Emerging Areas for Landscape Architecture** (prereq third yr landscape architecture student, Δ) (A-F only) 615799 1-6 cr
- 5140 Interdisciplinary Studies in Landscape Architecture** (max 18 cr; prereq #) (A-F only) 520199 Sand, 2-6 cr
- 5226 Professional Practice** (prereq terminal yr of study) (A-F only) 314727 1800-2000 TTh, ClaOff B36, Murphy, 4 cr
- 5228 Seminar: Topics in Campus Planning** (prereq 3093 or #) (A-F only) 218091 0800-0955 MF, Arch 15, Hewitt, 4 cr (Mpls)
- r5562 Introduction to Geographic Information Systems** (§Geog 5562; prereq jr, sr, or grad maj in Geog or LA or #) (A-F only) ★LECT 1215-1410 Th, BlegH 415, Brown, (Mpls) 115855 -1 LAB 1215-1430 T, BlegH 90, Brown, 4 cr (Mpls) 112924 -2 LAB 1445-1700 T, BlegH 90, Brown, 4 cr (Mpls)
- 8282 Research Analysis Methods in Landscape Architecture** (prereq 8281 or #) (A-F only) 012849 1215-1345 WF, NorH 207, Nassauer, 4 cr
- 8284 Landscape Architecture Colloquium** (prereq 8283 or 18283 or #) (S-N only) 313593 Pitt, 1 cr
- 8500 Landscape Architecture Research Project** (prereq 8283 or #) (A-F only) 320317 1-6 cr
- 8600 Landscape Architecture Education** (prereq M.L.A. candidate or #) (A-F only) 417084 1-4 cr
- 8777 Thesis Credits: Masters** 718323 1-16 cr

LATIN (Lat)

Classical & Near Eastern Studies Liberal Arts

- r1101 Beginning Latin** (1101-1102†) 143204 0800-0850 MTWThF, SmithH 121, 5 cr
- r1102 Beginning Latin** (1101-1102†; prereq 1101) 014181 -1 0800-0850 MTWThF, KoltH S138, 5 cr 415903 -2 0905-0955 MTWThF, SmithH 121, 5 cr 919177 -3 1010-1100 MTWThF, Phys 236A, 5 cr 115751 -4 1115-1205 MTWThF, SmithH 121, 5 cr 420955 -5 1220-1310 MTWThF, KoltH S138, 5 cr 314338 -6 1325-1415 MTWThF, SmithH 121, 5 cr
- 1122H Honors Course: Beginning Latin** (prereq 1111H) 943205 1010-1100 MTWThF, FolH 240, Erickson, 5 cr
- 3052 Accelerated Beginning Latin** (3051-3052†; prereq 3051) 743206 1010-1100 MTWThF, FolH 240, Erickson, 5 cr
- r3105 Latin Poetry** (prereq 1103 or 1104 or Δ) 921107 -1 0905-0955 MWF, FolH 138, Erickson, 5 cr 819883 -2 1115-1205 MWF, FolH 240, Nicholson, 5 cr 215661 -3 1220-1310 MWF, FolH 318, 5 cr
- 3454 Advanced Undergraduate Latin** (prereq 3106 or 4 yrs high school Latin or Δ) 543207 1325-1415 MWF, FolH 419, Nicholson, 5 cr
- 3951 Major Project** (prereq Greek-Latin or Latin maj, three 3xxx courses in Latin or #) (A-F only) 316588 5 cr

- 3960H Honors Tutorial** (prereq Δ) 318414 5 cr
- 3970 Directed Studies** (prereq #, Δ, □) 514239 1-5 cr
- 5370 Latin Literature: Satire** (max 12 cr) 343208 0905-0955 MWF, FolH 344, Sonkowsky, 4 cr
- 5970 Directed Studies** (prereq #, Δ, CLA approval) 113314 1-5 cr
- 5980 Directed Instruction** (prereq #, Δ, CLA approval) 512734 ar cr
- 5990 Directed Research** (prereq #, Δ, CLA approval) 518078 ar cr
- 8120 Latin Text Course** (prereq 3052 or Δ, non-maj) 513222 -1 0905-0955 MWF, FolH 138, Erickson, 4 cr 516167 -2 1115-1205 MWF, FolH 240, Nicholson, 4 cr 343211 -3 1325-1415 MWF, FolH 419, Nicholson, 4 cr
- 8265 Graduate Survey: Literature of the Augustan Age** 143209 1245-1400 TTh, FolH 142, Krevans, 4 cr
- 8777 Thesis Credits: Masters** 821052 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr) 619867 1-36 cr
- 8910 Seminar: Senecan Drama** (A-F only) 115550 1325-1520 M, FolH 214, Sonkowsky, 4 cr

LATIN AMERICAN STUDIES (LAS)

Liberal Arts

- r3402 Survey of Latin American History: 1800-1929** (§Hist 3402) ★LECT 0945-1100 TTh, AndH 230, Hedberg 923696 -1 REC 0800-0850 M, BlegH 260, 4 cr 621666 -2 REC 1220-1310 T, BlegH 210, 4 cr 819656 -3 REC 1115-1205 W, BlegH 245, 4 cr 117640 -4 REC 1220-1310 W, BlegH 250, 4 cr 715549 -5 REC 1115-1205 Th, HHHCtr 20, 4 cr 713610 -6 REC 1220-1310 Th, AndH 350, 4 cr
- r3442 Survey of Chicano History, 1900 to Present** (§Chic 3442, Hist 3442) 818670 1220-1310 MWF, ScottH 4, Valdes, 4 cr
- r5101 Methods and Sources for Latin American Studies** (prereq jr or sr or grad student, reading knowledge of Span or Port or #) 013385 1430-1715 Th, OMWL 454, Hallowell, 4 cr
- 5305 Folk Narratives** (§AmSt 5920, sec 3, Chic 5305) 844721 0945-1100 TTh, ScottH 4, Montano, 4 cr
- 5970 Directed Studies** (prereq #, Δ, CLA approval) 114592 ar cr

LAW SCHOOL (Law)

- 5003 Legal Research** (prereq □) 612885 ar cr
- 5004 Property I** (prereq □) 844735 -1 1325-1415 MTWF, Law 30, Morris, 4 cr 644736 -2 1325-1415 MTWF, Law 20, Burkhart, 4 cr 444737 -3 1325-1415 MTWF, Law 65, Younger, 4 cr
- 5006 Procedure** (prereq □) 317899 -1 0800-0850 WThF, Law 50, Paulsen, 3 cr 123185 -2 0800-0850 WThF, Law 40, Lay, 3 cr 716412 -3 0800-0850 WThF, Law 65, Park, 3 cr
- 5007 Constitutional Law** (prereq □) 323329 -1 0905-0955 W, Law 20, 1115-1205 ThF, Law 65, Morrison, 3 cr 515763 -2 1010-1100 W, Law 20, 1115-1205 ThF, Law 30, Sherry, 3 cr 819947 -3 0905-0955 W, Law 30, 1115-1205 ThF, Law 20, Bryden, 3 cr

- 5008 Legislation** (prereq □)
223064 -1 1115-1205 MTW, Law 30, Paulsen, 3 cr
719794 -2 1115-1205 MTW, Law 20, Farber, 3 cr
014150 -3 1115-1205 MTW, Law 65, Frickey, 3 cr
- 5050 Commercial Paper** (prereq □)
913363 0905-0955 MTWTh, Law 40, Nickles, 4 cr
- 5052 Sales** (prereq □)
113434 1430-1520 MTF, Law 50, Hudec, 2 cr
- 5054 Corporation II (Corporate Finance)** (prereq □)
814344 1325-1415 MT, Law 55, Matheson, 2 cr
- 5055 ABA Moot Court** (prereq □)
113076 1800-2200 MTWTh, Law 55, 65, ar cr
- 5056 Civil Clinic** (prereq □) (A-F only)
313819 -1 1535-1730 M, Law 7, Befort, Sedo, others, ar cr
723537 -2 1535-1730 M, Law 7, Befort, Sedo, others, ar cr
- 5057 Judicial Externship** (prereq □)
217183 0905-0955 Th, Law 471, Chomsky, ar cr
- 5058 Misdemeanor Prosecution** (prereq □)
415092 1535-1730 MW, Law 15, Costello, Simon, 2 cr
- 5060 Legal Aid to Minnesota Prisoners** (prereq □) (A-F only)
223338 -1 1535-1730 T, Law 7, Peterson, Marron, 2 cr
319443 -2 1535-1730 T, Law 7, Peterson, Marron, 2 cr
- 5062 Federal Prosecution Clinic** (prereq □)
522681 1640-1835 W, Law 5, Frase, 2 cr
- 5064 Gender Clinic** (prereq □)
623692 1535-1730 W, Law 7, Balos, 2 cr
- 5065 Seminar: Misdemeanor Defense** (prereq □)
119193 1535-1730 MW, Law 15, Costello, Simon, 2 cr
- 5066 Moot Court (National) Team** (prereq □)
114826 Clary, ar cr
- 5067 National Moot Court Directors** (prereq □)
114933 1615-1705 MW, Law 55, Clary, 2 cr
- 5068 International Moot Court Team** (prereq □)
317501 Page, ar cr
- 5069 International Moot Court Director** (prereq □)
517951 Page, ar cr
- 5070 Civil Clinic Directors** (prereq □)
520977 Befort, 2 cr
- 5071 Misdemeanor Prosecution/Defense (Legal Aid II) Clinical Directors** (prereq □) (S-N only)
518114 Simon, ar cr
- 5072 Legal Assistance to Minnesota Prisoners (LAMP) (Legal Aid IV) Clinical Directors** (prereq □) (S-N only)
922273 Peterson, Marron, ar cr
- 5073 Tax Clinic Directors** (prereq □) (S-N only)
921088 Befort, ar cr
- 5075 Civil Rights Moot Court** (prereq □)
215207 Torres, ar cr
- 5077 Law and Inequality Journal Staff** (prereq □) (S-N only)
521207 Torres, 1-2 cr
- 5078 Law and Inequality Journal Directors** (prereq □) (S-N only)
316865 Torres, 3 cr
- 5079 Wagner Moot Court Directors** (prereq □)
613339 Cooper, ar cr
- 5081 Public Interest Clinic** (prereq □)
144739 1535-1730 M, Law 5, Befort, 2 cr
- 5084 Environmental Moot Court Director** (prereq □)
013662 Reich, 1-2 cr
- 5087 ABA Moot Court Competition Directors** (prereq □)
122742 Reich, ar cr
- 5089 ABA International Property Directors** (prereq □)
520722 Reich, 2 cr
- 5090 ABA Director** (prereq □)
218723 Reich, 1-2 cr
- 5091 ABA Managing Director** (prereq □)
916683 Reich, 1 cr
- 5100 Taxation I** (prereq □)
218446 -1 1115-1205 MTW, Law 25, Schoettle, 3 cr
344732 -2 1325-1415 MTW, Law 40, Gifford, 3 cr
- 5101 Taxation II** (prereq □)
513267 1430-1625 Th, Law 45, Kilbourn, 2 cr
- 5104 Business Planning** (prereq □)
716121 1115-1205 Th, 1325-1415 Th, Law 55, Scallen, 2 cr
- 5106 Federal Tax Procedure** (prereq □)
019235 1815-2005 T, Law 471, Cunningham, Hinds, others, 2 cr
- 5107 Bankruptcy** (prereq □) (A-F only)
616614 0905-0955 MTW, Law 45, Morris, 3 cr
- 5109 Creditor's Remedies** (prereq □) (A-F only)
744730 1115-1205 MTWTh, Law 50, Nickles, 4 cr
- 5110 Securities Regulation II** (prereq □)
117296 1010-1100 MTW, Law 471, Koeppen, 3 cr
- 5112 Accounting for Lawyers** (prereq □) (S-N only)
321175 1430-1520 MTW, Law 40, Kilbourn, 2 cr
- 5113 State and Local Tax** (prereq □) (A-F only)
944726 0905-0955 MTW, Law 35, Schoettle, 3 cr
- 5122 Immigration** (prereq □)
513639 1430-1520 MTW, Law 65, Weissbrodt, 3 cr
- 5153 Wills and Trusts** (prereq □)
623241 1430-1520 MTWTh, Law 30, Waterbury, 4 cr
- 5200 Remedies** (prereq □)
244724 0905-0955 MTW, Law 20, Matheson, 3 cr
- 5202 Conflicts** (prereq □)
316977 1010-1100 MTW, Law 40, Cooper, 3 cr
- 5204 Labor Law II** (prereq □)
213148 1430-1520 TW, Law 45, Cooper, 2 cr
- 5205 Criminal Law** (prereq □)
923116 -1 0905-0955 MT, 1535-1625 W, Law 30, Tonny, 3 cr
521286 -2 1535-1625 MW, 1325-1415 Th, Law 20, Frase, 3 cr
221900 -3 0905-0955 MT, 1430-1520 Th, Law 65, Bryden, 3 cr
- 5213 Modern Real Estate** (prereq □)
619030 1010-1105 ThF, 1115-1205 F, Law 50, Scallen, 3 cr
- 5218 Criminal Procedures** (prereq □)
321659 1430-1520 WThF, Law 50, Lay, 3 cr
- 5219 Evidence** (prereq □)
744727 1010-1100 MTWTh, Law 30, Marshall, 4 cr
- 5220 Social Welfare Law** (prereq □)
545586 1325-1415 MTW, Law 15, Tonny, 3 cr
- 5228 Seminar: Legal History** (prereq □)
344729 1115-1205 MTW, Law 55, Chomsky, 3 cr
- 5230 Torts II** (prereq □)
044734 1325-1415 MTTh, Law 35, Marshall, 3 cr
- 5236 Indian Law** (prereq 5007, 5606, □)
144725 0905-0955 MTW, Law 55, Frickey, 3 cr
- 5245 Trial Objections** (prereq □)
544731 1115-1205 ThF, Law 25, Park, 2 cr
- 5400 Sports and Entertainment Law** (prereq □)
345587 1535-1730 T, Law 475, Litsey, 3 cr
- 5600 Professional Responsibilities** (prereq □)
320222 0905-0955 WThF, Law 50, Kramer, 2 cr
- 5601 Feminist Theory Of Donative Transfers** (prereq □)
322682 1830-2030 M, Law 471, Fellows, 2 cr
- 5603 Unfair Competition** (prereq □)
544728 1010-1100 MTW, Law 65, Gifford, 3 cr
- 5604 Family Law** (prereq □)
319149 1010-1100 MTW, Law 50, Younger J., 4 cr
- 5606 Administrative Law** (prereq □)
118027 1115-1205 MTW, Law 40, Weissbrodt, 3 cr
- 5608 Independent Research** (prereq □)
812786 ar cr
- 5609 Law Review** (prereq □) (S-N only)
521935 -1 Frickey, ar cr
421247 -2 Frickey, ar cr
619139 -3 Frickey, 3 cr
- 5618 Trial Practice** (prereq □)
115023 -1 1800-2100 M, Law 180, Flinn, 3 cr
616127 -2 1800-2100 T, Law 180, Hopeman, 3 cr
918434 -3 1800-2100 W, Law 180, Levy, 3 cr
118920 -4 1800-2100 Th, Law 180, Rosen, 3 cr
521711 -5 1800-2100 W, Law 170, Burke, 3 cr
- 5631 Damage Analysis** (prereq □)
813629 1535-1730 T, Law 471, Dahl, 2 cr
- 5632 Employment Law** (prereq □)
144733 1325-1415 MTW, Law 50, Befort, 3 cr
- 5804 Seminar: Labor Law Writing** (prereq □) (A-F only)
244738 1535-1730 M, Law 473, Cooper, 3 cr
- 5812 Law and Social Science** (prereq □)
923472 1010-1100 MT, Law 45, Penrod, 2 cr
- 5822 Legislative Drafting Seminar** (prereq □)
145588 1815-2010 M, Law 473, Orfield, 2 cr
- 5825 Seminar: Divorce Negotiation** (prereq □) (A-F only)
123090 1535-1730 W, Law 471, Levy, Dennis, others, 3 cr
- 5830 Seminar: Government Regulation of Banking** (prereq □)
912911 1535-1730 Th, Law 473, Koeppen, 2 cr
- 5832 Seminar: Computer Applications** (prereq □) (A-F only)
418090 1535-1730 M, Law 35, Burris, 2 cr
- 5836 Trademarks** (prereq □)
144742 1535-1730 W, Law 65, Frenchick, 2 cr
- 5837 Seminar: Constitutional Powers of The Presidency** (prereq □)
745585 1535-1730 T, Law 473, Rotenberg, 2 cr
- 5849 Seminar: Ownership** (prereq □)
744744 1535-1730 Th, Law 471, Burkhart, 2 cr
- 5851 Advanced Legal Research Seminar** (prereq □) (A-F only)
120876 1325-1415 TTh, Law 45, Wentz, 2 cr
- 5857 Seminar: Merge and Acquisitions** (prereq □) (A-F only)
623174 1535-1730 W, Law 473, Kilbourn, 2 cr
- 5867 Seminar: International and Foreign Legal Research** (prereq □)
213604 1430-1520 TTh, Law 471, Louis-Jacques, Thorpe, 2 cr
- 5873 Seminar: Trust Law** (prereq □)
045589 1640-1730 WTh, Law 35, Waterbury, 2 cr
- 5875 Worker Compensation/Social Security Clinic** (prereq □)
922435 1535-1730 Th, Law 5, Sedo, 2 cr
- 5887 Seminar: International Law** (prereq □)
919650 1535-1730 M, Law 475, Morrison, Farber, 2 cr
- 5892 Seminar: GATT** (prereq □)
944743 1535-1730 W, Law 475, Hudec, 2 cr
- 5893 Seminar: Pluralism** (prereq □)
244741 1535-1730 M, Law 471, Torres, 2 cr
- 5894 Sentencing Policy Workshop** (prereq □)
444740 1535-1730 Th, Law 475, Frase, Levy, others, 3 cr

LEARNING AND ACADEMIC SKILLS (LASK)

Liberal Arts

- r1001 Becoming a Master Student** (not for CLA degree credit)
119100 -1 0800-0850 MWF, EddyH 102, 2 cr
516752 -2 0905-0955 MWF, SaH, 2 cr (Sanford Hall Library)
118268 -3 0905-0955 MWF, PiH, 2 cr (Pioneer Hall Library)
719181 -4 1010-1100 MWF, Kolth S137, 2 cr
720962 -5 1010-1100 MWF, EddyH 102, 2 cr
912777 -6 1115-1205 MWF, EddyH 102, 2 cr
916196 -7 1220-1310 MWF, Peikh 225, 3 cr (ESL only)
214803 -8 1220-1310 MWF, EddyH 102, 2 cr
916845 -9 1325-1415 MWF, EddyH 102, 2 cr
- r1301 Career Planning for Disabled Students**
745697 1325-1520 Th, FordH 175, Aase, 2 cr

LINGUISTICS (Ling)

Linguistics Liberal Arts

- r1005 Language and Society** (prereq 3051H)
720587 1010-1100 MWF, CivMinE 212, 4 cr
- 3052H Honors Course: Linguistics** (prereq 3051H)
523491 4 cr
- 3970 Directed Studies** (prereq linguistics maj, #, Δ, □)
221315 1-5 cr
- 3971 Senior Project** (prereq #) (S-N only)
219807 1 cr
- 5002 Linguistic Analysis** (§5201, 5302; prereq 3001 or 5001 or #)
616709 0905-0955 MWF, PaikH 215, Downing, 4 cr
- 5012 Mathematical Linguistics** (prereq 5011)
943219 0945-1100 TTh, FolH 138, Hutchinson, 4 cr
- 5201 Introduction to Syntax** (prereq 3001 or 5001 or #)
412824 1115-1205 MWF, FolH 50, Downing, 4 cr
- 5206 Advanced Syntax** (prereq 5202, 5302 or #)
018568 1115-1205 MWF, KlaCt 101, Sanders, 4 cr
- 5211 Semantics** (prereq 5011, 5202 or #)
423287 1245-1400 TTh, FolH 234, Hutchinson, 4 cr
- 5302 Introduction to Phonology** (prereq 3301 or 5301 or #)
922032 1010-1100 MWF, FolH 234, 4 cr
- 5702 Second-Language Acquisition** (prereq 3001 or 5001, 5002 or 5201, 5302, 5701 or #)
243220 0945-1100 TTh, FolH 246, Tarone, 4 cr
- 5712 Field Methods in Linguistics** (prereq 5711)
713154 1430-1520 MWF, KlaCt 101, Sanders, 4 cr
- 5723 English as a Second Language: Materials** (prereq 5721, 5722, #)
143221 1535-1650 TTh, FolH 208, Cohen, 3 cr
- 5741 Linguistic Description of Modern English** (prereq 3001 or 5001 or #)
419837 1430-1520 MWF, FolH 312, Cohen, 4 cr
- 5805 Psycholinguistics** (prereq 5002 or 5201, 5302 or #)
943222 1535-1650 MW, FolH 312, Stemberger, 4 cr
- 5910 Seminar in Linguistics: Child Discourse** (prereq #)
122675 1415-1530 TTh, FolH 142, Sheldon, 4 cr
- 5970 Directed Studies** (prereq linguistics or ESL maj, #, Δ, CLA approval)
615804 1-5 cr
- 8510 Linguistics Structures** (prereq 5202, 5303 or #)
743223 1415-1530 TTh, FolH 114, 4 cr
- 8600 Topics in Historical Linguistics** (prereq 5603 or #)
543224 1535-1650 TTh, FolH 138, Miranda, 4 cr
- 8777 Thesis Credits: Masters**
919194 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
719052 1-36 cr
- 8900 Independent Study** (prereq Ling maj, #)
821391 1-5 cr

LOGISTICS MANAGEMENT (LM) Management

Non-SMgt students should refer to page 9, Carlson School of Management Courses, before attempting to register for LM courses.

- r3000 Introduction to Logistics Management** (§Tran 3064, 8264; prereq Econ 1101 or equiv) (A-F only)
118786 1130-1300 TTh, BlegH 440, Beier, 4 cr
- r5020 Advanced Logistics Management** (§3020, 8020, Tran 3064, Tran 8064; prereq 3000 or 5030 or equiv) (A-F only)
416601 0945-1115 TTh, BlegH 335, Harper, 4 cr

- 8990 Readings in Logistics Management** (prereq consent of advisor, #, grad SMgt approval) (A-F only)
222772 ar cr
- 8995 Graduate Research in Logistics Management** (prereq grad SMgt approval) (A-F only)
620906 ar cr

MANAGEMENT (Mgmt) Management

Non-SMgt students should refer to page 9, Carlson School of Management Courses, before attempting to register for Mgmt courses.

- r3002 Psychology in Management** (§8006) (A-F only)
818569 0800-0930 TTh, BlegH 340, Moon, 4 cr
- r3004 Business Policy: Strategy Formulation and Implementation** (prereq sr, completion of business core courses or equiv of final core course) (A-F only)
913508 -1 0800-1000 MW, BlegH 340, Schander, 5 cr
722596 -2 1015-1215 MW, BlegH 340, Brush, 5 cr
520588 -3 1245-1445 TTh, BlegH 340, Brush, 5 cr
816529 -4 1500-1700 TTh, BlegH 440, Brush, 5 cr
- r3019H Topics in Management** (prereq 3001 or 3002 or #) (A-F only)
645966 1325-1625 M, BlegH 330, Albert, 4 cr
- r5101H Advanced Topics in Management: History of American Management** (prereq SMgt honors stu) (A-F only)
945553 0915-1045 MW, BlegH 125, Willis, 4 cr
- r8006 Psychology in Management** (§3002; prereq grad mgmt student or grad SMgt approval)
142750 1730-2100 T, BlegH 145, Albert, 4 cr
- r8012 Organizational Behavior and Management Analysis** (prereq grad mgmt student or grad SMgt approval)
742752 1730-2100 W, HHCtr 20, Sutcliffe, 4 cr
- r8032 International and Cooperative Strategies** (prereq grad mgmt stu or grad SMgt approval, 8031) (A-F only)
844282 1730-2100 M, BlegH 425, Jacque, 4 cr
- r8040 International Business** (§BGS 3004, Mktg 8040; prereq grad mgmt stu or grad SMgt approval, 3001 or 8001 or MBA 8010)
314940 1730-2100 Th, BlegH 330, Lenway, 4 cr
- r8203 Research Topics and Methods in Business-Government-Society** (prereq PhD student or grad SMgt approval)
942748 0900-1200 T, Law 1, Bowie, 4 cr
- r8302 Seminar in Organization Theory** (prereq PhD student or grad SMgt approval)
944239 1300-1600 M, HHCtr 30, Van de Ven, 4 cr
- r8303 Organizational Research Seminar** (prereq PhD stu, #)
819205 1300-1600 W, HHCtr 30, Galaskiewicz, 4 cr
- r8990 Readings in Management Theory and Administration** (prereq 2nd yr grad stu, requisite intro courses, consent of adviser, #, grad SMgt approval)
122059 ar cr
- r8995 Research in Management Theory and Administration** (prereq 2nd yr grad stu, requisite intro courses, consent of adviser, #, grad SMgt approval)
616287 ar cr

MARATHI (Mar) South Asian & Middle Eastern Languages & Cultures Liberal Arts

- 1102 Beginning Marathi** (§5102; prereq 1101)
044524 Junghare, 5 cr
- 5102 Beginning Marathi** (§1102; prereq 5101)
844525 Junghare, 5 cr

MARKETING (Mktg) Management

Non-SMgt students should refer to page 9, Carlson School of Management Courses, before attempting to register for Mktg courses.

- r3000 Principles of Marketing** (§8000; prereq Econ 1101 or equiv) (A-F only)
122286 -1 0945-1115 TTh, BlegH 440, Beier, 4 cr
121395 -2 1115-1245 TTh, BlegH 425, Rudelius, 4 cr
- r3010 Buyer Behavior and Marketing Analysis** (prereq 3000, OMS 1020, or equiv)
916862 0945-1115 TTh, BlegH 220, Schneider, 4 cr
- r3020 Marketing Operations Management** (prereq 3010)
618413 1130-1300 TTh, BlegH 335, Lindsay, 4 cr
- r3030 Sales and Distribution Management** (prereq 3020)
842760 1315-1445 TTh, BlegH 335, Rao, 4 cr
- r8051 Marketing Research** (§8095; prereq either MBA core courses, or MBA 8045, #, grad mgmt student or grad SMgt approval)
919230 -1 1300-1445 TTh, HHCtr 20, Schneider, 4 cr
144361 -2 1730-2100 Th, Law 1, Ross, 4 cr
- r8074 Product and Price Policy** (§8084, 8086; prereq either MBA core courses, or MBA 8045, #, or Δ, grad mgmt student or grad SMgt approval)
320589 1300-1445 MW, BlegH 335, Shocker, 4 cr
- r8076 Sales Management** (prereq either MBA core courses or MBA 8045, or Δ, grad mgmt student or grad SMgt approval)
442762 1730-2100 T, BlegH 335, Rao, 4 cr
- r8078 Marketing Communications** (prereq either MBA core courses or MBA 8045, grad mgmt student or grad SMgt approval)
116908 1000-1145 TTh, BlegH 435, Ruekert, 4 cr
- r8090 Marketing Topics** (prereq either MBA core courses or MBA 8045, or Δ, grad mgmt student or grad SMgt approval)
142764 John G., 4 cr (PhD students only)
(Mmg/Econ 1275)
- r8990 Readings in Marketing** (prereq MBA core courses or MBA 8045, Δ, consent of advisor, #, grad SMgt approval)
016125 ar cr
- r8995 Graduate Research in Marketing** (prereq MBA core courses or MBA 8045, Δ, consent of advisor, #, grad SMgt approval)
716765 ar cr

MASTER OF BUSINESS ADMINISTRATION (MBA) Management

- r8035 Managerial Accounting** (prereq MBA students only) (A-F only)
121095 -1 1000-1145 TTh, AndH 370, Saly, 4 cr
314730 -2 1300-1445 TTh, BlegH 425, Saly, 4 cr
- r8040 Financial Management** (prereq MBA students only) (A-F only)
114379 -1 1000-1145 MW, BlegH 425, Nantell, 4 cr
020997 -2 1300-1445 MW, BlegH 435, Nantell, 4 cr
- r8045 Marketing Management** (prereq MBA students only) (A-F only)
221573 -1 0800-0945 TTh, BlegH 425, Roering, 4 cr
219564 -2 1300-1445 TTh, BlegH 435, Roering, 4 cr
- r8050 Operations Management** (prereq MBA stu) (A-F only)
123249 -1 1000-1145 MW, BlegH 435, Hill, 4 cr
220147 -2 1300-1445 MW, BlegH 425, Schmidt, 4 cr
- r8065 Field Project** (prereq MBA students only) (A-F only)
220178 1315-1500 F, AndH 270, 5 cr

MATERIALS SCIENCE (MatS)
Chemical Engineering & Materials
Science
Institute of Technology

- 3091 Industrial Employment**
 316719 1-2 cr
- r3400 Mechanical Properties of Materials** (prereq 2nd yr IT student)
 ★LECT 1325-1415 MWF, AmundH B75, Sivertsen
 614846 -1 LAB 1430-1730 M, AmundH 410, 4 cr
 122126 -2 LAB 1430-1730 W, AmundH 410, 4 cr
 923469 -3 LAB 1430-1730 F, AmundH 410, 4 cr
- r3600H Introduction to Materials Science, Honors** (prereq selection for IT honors program or consent of IT honors office)
 ★LECT 1325-1415 MWF, AmundH 240, Francis
 919504 -80 REC 1220-1310 Th, AmundH 162, 4 cr
 823254 -81 REC 1325-1415 Th, AmundH 116, 4 cr
- r5012 Introduction to Dislocations and Physical Metallurgy** (prereq upper division IT, 3400, 5011, AEM 3016 or #)
 817731 1115-1205 MTWThF, AmundH 162, Shores, 4 cr
- r5101 Thermodynamics of Solids** (prereq Chem 5534 or #)
 014729 -1 1010-1100 MTWF, EE/CSci 3125, Chelikowsky, 4 cr
- r5202 X-Ray Structural Analysis** (prereq upper division IT, 5011 or #)
 ★LECT 1325-1520 M, AmundH 104, Ward
 243234 -1 LAB 1430-1730 T, AmundH 104, 4 cr
 143235 -2 LAB 1430-1730 W, AmundH 104, 4 cr
 943236 -3 LAB 1430-1730 Th, AmundH 116, 4 cr
- r5411 Materials Design** (prereq sr material science maj, 5012 or #)
 420910 0905-0955 MTWF, AmundH 116, Sivertsen, 4 cr
- r5455 Electrochemical Engineering** (§ChEn 5455; prereq upper division IT, ChEn 5201 or MatS 5101 or grad or #)
 743237 1010-1205 TTh, AmundH 120, White, 4 cr
- r5481 Special Problems in Physical Metallurgy and Materials Science** (prereq sr)
 517285 1535-1625 MWF, AmundH 124, Franciosi, 3 cr
- r5482 Special Problems in Physical Metallurgy and Materials Science** (prereq sr)
 921060 ar cr
- r5483 Special Problems in Physical Metallurgy and Materials Science** (prereq sr)
 721982 ar cr
- r5500 Senior Design Project** (prereq sr material science maj)
 718080 2 cr
- r5630 Polymer Physical Properties** (prereq 3400 or 5011 or 5610 or Chem 5610) (A-F only)
 643232 -1 1220-1310 MWF, EE/CSci 3125, Macosko, 3 cr
- r8210 Structure-Property Relationships: Mechanical and Microelectronic** (prereq #)
 414783 -1 1430-1625 TTh, EE/CSci 3125, Gerberich, 3 cr
- 8214 Electronic Properties of Materials** (prereq #)
 144277 1010-1100 MWF, AmundH 120, Franciosi, 3 cr
- 8471 Seminar: Materials Science and Engineering** (prereq 8470) (S-N only)
 413133 1325-1520 TTh, AmundH 120, 1 cr
- r8520 Electron Diffraction, Electron Microscopy**
 617035 1535-1730 MW, AmundH 120, Carter, 3 cr
- 8777 Thesis Credits: Masters**
 921401 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
 014746 1-36 cr

MATHEMATICS (Math)
Institute of Technology

For Math 1008, 111, and 1201, course fees are assessed instead of tuition. (See Section 2 for fees for these courses.) Credits for these courses will not count in the tuition plateau but will count towards assessment of the student services fee.

- r1005 Introduction to Elementary Mathematics** (prereq pre-elem educ stu, 1111 or equiv)
 ★LECT 0905-0955 MWF, VinH 2
 443264 -1 REC 0905-0955 T, AkerH 209, 4 cr
 ★LECT 1115-1205 MWF, VinH 2
 243265 -2 REC 1115-1205 Th, VinH 213, 4 cr
- r1006 Introduction to Elementary Mathematics** (for pre-elementary educ student; prereq 1005)
 ★LECT 1010-1100 MWF, VinH 209
 143266 -1 REC 1010-1100 T, AkerH 209, 4 cr
 ★LECT 1325-1415 MWF, CivMinE 213
 943267 -2 REC 1325-1415 Th, VinH 209, 4 cr
- r1008 Trigonometry** (§1201; prereq plane geometry, 2 yrs hs algebra or 1111, grade of C or better in GC 0631)
 314677 -1 0800-0850 MTWF, AmundH 240, 4 cr
 019431 -2 0905-0955 MTWF, AkerH 309, 4 cr
 620467 -3 1325-1415 MTWF, Zoology 102, 4 cr
 743240 -4 0905-0955 MWThF, AmundH 240, 4 cr
- r1111 College Algebra and Analytic Geometry** (§1201; prereq plane geom, 2 yrs hs alg or plane geom, grade of C or better in GC 0631)
 ★LECT 0830-0920 MWF, HodsonH 495, (StP)
 417358 -1 REC 0830-0920 TTh, HckrH 100, 5 cr (StP)
 121811 -2 REC 0935-1025 TTh, HckrH 100, 5 cr (StP)
 ★LECT 0800-0850 MWF, Phys 133
 418302 -3 REC 0800-0850 TTh, Zoology 102, 5 cr
 922130 -4 REC 0800-0850 TTh, OwreH 2230, 5 cr
 123339 -5 REC 0905-0955 TTh, FolH 214, 5 cr
 721514 -6 REC 0905-0955 TTh, OwreH 2210, 5 cr
 ★LECT 0905-0955 MWF, Phys 166
 221217 -7 REC 0905-0955 TTh, FolH 234, 5 cr
 220181 -8 REC 0905-0955 TTh, NichH 201, 5 cr
 713865 -9 REC 1010-1100 TTh, FolH 234, 5 cr
 922175 -10 REC 1010-1100 TTh, SmithH 100, 5 cr
 ★LECT 1115-1205 MWF, SmithH 331
 216213 -11 REC 1010-1100 TTh, AmundH 240, 5 cr
 619741 -12 REC 1010-1100 TTh, KoltH S137, 5 cr
 117063 -13 REC 1115-1205 TTh, AmundH 116, 5 cr
 616337 -14 REC 1115-1205 TTh, SmithH 331, 5 cr
 ★LECT 1220-1310 MWF, Phys 133
 714496 -15 REC 1115-1205 TTh, MoostT 2650, 5 cr
 922077 -16 REC 1115-1205 TTh, ChDev 105, 5 cr
 721450 -17 REC 1220-1310 TTh, Phys 133, 5 cr
 017369 -18 REC 1220-1310 TTh, Phys 131, 5 cr
 ★LECT 1325-1415 MWF, SciCB 175
 315070 -19 REC 1220-1310 TTh, FordH 130, 5 cr
 312976 -20 REC 1220-1310 TTh, VinH 313, 5 cr
 419255 -21 REC 1325-1415 TTh, FordH 130, 5 cr
 323167 -22 REC 1325-1415 TTh, VinH 313, 5 cr
 ★LECT 1430-1520 MWF, Arch 35
 013712 -23 REC 1325-1415 TTh, VinH 2, 5 cr
 316767 -24 REC 1325-1415 TTh, VinH 6, 5 cr
 021860 -25 REC 1430-1520 TTh, VinH 2, 5 cr
 514404 -26 REC 1430-1520 TTh, VinH 6, 5 cr
- r1131 Finite Mathematics** (prereq 3 1/2 yrs high school math or grade of C or better in 1111 or 1181, pre-bus or soc and behav sci students)
 ★LECT 1115-1205 MWF, VinH 16
 517982 -1 REC 1115-1205 TTh, BlegH 350, 5 cr
 620940 -2 REC 1115-1205 TTh, BlegH 210, 5 cr
 416968 -3 REC 1220-1310 TTh, BlegH 215, 5 cr
 814229 -4 REC 1220-1310 TTh, BlegH 420, 5 cr
- r1142 Short Calculus** (§1211, 1411H; prereq 3 1/2 yrs hs math or grade of C or better in 1111 or 1181 or 1201)
 ★LECT 0830-0920 MWF, McNH 198, (StP)
 116312 -1 REC 0830-0920 TTh, McNH 198, 5 cr (StP)
- ★LECT 0800-0850 MWF, Phys 131
 714630 -2 REC 0800-0850 TTh, MechE 202, 5 cr
 517240 -3 REC 0800-0850 TTh, AkerH 211, 5 cr
 920152 -4 REC 0905-0955 TTh, MechE 202, 5 cr
 120294 -5 REC 0905-0955 TTh, AkerH 211, 5 cr
 ★LECT 1220-1310 MWF, Arch 35
 023057 -6 REC 1115-1205 TTh, Arch 50, 5 cr
 416405 -7 REC 1115-1205 TTh, SmithH 231, 5 cr
 216325 -8 REC 1220-1310 TTh, KoltH S134, 5 cr
 221461 -9 REC 1220-1310 TTh, SmithH 231, 5 cr
- r1181 Precalculus and Introduction to Higher-Level Mathematical Patterns** (prereq 1171, Δ)
 ★LECT 1010-1100 T, 0800-0850 Th, 1325-1415 F, AkerH 317, (Emerging Scholars)
 ★REC 1010-1205 M, AkerH 317, (Emerging Scholars)
 916618 -1 LAB 1010-1205 WF, AkerH 317, 5 cr (Emerging Scholars)
 ★REC 1010-1100 TTh, SciCB 325, (Emerging Scholars)
 143257 -2 LAB 1220-1415 TTh, VinH 311, 5 cr (Emerging Scholars)
- r1201 Pre-Calculus** (§1008, 1111; prereq 4 yrs high school math including trigonometry)
 ★LECT 1115-1205 MWF, SciCB 175
 114924 -1 REC 1115-1205 TTh, AkerH 313, 5 cr
 614121 -2 REC 1115-1205 TTh, FolH 306, 5 cr
 822234 -3 REC 1220-1310 TTh, JonesH 2, 5 cr
 214333 -4 REC 1220-1310 TTh, FordH 55, 5 cr
- r1241 Linear and Nonlinear Multivariable Analysis I** (§3142, 3212, 3221, 3511H; prereq grade of C or better in 1221 or equiv)
 ★LECT 1115-1205 MWF, SmithH 231
 517559 -1 REC 1010-1100 TTh, AmundH B75, 5 cr
 115376 -2 REC 1010-1100 TTh, VinH 20, 5 cr
 113515 -3 REC 1115-1205 TTh, AmundH B75, 5 cr
 018635 -4 REC 1115-1205 TTh, VinH 20, 5 cr
 ★LECT 1220-1310 MWF, Arch 10
 518579 -5 REC 1115-1205 TTh, JonesH 10, 5 cr
 716538 -6 REC 1115-1205 TTh, VinH 364, 5 cr
 015377 -7 REC 1220-1310 TTh, JonesH 10, 5 cr
 023611 -8 REC 1220-1310 TTh, VinH 364, 5 cr
- r1251 One-Variable Differential and Integral Calculus I** (§1451H, 1211, 1411H; prereq 4 yrs high schol math incl trig, or C grade or better in 1201 or 1008, 1111, or equiv)
 ★LECT 0800-0850 MWF, Phys 170
 945441 -1 REC 0800-0850 TTh, VinH 206, 4 cr
 745442 -2 REC 0800-0850 TTh, MurH 105, 4 cr
 545443 -3 REC 0905-0955 TTh, VinH 206, 4 cr
 345444 -4 REC 0905-0955 TTh, MurH 105, 4 cr
 ★LECT 0905-0955 MWF, SciCB 175
 045446 -5 REC 0905-0955 TTh, VinH 209, 4 cr
 845447 -6 REC 0905-0955 TTh, VinH 20, 4 cr
 645448 -7 REC 1010-1100 TTh, BlegH 205, 4 cr
 445449 -8 REC 1010-1100 TTh, BlegH 210, 4 cr
 ★LECT 1115-1205 MWF, AmundH B75
 645451 -9 REC 1115-1205 TTh, OwreH 2210, 4 cr
 445452 -10 REC 1115-1205 TTh, OwreH 2230, 4 cr
 245453 -11 REC 1220-1310 TTh, VinH 314, 4 cr
 145454 -12 REC 1220-1310 TTh, VinH 213, 4 cr
 ★LECT 1220-1310 MWF, EE/CSci 3230
 745456 -13 REC 1115-1205 TTh, Arch 45, 4 cr
 545457 -14 REC 1115-1205 TTh, Arch 15, 4 cr
 345458 -15 REC 1220-1310 TTh, Arch 35, 4 cr
 145459 -16 REC 1220-1310 TTh, Arch 10, 4 cr
 ★LECT 1325-1415 MWF, VinH 16
 345461 -17 REC 1220-1310 TTh, VinH 207, 4 cr
 145462 -18 REC 1220-1310 TTh, SmithH 100, 4 cr
 045463 -19 REC 1325-1415 TTh, VinH 207, 4 cr
 845464 -20 REC 1325-1415 TTh, SmithH 100, 4 cr
 ★LECT 1430-1520 MWF, Pillsh 110
 445466 -21 REC 1325-1415 TTh, VinH 364, 4 cr
 245467 -22 REC 1325-1415 TTh, VinH 20, 4 cr
 145468 -23 REC 1430-1520 TTh, VinH 364, 4 cr
 945469 -24 REC 1430-1520 TTh, VinH 1, 4 cr
 ★LECT 0800-0850 MWF, MechE 108, Richter
 145471 -25 REC 0800-0850 TTh, MechE 108, 4 cr
- r1252 One-Variable Differential and Integral Calculus II** (§1452H, 1221, 1421H; prereq C grade or better in 1251)
 ★LECT 0800-0850 MWF, Arch 50
 045477 -1 REC 0800-0850 TTh, Zoology 313, 4 cr

- 845478 -2 REC 0800-0850 TTh, VinH 313, 4 cr
 645479 -3 REC 0905-0955 TTh, Zoology 313, 4 cr
 045480 -4 REC 0905-0955 TTh, VinH 313, 4 cr
 *LECT 0905-0955 MWF, Arch 25
 645482 -5 REC 0800-0850 TTh, VinH 311, 4 cr
 445483 -6 REC 0800-0850 TTh, VinH 211, 4 cr
 245484 -7 REC 0905-0955 TTh, VinH 311, 4 cr
 145485 -8 REC 0905-0955 TTh, VinH 211, 4 cr
 *LECT 0905-0955 MWF, AndH 270
 745487 -9 REC 0905-0955 TTh, VinH 1, 4 cr
 545488 -10 REC 0905-0955 TTh, VinH 6, 4 cr
 345489 -11 REC 1010-1100 TTh, VinH 1, 4 cr
 745490 -12 REC 1010-1100 TTh, VinH 6, 4 cr
 *LECT 1010-1100 MWF, Botany B6
 345492 -13 REC 0905-0955 TTh, Botany B6, 4 cr
 145493 -14 REC 0905-0955 TTh, JonesH 2, 4 cr
 045494 -15 REC 1010-1100 TTh, Botany B6, 4 cr
 *REC 1010-1100 TTh, AkerH 319, 4 cr
 (Emerging Scholars)
 845495 -1 LAB 1325-1520 TTh, AkerH 317, (Emerging Scholars)
 *LECT 1010-1100 MWF, AndH 350
 845500 -17 REC 1010-1100 TTh, RarigC 610, 4 cr
 645501 -18 REC 1010-1100 TTh, HHCtr 20, 4 cr
 445502 -19 REC 1115-1205 TTh, HHCtr 60, 4 cr
 245503 -20 REC 1115-1205 TTh, RarigC 610, 4 cr
 *LECT 1115-1205 MWF, FordH 155
 745506 -21 REC 1010-1100 TTh, Arch 55, 4 cr
 545507 -22 REC 1010-1100 TTh, WulIH 230, 4 cr
 345508 -23 REC 1115-1205 TTh, Arch 55, 4 cr
 145509 -24 REC 1115-1205 TTh, WulIH 230, 4 cr
 *LECT 1220-1310 MWF, Arch 40
 345511 -25 REC 1115-1205 TTh, Arch 35, 4 cr
 145512 -26 REC 1115-1205 TTh, JonesH 11, 4 cr
 045513 -27 REC 1220-1310 TTh, AkerH 319, 4 cr
 845514 -28 REC 1220-1310 TTh, JonesH 11, 4 cr
 *LECT 1325-1415 MWF, SmithH 331
 445516 -29 REC 1220-1310 TTh, SmithH 111, 4 cr
 245517 -30 REC 1220-1310 TTh, VinH 211, 4 cr
 145518 -31 REC 1325-1415 TTh, PeikH 155, 4 cr
 945519 -32 REC 1325-1415 TTh, VinH 211, 4 cr
- R1552H Honors: One-Variable Differential and Integral Calculus II** (§1252, 1421H, 1221; prereq 1551H with grade of C or better, consent of IT Honors Office)
 *LECT 1010-1100 MWF, Phys 170
 345380 -80 REC 1010-1100 TTh, MoosT 2520, 4 cr
 045382 -81 REC 1010-1100 TTh, OwreH 2230, 4 cr
 845383 -82 REC 1115-1205 T, MoosT 2520, 0905-0955 Th, MoosT 2620, 4 cr
 645384 -83 REC 1115-1205 T, 0905-0955 Th, VinH 213, 4 cr
- R1553H Honors: Linear and Nonlinear Analysis I** (§1253, 1241, 3511H, 3142, 3221; prereq [1552H with grade of C or better] or 1252, consent of IT Honors Office)
 *LECT 1010-1100 MWF, VinH 364
 145387 -80 REC 1010-1100 TTh, VinH 364, 4 cr
- R3007H The World of Mathematics** (grade B or better req to continue seq; prereq #, grade of B or better in 3411 or 3511H) (A-F only)
 015119 1430-1530 W, VinH 113, Goldman, 1 cr
- R3161 Geometric Structures and Transformations** (prereq 1231, Math 3142 or 3511 or 3221 or equiv) (A-F only)
 *LECT 1325-1415 MWF, VinH 113, 4 cr
 344746 -1 REC 1325-1415 Th, VinH 113
- R3311 Linear and Nonlinear Multivariable Analysis II** (§3211, 3521H; prereq grade of C or better in 1241 or equiv)
 *LECT 0905-0955 MWF, Arch 5
 918577 -1 REC 0800-0850 TTh, VinH 207, 5 cr
 116536 -2 REC 0800-0850 TTh, VinH 364, 5 cr
 718578 -3 REC 0905-0955 TTh, VinH 207, 5 cr
 420597 -4 REC 0905-0955 TTh, VinH 364, 5 cr
 *LECT 1010-1100 MWF, Arch 5
 719651 -5 REC 1010-1100 TTh, VinH 313, 5 cr
 823612 -6 REC 1010-1100 TTh, VinH 311, 5 cr
 321581 -7 REC 1115-1205 TTh, VinH 313, 5 cr
 319569 -8 REC 1115-1205 TTh, VinH 311, 5 cr
 *LECT 1430-1520 MWF, MechE 212
 815378 -9 REC 1430-1520 TTh, MechE 212, 5 cr
- R3321 Differential Equations and General Vector Spaces** (§3066, 3212, 3213, 3221, 3531H; prereq grade of C or better in 1241)
 *LECT 0905-0955 MWF, VinH 16
 515374 -1 REC 0905-0955 TTh, VinH 2, 5 cr
 123610 -2 REC 0905-0955 TTh, VinH 113, 5 cr
 121579 -3 REC 1010-1100 TTh, VinH 2, 5 cr
 916585 -4 REC 1010-1100 TTh, VinH 113, 5 cr
 *LECT 1010-1100 MWF, FordH 155
 918580 -5 REC 1010-1100 TTh, VinH 211, 5 cr
 822606 -6 REC 1010-1100 TTh, VinH 209, 5 cr
 820600 -7 REC 1115-1205 TTh, VinH 211, 5 cr
 718581 -8 REC 1115-1205 TTh, VinH 209, 5 cr
 *LECT 1220-1310 MWF, VinH 16
 015542 -9 REC 1115-1205 TTh, VinH 1, 5 cr
 913606 -10 REC 1115-1205 TTh, VinH 113, 5 cr
 122683 -11 REC 1220-1310 TTh, VinH 1, 5 cr
 815543 -12 REC 1220-1310 TTh, VinH 113, 5 cr
- R3331 Infinite Sequences and Series: Vector Integral Calculus** (§1231, 3212, 3541H; prereq grade of C or better in 3311, 3321)
 *LECT 1010-1100 MWF, VinH 16
 143260 -1 REC 1010-1100 TTh, VinH 206, 5 cr
 043261 -2 REC 1010-1100 TTh, VinH 207, 5 cr
 843262 -3 REC 1115-1205 TTh, VinH 206, 5 cr
 643263 -4 REC 1115-1205 TTh, VinH 207, 5 cr
- R3531H Honors: Linear Analysis III** (§3321, 3212, 3221; prereq 3521H, C or better req to continue in sequence)
 *LECT 1220-1310 MWF, Arch 50
 615379 -80 REC 1115-1205 TTh, VinH 6, 5 cr
 215479 -81 REC 1115-1205 TTh, VinH 2, 5 cr
 121582 -82 REC 1220-1310 TTh, VinH 6, 5 cr
 719570 -83 REC 1220-1310 TTh, VinH 2, 5 cr
- R3541H Honors: Complex Analysis and Related Topics** (§3331, 5568; prereq C or better in 3531H)
 *LECT 1220-1310 MWF, VinH 113
 945391 -80 REC 1220-1310 TTh, VinH 301, 5 cr
- R3551H Honors: Linear and Nonlinear Analysis II** (§32XX, 33XX, 3521H, 3066; prereq 1553H with C grade or better, consent of IT Honors Office)
 *LECT 1010-1100 MWF, VinH 206, Krylov
 745389 -80 REC 1010-1100 TTh, FordH 115, 4 cr
- R5006 The Diversity of Mathematics** (no cr for non-elem educ students; prereq 1005-1006 or equiv plus 10 addnl cr of univ level math courses; does not carry grad or for math majors)
 522406 1430-1520 MWF, VinH 207, Harper, 4 cr
- R5058 Actuarial Mathematics II** (prereq 5057; does not carry grad or for math majors) (A-F only)
 519571 1115-1205 MWF, VinH 113, Striabel, 4 cr
- R5082 Fundamentals of Algebra** (not intended for math majors or minors; prereq 3511H or 3212 or 3142 or 3221 or equiv) (A-F only)
 923343 1610-1725 MW, VinH 207, 4 cr
- R5183 Mathematical Logic** (prereq 5162)
 723473 1430-1520 MWF, VinH 2, Kumabe, 4 cr
- R5232 Computer-Oriented Linear Algebra** (§5242-5243, 5264, 5284; prereq 3321 or 3511H or 3213 or 3142 or 3221 or equiv)
 319250 1430-1520 MWF, VinH 6, Stenberg, 4 cr
- R5242 Linear Algebra with Applications** (§5232-5233, 5264, 5284; prereq 3321 or 3511H or 3213 or 3142 or 3221 or equiv)
 *LECT 1115-1205 MWF, Arch 40
 144747 -1 REC 1010-1100 TTh, PeikH 315, 4 cr
 044748 -2 REC 1115-1205 Th, LindH 315, 4 cr
 844749 -3 REC 1115-1205 Th, LindH 303, 4 cr
- R5243 Linear Algebra with Applications** (prereq 5242)
 *LECT 0905-0955 MWF, VinH 211, Loud
 144750 -1 REC 0905-0955 Th, EE/CSci 3230, 4 cr
 044751 -2 REC 0905-0955 Th, SmithH 331, 4 cr
 844752 -3 REC 1010-1100 TTh, LindH 315, 4 cr
 644753 -4 REC 1010-1100 TTh, SciCB 375, 4 cr
- R5246 Introduction to Modern Algebra II** (§5283; prereq 5245)
 543434 -1 0905-0955 MWF, VinH 364, Kahn, 4 cr
 445385 -2 1010-1100 MWF, Arch 45, 4 cr
- R5283 Fundamental Structures of Algebra** (prereq 5282)
 119301 -1 0905-0955 MWF, VinH 6, Brahm, 4 cr
 517562 -2 1325-1415 MWF, VinH 313, Sperber, 4 cr
- R5332 Geometry II** (§5083; prereq 5331)
 143436 1115-1205 MWF, VinH 364, Joichi, 4 cr
- R5342 Introduction to Topology** (prereq 5341)
 014570 1115-1205 MWF, VinH 311, Palmieri, 4 cr
- R5376 Differential Geometry** (prereq 5375)
 543241 1430-1520 MWF, VinH 314, Aeppli, 4 cr
- R5458 Methods of Applied Mathematics** (prereq 5457)
 216891 -1 1325-1415 MWF, VinH 207, Jenkins, 4 cr
- R5474 Analysis of Numerical Methods** (prereq 5474) (A-F only)
 416002 1115-1205 MWF, VinH 313, Xie, 4 cr
- R5512 Differential Equations with Applications I** (prereq 3331 or 3521H or 3213 or [3211, 3066] or [3211, 3221] or equiv or #)
 122823 1010-1100 MWF, VinH 6, Pour-EI, 4 cr
- R5513 Differential Equations with Applications II** (prereq 5512)
 914044 1010-1100 MWF, VinH 2, Markley, 4 cr
- R5522 Introduction to Ordinary Differential Equations** (prereq 5521) (A-F only)
 723490 1010-1100 MWF, VinH 313, Loud, 4 cr
- R5568 Elementary Theory of Complex Variables** (§5572; prereq 3331 or 3531H or 3213 or 5602 or equiv)
 814697 1325-1415 MWF, VinH 213, Littman, 4 cr
- R5572 Elementary Partial Differential Equations** (prereq 5571)
 120805 0905-0955 MWF, VinH 313, Tribe, 4 cr
- R5606 Advanced Calculus: A Rigorous Approach** (prereq 3331 or 3213 or 3541H)
 718953 -1 1115-1205 MWF, VinH 207, 4 cr
 217863 -2 1220-1310 MWF, VinH 207, Harper, 4 cr
- R5607 Advanced Calculus: A Rigorous Approach** (prereq 5606)
 419966 -1 1220-1310 MWF, VinH 311, Miracle, 4 cr
 516850 -2 1325-1415 MWF, VinH 211, Meyers, 4 cr
- R5613 Introduction to Analysis** (prereq 5612)
 113202 -1 1220-1310 MWF, VinH 2, Aronson, 4 cr
 121025 -2 1325-1415 MWF, VinH 2, Thompson, 4 cr
- R5682 Probability and Stochastic Processes** (prereq 5681 or 5679 with #, or Stat 5131 with #)
 217829 1010-1100 MWF, VinH 211, Blankenbaker, 4 cr
- R5701 Enumerative Combinatorics** (prereq 3331 or 3211 or 3521H or equiv, 3rd-yr standing...linear algebra is helpful)
 043258 1325-1415 MWF, VinH 314, Goldman, 4 cr
- R5702 Graph Theory and Optimization** (prereq 3311 or 3211 or 3521H or equiv, 3rd-yr standing...linear algebra is helpful)
 123235 1220-1310 MWF, VinH 211, Reiner, 4 cr
- R5900 Tutorial Course in Advanced Mathematics** (prereq #)
 316106 ar cr
- R8167 Recursion Theory** (prereq 8166)
 143243 1430-1520 MWF, VinH 301, Richter, 3 cr
- R8201 General Algebra** (prereq 8200)
 416680 0905-0955 MWF, VinH 206, Anderson, 3 cr
- R8204 Algebraic Geometry** (prereq 8203)
 043244 1115-1205 MWF, VinH 6, Roberts, 3 cr
- R8209 Homological Algebra** (prereq 8202 or #)
 843245 1535-1620 MWF, VinH 213, Lyubeznik, 3 cr
- R8251 Topics in Group Theory** (prereq 8250)
 321662 0905-0955 MWF, VinH 213, Harris, 1-3 cr
- R8271 Lie Groups, Algebras** (prereq 8270)
 516377 1430-1520 MWF, VinH 213, Conn, 3 cr
- R8301 Manifolds/Topology** (prereq 8300)
 917087 1115-1205 MWF, VinH 206, Green, 3 cr
- R8307 Algebraic Topology** (prereq 8306)
 443247 1115-1205 MWF, VinH 211, Gershenson, 3 cr

- R8343 Topological Dynamics** (prereq 8342)
243248 1535-1625 MWF, VinH 206, Ellis, 3 cr
- R8366 Riemannian Geometry** (prereq 8365)
143249 1010-1100 MWF, VinH 113, Chow, 3 cr
- R8407 Advanced Methods of Applied Mathematics**
(prereq 8406)
822072 1430-1520 MWF, VinH 311, Rejto, 3 cr
- R8446 Numerical Analysis of Ordinary and Partial
Differential Equations** (prereq 8445) (A-F
only)
815736 1535-1625 MWF, VinH 364, Cockburn,
1-3 cr
- R8461 Problems in Theoretical Physics** (prereq
8460)
943253 1325-1415 MWF, VinH 311, Sattinger,
3 cr
- R8481 Selected Topics of Celestial Mechanics**
(prereq 8480)
543255 0905-0955 MWF, VinH 311, Moeckel, 3 cr
- R8501 Theory of Ordinary Differential Equations**
(prereq 8500)
017792 1430-1520 MWF, VinH 313, McGehee,
3 cr
- R8551 Theory of Partial Differential Equations**
(prereq 8550)
416713 1325-1415 MWF, VinH 6, Kichenassamy,
3 cr
- R8561 Calculus of Variations, Minimal Surfaces**
(prereq 8560)
443250 1325-1415 MWF, VinH 301, Nitsche, 3 cr
- R8571 Infinite Dimensional Dynamical Systems**
(prereq 8570)
618637 0840-0955 MW, VinH 207, Sell, 3 cr
- R8591 Topics in Partial Differential Equations**
(prereq 8590)
215238 1115-1205 MWF, VinH 213, Krylov, 1-3 cr
- R8601 Real Analysis** (prereq 8600)
023219 -1 1220-1310 MWF, VinH 313, Jodeit,
3 cr
315750 -2 1325-1415 MWF, VinH 209,
Weinberger, 3 cr
- R8621 Theory of Singular Integrals** (prereq 8620)
243251 1325-1415 MWF, VinH 206, Fabes, 3 cr
- R8653 Introduction to Stochastic Processes** (prereq
8650 or 8656 or 8600, 5681-5682 or #)
143252 1010-1100 MWF, VinH 311, Baxter, 3 cr
- R8657 Measure Theory and Probability** (prereq
8656)
018747 1010-1100 MWF, VinH 207, Fristedt, 3 cr
- R8669 Introduction to Combinatorial Theory** (prereq
8668)
216437 1325-1415 MWF, VinH 364, Edelman,
3 cr
- R8673 Topics in Combinatorial Theory** (prereq #)
718998 1535-1625 MWF, VinH 313, White, 3 cr
- R8691 Topics in the Theory of Probability** (prereq
8690)
019283 1430-1520 MWF, VinH 211, Baxter, 3 cr
- R8701 Complex Analysis** (prereq 8700)
513821 1430-1520 MWF, VinH 364, Hejhal, 3 cr
- 8777 Thesis Credits: Masters**
617844 1-16 cr
- R8801 Functional Analysis** (prereq 8800)
612708 1220-1310 MWF, VinH 6, Richards, 3 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
218768 1-36 cr
- R8990 Reading and Research**
616824 ar cr
- R8991 Reading and Research** (prereq 8990)
116262 ar cr

MATHEMATICS EDUCATION (MthE) Curriculum And Instruction Education

- R5081 Teaching Secondary School Arithmetic**
(prereq math educ maj or min, Math 5081 or # or
#) (A-F only)
614006 1045-1205 TTh, PeikH 375, Stochl, 2 cr

- R5082 Teaching Algebra** (prereq math educ maj or
min, Math 5082 or # or #) (A-F only)
420003 1445-1600 MW, PeikH 375, 2 cr
- R5322 Materials Laboratory for Secondary School
Mathematics Instruction** (prereq 5312 or #)
(A-F only)
813081 1630-1915 T, PeikH 375, House, 3 cr
- R5355 Mathematics for Slow Learning Children**
(prereq 5311 or Elem 3391 or #) (A-F only)
043292 1630-1915 M, PeikH 155, 3 cr
- 5680 Practicum in Mathematics Education** (max 9
cr; prereq #) (A-F only)
916425 -1 House, 3-9 cr
714580 -2 Jackson, 3-9 cr
314792 -3 Orton, 3-9 cr
023303 -4 Post, 3-9 cr
122790 -5 Stochl, 3-9 cr
- 5980 Directed Studies** (max 9 cr; prereq #) (A-F
only)
114141 -1 House, 3-9 cr
217135 -2 Jackson, 3-9 cr
421958 -3 Orton, 3-9 cr
421040 -4 Post, 3-9 cr
921799 -5 Stochl, 3-9 cr
- 8500 Theory and Classical Research in
Mathematics Education** (prereq 5311 or 5312
or #)
843293 1630-1915 Th, PeikH 27, Post, 3 cr
- 8590 Seminar: Mathematics Education** (max 8 cr;
prereq #)
423516 1630-1815 W, PeikH 375, Post, Stochl,
2 cr
- 8680 Internship: Mathematics Education**
212775 -1 House, ar cr
721299 -2 Jackson, ar cr
917509 -3 Orton, ar cr
118898 -4 Post, ar cr
321452 -5 Stochl, ar cr
- 8980 Problems: Mathematics Education** (prereq
8500 or 8570)
216390 -1 House, ar cr
418297 -2 Jackson, ar cr
614376 -3 Orton, ar cr
121011 -4 Post, ar cr
114964 -5 Stochl, ar cr

MECHANICAL ENGINEERING (ME) Mechanical Engineering Institute of Technology

- R1001 Introduction to Mechanical Engineering**
(S-N only)
319765 1325-1415 T, SciCB 325, 1 cr
- R1025 Engineering Graphics** (prereq Math 1211 or
equiv, IT stu)
212727 -1 LECT 1010-1100 MTWThF, Arch 10,
4 cr
714692 -2 LECT 1325-1415 MTWThF, Arch 10,
4 cr
★LAB (open hrs, ElectE 118)
- R3020 Mechanical Engineering Computation**
(prereq IT stu, Math 3321, CSci 3101)
118397 0905-0955 MWThF, MechE 18, 4 cr
- R3201 Mechanical Engineering Systems Analysis**
(\$AEM 3401; prereq AEM 3036, mech engr or
aerospace engr maj)
★LECT 1010-1100 MWF, MechE 18
218365 -1 REC 1430-1625 M, AkerH 215, 4 cr
019915 -2 REC 1220-1415 T, MechE 321, 4 cr
914285 -3 REC 1430-1625 W, AmundH 116, 4 cr
- R3203 Analysis of Mechanism Systems** (prereq
AEM 3036 or equiv, upper division mech engr
maj)
★LECT 1115-1205 MWF, MechE 18,
Erdman
117743 -1 REC 1430-1625 M, AmundH 116, 4 cr
212890 -2 REC 1115-1310 T, MechE 18, Erdman,
4 cr
423161 -3 REC 1430-1625 Th, MechE 202, 4 cr
022944 -4 REC 1430-1625 F, MechE 18, 4 cr
- R3203H Analysis of Mechanism Systems** (§3203;
prereq AEM 3036 or equiv, ME upper div honors
stu)
★LECT 1115-1205 MWF, MechE 18,
Erdman
317479 -80 REC 1115-1310 T, MechE 18,
Erdman, 4 cr
- R3281H Honors: Introduction to Linear Systems**
(§3201, AEM 3401, AEM 3281H; prereq upper
div IT honors stu) (A-F only)
★LECT 1600-1650 MTTh, Arch 60
420700 -80 REC 1600-1650 W, Arch 60, 4 cr
- R3301 Thermodynamics** (prereq IT or ForP stu,
Chem 1014 or Phys 1281, Math 3321 or equiv)
114714 -1 0905-0955 MTWThF, Arch 40, 4 cr
113037 -2 1010-1100 MTWThF, MechE 202, 4 cr
118231 -3 1115-1205 MTWThF, Arch 10, 4 cr
- R3301H Thermodynamics** (§3301; prereq Chem 1014
or Phys 1281, Math 3221 or equiv, IT upper div
honors stu)
813212 0905-0955 MTWThF, Arch 40, 4 cr
- R3303 Applied Thermodynamics** (§3305; prereq
3301 or equiv, upper division mech engr or
aerospace engr maj)
514998 0800-0850 MTWThF, Arch 40, 4 cr
- R3303H Applied Thermodynamics** (§3303; ME upper
div honors stu)
820483 0800-0850 MTWThF, Arch 40, 4 cr
- R3305 Propulsion Thermodynamics** (§3303; prereq
3301, AEM 5200 or equiv, mech engr or
aerospace engr maj)
816935 1220-1310 MTWThF, Arch 55, 4 cr
- R3701 Basic Measurements Laboratory I** (prereq
3301 or #, upper division mech engr maj)
721920 -1 LECT 1220-1310 T, Arch 25, 2 cr
★LAB (open lab ar, MechE 370-388)
- R3702 Basic Measurements Laboratory II** (prereq
3701, upper division mech engr maj)
223257 -1 LECT 1220-1310 Th, Arch 25, 2 cr
★LAB (open lab ar, MechE 370-388)
- R3702H Basic Measurements Laboratory II** (§3702;
prereq 3701, ME upper div honors stu)
523202 -80 LECT 1220-1310 Th, Arch 25, 2 cr
★LAB (open lab ar, MechE 370-388)
- R3741 Industrial Assignment** (prereq regis in intern
program)
213327 Marple, 2 cr
- R3742 Industrial Assignment** (prereq 3741)
514399 Marple, 2 cr
- R3743 Industrial Assignment** (prereq 3742)
012768 Marple, 2 cr
- R3900 Introduction to Engineering Statistics**
(prereq IT stu, Math 1241 or equiv)
114642 0905-0955 MWThF, AkerH 225, Arora,
4 cr
- R5190 Advanced Engineering Problems** (prereq
submission of approved departmental
permission form)
121386 2-4 cr
- R5199H Mechanical Engineering Upper Division
Honors Thesis I** (prereq upper div ME honors
stu)
416842 4 cr
- R5199H Mechanical Engineering Upper Division
Honors Thesis II** (prereq upper div ME honors
stu)
119475 4 cr
- R5209 Friction and Lubrication** (prereq CE 3400,
AEM 3200 or equiv, IT stu or grad)
018988 1220-1310 MWThF, MechE 18, Klamecki,
4 cr
- R5220 Computer-Aided Design** (prereq IT or grad
stu, 3rd yr ME courses, FORTRAN
Programming, 3020 or #)
117869 0905-0955 MWThF, AkerH 209, 4 cr
- R5227 Finite Element Methods in Mechanical
Engineering II** (prereq 5226 or #,
programming, IT upper div or grad stu)
917834 1445-1600 TTh, AkerH 225, Tamma, 4 cr
- R5231 Mechatronics Laboratory** (prereq 3701, 3702,
3201, ME upper div) (A-F only)
★LECT 1325-1415 M, MechE 321
822394 -1 LAB 1430-1730 T, ElectE 304, 2 cr
114673 -2 LAB 1430-1730 W, ElectE 304, 2 cr
113188 -3 LAB 0800-1100 Th, ElectE 304, 2 cr
117757 -4 LAB 1325-1625 Th, ElectE 304, 2 cr
519411 -5 LAB 1430-1730 F, ElectE 304, 2 cr
- R5233 Programmable Automation** (prereq ME upper
div stu, 3702)
★LECT 0905-0955 M, MechE 202, Stelson
513141 -1 LAB 0905-1205 T, ElectE 308, 2 cr
612997 -2 LAB 0905-1205 W, ElectE 308, 2 cr
613972 -3 LAB 1325-1625 W, ElectE 308, 2 cr
015671 -4 LAB 0905-1205 Th, ElectE 308, 2 cr
913668 -5 LAB 1325-1625 Th, ElectE 308, 2 cr
522745 -6 LAB 0905-1205 F, ElectE 308, 2 cr

- R5254 Design Morphology with Applications** (prereq completion of sequences 3201/3203/3205, 3303/5342 or #, upper div mech engr maj)
★LECT 1325-1415 T, Arch 25
619433 -1 LAB 1430-1730 T, 1325-1730 Th, NichH 211, 4 cr
216356 -2 LAB 1430-1730 T, 1325-1730 Th, MechE 321, 4 cr
119467 -3 LAB 1430-1730 T, 1325-1730 Th, Kolth S134, 4 cr
719925 -4 LAB 1430-1730 T, FordH 130, 1325-1730 Th, FordH 70, 4 cr
243296 -5 LAB 1430-1730 T, 1325-1730 Th, Botany B6, 4 cr
444253 -6 LAB 1430-1730 T, 1325-1730 Th, FordH 55, 4 cr
943298 -7 LAB 1430-1730 T, 1325-1730 Th, FordH 155, 4 cr
743299 -8 LAB 1430-1730 T, 1325-1730 Th, MechE 18, 4 cr
- R5255 Engineering Design Project** (prereq 5254, upper division mech engr maj)
★LECT 1325-1415 T, Arch 25, 4 cr
014603 -1 LAB 1430-1730 T, 1325-1730 Th, SciCB 175
- R5260 Engineering Materials and Processing** (prereq Chem 1014, Phys 1291, AEM 3016, MatS 3400, CSci 3101 or a similar course in an engr computer lang (FORTRAN), upper div mech engr maj, safety glasses required)
★LECT 1325-1415 MWF, MechE 18, Vogel
116771 -1 REC 1430-1625 M, MechE 70, 4 cr
314212 -2 REC 0800-0955 T, MechE 70, 4 cr
220942 -3 REC 1010-1205 T, MechE 70, 4 cr
015766 -4 REC 1220-1415 T, MechE 70, 4 cr
217930 -5 REC 1430-1625 T, MechE 70, 4 cr
644865 -6 REC 0800-0955 W, MechE 70, 4 cr
144868 -7 REC 1010-1205 W, MechE 70, 4 cr
944869 -8 REC 1430-1625 W, MechE 70, 4 cr
144871 -9 REC 0800-0955 Th, MechE 70, 4 cr
744873 -10 REC 1010-1205 Th, MechE 70, 4 cr
544874 -11 REC 1220-1415 Th, MechE 70, 4 cr
144876 -12 REC 1430-1625 Th, MechE 70, 4 cr
044877 -13 REC 0800-0955 F, MechE 70, 4 cr
644879 -14 REC 1010-1205 F, MechE 70, 4 cr
044880 -15 REC 1430-1625 F, MechE 70, 4 cr
- R5265 Computer-Assisted Product Realization** (prereq 5260 or equiv, IT sr or grad stu, course in engr computer language)
★LECT 1600-1800 W, MechE 202, 4 cr
744887 -1 LAB
- R5268 Properties and Fabrication of Plastics** (prereq 5260, IT stu or grad)
522504 -1 1115-1230 TTh, MechE 108, Ramalingam, 4 cr
- R5271 Robotics** (prereq IT or grad IT stu, 5283 or equiv)
814733 1220-1415 TTh, MechE 221, Donath, 3-5 cr
- R5283 Industrial Instrumentation and Automatic Control** (prereq 3201 or equiv, IT stu or grad)
723280 1430-1625 WF, AkerH 209, 4 cr
- R5284 Control Systems** (prereq 5283 or equiv, IT stu or grad)
422706 0800-0955 MW, AkerH 211, Donath, 4 cr
- R5285 Control Systems Laboratory** (prereq 5283 or equiv, IT or grad IT maj)
316963 1430-1520 TTh, MechE 379, 2 cr
- R5330 Heat Transfer Laboratory** (prereq 5342, ME upper div) (A-F only)
★LECT 1325-1415 M, MechE 221
522776 -1 LAB 1430-1730 M, MechE 260, 2 cr
822766 -2 LAB 1430-1730 T, MechE 260, 2 cr
219368 -3 LAB 1430-1730 Th, MechE 260, 2 cr
120148 -4 LAB 1430-1730 F, MechE 260, 2 cr
- R5342 Heat Transfer** (prereq IT upper div or grad or ForP stu, 3301, CE 3400 or AEM 3200)
114678 -1 0905-0955 MTWThF, Arch 10, 4 cr
418140 -2 1115-1205 MTWThF, MechE 202, 4 cr
- R5342H Heat Transfer** (§5342; prereq 3301, CE 3400 or AEM 3200, ME upper div honors stu)
319989 1115-1205 MTWThF, MechE 202, 4 cr
- R5345 Heat Transfer in Electronic Equipment** (prereq IT or grad stu, 5342)
115362 1535-1730 MTh, MechE 221, 4 cr
- R5430 Internal Combustion Engine Performance Laboratory** (prereq CE 3400 or AEM 3200, 3701, 3702, 5460, ME upper div stu) (A-F only)
★LECT 1220-1310 T, AmundH 162
523104 -1 LAB 1535-1730 W, MechE 460, 2 cr
316462 -2 LAB 1745-1940 W, MechE 460, 2 cr
915128 -3 LAB 1300-1500 Th, MechE 460, 2 cr
316171 -4 LAB 1535-1730 Th, MechE 460, 2 cr
- R5432 Steam Power Laboratory** (prereq CE 3400 or AEM 3200, 3303, 3701, 3702, ME upper div stu) (A-F only)
★LECT 1535-1625 M, MechE 202
413309 -1 LAB 1640-1835 M, MechE 460, 2 cr
115046 -2 LAB 1850-2045 M, MechE 460, 2 cr
- R5433 Compressor, Combuster, and Turbine Laboratory** (prereq CE 3400 or AEM 3200, 3303, 3701, 3702, ME upper div stu) (A-F only)
★LECT 1430-1520 T, AkerH 313
014875 -1 LAB 1535-1730 T, MechE 460, 2 cr
120831 -2 LAB 1745-1940 T, MechE 460, 2 cr
- R5446 An Introduction to Combustion** (prereq 5342 or equiv, IT stu or grad)
443300 1115-1205 MWThF, MechE 221, 4 cr
- R5455 Rocket Propulsion** (prereq 3303, IT stu or grad)
644882 1325-1415 MWF, AkerH 211, 3-5 cr
- R5460 Internal Combustion Engines** (prereq 3301, IT stu or grad)
118004 0905-0955 MTWThF, MechE 321, 4 cr
- R5462 Gas Turbines** (prereq 3301, IT stu or grad)
623059 1010-1100 MTWThF, MechE 321, Murphy, 4 cr
- R5603 Thermal Environmental Engineering** (prereq 3303, 5342 or equiv, IT stu or grad)
317868 0800-0955 MW, MechE 221, Ramsey, 4 cr
- R5605 Refrigeration and Air Conditioning Systems** (prereq 3303, IT stu or grad)
122280 1325-1415 MWThF, Arch 20, Kuehn, 4 cr
- R5614 Principles of Particle Technology** (prereq 5613, IT stu or grad)
720010 0800-0955 TTh, MechE 221, 4 cr
- R5616 Aerosol Measurement** (prereq 5613, 5614 or #, IT or grad stu)
420132 1430-1625 T, MechE 221, 2 cr
- R5630 Thermal Environmental Engineering Senior Laboratory** (prereq 3701, 3702, §5603; formerly 5703-4-5, Lab sections E-1, E-2) (A-F only)
★LECT 1115-1205 T, MechE 221
516220 -1 LAB 1115-1310 W, MechE 362, 2 cr
816787 -2 LAB 1115-1310 Th, MechE 362, 2 cr
319345 -3 LAB 1115-1310 F, MechE 362, 2 cr
- R5741 Industrial Assignment and Design Project** (5741-5742; prereq 3742)
019042 Marple, 4 cr
- R5742 Industrial Assignment and Design Project** (5741-5742; prereq 5741)
616855 Marple, 4 cr
- R5990 Topics in Mechanical Engineering** (prereq IT upper div or grad stu, #, Δ)
443295 4 cr
- R8203 Advanced Planar Linkage Synthesis** (prereq 5203) (A-F only)
045964 1545-1715 MW, Arch 30, Chase, 3 cr
- R8331 Convection** (prereq 5342)
122188 -1 1545-1715 MF, MechE 108, Sparrow, 3 cr
- R8351 Computation of Fluid Flow and Heat Transfer** (prereq 5342)
244884 1325-1455 WF, Arch 30, 3 cr
- R8361 Introduction to Plasma Technology** (prereq 8360 or #)
344889 1010-1100 MWF, Zoology 102, Pfender, 3 cr
- R8444 Applied Thermodynamics II** (prereq 8443 or equiv)
322598 3 cr
- R8701 Design Studies in Engineering I** (prereq CE grad stu or Δ)
719472 1325-1730 F, MechE 221, 3 cr
- R8770 Mechanical Engineering Research** (prereq Δ)
512877 -1 1515-1700 MW, AkerH 313, 4 cr
213652 -2 ar cr
- 8771 Mechanical Engineering Research** (prereq 8770, Δ)
322813 ar cr
- 8772 Mechanical Engineering Research** (prereq 8771, Δ)
814926 ar cr
- R8773 Graduate Seminar** (S-N only)
412869 -1 1525-1625 W, MechE 108, 1 cr
- R8774 Graduate Seminar** (prereq 8773) (S-N only)
618167 -1 1525-1625 W, MechE 108, 1 cr
- R8775 Graduate Seminar** (prereq 8774) (S-N only)
522325 -1 1525-1625 W, MechE 108, 1 cr
- 8777 Thesis Credits: Masters**
522132 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
219984 1-36 cr

MEDICAL TECHNOLOGY (MedT) Medical School

- 5068 Comparative Hemostasis** (prereq permission of veterinary medicine dept)
919812 1115-1205 TTh, MoosT 2530, Swinehart, 2 cr
- 5078 Hematology II: Hemostasis/Instrumentation** (prereq 5077) (A-F only)
★LECT 1115-1205 TTh, MoosT 2530, Swinehart
219161 -1 LAB 0905-1205 W, MoosT 3349, Swinehart, 3 cr
915033 -2 LAB 1230-1530 W, MoosT 3349, 3 cr
- 5082 Applied Clinical Chemistry** (prereq 5113) (S-N only)
013175 0700-1600 MTWThF, Hanson, 4 cr (University Hospital labs)
- 5084 Applied Clinical Virology** (prereq 5100, 5102) (S-N only)
118875 0800-1600 MTWThF, Dirksen, 1 cr (University Hospital labs)
- 5085 Applied Clinical Hematology** (prereq 5077, 5078, 5765 or CLS 5765) (S-N only)
622056 0715-1600 MTWThF, Lofness, Swinehart, 4 cr (University Hospital labs)
- 5086 Applied Clinical Immunohematology** (prereq 5064, 5065) (S-N only)
718306 0730-1600 MTWThF, Christie, 4 cr (University Hospital labs)
- 5088 Applied Diagnostic Microbiology** (prereq 5100, 5102) (S-N only)
114415 0730-1600 MTWThF, Wells, 4 cr (University Hospital labs)
- 5090 Special Laboratory Methods** (prereq #)
919499 2 cr
- 5092 Honors Program: Laboratory Methods** (prereq #)
115063 5 cr
- 5100 Virology/Mycology/Parasitology for Medical Technologists** (prereq MicB 5235) (A-F only)
842788 0905-0955 MTTh, MoosT 2520, Wells, Jechorek, others, 3 cr
- 5112 Introduction to Clinical Chemistry** (prereq Chem 3100-3101, MdBc 5300, 5301, Phsl 3051, MedT 5011, Δ) (A-F only)
★LECT 1010-1100 MTTh, MoosT 3317, Tsai
412970 -1 LAB 1200-1520 M, 0905-1220 F, HSUInIF 3150, Brunzel, 5 cr
- 5120 Seminar**
316784 1-3 cr
- 5125 Practicum: Teaching** (max 3 cr)
218821 ar cr
- R5127 Introduction to Management and Education** (prereq student in professional medical technology program) (S-N only)
813825 Solberg, 1 cr
- 5135 Advanced Clinical Microbiology** (prereq #)
814909 Wells, 5 cr
- 5138 Seminar: Clinical Microbiology**
919115 1115-1205 F, PWB 15194, Wells, 1 cr
- 5145 Development of Medical Technology**
021387 3 cr

- 5155 Advanced Clinical Hematology** (prereq #)
321399 5 cr
- 5165 Advanced Clinical Immunohematology**
(prereq #)
420471 5 cr
- 5175 Advanced Clinical Chemistry** (prereq #)
016982 5 cr
- 5179 Chemistry Seminar** (prereq #)
917770 1 cr

MEDICINAL CHEMISTRY (MedC) Medicinal Chemistry and Pharmacognosy Pharmacy

- 5494 Advanced Methods in Quantitative Drug Analysis** (prereq Chem 3303, #)
114146 Rimmel, 4 cr
- 8100 Medicinal Chemistry Seminar**
022877 1535-1730 T, MoosT 2520, Rimmel, ar cr
- 8206 Opioid Topics** (prereq #) (A-F only)
217832 Portuguese, others, 1 cr
- 8500 Design of Chemotherapeutic Agents** (prereq 5600 or #) (A-F only)
642789 Vinca, 3 cr
- 8777 Thesis Credits: Masters**
115838 1-16 cr
- 8800 Laboratory Techniques** (prereq Chem 3303 or #)
822119 ar cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
123512 1-36 cr
- 8900 Research in Medicinal Chemistry** (prereq Chem 3303 or #)
015203 ar cr

MEDICINAL CHEMISTRY, UNDERGRADUATE (MChm) Pharmacy

- 5340 Therapeutic Agents III** (prereq 5330, 5440, Phcl 5102 or #) (A-F only)
212999 1115-1205 MWF, MoosT 2690, Johnson R., 3 cr
- 85421 Instrumental Methods** (prereq Chem 3303 or Chem 3304 or #) (A-F only)
★LECT 1115-1205 MF, 1325-1415 Th, MoosT 2620, Rimmel
613759 -1 LAB 1430-1730 T, HSUnitF 3150, Rimmel, 3 cr
120425 -2 LAB 1430-1730 W, HSUnitF 3150, Rimmel, 3 cr
721884 -3 LAB 1430-1730 Th, HSUnitF 3150, Rimmel, 3 cr
- 5421H Advanced Methods in Quantitative Drug Analysis** (prereq 5421 or 5421 or MChP 5421, #) (A-F only)
519344 1640-1730 M, HSUnitF 7193, Rimmel R., 1 cr
- 5440 Biochemistry of Medicinals II** (prereq 5430 or #) (A-F only)
022801 1010-1100 MTWTh, MoosT 2620, Portuguese, 4 cr
- 5710H Medicinal Chemistry Seminar** (prereq #) (A-F only)
114485 1 cr
- 5713H Design of Chemotherapeutic Agents** (prereq #) (A-F only)
442793 3 cr
- 5970 Directed Studies** (prereq #)
118402 1-5 cr
- 5999 Special Problems** (prereq #)
114768 ar cr

MEDICINE (Med) Medical School

- 5500 Medicine Externship I** (prereq regis med student)
714160 Parenti, 9 cr
- 5501 Externship in Medicine** (prereq regis med student, 5500)
521000 Parenti, 9 cr

- 5505 Infectious Disease Research at the University Hospital**
319006 Jordan, ar cr
- 5508 Preceptorships in Internal Medicine** (prereq regis med)
214235 Hostetter, ar cr
- 5509 Research in Rheumatology**
116388 Messner, 9 cr
- 5511 Research in Gastroenterology**
120196 Levitt, 9 cr
- 5512 Research in Hematology**
618217 Jacob, 1-18 cr
- 5518 Research in Endocrinology** (prereq regis med student)
818362 Oppenheimer, ar cr
- 5521 Infectious Diseases, Clinical Aspects at the University Hospitals**
420275 Jordan, 9 cr
- 5522 Medical Gastroenterology**
313304 Bloomer, 9 cr
- 5523 Medical Endocrinology, Metabolism and Clinical Pharmacology**
413360 Oppenheimer, 9 cr
- 5525 Cardiovascular Medicine**
112879 Bache, 9 cr
- 5526 Medical Oncology Outpatient/Consultation** (prereq 5500)
120965 Luikhart, ar cr
- 5527 Contemporary Problems in Investigative Cardiology**
716359 Bache, 9 cr
- 5528 Clinical Hematology**
418025 Howe, 9 cr
- 5531 Clinical Rheumatology**
419157 Mahowald, 4.5-9 cr
- 5532 Pulmonary Disease**
916876 Bitterman, 9 cr
- 5533 Clinical Allergy at University Hospitals**
819382 Blumenthal, 4.5-9 cr
- 5534 Research in Allergy** (prereq regis med)
922659 Blumenthal, 9 cr
- 5548 Clinical Genetics**
813243 King, 9 cr
- 5554 Fluid Electrolyte, Acid-Base Metabolism**
318289 Ma, 9 cr
- 5556 Renal Consultation** (prereq 5500)
619951 Hostetter, 6-9 cr
- 5557 Research in Nephrology** (prereq 5500 at Univ Hosp)
218267 Hostetter, ar cr
- 5562 Clinical Nephrology** (prereq 5500)
114292 Rao, 9 cr
- 5570 Clinical Medicine on the General Clinical Research Center**
214963 Bantle, 9 cr
- 5590 Preceptorships in Internal Medicine**
222335 Howe, 4.5-9 cr
- 5591 Internal Medicine for the Ambulatory Outpatient** (prereq 5502, regis med stu)
619125 Howe, 9 cr
- 5592 Rural Physician Associate Program in Internal Medicine**
421362 Howe, ar cr
- 5593 Preceptorships in Internal Medicine in an HMO Setting**
123342 Howe, ar cr
- 5597 Research in Occupational Health**
420079 Mandel, 9 cr
- 8201 Clinical Medicine**
115927 Ferris, ar cr
- 8202 Clinical Conference**
222917 Ferris, 1 cr
- 8203 Clinical Radiology Conference**
621926 Ferris, 1 cr
- 8204 Pathology Conference**
117895 Ferris, 1 cr
- 8205 Electrocardiographic Conference**
112826 Tuna, 1 cr
- 8206 Nephrology Seminar**
713915 Ferris, 3 cr

- 8209 Tumor Clinical Conference**
816076 Kennedy, 1 cr
- 8210 Infectious Disease Seminar**
619898 Sabath, ar cr
- 8211 Diseases of the Cardiovascular System**
721769 Cohn, ar cr
- 8212 Diseases of the Chest**
721836 Bitterman, ar cr
- 8213 Diseases of the Kidney**
121954 Ferris, ar cr
- 8214 Diseases of Diabetes, Endocrinology, Metabolism**
213019 Oppenheimer, ar cr
- 8215 Diseases of Hematology**
223050 Jacob, ar cr
- 8216 Diseases of Gastroenterology**
021048 Bloomer, ar cr
- 8217 Diseases of Oncology**
821097 Kennedy, ar cr
- 8220 Research in Medicine**
717172 Ferris, ar cr
- 8221 Topics in Medicine**
020384 Ferris, ar cr
- 8223 Topics in Related Basic Science**
916974 Ferris, ar cr

MEDIEVAL STUDIES (MeSt) Liberal Arts

- 83610 Topics in Medieval Studies**
- 120206 -1 0905-0955 MWF, LindH 217, MacLeish, 4 cr (The Middle Ages) (§Engl 3115)
- 143307 -2 0905-0955 MWF, BlegH 150, Metcalf, 4 cr (The Vikings at Home and Away) (§Hist 3271, Scan 3271)
- 843309 -3 0905-1100 TTh, FergH 105, Jackson, 4 cr (Lyric Song in Medieval and Renaissance Culture) (§Mus 3027; prereq non-music maj)
- 043308 -4 0915-1100 W, BlegH 205, Farah, 4 cr (History of the Arabs: 500-800) (§Hist 3541, MidE 3541)
- 85610 Topics in Medieval Studies** (prereq 1 yr work in some area of Middle Ages, reading knowledge of appropriate language)
- 120870 -1 1010-1100 MWF, JonesH 207A, Steyaert, 5 cr (Gothic Sculpture of the Cathedral Age) (§ArH 5234, prereq ArH 3009 or grad student or #)
- 915856 -2 1010-1100 MWF, LindH 229, Copeland, 4 cr (Major Types of Middle English Literature) (§Engl 5215; prereq Engl 5221, grad stu or Engl maj or Δ)
- 816532 -3 1115-1205 MWF, LindH 217, MacLeish, 4 cr (History of English Language) (§Engl 5815; prereq grad stu or Engl maj or Δ)
- 020630 -4 1245-1500 T, BlegH 350, Phillips, 4 cr (Proseminar: Medieval History) (§Hist 5612; prereq 1 yr of medieval history, reading knowledge of Fren or Ger, #)
- 943317 -5 1245-1500 T, LindH 203, Wallace, 4 cr (Chaucer) (§Engl 8220)
- 043311 -6 0945-1100 TTh, Arch 45, Alchermes, 4 cr (History of Early Christian and Byzantine Art) (§ArH 5252, Clas 5252)
- 143316 -7 0945-1150 TTh, LindH 217, Wallace, 5 cr (Chaucer: The Canterbury Tales) (§Engl 5221; prereq grad stu or Engl undergrad maj or Δ)
- 843312 -8 1430-1545 TTh, FolH 312, Grimstad, 4 cr (Old Norse Language and Literature) (§Scan 5701)
- 643313 -9 1245-1500 T, BlegH 350, Phillips, 4 cr (Proseminar: Medieval Spain) (§Hist 5616; prereq #) (A-F only)
- 243315 -10 1640-1835 Th, FolH 246, Wakefield, 4 cr (Walther von der Vogelweide) (§Ger 8206; prereq Ger 8202, Ger 8723 or #)
- 545670 -11 0905-1020 MWF, LindH 302, Kendall, 4 cr (Old English [Anglo-Saxon]) (§Engl 5211; prereq grad stu or Engl maj or Δ)

METALLURGICAL ENGINEERING (MetE)
Civil And Mineral Engineering
Institute of Technology

- 5101 Chemical Metallurgy II** (prereq 5100 or MatS 5100 or #)
 215255 1010-1100 MTWF, CivMinE 684, Hepworth, 4 cr
- 5501 Metallurgical Engineering Design II** (prereq #)
 044264 4 cr
- 5800 Mineral Processing I** (prereq #)
 714885 1430-1625 MW, CivMinE 684, Smith, 4 cr
- 5902 Pyrometallurgical Process** (prereq 5901 or #)
 ★LECT 1115-1205 MWF, CivMinE 684, Reid, 4 cr
 222111 -1 LAB 1430-1730 T, CivMinE 684, Reid
- 5941 Special Problems in Extractive Metallurgical Engineering** (prereq sr, grad student)
 920085 1315-1615 F, CivMinE 684, Smith, 1-6 cr
- 8001 Applied Process Metallurgy II** (prereq #)
 119461 0800-0850 MWF, CivMinE 684, Reid, 3 cr
- 8830 Electric and Magnetic Separation of Minerals** (prereq #)
 016352 Reid, 4 cr
- 8842 Surface Chemistry of Mineral Suspensions**
 617276 1220-1310 MWF, CivMinE 684, Iwasaki, 3 cr
- 8922 Research in Extractive Metallurgical Engineering** (prereq #) (A-F only)
 821293 Smith, ar cr

MICROBIAL ENGINEERING (MicE)
Biological Sciences

- 5990 Teaching Practicum** (A-F only)
 820631 0-1 cr
- 8777 Thesis Credits: Masters**
 221475 1-16 cr
- 8990 Biotechnology Seminar** (A-F only)
 018702 1700-1800 T, GorL 239, 1 cr

MICROBIOLOGY (MicB)
Medical School

- r5105 Biology of Microorganisms** (§3103, Biol 5013, VPB 3103; prereq 5 cr biological sciences, Biol 5001 or #)
 ★LECT 1245-1400 TTh, MoosT 2530, Sherman, 5 cr
 719813 -1 LAB 0905-1100 TTh, MoosT 2252
- 5205 Microbiology for Medical Students** (prereq regis med freshman, all others #)
 ★LECT 0800-0850 MWF, 0905-0955 Th, PWB 2470, Schlievert, 5 cr (Jan 6-Mar 21)
 419417 -1 LAB 1010-1205 M, 1535-1730 W, MoosT 2252, (Jan 6-Mar 21)
 515018 -2 LAB 1535-1730 M, 1010-1205 W, MoosT 2252, (Jan 6-Mar 21)
- r5218 Immunology** (prereq Biol 5001 rec)
 121574 1430-1520 MWF, MoosT 2530, Gray, 3 cr
- 5232 Medical Microbiology** (prereq 5216 or 5218, 5105 or 3103 or 8110 or Biol 5013)
 115166 0945-1100 TTh, MoosT 2530, Cleary, 3 cr
- r5234 Immunology and Medical Microbiology Laboratory** (prereq 5218 or 5218, 5232 or 5232)
 417294 1220-1415 TThF, MoosT 2252, Cleary, Gray, 3 cr
- 5970 Directed Studies** (prereq #, Δ)
 521160 Rogers, others, ar cr
- 5990 Directed Research** (prereq #, Δ)
 614541 Rogers, others, ar cr
- 5992 Practicum: Teaching** (prereq microbiology grad stu or #) (A-F only)
 115717 1 cr

- 8125 Microbial Ecology and Development** (prereq course work in microbiology, cell biology and biochemistry or #) (A-F only)
 142795 0945-1100 TTh, MoosT 2571, Fontana, Sadowsky, 3 cr
- r8216 Frontiers of Immunology I: Immunobiology, Immunogenetics** (§Path 8216; prereq Biol 5001 or equiv or #)
 242794 1010-1100 MWF, MoosT 2580, Jenkins, 3 cr
- 8777 Thesis Credits: Masters**
 217961 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
 313948 1-36 cr
- r8910 Seminar** (prereq #)
 723411 1200-1300 W, PWB 11157, 1 cr
- 8911 Colloquium in Microbiology** (prereq #)
 716863 1 cr
- 8990 Research in Microbiology** (prereq microbiol grad stu or #)
 122019 ar cr

MIDDLE EASTERN STUDIES (MidE)
South Asian & Middle Eastern Languages & Cultures
Liberal Arts

- r3301 Modern Arabic Poetry in Translation** (§Arab 3301)
 742797 1430-1545 TTh, BlegH 115, AshShareef, 4 cr
- 3541 History of the Arabs: 500-800** (§Hist 3541)
 542798 0915-1100 W, BlegH 205, Farah, 4 cr
- 5730 Proseminar in Middle East History: Social and Economic History of the Ottoman Empire: 16th to 18th-Centuries** (§Hist 5730)
 443877 1315-1500 W, BlegH 115, Toprak, 4 cr
- 5970 Directed Studies** (prereq #, Δ, CLA approval)
 115970 ar cr
- 5990 Directed Research** (prereq #, Δ, CLA approval)
 121100 ar cr

MILITARY SCIENCE (Mil)

- 0100 Leadership Laboratory** (prereq fr or soph) (A-F only)
 616807 0645-0745 Th, Armory 116, Hamilton, 0 cr
- 0300 Advanced Leadership Laboratory** (prereq enrolled as a military science advanced course cadet or #) (A-F only)
 316400 0645-0800 Th, Armory 100, Dekanich, 0 cr
- 1002 Basic Military Skills** (prereq fr or soph) (A-F only)
 419790 0645-0745 Th, Armory 116, Hamilton, 1 cr
- 1012 World Military History** (§Hist 1952) (A-F only)
 942801 -1 1010-1100 TTh, Armory 116, Mullins, 2 cr
 742802 -2 1325-1415 TTh, Armory 116, Mullins, 2 cr
- 1202 Leadership: Small Unit Communications, Control and Coordination** (prereq completed one yr of ROTC, prior military experience or #) (A-F only)
 514743 0645-0745 Th, Armory 116A, Mullins, 1 cr
- 1221 Learning to Lead** (A-F only)
 213442 -1 0905-0955 MW, Armory 116A, Mullins, 2 cr
 316980 -2 1430-1520 MW, Armory 116, Mullins, 2 cr
- 3130 Military Science III Leadership Laboratory** (max 3 cr; prereq military science III stu or #) (A-F only)
 814165 0645-0800 Th, Armory 100, Dekanich, 1 cr
- r3132 Land Navigation/Small Unit Tactics** (prereq Δ, Leadership Laboratory) (A-F only)
 113734 -1 1430-1545 MW, Armory 116A, Dekanich, 3 cr
 613387 -2 0945-1100 TTh, Armory 116A, Dekanich, 3 cr
- 3140 Military Science IV Leadership Laboratory** (max 3 cr; prereq military science IV stu or #) (A-F only)
 321001 0645-0800 Th, Armory 100, Bolin, 1 cr
- r3142 Leadership Communication** (prereq Δ) (A-F only)
 321841 -1 0815-0930 TTh, Armory 116A, Bolin, 3 cr
 916814 -2 1430-1545 TTh, Armory 116A, Bolin, 3 cr
- 3970 Directed Studies** (prereq #, Δ) (A-F only)
 614863 1-3 cr

MINING ENGINEERING (MinE)
Civil And Mineral Engineering
Institute of Technology

- 8471 Research Problems** (prereq #) (A-F only)
 214087 Barnes, ar cr
- r8602 Seminar: Mineral Engineering** (prereq #) (S-N only)
 420986 1430-1520 F, CivMinE 205, Hepworth, 1 cr
- 8777 Thesis Credits: Masters**
 317174 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
 517027 1-36 cr

MORTUARY SCIENCE (Mort)
Medical School

- r3040 Funeral Service Psychology** (prereq introductory course in general psychology) (A-F only)
 716183 1325-1415 MWF, JOAd 2125, Tibbetts, 3 cr
- r3050 Restorative Art** (prereq regis mortuary science) (A-F only)
 ★LECT 0800-1000 Th, Jach 2153, Burger, 4 cr
 616211 -1 LAB 0905-1205 M, Jach 2153B, Burger
 122515 -2 LAB 0905-1205 W, Jach 2153B, Burger
 218818 -3 LAB 0905-1205 F, Jach 2153B, Burger
- r3060 Embalming** (prereq biology, human anatomy, regis in mortuary science or #) (A-F only)
 ★LECT 0800-0900 MWF, 1000-1200 Th, Jach 2153, Stroud
 ★REC 0900-1200 F, Jach 2153, Stroud
 421118 -1 LAB 0900-1200 W, Jach 2153A, Stroud, 8 cr
 ★REC 0900-1200 M, Jach 2153, Stroud
 019400 -2 LAB 0900-1200 F, Jach 2153A, Stroud, 8 cr
 ★REC 0900-1200 W, Jach 2153, Stroud
 916991 -3 LAB 0900-1200 M, Jach 2153A, Stroud, 8 cr
- r3062 Gross Human Anatomy** (prereq biology, human anatomy, regis in mortuary science) (A-F only)
 ★LECT 0800-0900 T, Jach 5147, Lee
 318356 -1 LAB 0900-1200 T, Jach 5147, Lee, 2 cr
- r3070 Funeral Service Management** (prereq regis mortuary science) (A-F only)
 119170 1115-1205 MW, JOAd 2125, Mathews, 2 cr
- r3071 Funeral Service Practice** (prereq regis mortuary science) (A-F only)
 ★LECT 1010-1205 TTh, JOAd 2125, Mathews
 123213 -1 LAB 0800-0955 M, JOAd 2125, Mathews, 4 cr
 722467 -2 LAB 0800-0955 W, JOAd 2125, Mathews, 4 cr
 115930 -3 LAB 0800-0955 F, JOAd 2125, Mathews, 4 cr
- r3072 Funeral Service Computer Applications** (prereq regis mortuary science) (A-F only)
 520591 0800-0955 T, JOAd 2125, Mathews, 2 cr
- r3074 Funeral Service Small Business** (prereq regis mortuary science) (A-F only)
 113510 1010-1205 F, JOAd 2125, Grayson, 2 cr
- 3080 Funeral Service Practicum** (prereq have completed all requirements for graduation with the exception of 3080, Δ) (S-N only)
 013077 Stroud, Kroshus, others, 15 cr

- n3090 Independent Study** (prereq regis in mortuary science)
418980 Burger, Kroshus, others, 1-3 cr
- n3271 Funeral Service Seminar** (prereq regis mortuary science) (S-N only)
912987 1325-1520 Th, JOAd 2125, Kroshus, 1 cr
- n3273 Funeral Service Counseling** (prereq regis mortuary science, #) (A-F only)
222660 1220-1310 MW, JOAd 2125, Tibbetts, 2 cr
- n5040 Dying and Death in Contemporary Society** (prereq hith sci maj, pubh grad student, educ sr, certified teacher, mort sci maj, #)
019459 1640-1825 M, 1640-1730 W, MoosT 2690, Burger, Rothenberger, 3 cr

MUSEUM STUDIES (MSt)

- 8010 Museum History and Philosophy** (prereq #) (A-F only)
142805 King, 4 cr
- 8016 Internship** (prereq 8010, prereq permission of Director of Graduate Studies in Museum Studies)
120747 1-6 cr

MUSIC (Mus)

Music Liberal Arts

- n1001 Fundamentals of Music** (§1003, 1004; prereq non-mus maj)
★LECT 1430-1520 MWF, FergH 225
722937 -1 REC 1010-1100 F, FergH 105, 4 cr
921138 -2 REC 1115-1205 F, FergH 105, 4 cr
613051 -3 REC 1220-1310 F, FergH 105, 4 cr
316347 -4 REC 1325-1415 F, FergH 105, 4 cr
- n1021 Introduction to Music** (§3021; prereq non mus maj)
616533 1220-1310 MTWThF, FergH 225, 5 cr
- n1150 Keyboard Skills** (prereq mus maj, #)
444401 1115-1205 TTh, FergH 265, Shockley, 2 cr
- n1152 Piano: Class Lessons** (prereq 1151) (A-F only)
519859 -1 1115-1205 MW, FergH 265, 2 cr
217944 -2 1220-1310 MW, FergH 259, 2 cr
115796 -3 1010-1100 TTh, FergH 265, 2 cr
121820 -4 1115-1205 TTh, FergH 259, 2 cr
114060 -5 1220-1310 TTh, FergH 259, 2 cr
018280 -6 1325-1415 TTh, FergH 259, 2 cr
- n1160 Voice: Class Lessons**
214154 -1 1010-1100 MW, FergH 90, 2 cr
921981 -2 1115-1205 MW, FergH 90, 2 cr
920832 -3 1010-1100 TTh, FergH 90, Ware, 2 cr
613907 -4 1115-1205 TTh, FergH 90, 2 cr
214476 -5 1535-1625 WF, FergH 90, 2 cr
- 1162 Diction for Singers II** (prereq 1162)
323671 1010-1205 M, FergH 203, Herzberg, 1 cr
- 1165 Diction for Singers V** (prereq 1164).
318681 1010-1205 F, FergH 90, Weller, 1 cr
- 1180 Accompanying** (max 3 cr; prereq 12 cr in MusA 1201 or MusA 1301 or #) (A-F only)
818264 1325-1415 T, FergH 270, 1 cr
- 1340 Jazz Ensemble** (max 6 cr; prereq audition, #) (A-F only)
517299 -1 1640-1835 MW, FergH 95, McCurdy, 1 cr (Jazz I)
621912 -2 1535-1625 MWF, FergH 95, 1 cr (Jazz II)
- r1352 Jazz Class Piano** (prereq 1153 or #)
317983 1010-1100 MW, FergH 265, 2 cr
- r1440 Ensemble** (prereq #)
114745 -1 1 cr (guitar)
523426 -2 Miller, 1 cr (harp)
623238 -3 1 cr (piano)
815204 -4 1 cr (strings)
122112 -5 1 cr (Minnesingers)
021731 -6 1900-2030 TTh, FergH 95, 1 cr (Jazz Combo)
244299 -7 1 cr (trombone)
044300 -8 1 cr (organ)
844301 -9 1 cr (woodwind)
144384 -10 1535-1700 W, FergH 81, 1 cr (Low Brass Choir)
944385 -11 1 cr (Brass Quintet)
744386 -12 1535-1730 F, FergH 149, 1 cr (African Music Ensemble)
- r1511 Ear-Training and Sight-Singing I** (prereq 1004 or #, §1531) (A-F only)
217555 -1 0905-0955 TTh, FergH 123, 1 cr
721576 -2 0905-0955 TTh, FergH 267, 1 cr
719567 -3 0905-0955 TTh, FergH 205, 1 cr
117556 -4 0905-0955 TTh, FergH 107, 1 cr
- r1522 Keyboard Harmony** (prereq keyboard maj, #) (A-F only)
123364 1010-1100 TTh, FergH 259, Shockley, 2 cr
- r1531 Theory I: Foundations of Tonal Theory** (prereq 1003, 1151 or 1521, or #, §1511) (A-F only)
★LECT 0800-0850 TTh, FergH 225, 3 cr
913511 -1 REC 0800-0850 MW, FergH 149
922600 -2 REC 0905-0955 MW, FergH 203
120593 -3 REC 0905-0955 MW, FergH 205
418574 -4 REC 0905-0955 MW, FergH 267
- r1602 Music and Society** (prereq 1003 or equiv or #) (A-F only)
021969 1010-1205 WF, FergH 225, Kagan, 3 cr
- 3021 Introduction to Music** (§1021; prereq non mus maj)
420650 1220-1310 MTWThF, FergH 225, 5 cr
- 3027 Lyric Song in Medieval and Renaissance Culture** (prereq non-music maj)
943320 0905-1100 TTh, FergH 105, Jackson, 4 cr
- 3220 Chamber Winds** (prereq #) (A-F only)
218639 1800-2200 M, FergH 85, 1 cr
- r3332 Jazz Improvisation II** (prereq 3331 or #)
214817 0800-0850 MWF, FergH 95, 2 cr
- 3410 Concert Band** (prereq #)
815042 -1 1325-1520 MTTh, FergH 95, Bencriscutto, 1 cr (Wind Ensemble)
421264 -2 1325-1520 TTh, FergH 95, 1 cr (Symphonic Band)
121128 -3 1535-1625 TTh, FergH 95, 1 cr (North Star Band)
- 3420 Orchestra** (prereq #)
721996 1535-1730 MTTh, FergH 85, Sidlin, 1 cr
- 3430 University Chorus** (prereq #)
215854 -1 1535-1625 MTTh, FergH 225, Lancaster, 1 cr (Women's Chorus)
021485 -2 1535-1625 MTTh, FergH 90, 1 cr (Men's Chorus)
414900 -3 1220-1310 MTWThF, FergH 90, Weller, 1 cr (Concert Choir)
- r3440 Ensemble** (prereq #)
722047 -1 1 cr (guitar)
916859 -2 Miller, 1 cr (harp)
522874 -3 1 cr (piano)
913735 -4 1 cr (strings)
120030 -5 1 cr (Minnesingers)
123762 -6 1900-2030 TTh, FergH 95, 1 cr (Jazz Combo)
644302 -7 1 cr (trombone)
444303 -8 1 cr (organ)
244304 -9 1 cr (woodwind)
544387 -10 1535-1700 W, FergH 81, 1 cr (Low Brass Choir)
344388 -11 1 cr (Brass Quintet)
144389 -12 1535-1730 F, FergH 149, 1 cr (African Music Ensemble)
- r3511 Ear Training and Sight Singing IV** (prereq 1513) (A-F only)
743321 -1 0800-0850 MF, FergH 123, 1 cr
543322 -2 0800-0850 MF, FergH 203, 1 cr
343323 -3 0800-0850 MF, FergH 205, 1 cr
- r3531 Theory IV: Chromaticism** (prereq 1533, §3511) (A-F only)
143324 0905-1100 M, 0905-0955 W, FergH 225, 3 cr
- r3552 Composition** (§3551-3552-3553; prereq 3551) (A-F only)
022426 1010-1205 F, FergH 203, 2 cr (addtl hrs ar)
- 3605 History of Western Music** (prereq 1533 or #) (A-F only)
★LECT 0905-1100 TTh, FergH 225, Hepokoski
815493 -1 REC 0905-0955 F, FergH 225, 5 cr
- r3742 Vocal Repertoire Survey** (prereq 3741) (A-F only)
545295 1430-1625 W, FergH 203, Herzberg, 2 cr
- 3970 Directed Studies** (prereq #, Δ, □)
418087 1-15 cr
- 3980 Directed Teaching** (prereq #, Δ, □)
718287 1-4 cr
- 3995 Major Project** (prereq sr, #, Δ) (A-F only)
020515 2 cr
- r5182 Baroque Performance Practices** (prereq sr or grad, 3606, 3532 or #) (A-F only)
144305 0905-1100 TTh, FergH 115, 4 cr
- 5220 Chamber Winds** (prereq #) (A-F only)
316591 1800-2200 M, FergH 85, 1 cr
- r5322 Suzuki Violin Pedagogy** (prereq 5321)
720170 1230-1400 W, MacPhC 311, Bjork, 2 cr (off-campus)
- r5325 Advanced Suzuki Violin Pedagogy** (prereq 5324)
814831 1300-1430 M, MacPhC 311, Bjork, 2 cr (off-campus)
- 5330 Concerto Grosso Ensemble** (prereq #) (A-F only)
123767 1430-1630 F, FergH 85, Lancaster, 1 cr
- r5332 Jazz Improvisation V** (prereq 5331 or audition) (A-F only)
612742 0800-0955 T, FergH 95, 2 cr
- 5340 Jazz Ensemble** (max 6 cr; prereq audition, #) (A-F only)
023253 -1 1640-1835 MW, FergH 95, McCurdy, 1 cr (Jazz I)
122473 -2 1535-1625 MWF, FergH 95, 1 cr (Jazz II)
- r5352 Piano Pedagogy** (prereq 5351) (A-F only)
020756 1010-1205 W, FergH 259, Shockley, 2 cr
- 5355 Piano Pedagogy Practicum** (prereq 5354, §5352) (A-F only)
618573 Shockley, 1 cr
- 5360 Woodwind Ensemble** (prereq audition)
514936 Anderson, 1 cr
- 5376 Vocal Pedagogy II** (prereq sr voice maj, 5375 or #)
043325 1430-1520 MWF, FergH 115, Ware, 4 cr
- 5380 Brass Choir** (prereq #)
617245 -1 1325-1415 MWF, FergH 85, Baldwin, 1 cr (Brass Ensemble)
418851 -2 1325-1520 TTh, FergH 85, Baldwin, 1 cr (Brass Choir)
- 5399 Performance in Conducting** (prereq 5388 or 5385, #)
214364 Lancaster, 4 cr
- 5410 Band** (prereq #)
819981 -1 1325-1520 MWF, FergH 95, Bencriscutto, 1 cr (Wind Ensemble)
220049 -2 1325-1520 TTh, FergH 95, 1 cr (Symphonic Band)
116060 -3 1535-1625 TTh, FergH 95, 1 cr (North Star Band)
- 5420 Orchestra** (prereq #)
515990 1535-1730 MTTh, FergH 85, Sidlin, 1 cr
- 5430 University Chorus** (prereq #)
016061 -1 1535-1625 MTTh, FergH 225, Lancaster, 1 cr (Women's Chorus)
122403 -2 1535-1625 MTTh, FergH 90, 1 cr (Men's Chorus)
422835 -3 1220-1310 MTWThF, FergH 90, Weller, 1 cr (Concert Choir)
- r5440 Ensemble** (prereq #)
520963 -1 1 cr (guitar)
523068 -2 Miller, 1 cr (harp)
515939 -3 1 cr (piano)
119453 -4 1 cr (strings)
216020 -5 1 cr (Minnesingers)
121784 -6 1900-2030 TTh, FergH 95, 1 cr (Jazz Combo)
944306 -7 1 cr (trombone)
744307 -8 1 cr (organ)
544308 -9 1 cr (woodwind)
544390 -10 1535-1700 W, FergH 81, 1 cr (Low Brass Choir)
344391 -11 1 cr (Brass Quintet)
144392 -12 1535-1730 F, FergH 149, 1 cr (African Music Ensemble)
- 5470 Opera Workshop and Ensemble** (prereq ability to sing arias satisfactorily, # by audition)
621473 1535-1730 MTTh, ScottH 108, Sutton, 1 cr
- 5480 Opera Theatre** (prereq advanced ability to sing arias satisfactorily, by audition, #)
214025 1535-1730 MTTh, ScottH 108, Sutton, 2 cr

- 5490 Chamber Singers** (prereq audition)
317045 1325-1415 MTWThF, FergH 90,
Lancaster, 1 cr
- 5510 Early Music Performance Practices** (prereq
3606, 3532, #) (A-F only)
843326 1535-1730 Th, FergH 115, Jackson, 1 cr
- 5522 Advanced Keyboard Harmony** (prereq 5521)
(A-F only)
443328 1325-1415 MW, FergH 259, Billmeyer,
2 cr
- 5532 Analysis of 20th Century Music** (prereq 3532)
(A-F only)
643327 1010-1205 T, 1010-1100 Th, FergH 149,
Cherlin, 3 cr
- 5542 Advanced Counterpoint** (prereq #) (A-F only)
919325 1430-1520 TTh, FergH 123, 2 cr
- 5550 Composition** (prereq 3532 or equiv, 3553 or
grad, #) (A-F only)
713848 -1 Argento, 2 cr
622980 -2 2 cr
519232 -3 Ultan, 2 cr
- 5582 Orchestration** (prereq 5561) (A-F only)
919311 1325-1415 MW, FergH 149, Argento, 2 cr
- 5571 Introduction to Schenkerian Analysis** (prereq
5531) (A-F only)
243329 1220-1415 TTh, FergH 105, Damschroder,
4 cr
- 5646 19th-Century European Music** (prereq 3606
or equiv, 12 cr undergrad music hist, 5532 or
equiv, # for undergrads) (A-F only)
344309 1010-1205 MW, FergH 105, 4 cr
- 5742 Vocal Literature** (prereq 12 cr in MusA 1104 or
1204 or 1304 or #)
113353 1010-1100 W, 0905-1205 F, FergH 149,
4 cr
- 5793 Analog Synthesis and Recording
Techniques** (prereq 5791 or 15791) (A-F only)
614670 1325-1415 T, FergH 215, Ultan, 2 cr (lab
ar)
- 5797 Music and Text: Seminar on the
Interrelations of Text and Music** (prereq 3531,
3532) (A-F only)
345699 1430-1625 WF, FergH 123, 4 cr
- 5810 Asian Music: Performance** (prereq #)
920846 Kagan, 2 cr
- 5841 Resources for Music Research** (prereq 3606
or #) (A-F only)
445662 1010-1205 F, FergH 70, Probst, 2 cr
- 5970 Directed Studies** (prereq #, Δ, CLA approval)
(A-F only)
822377 1-5 cr
- 5971 Music Transcription for Winds** (prereq 3532)
719956 0905-0955 TTh, FergH 224, Baldwin, 2 cr
- 5850 Composition** (max 18 cr; prereq compl of
undergrad maj sequence in music theory and
composition, #)
818796 -1 Argento, 3 cr
513432 -2 3 cr
114589 -3 Ultan, 3 cr
- 8777 Thesis Credits: Masters**
422883 1-16 cr
- 8840 Seminar in Musicology** (A-F only)
921575 1325-1520 TTh, FergH 149, Grayson, 4 cr
- 8845 Seminar: Current Issues in Music Criticism**
(prereq undergrad degree in music)
744310 1430-1625 MW, FergH 108, Hepokoski,
4 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
016738 1-36 cr
- 8990 Special Problems** (prereq Δ)
723053 2-12 cr
- 8999 Recital Credits: Doctoral** (max 10 cr per qtr;
prereq Doctor of Musical Arts students)
844993 -1 5 cr

MUSIC APPLIED (MusA)

Music Liberal Arts

See section 2, Course Fees, f or MusA course
fees. These fees are in addition to tuition and are
assessed at registration.

- 1101 Piano, Elective** (prereq audition, Δ)
913914 2 cr
- 1102 Harpsichord, Elective** (prereq audition, Δ)
918840 2 cr
- 1103 Organ, Elective** (prereq audition, Δ)
821004 2 cr
- 1104 Voice, Elective** (prereq audition, Δ)
021793 2 cr
- 1105 Violin, Elective** (prereq audition, Δ)
215921 2 cr
- 1106 Viola, Elective** (prereq audition, Δ)
614183 2 cr
- 1107 Cello, Elective** (prereq audition, Δ)
016786 2 cr
- 1108 Double Bass, Elective** (prereq audition, Δ)
217295 2 cr
- 1109 Flute, Elective** (prereq audition, Δ)
022183 2 cr
- 1111 Oboe, Elective** (prereq audition, Δ)
116990 2 cr
- 1112 Clarinet, Elective** (prereq audition, Δ)
416873 2 cr
- 1113 Saxophone, Elective** (prereq audition, Δ)
516055 2 cr
- 1114 Bassoon, Elective** (prereq audition, Δ)
113109 2 cr
- 1115 French Horn, Elective** (prereq audition, Δ)
613244 2 cr
- 1116 Trumpet, Elective** (prereq audition, Δ)
017954 2 cr
- 1117 Trombone, Elective** (prereq audition, Δ)
714949 2 cr
- 1118 Baritone, Elective** (prereq audition, Δ)
314405 2 cr
- 1119 Tuba, Elective** (prereq audition, Δ)
821326 2 cr
- 1121 Percussion, Elective** (prereq audition, Δ)
520393 2 cr
- 1122 Harp, Elective** (prereq audition, Δ)
617732 2 cr
- 1123 Guitar, Elective** (prereq audition, Δ)
722145 2 cr
- 1201 Piano, Principal** (prereq audition, Δ)
516363 2-4 cr
- 1202 Harpsichord, Principal** (prereq audition, Δ)
012964 2-4 cr
- 1203 Organ, Principal** (prereq audition, Δ)
718807 2-4 cr
- 1204 Voice, Principal** (prereq audition, Δ)
722484 1630-1830 W, 1430-1520 Th, 2-4 cr (addtl
hrs ar)
- 1205 Violin, Principal** (prereq audition, Δ)
120764 1430-1520 W, FergH 85, 2-4 cr (addtl hrs
ar)
- 1206 Viola, Principal** (prereq audition, Δ)
322942 1430-1520 W, FergH 85, 2-4 cr (addtl hrs
ar)
- 1207 Cello, Principal** (prereq audition, Δ)
113930 1430-1520 W, FergH 85, 2-4 cr (addtl hrs
ar)
- 1208 Double Bass, Principal** (prereq audition, Δ)
122120 1430-1520 W, FergH 85, 2-4 cr (addtl hrs
ar)
- 1209 Flute, Principal** (prereq audition, Δ)
615737 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs
ar)
- 1211 Oboe, Principal** (prereq audition, Δ)
721173 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs
ar)
- 1212 Clarinet, Principal** (prereq audition, Δ)
921494 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs
ar)
- 1213 Saxophone, Principal** (prereq audition, Δ)
915906 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs
ar)
- 1214 Bassoon, Principal** (prereq audition, Δ)
214798 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs
ar)
- 1215 French Horn, Principal** (prereq audition, Δ)
122246 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs
ar)
- 1216 Trumpet, Principal** (prereq audition, Δ)
623126 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs
ar)
- 1217 Trombone, Principal** (prereq audition, Δ)
619240 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs
ar)
- 1218 Baritone, Principal** (prereq audition, Δ)
120240 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs
ar)
- 1219 Tuba, Principal** (prereq audition, Δ)
320964 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs
ar)
- 1221 Percussion, Principal** (prereq audition, Δ)
120447 2-4 cr
- 1222 Harp, Principal** (prereq audition, Δ)
117802 2-4 cr
- 1223 Guitar, Principal** (prereq audition, Δ)
218852 1325-1415 F, FergH 81, 2-4 cr (addtl hrs
ar)
- 1301 Piano, Major** (prereq audition, Δ)
016867 2-4 cr
- 1302 Harpsichord, Major** (prereq audition, Δ)
417411 2-4 cr
- 1303 Organ, Major** (prereq audition, Δ)
119792 2-4 cr
- 1304 Voice, Major** (prereq audition, Δ)
514872 1630-1830 W, 1430-1520 Th, 2-4 cr (addtl
hrs ar)
- 1305 Violin, Major** (prereq audition, Δ)
915162 1430-1520 W, FergH 85, 2-4 cr (addtl hrs
ar)
- 1306 Viola, Major** (prereq audition, Δ)
116351 1430-1520 W, FergH 85, 2-4 cr (addtl hrs
ar)
- 1307 Cello, Major** (prereq audition, Δ)
120408 1430-1520 W, FergH 85, 2-4 cr (addtl hrs
ar)
- 1308 Double Bass, Major** (prereq audition, Δ)
620162 1430-1520 W, FergH 85, 2-4 cr (addtl hrs
ar)
- 1309 Flute, Major** (prereq audition, Δ)
618346 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs
ar)
- 1311 Oboe, Major** (prereq audition, Δ)
222481 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs
ar)
- 1312 Clarinet, Major** (prereq audition, Δ)
213117 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs
ar)
- 1313 Saxophone, Major** (prereq audition, Δ)
415738 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs
ar)
- 1314 Bassoon, Major** (prereq audition, Δ)
012933 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs
ar)
- 1315 French Horn, Major** (prereq audition, Δ)
121050 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs
ar)
- 1316 Trumpet, Major** (prereq audition, Δ)
514564 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs
ar)
- 1317 Trombone, Major** (prereq audition, Δ)
923181 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs
ar)
- 1318 Baritone, Major** (prereq audition, Δ)
414461 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs
ar)
- 1319 Tuba, Major** (prereq audition, Δ)
821844 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs
ar)

- 1321 **Percussion, Major** (prereq audition, Δ)
720797 2-4 cr
- 1322 **Harp, Major** (prereq audition, Δ)
116785 2-4 cr
- 1323 **Guitar, Major** (prereq audition, Δ)
721965 2-4 cr
- 1401 **Piano, Secondary Required** (max 12 cr;
prereq mus maj, Δ)
213893 2-4 cr
- 1402 **Harpichord, Secondary Required** (max 12
cr; prereq mus maj, Δ)
117119 2-4 cr
- 1403 **Organ, Secondary Required** (max 12 cr;
prereq mus maj, Δ)
114835 2-4 cr
- 1404 **Voice, Secondary Required** (max 12 cr;
prereq mus maj, Δ)
914660 2-4 cr
- 1405 **Violin, Secondary Required** (max 12 cr;
prereq mus maj, Δ)
620954 2-4 cr
- 1406 **Viola, Secondary Required** (max 12 cr; prereq
mus maj, Δ)
623093 2-4 cr
- 1407 **Cello, Secondary Required** (max 12 cr; prereq
mus maj, Δ)
817759 2-4 cr
- 1408 **Double Bass, Secondary Required** (max 12
cr; prereq mus maj, Δ)
915002 2-4 cr
- 1409 **Flute, Secondary Required** (max 12 cr; prereq
mus maj, Δ)
922984 2-4 cr
- 1411 **Oboe, Secondary Required** (max 12 cr; prereq
mus maj, Δ)
915999 2-4 cr
- 1412 **Clarinet, Secondary Required** (max 12 cr;
prereq mus maj, Δ)
922624 2-4 cr
- 1413 **Saxophone, Secondary Required** (max 12 cr;
prereq mus maj, Δ)
121381 2-4 cr
- 1414 **Bassoon, Secondary Required** (max 12 cr;
prereq mus maj, Δ)
919759 2-4 cr
- 1415 **French Horn, Secondary Required** (max 12
cr; prereq mus maj, Δ)
216387 2-4 cr
- 1416 **Trumpet, Secondary Required** (max 12 cr;
prereq mus maj, Δ)
114308 2-4 cr
- 1417 **Trombone, Secondary Required** (max 12 cr;
prereq mus maj, Δ)
717317 2-4 cr
- 1418 **Baritone, Secondary Required** (max 12 cr;
prereq mus maj, Δ)
212730 2-4 cr
- 1419 **Tuba, Secondary Required** (max 12 cr; prereq
mus maj, Δ)
823321 2-4 cr
- 1421 **Percussion, Secondary Required** (max 12 cr;
prereq mus maj, Δ)
520400 2-4 cr
- 1422 **Harp, Secondary Required** (max 12 cr; prereq
mus maj, Δ)
520994 2-4 cr
- 1423 **Guitar, Secondary Required** (max 12 cr;
prereq mus maj, Δ)
819107 1325-1415 F, FergH 81, 2-4 cr (addtl hrs
ar)
- 1501 **Piano, Secondary Elective** (max 12 cr; prereq
mus maj, Δ)
914013 2-4 cr
- 1502 **Harpichord, Secondary Elective** (max 12 cr;
prereq mus maj, Δ)
922418 2-4 cr
- 1503 **Organ, Secondary Elective** (max 12 cr; prereq
mus maj, Δ)
114843 2-4 cr
- 1504 **Voice, Secondary Elective** (max 12 cr; prereq
mus maj, Δ)
517044 2-4 cr
- 1505 **Violin, Secondary Elective** (max 12 cr; prereq
mus maj, Δ)
421460 2-4 cr
- 1506 **Viola, Secondary Elective** (max 12 cr; prereq
mus maj, Δ)
614491 2-4 cr
- 1507 **Cello, Secondary Elective** (max 12 cr; prereq
mus maj, Δ)
720332 2-4 cr
- 1508 **Double Bass, Secondary Elective** (max 12 cr;
prereq mus maj, Δ)
023477 2-4 cr
- 1509 **Flute, Secondary Elective** (max 12 cr; prereq
mus maj, Δ)
919065 2-4 cr
- 1511 **Oboe, Secondary Elective** (max 12 cr; prereq
mus maj, Δ)
621764 2-4 cr
- 1512 **Clarinet, Secondary Elective** (max 12 cr;
prereq mus maj, Δ)
313822 2-4 cr
- 1513 **Saxophone, Secondary Elective** (max 12 cr;
prereq mus maj, Δ)
216423 2-4 cr
- 1514 **Bassoon, Secondary Elective** (max 12 cr;
prereq mus maj, Δ)
619500 2-4 cr
- 1515 **French Horn, Secondary Elective** (max 12 cr;
prereq mus maj, Δ)
620887 2-4 cr
- 1516 **Trumpet, Secondary Elective** (max 12 cr;
prereq mus maj, Δ)
319457 2-4 cr
- 1517 **Trombone, Secondary Elective** (max 12 cr;
prereq mus maj, Δ)
620291 2-4 cr
- 1518 **Baritone, Secondary Elective** (max 12 cr;
prereq mus maj, Δ)
021826 2-4 cr
- 1519 **Tuba, Secondary Elective** (max 12 cr; prereq
mus maj, Δ)
318857 2-4 cr
- 1521 **Percussion, Secondary Elective** (max 12 cr;
prereq mus maj, Δ)
922791 2-4 cr
- 1522 **Harp, Secondary Elective** (max 12 cr; prereq
mus maj, Δ)
720055 2-4 cr
- 1523 **Guitar, Secondary Elective** (max 12 cr; prereq
mus maj, Δ)
120781 1325-1415 F, FergH 81, 2-4 cr (addtl hrs
ar)
- 1601 **Piano, Principal Beyond Requirement** (max
12 cr; prereq mus maj, Δ)
014911 2-4 cr
- 1602 **Harpichord, Principal Beyond Requirement**
(max 12 cr; prereq mus maj, Δ)
017128 2-4 cr
- 1603 **Organ, Principal Beyond Requirement** (max
12 cr; prereq mus maj, Δ)
517092 2-4 cr
- 1604 **Voice, Principal Beyond Requirement** (max
12 cr; prereq mus maj, Δ)
521093 1630-1830 W, 1430-1520 Th, 2-4 cr (addtl
hrs ar)
- 1605 **Violin, Principal Beyond Requirement** (max
12 cr; prereq mus maj, Δ)
719293 1430-1520 W, FergH 85, 2-4 cr (addtl hrs
ar)
- 1606 **Viola, Principal Beyond Requirement** (max
12 cr; prereq mus maj, Δ)
119050 1430-1520 W, FergH 85, 2-4 cr (addtl hrs
ar)
- 1607 **Cello, Principal Beyond Requirement** (max
12 cr; prereq mus maj, Δ)
914531 1430-1520 W, FergH 85, 2-4 cr (addtl hrs
ar)
- 1608 **Double Bass, Principal Beyond Requirement**
(max 12 cr; prereq mus maj, Δ)
820189 1430-1520 W, FergH 85, 2-4 cr (addtl hrs
ar)
- 1609 **Flute, Principal Beyond Requirement** (max
12 cr; prereq mus maj, Δ)
119931 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs
ar)
- 1611 **Oboe, Principal Beyond Requirement** (max
12 cr; prereq mus maj, Δ)
614880 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs
ar)
- 1612 **Clarinet, Principal Beyond Requirement**
(max 12 cr; prereq mus maj, Δ)
417439 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs
ar)
- 1613 **Saxophone, Principal Beyond Requirement**
(max 12 cr; prereq mus maj, Δ)
512751 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs
ar)
- 1614 **Bassoon, Principal Beyond Requirement**
(max 12 cr; prereq mus maj, Δ)
914982 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs
ar)
- 1615 **French Horn, Principal Beyond Requirement**
(max 12 cr; prereq mus maj, Δ)
514547 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs
ar)
- 1616 **Trumpet, Principal Beyond Requirement**
(max 12 cr; prereq mus maj, Δ)
114275 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs
ar)
- 1617 **Trombone, Principal Beyond Requirement**
(max 12 cr; prereq mus maj, Δ)
220889 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs
ar)
- 1618 **Baritone, Principal Beyond Requirement**
(max 12 cr; prereq mus maj, Δ)
316946 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs
ar)
- 1619 **Tuba, Principal Beyond Requirement** (max
12 cr; prereq mus maj, Δ)
519943 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs
ar)
- 1621 **Percussion, Principal Beyond Requirement**
(max 12 cr; prereq mus maj, Δ)
721979 2-4 cr
- 1622 **Harp, Principal Beyond Requirement** (max 12
cr; prereq mus maj, Δ)
116732 2-4 cr
- 1623 **Guitar, Principal Beyond Requirement** (max
12 cr; prereq mus maj, Δ)
217491 1325-1415 F, FergH 81, 2-4 cr (addtl hrs
ar)
- 1701 **Piano, Major Beyond Requirement** (max 12
cr; prereq mus maj, Δ)
117337 2-4 cr
- 1702 **Harpichord, Major Beyond Requirement**
(max 12 cr; prereq mus maj, Δ)
220522 2-4 cr
- 1703 **Organ, Major Beyond Requirement** (max 12
cr; prereq mus maj, Δ)
319913 2-4 cr
- 1704 **Voice, Major Beyond Requirement** (max 12
cr; prereq mus maj, Δ)
020045 1630-1830 W, 1430-1520 Th, 2-4 cr (addtl
hrs ar)
- 1705 **Violin, Major Beyond Requirement** (max 12
cr; prereq mus maj, Δ)
921852 1430-1520 W, FergH 85, 2-4 cr (addtl hrs
ar)
- 1706 **Viola, Major Beyond Requirement** (max 12 cr;
prereq mus maj, Δ)
914576 1430-1520 W, FergH 85, 2-4 cr (addtl hrs
ar)
- 1707 **Cello, Major Beyond Requirement** (max 12 cr;
prereq mus maj, Δ)
917011 1430-1520 W, FergH 85, 2-4 cr (addtl hrs
ar)
- 1708 **Double Bass, Major Beyond Requirement**
(max 12 cr; prereq mus maj, Δ)
619481 1535-1625 W, FergH 85, 2-4 cr (addtl hrs
ar)
- 1709 **Flute, Major Beyond Requirement** (max 12 cr;
prereq mus maj, Δ)
922127 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs
ar)
- 1711 **Oboe, Major Beyond Requirement** (max 12
cr; prereq mus maj, Δ)
819950 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs
ar)

- 1712 Clarinet, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
221010 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs ar)
- 1713 Saxophone, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
817499 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs ar)
- 1714 Bassoon, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
519912 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs ar)
- 1715 French Horn, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
220231 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs ar)
- 1716 Trumpet, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
116939 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs ar)
- 1717 Trombone, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
621375 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs ar)
- 1718 Baritone, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
520851 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs ar)
- 1719 Tuba, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
021745 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs ar)
- 1721 Percussion, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
619108 2-4 cr
- 1722 Harp, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
718094 2-4 cr
- 1723 Guitar, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
222318 1325-1415 F, FergH 81, 2-4 cr (addtl hrs ar)
- 1901 Piano** (prereq audition) (A-F only)
523331 2-4 cr
- 1902 Harpsichord** (prereq audition) (A-F only)
117878 2-4 cr
- 1903 Organ** (prereq audition) (A-F only)
714952 2-4 cr
- 1904 Voice** (prereq audition) (A-F only)
422513 1630-1830 W, 1430-1520 Th, 2-4 cr
- 1905 Violin** (prereq audition) (A-F only)
516203 2-4 cr
- 1906 Viola** (prereq audition) (A-F only)
416193 2-4 cr
- 1907 Cello** (prereq audition) (A-F only)
414217 2-4 cr
- 1908 Double Bass** (prereq audition) (A-F only)
015055 2-4 cr
- 1909 Flute** (prereq audition) (A-F only)
721318 2-4 cr
- 1911 Oboe** (prereq audition) (A-F only)
621831 2-4 cr
- 1912 Clarinet** (prereq audition) (A-F only)
914545 2-4 cr
- 1913 Saxophone** (prereq audition) (A-F only)
219497 2-4 cr
- 1914 Bassoon** (prereq audition) (A-F only)
315876 2-4 cr
- 1915 French Horn** (prereq audition) (A-F only)
616225 2-4 cr
- 1916 Trumpet** (prereq audition) (A-F only)
516329 2-4 cr
- 1917 Trombone** (prereq audition) (A-F only)
120506 2-4 cr
- 1918 Baritone** (prereq audition) (A-F only)
520123 2-4 cr
- 1919 Tuba** (prereq audition) (A-F only)
222979 2-4 cr
- 1921 Percussion** (prereq audition) (A-F only)
914416 2-4 cr
- 1922 Harp** (prereq audition) (A-F only)
014391 2-4 cr
- 1923 Guitar** (prereq audition) (A-F only)
318339 1325-1415 F, FergH 81, 2-4 cr (addtl hrs ar)
- 3101 Piano, Elective** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
413083 2 cr
- 3102 Harpsichord, Elective** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
223324 2 cr
- 3103 Organ, Elective** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
316283 2 cr
- 3104 Voice, Elective** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
020885 2 cr
- 3105 Violin, Elective** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
919034 2 cr
- 3106 Viola, Elective** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
522034 2 cr
- 3107 Cello, Elective** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
422320 2 cr
- 3108 Double Bass, Elective** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
219290 2 cr
- 3109 Flute, Elective** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
113238 2 cr
- 3111 Oboe, Elective** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
221220 2 cr
- 3112 Clarinet, Elective** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
014844 2 cr
- 3113 Saxophone, Elective** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
121789 2 cr
- 3114 Bassoon, Elective** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
818488 2 cr
- 3115 French Horn, Elective** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
514855 2 cr
- 3116 Trumpet, Elective** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
119114 2 cr
- 3117 Trombone, Elective** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
321791 2 cr
- 3118 Baritone, Elective** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
317885 2 cr
- 3119 Tuba, Elective** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
122448 2 cr
- 3121 Percussion, Elective** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
715230 2 cr
- 3122 Harp, Elective** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
619819 2 cr
- 3123 Guitar, Elective** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
320009 2 cr
- 3201 Piano, Principal** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
917316 2-4 cr
- 3202 Harpsichord, Principal** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
914349 2-4 cr
- 3203 Organ, Principal** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
317403 2-4 cr
- 3204 Voice, Principal** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
421393 1630-1830 W, 1430-1520 Th, 2-4 cr (addtl hrs ar)
- 3205 Violin, Principal** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
120795 1430-1520 W, FergH 85, 2-4 cr (addtl hrs ar)
- 3206 Viola, Principal** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
814246 1430-1520 W, FergH 85, 2-4 cr (addtl hrs ar)
- 3207 Cello, Principal** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
113806 1430-1520 W, FergH 85, 2-4 cr (addtl hrs ar)
- 3208 Double Bass, Principal** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
423130 1430-1520 W, FergH 85, 2-4 cr (addtl hrs ar)
- 3209 Flute, Principal** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
123020 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs ar)
- 3211 Oboe, Principal** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
917056 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs ar)
- 3212 Clarinet, Principal** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
121915 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs ar)
- 3213 Saxophone, Principal** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
921866 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs ar)
- 3214 Bassoon, Principal** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
112938 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs ar)
- 3215 French Horn, Principal** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
519750 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs ar)
- 3216 Trumpet, Principal** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
320267 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs ar)
- 3217 Trombone, Principal** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
716054 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs ar)
- 3218 Baritone, Principal** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
119758 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs ar)
- 3219 Tuba, Principal** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
217734 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs ar)
- 3221 Percussion, Principal** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
114883 2-4 cr
- 3222 Harp, Principal** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
923133 2-4 cr
- 3223 Guitar, Principal** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
018456 1325-1415 F, FergH 81, 2-4 cr (addtl hrs ar)
- 3301 Piano, Major** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
918059 2-4 cr
- 3302 Harpsichord, Major** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
412841 2-4 cr
- 3303 Organ, Major** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
716989 2-4 cr
- 3304 Voice, Major** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
223453 1630-1830 W, 1430-1520 Th, 2-4 cr (addtl hrs ar)
- 3305 Violin, Major** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
116737 1430-1520 W, FergH 85, 2-4 cr (addtl hrs ar)
- 3306 Viola, Major** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
217815 1430-1520 W, FergH 85, 2-4 cr (addtl hrs ar)

- 3307 **Cello, Major** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
516802 1430-1520 W, FergH 85, 2-4 cr (addtl hrs ar)
- 3308 **Double Bass, Major** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
213330 1430-1520 W, FergH 85, 2-4 cr (addtl hrs ar)
- 3309 **Flute, Major** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
814389 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs ar)
- 3311 **Oboe, Major** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
719049 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs ar)
- 3312 **Clarinet, Major** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
022961 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs ar)
- 3313 **Saxophone, Major** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
020840 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs ar)
- 3314 **Bassoon, Major** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
521501 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs ar)
- 3315 **French Horn, Major** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
019090 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs ar)
- 3316 **Trumpet, Major** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
220827 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs ar)
- 3317 **Trombone, Major** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
419143 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs ar)
- 3318 **Baritone, Major** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
117959 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs ar)
- 3319 **Tuba, Major** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
820225 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs ar)
- 3321 **Percussion, Major** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
914528 2-4 cr
- 3322 **Harp, Major** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
621845 2-4 cr
- 3323 **Guitar, Major** (prereq 12 cr in corresponding 1xxx course, qualifying exam, Δ)
818295 1325-1415 F, FergH 81, 2-4 cr (addtl hrs ar)
- 3401 **Piano, Secondary Required** (max 12 cr; prereq mus maj, Δ)
322388 2-4 cr
- 3402 **Harpichord, Secondary Required** (max 12 cr; prereq mus maj, Δ)
818748 2-4 cr
- 3403 **Organ, Secondary Required** (max 12 cr; prereq mus maj, Δ)
420793 2-4 cr
- 3404 **Voice, Secondary Required** (max 12 cr; prereq mus maj, Δ)
913122 2-4 cr
- 3405 **Violin, Secondary Required** (max 12 cr; prereq mus maj, Δ)
823383 2-4 cr
- 3406 **Viola, Secondary Required** (max 12 cr; prereq mus maj, Δ)
119315 2-4 cr
- 3407 **Cello, Secondary Required** (max 12 cr; prereq mus maj, Δ)
620193 2-4 cr
- 3408 **Double Bass, Secondary Required** (max 12 cr; prereq mus maj, Δ)
121971 2-4 cr
- 3409 **Flute, Secondary Required** (max 12 cr; prereq mus maj, Δ)
020417 2-4 cr
- 3411 **Oboe, Secondary Required** (max 12 cr; prereq mus maj, Δ)
320382 2-4 cr
- 3412 **Clarinet, Secondary Required** (max 12 cr; prereq mus maj, Δ)
222173 2-4 cr
- 3413 **Saxophone, Secondary Required** (max 12 cr; prereq mus maj, Δ)
412886 2-4 cr
- 3414 **Bassoon, Secondary Required** (max 12 cr; prereq mus maj, Δ)
715731 2-4 cr
- 3415 **French Horn, Secondary Required** (max 12 cr; prereq mus maj, Δ)
612787 2-4 cr
- 3416 **Trumpet, Secondary Required** (max 12 cr; prereq mus maj, Δ)
516878 2-4 cr
- 3417 **Trombone, Secondary Required** (max 12 cr; prereq mus maj, Δ)
715776 2-4 cr
- 3418 **Baritone, Secondary Required** (max 12 cr; prereq mus maj, Δ)
812710 2-4 cr
- 3419 **Tuba, Secondary Required** (max 12 cr; prereq mus maj, Δ)
017923 2-4 cr
- 3421 **Percussion, Secondary Required** (max 12 cr; prereq mus maj, Δ)
118755 2-4 cr
- 3422 **Harp, Secondary Required** (max 12 cr; prereq mus maj, Δ)
620095 2-4 cr
- 3423 **Guitar, Secondary Required** (max 12 cr; prereq mus maj, Δ)
215059 1325-1415 F, FergH 81, 2-4 cr (addtl hrs ar)
- 3501 **Piano, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
820323 2-4 cr
- 3502 **Harpichord, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
221301 2-4 cr
- 3503 **Organ, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
113295 2-4 cr
- 3504 **Voice, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
918028 2-4 cr
- 3505 **Violin, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
813436 2-4 cr
- 3506 **Viola, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
217362 2-4 cr
- 3507 **Cello, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
616483 2-4 cr
- 3508 **Double Bass, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
214591 2-4 cr
- 3509 **Flute, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
714269 2-4 cr
- 3511 **Oboe, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
416159 2-4 cr
- 3512 **Clarinet, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
112672 2-4 cr
- 3513 **Saxophone, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
918031 2-4 cr
- 3514 **Bassoon, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
114737 2-4 cr
- 3515 **French Horn, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
116486 2-4 cr
- 3516 **Trumpet, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
621392 2-4 cr
- 3517 **Trombone, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
122179 2-4 cr
- 3518 **Baritone, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
919910 2-4 cr
- 3519 **Tuba, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
021311 2-4 cr
- 3521 **Percussion, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
916778 2-4 cr
- 3522 **Harp, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
323363 2-4 cr
- 3523 **Guitar, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
022927 1325-1415 F, FergH 81, 2-4 cr (addtl hrs ar)
- 3601 **Piano, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
418946 2-4 cr
- 3602 **Harpichord, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
117242 2-4 cr
- 3603 **Organ, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
617391 2-4 cr
- 3604 **Voice, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
220956 1630-1830 W, 1430-1520 Th, 2-4 cr
- 3605 **Violin, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
822301 2-4 cr
- 3606 **Viola, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
913010 2-4 cr
- 3607 **Cello, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
919261 2-4 cr
- 3608 **Double Bass, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
218835 2-4 cr
- 3609 **Flute, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
322780 1220-1310 Th, FergH 95, 2-4 cr
- 3611 **Oboe, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
618248 1220-1310 Th, FergH 95, 2-4 cr
- 3612 **Clarinet, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
317207 1220-1310 Th, FergH 95, 2-4 cr
- 3613 **Saxophone, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
117225 1220-1310 Th, FergH 95, 2-4 cr
- 3614 **Bassoon, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
419000 1220-1310 Th, FergH 95, 2-4 cr
- 3615 **French Horn, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
417893 1220-1310 Th, FergH 95, 2-4 cr
- 3616 **Trumpet, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
523183 1220-1310 Th, FergH 95, 2-4 cr
- 3617 **Trombone, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
713719 1220-1310 Th, FergH 95, 2-4 cr
- 3618 **Baritone, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
118321 1220-1310 Th, FergH 95, 2-4 cr
- 3619 **Tuba, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
722274 1220-1310 Th, FergH 95, 2-4 cr
- 3621 **Percussion, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
122398 2-4 cr
- 3622 **Harp, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
417442 2-4 cr
- 3623 **Guitar, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
322178 1325-1415 F, FergH 81, 2-4 cr (addtl hrs ar)

- 3701 **Piano, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
121436 2-4 cr
- 3702 **Harpichord, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
713400 2-4 cr
- 3703 **Organ, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
717818 2-4 cr
- 3704 **Voice, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
019154 1630-1830 W, 1430-1520 Th, 2-4 cr
- 3705 **Violin, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
718385 2-4 cr
- 3706 **Viola, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
616788 2-4 cr
- 3707 **Cello, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
214946 2-4 cr
- 3708 **Double Bass, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
022491 2-4 cr
- 3709 **Flute, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
113921 1220-1310 Th, FergH 95, 2-4 cr
- 3711 **Oboe, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
819463 1220-1310 Th, FergH 95, 2-4 cr
- 3712 **Clarinet, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
315716 1220-1310 Th, FergH 95, 2-4 cr
- 3713 **Saxophone, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
520476 1220-1310 Th, FergH 95, 2-4 cr
- 3714 **Bassoon, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
312671 1220-1310 Th, FergH 95, 2-4 cr
- 3715 **French Horn, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
620968 1220-1310 Th, FergH 95, 2-4 cr
- 3716 **Trumpet, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
417067 1220-1310 Th, FergH 95, 2-4 cr
- 3717 **Trombone, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
321144 1220-1310 Th, FergH 95, 2-4 cr
- 3718 **Baritone, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
818460 1220-1310 Th, FergH 95, 2-4 cr
- 3719 **Tuba, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
723019 1220-1310 Th, FergH 95, 2-4 cr
- 3721 **Percussion, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
014021 2-4 cr
- 3722 **Harp, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
020501 2-4 cr
- 3723 **Guitar, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
517867 1325-1415 F, FergH 81, 2-4 cr (addtl hrs ar)
- 3801 **Piano, Minor** (prereq audition, Δ)
915081 2-4 cr
- 3802 **Harpichord, Minor** (prereq audition, Δ)
122532 2-4 cr
- 3803 **Organ, Minor** (prereq audition, Δ)
112963 2-4 cr
- 3804 **Voice, Minor** (prereq audition, Δ)
212789 2-4 cr
- 3805 **Violin, Minor** (prereq audition, Δ)
117444 2-4 cr
- 3806 **Viola, Minor** (prereq audition, Δ)
821181 2-4 cr
- 3807 **Cello, Minor** (prereq audition, Δ)
022247 2-4 cr
- 3808 **Double Bass, Minor** (prereq audition, Δ)
123140 2-4 cr
- 3809 **Flute, Minor** (prereq audition, Δ)
617357 1220-1310 Th, FergH 95, 2-4 cr
- 3811 **Oboe, Minor** (prereq audition, Δ)
012754 1220-1310 Th, FergH 95, 2-4 cr
- 3812 **Clarinet, Minor** (prereq audition, Δ)
523121 1220-1310 Th, FergH 95, 2-4 cr
- 3813 **Saxophone, Minor** (prereq audition, Δ)
118293 1220-1310 Th, FergH 95, 2-4 cr
- 3814 **Bassoon, Minor** (prereq audition, Δ)
317949 1220-1310 Th, FergH 95, 2-4 cr
- 3815 **French Horn, Minor** (prereq audition, Δ)
613731 1220-1310 Th, FergH 95, 2-4 cr
- 3816 **Trumpet, Minor** (prereq audition, Δ)
023169 1220-1310 Th, FergH 95, 2-4 cr
- 3817 **Trombone, Minor** (prereq audition, Δ)
618301 1220-1310 Th, FergH 95, 2-4 cr
- 3818 **Baritone, Minor** (prereq audition, Δ)
816157 1220-1310 Th, FergH 95, 2-4 cr
- 3819 **Tuba, Minor** (prereq audition, Δ)
714871 1220-1310 Th, FergH 95, 2-4 cr
- 3821 **Percussion, Minor** (prereq audition, Δ)
617312 2-4 cr
- 3822 **Harp, Minor** (prereq audition, Δ)
322911 2-4 cr
- 3823 **Guitar, Minor** (prereq audition, Δ)
915761 1325-1415 F, FergH 81, 2-4 cr (addtl hrs ar)
- 5101 **Piano** (prereq audition, Δ)
919969 2 cr
- 5102 **Harpichord** (prereq audition, Δ)
419109 2 cr
- 5103 **Organ** (prereq audition, Δ)
112784 2 cr
- 5104 **Voice** (prereq audition, Δ)
317451 2 cr
- 5105 **Violin** (prereq audition, Δ)
815798 2 cr
- 5106 **Viola** (prereq audition, Δ)
619495 2 cr
- 5107 **Cello** (prereq audition, Δ)
414833 2 cr
- 5108 **Double Bass** (prereq audition, Δ)
820368 2 cr
- 5109 **Flute** (prereq audition, Δ)
922015 2 cr
- 5111 **Oboe** (prereq audition, Δ)
719830 2 cr
- 5112 **Clarinet** (prereq audition, Δ)
720234 2 cr
- 5113 **Saxophone** (prereq audition, Δ)
117905 2 cr
- 5114 **Bassoon** (prereq audition, Δ)
914304 2 cr
- 5115 **French Horn** (prereq audition, Δ)
616032 2 cr
- 5116 **Trumpet** (prereq audition, Δ)
213229 2 cr
- 5117 **Trombone** (prereq audition, Δ)
619299 2 cr
- 5118 **Baritone Horn** (prereq audition, Δ)
720945 2 cr
- 5119 **Tuba** (prereq audition, Δ)
219029 2 cr
- 5121 **Percussion** (prereq audition, Δ)
918806 2 cr
- 5122 **Harp** (prereq audition, Δ)
318759 2 cr
- 5123 **Guitar** (prereq audition, Δ)
312864 2 cr
- 8201 **Piano, Principal** (prereq audition, Δ)
215885 2-4 cr
- 8202 **Harpichord, Principal** (prereq audition, Δ)
322438 2-4 cr
- 8203 **Organ, Principal** (prereq audition, Δ)
517478 2-4 cr
- 8204 **Voice, Principal** (prereq audition, Δ)
322164 1630-1830 W, 1430-1520 Th, 2-4 cr (addtl hrs ar)
- 8205 **Violin, Principal** (prereq audition, Δ)
416081 1430-1520 W, FergH 85, 2-4 cr (addtl hrs ar)
- 8206 **Viola, Principal** (prereq audition, Δ)
722419 1430-1520 W, FergH 85, 2-4 cr (addtl hrs ar)
- 8207 **Cello, Principal** (prereq audition, Δ)
623532 1430-1520 W, FergH 85, 2-4 cr (addtl hrs ar)
- 8208 **Double Bass, Principal** (prereq audition, Δ)
622316 1430-1520 W, FergH 85, 2-4 cr (addtl hrs ar)
- 8209 **Flute, Principal** (prereq audition, Δ)
013807 2-4 cr
- 8211 **Oboe, Principal** (prereq audition, Δ)
616273 2-4 cr
- 8212 **Clarinet, Principal** (prereq audition, Δ)
521899 2-4 cr
- 8213 **Saxophone, Principal** (prereq audition, Δ)
918126 2-4 cr
- 8214 **Bassoon, Principal** (prereq audition, Δ)
612871 2-4 cr
- 8215 **French Horn, Principal** (prereq audition, Δ)
123096 2-4 cr
- 8216 **Trumpet, Principal** (prereq audition, Δ)
117766 2-4 cr
- 8217 **Trombone, Principal** (prereq audition, Δ)
413245 2-4 cr
- 8218 **Baritone, Principal** (prereq audition, Δ)
714241 2-4 cr
- 8219 **Tuba, Principal** (prereq audition, Δ)
717043 2-4 cr
- 8221 **Percussion, Principal** (prereq audition, Δ)
616872 2-4 cr
- 8222 **Harp, Principal** (prereq audition, Δ)
017940 2-4 cr
- 8223 **Guitar, Principal** (prereq audition, Δ)
622011 2-4 cr
- 8301 **Piano, Major** (prereq audition, Δ)
123454 2-4 cr
- 8302 **Harpichord, Major** (prereq audition, Δ)
422849 2-4 cr
- 8303 **Organ, Major** (prereq audition, Δ)
319426 2-4 cr
- 8304 **Voice, Major** (prereq audition, Δ)
112860 1630-1830 W, 1430-1520 Th, 2-4 cr (addtl hrs ar)
- 8305 **Violin, Major** (prereq audition, Δ)
514970 1430-1520 W, FergH 85, 2-4 cr (addtl hrs ar)
- 8306 **Viola, Major** (prereq audition, Δ)
819317 1430-1520 W, FergH 85, 2-4 cr (addtl hrs ar)
- 8307 **Cello, Major** (prereq audition, Δ)
222819 1430-1520 W, FergH 85, 2-4 cr (addtl hrs ar)
- 8308 **Double Bass, Major** (prereq audition, Δ)
419742 1430-1520 W, FergH 85, 2-4 cr (addtl hrs ar)
- 8309 **Flute, Major** (prereq audition, Δ)
717124 2-4 cr
- 8311 **Oboe, Major** (prereq audition, Δ)
118047 2-4 cr
- 8312 **Clarinet, Major** (prereq audition, Δ)
420759 2-4 cr
- 8313 **Saxophone, Major** (prereq audition, Δ)
114110 2-4 cr
- 8314 **Bassoon, Major** (prereq audition, Δ)
518856 2-4 cr
- 8315 **French Horn, Major** (prereq audition, Δ)
122806 2-4 cr
- 8316 **Trumpet, Major** (prereq audition, Δ)
020157 2-4 cr
- 8317 **Trombone, Major** (prereq audition, Δ)
016710 2-4 cr

- 8318 **Baritone, Major** (prereq audition, Δ)
314632 2-4 cr
- 8319 **Tuba, Major** (prereq audition, Δ)
115094 2-4 cr
- 8321 **Percussion, Major** (prereq audition, Δ)
215787 2-4 cr
- 8322 **Harp, Major** (prereq audition, Δ)
919924 2-4 cr
- 8323 **Guitar, Major** (prereq audition, Δ)
619318 2-4 cr
- 8401 **Piano, Secondary Required** (max 12 cr; prereq mus maj, Δ)
421975 2-4 cr
- 8402 **Harpichord, Secondary Required** (max 12 cr; prereq mus maj, Δ)
118206 2-4 cr
- 8403 **Organ, Secondary Required** (max 12 cr; prereq mus maj, Δ)
914688 2-4 cr
- 8404 **Voice, Secondary Required** (max 12 cr; prereq mus maj, Δ)
023494 2-4 cr
- 8405 **Violin, Secondary Required** (max 12 cr; prereq mus maj, Δ)
112946 2-4 cr
- 8406 **Viola, Secondary Required** (max 12 cr; prereq mus maj, Δ)
021972 2-4 cr
- 8407 **Cello, Secondary Required** (max 12 cr; prereq mus maj, Δ)
414881 2-4 cr
- 8408 **Double Bass, Secondary Required** (max 12 cr; prereq mus maj, Δ)
916246 2-4 cr
- 8409 **Flute, Secondary Required** (max 12 cr; prereq mus maj, Δ)
823531 2-4 cr
- 8411 **Oboe, Secondary Required** (max 12 cr; prereq mus maj, Δ)
123552 2-4 cr
- 8412 **Clarinet, Secondary Required** (max 12 cr; prereq mus maj, Δ)
917218 2-4 cr
- 8413 **Saxophone, Secondary Required** (max 12 cr; prereq mus maj, Δ)
616726 2-4 cr
- 8414 **Bassoon, Secondary Required** (max 12 cr; prereq mus maj, Δ)
721819 2-4 cr
- 8415 **French Horn, Secondary Required** (max 12 cr; prereq mus maj, Δ)
118979 2-4 cr
- 8416 **Trumpet, Secondary Required** (max 12 cr; prereq mus maj, Δ)
223128 2-4 cr
- 8417 **Trombone, Secondary Required** (max 12 cr; prereq mus maj, Δ)
112955 2-4 cr
- 8418 **Baritone, Secondary Required** (max 12 cr; prereq mus maj, Δ)
915243 2-4 cr
- 8419 **Tuba, Secondary Required** (max 12 cr; prereq mus maj, Δ)
915260 2-4 cr
- 8421 **Percussion, Secondary Required** (max 12 cr; prereq mus maj, Δ)
912715 2-4 cr
- 8422 **Harp, Secondary Required** (max 12 cr; prereq mus maj, Δ)
321029 2-4 cr
- 8423 **Guitar, Secondary Required** (max 12 cr; prereq mus maj, Δ)
512720 2-4 cr
- 8501 **Piano, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
916294 2-4 cr
- 8502 **Harpichord, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
914240 2-4 cr
- 8503 **Organ, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
112865 2-4 cr
- 8504 **Voice, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
817387 2-4 cr
- 8505 **Violin, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
116186 2-4 cr
- 8506 **Viola, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
116083 2-4 cr
- 8507 **Cello, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
223419 2-4 cr
- 8508 **Double Bass, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
223176 2-4 cr
- 8509 **Flute, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
613177 2-4 cr
- 8511 **Oboe, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
116964 2-4 cr
- 8512 **Clarinet, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
322469 2-4 cr
- 8513 **Saxophone, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
314274 2-4 cr
- 8514 **Bassoon, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
815249 2-4 cr
- 8515 **French Horn, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
216888 2-4 cr
- 8516 **Trumpet, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
618962 2-4 cr
- 8517 **Trombone, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
220052 2-4 cr
- 8518 **Baritone, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
918756 2-4 cr
- 8519 **Tuba, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
712764 2-4 cr
- 8521 **Percussion, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
820242 2-4 cr
- 8522 **Harp, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
120084 2-4 cr
- 8523 **Guitar, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
213697 2-4 cr
- 8601 **Piano, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
120179 2-4 cr
- 8602 **Harpichord, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
113118 2-4 cr
- 8603 **Organ, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
916442 2-4 cr
- 8604 **Voice, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
813050 1630-1830 W, 1430-1520 Th, 2-4 cr
- 8605 **Violin, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
216101 2-4 cr
- 8606 **Viola, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
817339 2-4 cr
- 8607 **Cello, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
013239 2-4 cr
- 8608 **Double Bass, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
221105 2-4 cr
- 8609 **Flute, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
913430 2-4 cr
- 8611 **Oboe, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
716426 2-4 cr
- 8612 **Clarinet, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
417490 2-4 cr
- 8613 **Saxophone, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
513088 2-4 cr
- 8614 **Bassoon, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
118374 2-4 cr
- 8615 **French Horn, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
123414 2-4 cr
- 8616 **Trumpet, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
123106 2-4 cr
- 8617 **Trombone, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
315120 2-4 cr
- 8618 **Baritone, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
317157 2-4 cr
- 8619 **Tuba, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
421989 2-4 cr
- 8621 **Percussion, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
920796 2-4 cr
- 8622 **Harp, Principle Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
222142 2-4 cr
- 8623 **Guitar, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
614801 2-4 cr
- 8701 **Piano, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
017193 2-4 cr
- 8702 **Harpichord, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
917736 2-4 cr
- 8703 **Organ, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
122411 2-4 cr
- 8704 **Voice, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
522129 1630-1830 W, 1430-1520 Th, 2-4 cr
- 8705 **Violin, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
718919 2-4 cr
- 8706 **Viola, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
117872 2-4 cr
- 8707 **Cello, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
121963 2-4 cr
- 8708 **Double Bass, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
717088 2-4 cr
- 8709 **Flute, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
722436 2-4 cr
- 8711 **Oboe, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
623112 2-4 cr
- 8712 **Clarinet, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
719228 2-4 cr
- 8713 **Saxophone, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
115886 2-4 cr
- 8714 **Bassoon, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
719312 2-4 cr
- 8715 **French Horn, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
317238 2-4 cr
- 8716 **Trumpet, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
417022 2-4 cr

- 8717 Trombone, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
916036 2-4 cr
- 8718 Baritone, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
123194 2-4 cr
- 8719 Tuba, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
716748 2-4 cr
- 8721 Percussion, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
719942 2-4 cr
- 8722 Harp, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
223355 2-4 cr
- 8723 Guitar, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
120344 2-4 cr

MUSIC EDUCATION (MuEd)

Music

Liberal Arts

- r3011 Teaching Music in the Elementary School** (prereq Mus 1001, elementary educ maj) (A-F only)
621439 -1 0905-0955 MWF, FergH 107, McCoy, 4 cr
918837 -2 1430-1520 MWF, FergH 107, 4 cr (III A majors only)
321953 -3 1535-1625 MWF, FergH 107, 4 cr (IIIA majors only)
- 3302 Teaching Vocal and General Music Grades 5-12** (prereq music education maj or #) (A-F only)
613857 1010-1100 MTWTh, FergH 107, Borg, 4 cr
- 3415 Choral Laboratory** (prereq music education maj or #) (A-F only)
216051 1430-1625 MWF, FergH 105, McCoy, 4 cr
- r3501 String Techniques II** (prereq music education maj or #) (A-F only)
921480 1115-1205 MWF, FergH 81, Remenikova, 3 cr
- 3503 Woodwind Techniques** (prereq music education maj or #) (A-F only)
114270 0905-0955 MTWTh, FergH 85, Schultz, 4 cr
- 3504 Brass Techniques** (§1525; prereq music education maj or #) (A-F only)
418929 0905-0955 MTWTh, FergH 81, Haack, 4 cr
- 3516 Instrumental Laboratory II** (prereq music education maj or #) (A-F only)
119906 1010-1100 MTWTh, FergH 85, Schultz, 4 cr
- 3650 Student Teaching in Music** (prereq #) (A-F only)
315229 -1 1430-1625 M, FergH 157, Schultz, Haack, 3-12 cr
423273 -2 1615-1800 W, FergH 157, Borg, McCoy, 3-12 cr
- 3801 Psychology of Music I** (prereq Psy 1001, 3804 or #) (A-F only)
416291 1010-1100 MTWTh, FergH 157, Haack, 4 cr
- 3804 Music Therapy Techniques I** (prereq maj in music therapy) (A-F only)
118299 1115-1310 T, 1115-1205 Th, FergH 151, Furman, 4 cr
- r3850 Field Experiences: Music Therapy** (max 10 cr; prereq 3800, 3804) (S-N only)
618900 -1 1220-1310 Th, FergH 151, Furman, 1-2 cr
120884 -2 1220-1310 Th, FergH 144, Furman, 1-2 cr
113829 -3 1325-1415 Th, FergH 151, Furman, 1-2 cr
217507 -4 1325-1415 Th, FergH 144, Furman, 1-2 cr
- 3851 Internship: Music Therapy** (3851-3852†; prereq #) (S-N only)
023088 Furman, 6 cr
- 3852 Internship: Music Therapy** (3851-3852†; prereq #) (S-N only)
317160 Furman, 6 cr

- 5112 Research in Music Education: Techniques** (A-F only)
521109 1630-1830 Th, FergH 151, Furman, 3 cr
- 5615 Teaching Music Reading** (prereq #) (A-F only)
143347 1630-1830 M, FergH 107, Borg, 3 cr
- 5970 Independent Study** (prereq educ or grad stu) (A-F only)
914853 1-4 cr
- 8282 Music Education Seminar: Historical Issues** (prereq MA in music or music educ or #)
123258 1615-1830 T, FergH 157, Schultz, 3 cr
- 8990 Research Problems** (prereq knowledge of elementary statistics)
114597 1-12 cr

NATURAL RESOURCES AND ENVIRONMENTAL STUDIES (NRES)

Agriculture & Nat Res

- 1040 Natural Resources as Raw Materials** (A-F only)
519568 0830-0920 MW, NatResAd 100, Bowyer, 2 cr
- 3001 Colloquium in Natural Resources and Environmental Studies** (max 4 cr) (A-F only)
442809 1500-1550 W, GrnH 110, Morrissey, 1 cr
- 3050 Experience and Training in a Field Setting** (prereq #) (A-F only)
513513 Underwood, Splett, 1-4 cr
- 3225 Directed Study Experience** (prereq fr or soph)
842807 1-5 cr
- r5100 Problem Solving in Natural Resources and Environmental Studies II** (5099, 5100†; prereq 5099) (A-F only)
144529 1500-1615 TTh, BorH 375, Cooper, Anderson, 3 cr
- 5210 Survey, Measurement and Modelling Methods for Natural Resources Analysis** (prereq math 1142, Stat 3011, computer competency) (A-F only)
322803 0935-1025 MWF, GrnH 203, Ek, 3 cr
- 5220 Survey, Measurement and Modelling Methods for Natural Resources II** (prereq 5210 or FR 5212 or equiv) (A-F only)
644526 0900-1040 TTh, GrnH 19, Burk, Ek, 4 cr
- 5225 Directed Study Experience** (prereq jr or sr or grad stu)
642808 1-5 cr
- r5600 Principles of Waste Management** (prereq Soil 1020 or Soil 3125, 1 course in chem, biol) (A-F only)
★LECT 1250-1340 MWF, BorH 365, Halbach
244528 -1 REC 1500-1550 W, BorH 365, Cooper, 4 cr

NAVAL SCIENCE (Nav)

- r0204 Professional Training in Naval Science** (S-N only)
913878 0700-0900 W, Armory 116, Hatcher, 0 cr
- r1202 Celestial and Electronic Navigation** (prereq 1201) (A-F only)
813579 -1 1010-1205 MWF, Armory 12A, Sylvia, 4 cr
544535 -2 1220-1415 MWF, Armory 12A, Rishia, 4 cr
- r3402 Principles of Naval Management II** (A-F only)
419482 -1 1010-1100 MWF, Armory 205, Lennon, 3 cr
917106 -2 1310-1400 MWF, Armory 205, Lennon, 3 cr
- r3453 Amphibious Warfare II** (prereq 3452 or #) (A-F only)
519988 1415-1545 TTh, Armory 205, Hatcher, 2 cr

NEUROLOGY (Neur) Medical School

- 5120 Selected Problems in Neurology** (prereq regis med)
821231 Price, ar cr

- 5121 Descriptive Neurology** (prereq regis in occupational or physical therapy)
623353 1220-1310 TWTh, MoosT 2620, Moriarty, 2 cr
- 5122 Pediatric Neurology: Health Care Psychology Interns** (prereq #)
317837 Shapiro, ar cr
- 5124 Sleep Disorders Medicine: Externship** (prereq regis med) (S-N only)
217717 4.5 cr
- 5125 Neuroimmunology Research** (S-N only)
715213 Birnbaum, ar cr
- 5510 Externship in Clinical Neurology** (prereq regis med)
817132 Price, ar cr
- 5541 Pediatric Neurology: Neurochemistry** (prereq regis med)
222853 Swaiman, ar cr
- 5542 Pediatric Neurology** (prereq regis med)
422396 Swaiman, ar cr
- 5544 Clinical Electroencephalography** (prereq regis med)
122224 Torres, ar cr
- 5545 Electromyography** (prereq regis med)
818250 Kennedy, ar cr
- 5570 Immunology-Veterans Administration Hospital** (prereq regis med)
617018 Ansari, ar cr
- 5599 Subinternship in Clinical Neurology** (prereq 5510, Course Director recommendation, med stu) (S-N only)
745540 Davenport, ar cr
- 8200 Clinical Neurology**
313870 Price, ar cr
- 8201 Clinical Pediatric Neurology**
323184 Swaiman, ar cr
- 8202 Research in Neurology**
018215 Price, ar cr
- 8203 Applied Electroencephalography**
621442 Torres, ar cr
- 8204 Applied Electromyography**
620176 Kennedy, ar cr
- 8205 Applied Neuropathology**
018473 Sung, ar cr
- 8221 Neurochemical Aspects of Selected Clinical Disorders**
215496 Price, 2 cr
- 8233 Neurological Clinical Pathological Conference**
816465 Price, 1 cr
- 8234 Neuropsychology Conference**
114981 Meier, 1 cr
- 8236 Research in Neuropathology**
814103 Sung, ar cr
- 8704 Survey of Neuropathology** (§Path 8702)
912746 Sung, 1 cr
- 8705 Neurological-Neurosurgical Conference** (§Surg 8318, Rad 0124)
617343 Price, 1 cr
- 8777 Thesis Credits: Masters**
215028 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
923293 1-36 cr

NEUROSCIENCE (Nsc)

- 5102 Veterinary Neurobiology** (§VB 5102; prereq #)
★LECT 1000-1050 T, 1300-1350 Th, AnScVM 125, Beitz, Fletcher, 3 cr (StP)
016397 -1 LAB 1400-1650 Th, AnScVM 104, (StP)
- r5202 Computational Neuroscience II: Cells and Circuits** (prereq an understanding of UNIX, Phsl 5201 or equiv)
145406 1430-1600 MW, MirdH 5276, Miller, 5 cr (lab ar)
- 5480 Invertebrate Neurobiology** (§Ent 5480) (A-F only)
623157 Mesce, 2 cr

- 8136 Experimental Comparative Veterinary Neurology** (§VB 8136; prereq VB 8135 or #)
821049 Beitz, Fletcher, 3 cr
- 8207 Seminar: Psychopharmacology** (max 3 cr, §Phcl 8207; prereq #)
414038 Sparber, 1 cr
- 8216 Selected Topics: Neurophysiology** (§Phsl 8216; prereq Anat 5111, Phsl 5112 or equiv, or #)
512880 -1 Soechting, ar cr
113992 -2 Miller, ar cr
- 8324 Readings in Neurobiology** (§NSu 8324; prereq Phsl 8104 or #)
322973 Ebner, 1 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
923438 1-36 cr

NEUROSURGERY (NSu) Medical School

- 5500 Externship at the University Hospitals** (prereq regis med)
114916 Heros, Seljeskog, others, 4.5-9 cr
- 5510 Externship at Veterans Hospital** (prereq regis med)
018828 Maxwell, Cox, 4.5-9 cr
- 5511 Externship at Hennepin County Medical Center** (prereq regis med)
115239 Rockswold, 4.5-9 cr
- 5512 Externship at St. Paul Ramsey Hospital** (prereq regis med)
420163 Amaral, 4.5-9 cr
- 5520 Neurosurgical Investigation** (prereq regis med)
120957 Ebner, Low, ar cr
- 5530 Neuropsychology**
116245 Meier, 3 cr
- 5531 Advanced Neuropsychological Seminar** (prereq psych fellow specialist or #)
221850 Meier, 2 cr
- 5532 Clerkship in Neuropsychological Assessment** (prereq psych fellow specialist or #)
515228 Meier, 1-4 cr
- 5533 Case Conference in Neuropsychology** (prereq psych fellow specialist or #) (S-N only)
113913 Meier, 1 cr
- 5534 Introduction to Neuropsychological Assessment** (prereq psych fellow specialist or #) (S-N only)
217409 Meier, 3 cr
- 5535 Case Conference in Clinical Psychology** (prereq psych fellow specialist)
919096 Meier, 1-2 cr
- 5536 Seminar in Clinical Psychology** (prereq psych fellow specialist)
421748 Meier, 1-2 cr
- 5537 Psychology Internship** (prereq psych fellow specialist)
814988 Meier, 4-8 cr
- 5550 Neurophysiological Literature Seminar** (prereq medical school course in physiology, #)
821424 Meier, 1 cr
- 8305 Neurosurgical Diagnosis**
014049 Heros, Seljeskog, others, 4 cr
- 8306 Neurosurgical Problems and Management**
813887 Heros, Seljeskog, others, 4 cr
- 8311 Operative Neurosurgery**
018442 Heros, Seljeskog, others, 4 cr
- 8316 Neurosurgical Research**
820001 Ebner, 6 cr
- 8318 Neuroradiological Conference**
917476 1630-1730 F, Mayo C231, Heros, Seljeskog, others, 1 cr (Todd Amph)
- 8320 Neurosurgical Conference**
620243 0800-1100 S, Mayo B507, Heros, Seljeskog, others, 2 cr
- 8322 Neurosurgery-Ophthalmology Seminar - Part I**
620520 0800-0900 T, Mayo B524, 1 cr
- 8324 Readings in Neurobiology** (§NSc 8324; prereq 8104, consent of Medical School)
321077 Ebner, ar cr

- 8330 Neurosurgery Literature Seminar**
521191 2000-2200 Th, MoosT 2580, Heros, Seljeskog, others, 2 cr

- 8777 Thesis Credits: Masters**
521255 1-16 cr

- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
314467 1-36 cr

NORWEGIAN (Nor) Scandinavian Studies Liberal Arts

- r1102 Beginning Norwegian** (prereq 1101)
216339 -1 0800-0850 MTWThF, Kolth S137, 5 cr
214123 -2 0800-0850 MTWThF, BuH 125, 5 cr
123218 -3 1115-1205 MTWThF, Kolth S136, 5 cr
- r1105 Intermediate Norwegian** (prereq 1104 or equiv)
523409 -1 0905-0955 MTWThF, Kolth S136, Homstad, 5 cr
515519 -2 1010-1100 MTWThF, FolH 426, Simpson, 5 cr
- 3670 Readings in Norwegian Literary Texts** (max 28 cr; prereq 1106 or equiv)
022300 0905-0955 MWF, SmithH 111, Mishler, 4 cr

NURSING, SCHOOL OF (Nurs)

- 5040 Restoration and Enhancement of Health in the Acutely Ill Adult** (prereq 5000, 5021, pathophysiology, pharmacology, 5042, 5212 or #5042, #5212)
316302 1220-1415 TTh, OwreH 2230, Fahy, Hannon, 4 cr
- 5041 Practicum: Acutely Ill Adults** (prereq #5040)
★LAB 7 cr
122604 -1 CLN
★LAB 7 cr
820595 -2 CLN
- r5042 Interpersonal Communications** (prereq admission to School of Nursing or #)
014617 -1 0800-0955 W, HSUnitF 2120, 2130, 1430-1625 Th, HSUnitF 2110, 2 cr
019056 -2 1010-1205 W, HSUnitF 2120, 2130, 1430-1625 Th, HSUnitF 2140, 2 cr
920863 -3 0800-0955 Th, HSUnitF 2110, 2140, 1430-1625 T, HSUnitF 2120, 2 cr
422799 -4 1430-1625 T, HSUnitF 2130, 1010-1205 Th, HSUnitF 2110, 2140, 2 cr
- 5212 Introduction to Human Growth and Development Across the Life Span** (prereq general psychology, general biology)
313934 1220-1415 WF, MoosT 2530, Alaniz, DeHart, 4 cr
- 5213 Introduction to Human Growth and Development Across the Life Span, Supplement** (prereq general psychology, general biology)
120036 -1 1220-1415 WF, MoosT 2530, Alaniz, DeHart, 2 cr (2nd 5 weeks)
613681 -2 1220-1415 WF, MoosT 2530, Alaniz, DeHart, 2 cr (1st 5 weeks)
- 5215 Expansion of Perspectives in Nursing II** (prereq RN, admission to School of Nursing, 5214)
514340 1640-1835 TTh, HSUnitF, Brand, 4 cr
- 5420 Applied Clinical Research** (prereq 5440)
022667 1220-1520 Th, HSUnitF 2120, 2130, Feldman, 3 cr
- r5422H Applied Clinical Research II** (prereq nursing honors stu, □)
745246 1325-1520 T, HSUnitF, Brand, Duckett, 2 cr
- r5441 Practicum: Families with Children** (prereq #5440, #5445)
★REC 1000-1200 M, HSUnitF 2110, 2140, (1st 5 weeks)
417599 -1 CLN 3 cr (1st 5 weeks)
★REC 1000-1200 M, HSUnitF 2110, 2140, (2nd 5 weeks)
019610 -2 CLN 3 cr (2nd 5 weeks)
- r5443 Practicum: Individuals/Groups/Populations** (prereq #5440, #5445)
★REC 0800-1000 M, HSUnitF 2110, 2140, (1st 5 weeks)
822640 -1 CLN 5 cr (1st 5 weeks)
★REC 0800-1000 M, HSUnitF 2110, 2140, (2nd 5 weeks)
313559 -2 CLN 5 cr (2nd 5 weeks)
- 5460 Leadership/Followership/Management** (prereq 5440)
442812 1220-1415 TTh, OwreH 2210, 4 cr (addtl 3 hrs per week ar)
- 5480 Special Topics** (prereq admission to School of Nursing or #) (S-N only)
222643 1220-1310 T, HSUnitF 2120, 2130, 1-2 cr (addtl hr ar)
- r5620 Independent Study in Nursing Topics** (prereq #)
944757 -1 1325-1625 T, HSUnitF 2110, 3 cr
145972 -2 1-9 cr
- 5799 Self-Directed Study as a Means of Accomplishing Nursing Electives** (prereq #)
515245 ar cr
- r5902 Nursing and the Politics of Health** (prereq grad student, #)
721366 1535-1820 W, HSUnitF 5140, Fahy, 2-3 cr
- r5940 Nursing Assessment of the Elderly** (prereq a basic history taking and physical assessment course)
545247 1640-1835 W, HSUnitF, 2 cr
- 8001 Special Educational Experiences in Nursing** (prereq Δ)
814294 ar cr
- 8009 Special Topics** (prereq #)
620338 ar cr
- r8010 Structure of the Discipline of Nursing**
320785 1640-1940 T, HSUnitF, Egan, 3 cr
- r8011 Moral and Ethical Positions in Nursing** (prereq grad nurs stu or #)
117122 1325-1625 W, HSUnitF, Crisham, 3 cr
- r8012 Conceptual Framework for Nursing Practice** (prereq 8010)
514757 0905-1205 T, HSUnitF, Sodergren, 3 cr
- r8014 Research in Nursing** (prereq inferential statistics)
113174 1220-1520 T, HSUnitF, Feldman, 3 cr
- r8021 Community Health Nursing in Long-Term Care** (prereq 8010, nurs grad stu or #)
242813 1535-1835 T, HSUnitF, Bull, 3 cr
- r8030 Nursing Intervention Models** (8 cr must be completed before any cr is given; prereq 8011, 8012 or #8011, #)
122425 -1 LECT 0905-1310 T, HSUnitF, Lindquist, 4-8 cr (cln ar)(MS)
★REC (cln conf ar)
820404 -2 LECT 0905-1100 Th, HSUnitF, Tomlinson, 4 cr (cln ar) (CCFN)
★REC (cln conf ar)
422141 -3 LECT 0905-1310 WTh, HSUnitF, (1st five weeks) 0905-1310, 1325-1520 W, HSUnitF (2nd five weeks) Dineen, 8 cr (cln ar) (NMW)
★REC (cln conf ar)
- 8050 Problems in Nursing** (prereq #) (S-N only)
322083 -1 Alaniz, 1-9 cr
121758 -2 Bull, 1-9 cr
320236 -3 Burns, 1-9 cr
820905 -4 Corcoran-Perry, 1-9 cr
917137 -5 Crisham, 1-9 cr
417229 -6 De Hart, 1-9 cr
319930 -7 Dineen, 1-9 cr
616144 -8 Donaldson, 1-9 cr
918286 -9 Duckett, 1-9 cr
523412 -10 Edwardson, 1-9 cr
117492 -11 Egan, 1-9 cr
821861 -12 Fahy, 1-9 cr
918787 -13 Feldman, 1-9 cr
114910 -14 Gordon, 1-9 cr
413729 -15 Gross, 1-9 cr
719262 -16 Gustafson, 1-9 cr
519313 -17 Krichbaum, 1-9 cr
817485 -18 Lindquist, 1-9 cr
120416 -19 Newman, 1-9 cr
520302 -20 Pederson, 1-9 cr
416808 -21 Ryden, 1-9 cr
117217 -22 Sime, 1-9 cr
812772 -23 Snyder, 1-9 cr
118987 -24 Sodergren, 1-9 cr
345248 -25 Tomlinson, 1-9 cr
145249 -26 1-9 cr
- 8051 Special Topics in Nursing Research**
723098 -1 0905-1100 F, HSUnitF, Gross, Sime, Tomlinson, 1-9 cr
816689 -2 1-9 cr
- 8060 Advanced Clinical Nursing** (prereq #, Δ)
314078 3-9 cr

- r8064 Research on Decision Making in Health Care** (prereq one grad level research course, #) 545250 0905-1205 Th, HSUnitF, Corcoran-Perry, 4 cr (1 hr ar)
- r8110 Theoretical Foundations of the Discipline** (prereq 8012 or equiv, knowledge of philosophy of science, Δ) 313982 1325-1730 Th, HSUnitF, Sime, 4 cr
- r8313 Care of the Childbearing Family in Risk** (prereq physiology, #) 213408 0905-1205 W, HSUnitF, Dineen, 4-6 cr
- r8421 Psychiatric-Mental Health Nursing: Group Dynamics and Leadership Skills** (prereq 8030, #) 721223 -1 LECT 1535-1730 T, HSUnitF, Gordon, 3 cr (clin ar)
★REC (clin conf ar)
- r8435 Childbearing-Childrearing Family Nursing II** (prereq 8431, #) 142814 0905-1205 W, HSUnitF, Pederson, 6-9 cr (clin ar)
- 8509 Special Topics: Nursing Education** (prereq #) 120027 ar cr
- 8609 Special Topics in Nursing Supervision** (prereq #) 421359 ar cr
- r8702 Nursing Administration II** (prereq 8701, #) 019008 -1 LECT 1535-1835 T, HSUnitF, Kreitzer, 6 cr (clin ar)
★REC (clin conf ar)
- 8777 Thesis Credits: Masters** 215952 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr) 620856 1-36 cr
- r8900 Theoretical Foundations of Health Related Behaviors** (prereq #) 417425 0905-1205 T, HSUnitF, Snyder, 3 cr

NUTRITION (Nutr) Food Science and Nutrition Agriculture & Human Ecology

- 8745 Seminar** (prereq #) (S-N only) 920748 1605-1655 T, FSCh 23, Hassel, 1 cr
- 8777 Thesis Credits: Masters** 919468 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr) 316297 1-36 cr
- 8990 Graduate Research** (prereq #) 314372 2-5 cr

OBSTETRICS AND GYNECOLOGY (Obst) Medical School

- 5500 Externship in Obstetrics and Gynecology** (prereq regis med) 916750 Twiggs, others, 9 cr
- 5520 Obstetrics and Gynecology Externship in Clinical Practice** (prereq regis med) 922225 Twiggs, others, 4.5 cr
- 5540 Advanced Externship in Obstetrics and Gynecology** (prereq 5500) 915890 Twiggs, others, ar cr
- 5560 Research in Reproduction** (prereq 5500) 720833 Twiggs, others, ar cr
- 5575 Gynecological Pathology and Diagnostic Cytology** (prereq 5500) 915100 Okagaki, Brooker, 9 cr
- 5590 Preceptorship in Obstetrics and Gynecology** (prereq 5500) 822413 Twiggs, others, 9 cr
- 8201 Advanced Obstetrics and Gynecology I** 117721 Twiggs, others, ar cr
- 8202 Advanced Obstetrics and Gynecology I** (prereq 8201) 812819 Twiggs, others, ar cr
- 8203 Advanced Obstetrics and Gynecology I** (prereq 8202) 418915 Twiggs, others, ar cr

- 8204 Advanced Obstetrics and Gynecology I** (prereq 8203) 614085 Twiggs, others, ar cr
- 8205 Advanced Obstetrics and Gynecology II** 014939 Twiggs, others, ar cr
- 8206 Advanced Obstetrics and Gynecology II** (prereq 8205) 619822 Twiggs, others, ar cr
- 8207 Advanced Obstetrics and Gynecology II** (prereq 8206) 815221 Twiggs, others, ar cr
- 8208 Advanced Obstetrics and Gynecology II** (prereq 8207) 419188 Twiggs, others, ar cr
- 8209 Advanced Obstetrics and Gynecology III** 017825 Twiggs, others, ar cr
- 8210 Advanced Obstetrics and Gynecology III** (prereq 8209) 416243 Twiggs, others, ar cr
- 8211 Advanced Obstetrics and Gynecology III** (prereq 8210) 822931 Twiggs, others, ar cr
- 8212 Advanced Obstetrics and Gynecology III** (prereq 8211) 117475 Twiggs, others, ar cr
- 8213 Advanced Obstetrics and Gynecology IV** (prereq 8212) 417005 Twiggs, others, ar cr
- 8214 Advanced Obstetrics and Gynecology IV** (prereq 8213) 822511 Twiggs, others, ar cr
- 8215 Advanced Obstetrics and Gynecology IV** (prereq 8214) 622526 Twiggs, others, ar cr
- 8216 Advanced Obstetrics and Gynecology IV** (prereq 8215) 722453 Twiggs, others, ar cr
- 8217 Seminar: Obstetrics and Gynecology IV** (prereq 8216) 213778 Twiggs, others, ar cr
- 8218 Seminar: Obstetrics and Gynecology** (prereq 8217) 613910 Twiggs, others, ar cr
- 8219 Seminar: Obstetrics and Gynecology** (prereq 8218) 223243 Twiggs, others, ar cr
- 8221 Seminar: Obstetrics and Gynecology** (prereq 8219) 817826 Twiggs, others, ar cr
- 8222 Gynecological Oncology** (prereq 8221) 122053 Twiggs, others, ar cr
- 8223 Gynecological Oncology** (prereq 8222) 220830 Twiggs, others, ar cr
- 8224 Gynecological Endocrinology I** (prereq 8223) 717284 Twiggs, others, ar cr
- 8225 Gynecological Endocrinology II** (prereq 8224) 912732 Twiggs, others, ar cr
- 8226 Obstetrical Physiology and Anesthesiology** (prereq 8225) 817292 Twiggs, others, ar cr
- 8227 Preceptorship in Clinical Practice** (prereq 8226) 017761 Twiggs, others, ar cr
- 8228 Selected Aspects of Radiation Therapy** (prereq 8227) 614877 Twiggs, others, ar cr
- 8229 Selected Aspects of Medical Oncology** (prereq 8228) 618198 Twiggs, others, ar cr
- 8230 Research in Reproduction** (prereq 8229) 019221 Twiggs, others, ar cr
- 8777 Thesis Credits: Masters** 314887 1-16 cr

OPERATIONS AND MANAGEMENT SCIENCES (OMS)

Management

Non-SMgt students should refer to page 9, Carlson School of Management Courses, before attempting to register for 3000- and 5000-level OMS courses.

- r1020 Data Analysis and Statistical Inference for Managers** (\$MSci 1020, DSci 1050; prereq IDSc 1010, Math 1111...Math 1131 rec) (A-F only)
★LECT 1100-1215 TTh, BlegH 10
317398 -1 LAB 1315-1415 Th, BlegH 130, 4 cr
317255 -2 LAB 1430-1530 Th, BlegH 130, 4 cr
★LECT 1230-1345 TTh, BlegH 10
117466 -3 LAB 1030-1130 F, BlegH 130, 4 cr
623370 -4 LAB 1145-1245 F, BlegH 130, 4 cr
- r3000 Introduction to Operations Management** (\$OM 3000) (A-F only)
923150 -1 0945-1115 MW, BlegH 130, 4 cr
812920 -2 1130-1300 MW, BlegH 130, 4 cr
- r3041 Project Management** (\$OM 3041; prereq 3000 or #) (A-F only)
118576 1130-1300 MW, HHHcTr 60, 4 cr
- r5155 Methods for Quality and Productivity Improvement** (\$DSci 5055; prereq 1020 or MBA 8020 or #) (A-F only)
943964 1730-2100 Th, BlegH 335, 4 cr
- r5170 Stochastic Modeling and Simulation** (\$DSci 5070; prereq 1020 or MBA 8020 or #) (A-F only)
244643 0800-0945 TTh, HHHcTr 20, 4 cr
- r8041 Project Management** (\$OM 8041; prereq 3000 or MBA 8050 or #) (A-F only)
015198 1730-2100 W, BlegH 415, 4 cr
- r8056 Production and Inventory Management** (\$OM 8056; prereq 3000 or MBA 8050 or #) (A-F only)
215045 1300-1445 TTh, BlegH 225, 4 cr
- r8650 Regression Analysis** (\$DSci 8650; prereq MBA 8020 or equiv, PhD stu or #) (A-F only)
222349 1000-1145 MW, BlegH 335, 4 cr
- r8670 Stochastic Modeling and Analysis** (\$DSci 8670; prereq 8605, Stat 5122, PhD stu or #) (A-F only)
142819 1730-1915 MW, BlegH 210, 4 cr
- r8745 Research on Quality Management** (\$OM 8900; prereq 8705, PhD stu or #) (A-F only)
542820 1430-1715 W, SocSci 101, 4 cr
- r8850 Topics in Operations and Management Science** (\$OM 8850; prereq MBA 8050, MBA 8020 or #) (A-F only)
342821 1730-2100 M, BlegH 330, 4 cr
- 8990 Readings in Operations and Management Science** (\$OM 8990; prereq #, Grad Schl of Mgmt approval) (A-F only)
714899 ar cr
- 8995 Graduate Research in Operations and Management Science** (\$OM 8995; prereq #, Grad Schl of Mgmt approval) (A-F only)
422205 ar cr

OPHTHALMOLOGY (Oph) Medical School

- 5100 Introduction to Anatomy, Histology, and Embryology** (prereq physician or vet med student)
116794 0715-0830 Th, PWB 9335, Cameron, 1 cr
- 5180 Externship** (prereq regis med)
121274 ar cr
- 5190 Research Problems** (prereq regis med)
019414 ar cr
- 8101 Clinical Ophthalmology**
519022 0800-1700 MTWThF, PWB 9100, Knobloch, others, 8 cr (Eye Clinic)
- 8106 Strabismus Management** (prereq grad physician or grad in veterinary science)
415979 0700-0800 M, PWB 9339, Letson, 1 cr

- 8113 Basic and Clinical Neuro-ophthalmology** (prereq grad physician or grad in veterinary science)
042952 1400-1500 F, PWB 9339, Wirschafter, 3 cr
- 8119 Clinical Pathological Correlations in Ophthalmology** (prereq grad physician or grad in veterinary sci)
014651 1500-1630 F, PWB 9339, Cameron, 1 cr
- 8120 Scope of Ophthalmic Pathology** (prereq grad physician or grad in veterinary science)
821018 1630-1730 F, PWB 9339, Cameron, 2 cr
- 8131 Practical Ocular Surgery**
016433 0800-1200 MTWThF, Knobloch, others, 3 cr (Mayo OR)
- 8142 Ophthalmic Pathology Laboratory**
817437 1330-1530 T, PWB 9335, Cameron, 2 cr
- 8152 Ophthalmology Laboratory**
120397 15 cr
- 8155 Special Topics in Ophthalmology** (prereq #)
818894 1-3 cr
- 8777 Thesis Credits: Masters**
712991 1-16 cr

ORAL AND MAXILLOFACIAL SURGERY (OSur)

Dentistry

- 5257 Ambulatory General Anesthesia**
022507 1 cr
- 5275 Oral Pathology Review**
515973 1 cr
- 5276 Medicine for the Oral Surgeon** (prereq participation in an oral surgery residency program)
720265 2 cr
- 5280 Advanced Oral Surgery for Postgraduate Dental Fellows (S-N only)**
617679 1 cr
- 8250 Advanced Oral and Maxillofacial Surgery**
317191 ar cr
- 8251 Seminar: Oral Surgery** (max 1 cr)
313058 ar cr
- 8252 Research in Oral and Maxillofacial Surgery**
217331 ar cr
- 8253 Problems in Oral and Maxillofacial Surgery**
320432 ar cr
- 8254 Topics: Oral Surgery**
119010 1 cr
- 8255 General Surgery**
021762 ar cr
- 8258 Anesthesia II Seminar**
920328 1 cr
- 8280 Oral and Maxillofacial Surgery Clinical Pathology Conference**
015086 1 cr

ORAL BIOLOGY (OBio)

Dentistry

- 8001 Research in Oral Biology**
922466 ar cr
- 8002 Tutorial in Oral Biology**
219192 ar cr
- 8010 Oral Biology** (prereq dental specialist or oral research trainee) (A-F only)
522969 3 cr
- 8022 Topics in Oral Biology** (prereq #)
320799 1-3 cr
- 8030 Seminar (S-N only)**
715910 1 cr
- 8102 Topics in Cariology** (prereq possession of a dental degree or PhD) (A-F only)
821813 1-2 cr
- 8777 Thesis Credits: Masters**
114608 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
714319 1-36 cr

ORAL PATHOLOGY (OPat)

Dentistry

- 5017 Oral Pathology Clinic**
713011 ar cr
- 8001 Research in Oral Pathology**
123423 ar cr
- 8002 Oral Pathology** (prereq 5251, 5252)
022216 ar cr
- 8004 Histopathology**
914030 2 cr
- 8006 Current Literature Review**
917719 1 cr
- 8007 Special Oral Pathology**
215823 2 cr
- 8008 Clinical Oral Pathology**
018245 1 cr
- 8011 Surgical Oral Pathology**
313710 ar cr
- 8012 Human and Medical Cytogenetics**
623420 -1 LECT 4 cr
★LAB
- 8016 Histopathology**
720895 2 cr
- 8301 Human Development Genetics II** (prereq 8300)
418350 2 cr

ORTHODONTICS (Otho)

Dentistry

- 5002 Clinical Orthodontics**
617438 0900-1200 MTWThF, 1400-1630 MTWThF, MoosT 6345, ar cr
- 8001 Research in Orthodontics**
515164 1300-1400 MTWThF, MoosT 6370, ar cr
- 8201 Growth and Development**
521322 0800-0900 MTWThF, MoosT 6370, ar cr
- 8205 Orthodontic Diagnosis and Treatment Planning**
016044 0800-0900 MTWThF, 1300-1400 MTWThF, MoosT 6370, ar cr
- 8209 Orthodontic Seminar**
818099 0800-0900 MTWThF, 1300-1400 MTWThF, MoosT 6370, ar cr
- 8217 Topics in Orthodontics**
614832 1300-1400 MTWThF, MoosT 6370, ar cr

ORTHOPAEDIC SURGERY (OrSu)

Medical School

- 5180 Orthopaedics I** (prereq regis med)
813324 Thompson, others, ar cr
- 5185 Orthopaedics II: Externship in Orthopaedic Surgery** (prereq regis med)
418977 Thompson, others, ar cr
- 5186 Research Problems in Orthopaedic Surgery** (prereq regis med)
014665 Thompson, others, ar cr
- 5188 Externship in Orthopaedic Surgery and Fractures-Gillette Children's Hospital** (prereq regis med)
917445 Koop, 4.5-9 cr
- 5190 Externship in Orthopaedic Surgery and Fractures-Veterans Hospital** (prereq regis med)
713025 Premer, ar cr
- 5191 Orthopaedic Externship at Hennepin County Medical Center** (prereq regis med)
719326 Gustilo, ar cr
- 5192 Preceptorship in Orthopaedic Surgery** (prereq regis med jr or sr)
921222 Johnston, ar cr
- 8401 Orthopaedic Conference**
520106 Thompson, others, 3 cr
- 8403 Fractures**
116763 Gustilo, 5 cr
- 8405 Orthopaedic Diagnosis**
018098 Thompson, others, 3 cr

- 8407 Pediatric Orthopaedics**
821357 Winter, 5 cr
- 8408 Orthopaedic Problems and Management**
117346 Thompson, others, 5 cr
- 8409 Orthopaedic Problems and Management**
920765 Aamoth, 5 cr
- 8410 Orthopaedic Pathology**
016481 Thompson, others, 2 cr
- 8411 Orthopaedic Operative Surgery**
223212 Thompson, others, 5 cr
- 8412 Orthopaedic Anatomy**
016013 House, 2 cr
- 8416 Orthopaedic Research**
521921 Ogilvie, 5 cr
- 8777 Thesis Credits: Masters**
214607 1-16 cr

OTOLARYNGOLOGY (Otol)

Medical School

- 5500 General ENT Elective**
120263 Levine, 4.5 cr
- 5501 Acting Internship-ENT Elective**
313173 Levine, 4.5-9 cr
- 5503 Research Basic Science** (prereq regis med student)
917994 Levine, ar cr
- 5970 Directed Studies** (prereq #)
818359 ar cr
- 8220 Research**
021938 18 cr
- 8230 Clinical Otorhinolaryngology**
120903 Adams, others, 6 cr
- 8231 Surgery of Ear, Nose, and Throat**
419451 Adams, others, 4 cr
- 8232 Maxillofacial Surgery**
021843 Adams, Boies, others, 1 cr
- 8233 Plastic and Reconstructive Surgery of the Head and Neck**
516461 Adams, Boies, others, 1 cr
- 8234 Anatomy of the Head and Neck and Temporal Bone Dissection**
012706 Levine, 2 cr
- 8235 Roentgenology of the Head and Neck**
623496 2 cr
- 8236 Pharmacology in ENT**
121176 2 cr
- 8237 Endoscopy**
415156 Adams, others, 2 cr
- 8238 Pathology of the Ear, Nose, and Throat**
120920 Adams, others, 2 cr
- 8239 Otoneurology**
519974 Anderson, Levine, 2 cr
- 8240 Allergy**
616922 2 cr
- 8241 Tumor Clinic**
321080 Adams, others, 1 cr
- 8242 Audiology and Speech Pathology**
518839 Lassman, Margolis, others, 2 cr
- 8243 Introduction to Research Methodology**
112767 Ward, others, 2 cr
- 8244 Seminar: Current Literature**
821276 Adams, Goding, others, 1 cr
- 8245 Master's Thesis Research**
116424 ar cr
- 8246 Ph.D. Thesis Research**
817454 ar cr
- 8248 Readings in Auditory Physiology** (prereq #)
822959 Ruggero, 1-3 cr
- 8250 Advanced Biochemistry of the Auditory System** (prereq MdBc 5100, MdBc 5101 or equiv or #)
815185 Juhn, 2 cr
- 8262 Advanced Clinical Audiology** (prereq Otol grad maj, 8242 or #) (A-F only)
745179 Margolis, 3 cr
- 8777 Thesis Credits: Masters**
212792 1-16 cr

8888 Thesis Credits: Doctoral (max 18 cr per qtr)
613745 1-36 cr

PATHOBIOLOGY (Path) **Laboratory Medicine And Pathology** **Medical School**

- 5109 Seminar: Selected Topics in Pathobiology (prereq #)
720122 1600-1700 T, MoosT 2116, LeBien, 1 cr
- 5110 Seminar: Pathology (prereq #) (S-N only)
219001 1200-1300 M, Mayo C231, Boyd, Rich, 1 cr (Todd Amph)
- 5141 Problems in Experimental and Clinical Chronobiology
614779 Halberg, ar cr
- 5865 Departmental Seminar (prereq #) (S-N only)
618511 0800-0900 W, Mayo D230, Manivel, 1 cr (Eustis Amph)
- 8109 Pathobiology II (8108-8109-8110†; prereq 8108)
416730 0905-0955 MWF, MoosT 2154, LeBien, 3 cr
- 8122 Basic Science of Cancer (prereq MdBc 5100)
717060 1430-1520 T, JacH 3145, Wattenberg, 1 cr
- 8201 Research
323041 ar cr
- 8216 Frontiers of Immunology I: Immunobiology, Immunogenetics (\$MicB 8216; prereq Biol 5001, MdBc 5100, 5101 or equiv, #)
842967 1010-1100 MWF, MoosT 2580, Jenkins, 3 cr
- 8263 Pathophysiology of Environmental Disease (\$PubH 8263; prereq PubH 8261 or #)
042966 1325-1415 MWF, JacH 3145, Garry, 3 cr
- 8335 Mammalian Gene Transfer and Expression (prereq #)
644705 0815-0930 TTh, MoosT 2146, Mclvor, 3 cr
- 8888 Thesis Credits: Doctoral (max 18 cr per qtr)
120277 1-36 cr

PEDIATRIC DENTISTRY (Pedo) **Dentistry**

- 5405 Advanced Pediatric Dentistry for Postgraduate Dental Fellows (S-N only)
815641 1 cr
- 5414 Advanced Clinical Pedodontics
117967 0900-1200 MThF, 1400-1600 T, MoosT 6210, ar cr
- 8290 Hospital Pedodontics I (S-N only)
420499 ar cr
- 8291 Hospital Pedodontics II (S-N only)
417974 ar cr
- 8292 Pedodontic Literature
818118 0800-0900 F, MoosT 6162, ar cr
- 8294 Pedodontic Diagnosis and Treatment Planning
013449 0800-0900 M, MoosT 6162, ar cr

PEDIATRICS (Ped) **Medical School**

- 5501 Pediatric Externship (prereq successful completion of Year 2 Clinical Medicine III Pediatrics)
117265 Moller, 9 cr
- 5503 Pediatric Clerkship with Outstate Clinicians
315912 Moller, ar cr
- 5504 Clinical Aspects of Pediatric Psychology (prereq #)
414721 ar cr
- 85512 Pediatric Acting Internship
812707 Moller, 9-18 cr
- 5520 Pediatrics Ambulatory Selective Course (prereq 2nd yr clinical pediatrics)
322309 Moller, ar cr
- 5525 International Health
619254 Venters, ar cr

- 5533 Pediatric Clinical Allergy at University Hospital (prereq 3rd or 4th yr medical student)
323234 Blumenthal, 4.5-9 cr
- 85534 Pediatric Cardiology at the University Hospital
815994 Moller, ar cr
- 85535 Infectious Diseases
017811 Ferrieri, ar cr
- 85536 Pediatric Hematology/Oncology/Bone Marrow Transplantation at the University Hospital
415917 Smith, ar cr
- 85537 Pediatric Endocrinology and Metabolism at the University
121509 Klein, ar cr
- 85538 Pediatric Gastroenterology
914125 Sharp, ar cr
- 5539 Neonatal Medicine Externship
920930 Boros, ar cr
- 85540 Pediatric Neurology
618959 Swaiman, ar cr
- 85543 Nephrology at the University
516007 Fish, ar cr
- 85544 Pulmonary Disease in Pediatrics (prereq #)
719066 Warwick, 4.5-18 cr
- 85547 Topics in Maternal and Child Care (prereq 5500, 5501 or 5502, #)
521028 tenBensel, ar cr
- 85548 Pediatric Genetics at the University
420924 Pierpont, 9 cr
- 85553 Adolescent Medicine
617925 Blum, 9 cr
- 85555 Neonatal Clerkship (prereq 5501 or 5512)
217412 Opitz, ar cr
- 85556 Clinical Pediatrics Clerkship (prereq 5501 or 5512)
816191 Moller, ar cr
- 5559 Pediatric Critical Care Medicine (prereq 5501 and/or 5512)
619738 Green, 4.5-9 cr
- 5560 Research/Special Problems in Pediatrics (prereq regis med) (S-N only)
912990 Moller, ar cr
- 8204 Residency in Pediatrics (prereq #)
121770 Shannon, ar cr
- 8206 Pediatric Special Interest (prereq #)
620453 Shannon, ar cr

PERIODONTICS (Pero) **Dentistry**

- 5300 Advanced Periodontics for Postgraduate Dental Fellows (S-N only)
913654 1 cr
- 8000 Advanced Clinical Periodontology
122854 0945-1215 MThF, 1330-1615 MTWTh, MoosT 7470, ar cr
- 8200 Lectures
120800 1215-1315 M, MoosT 7360, ar cr
- 8300 Seminar: Periodontology
723182 0800-0930 Th, MoosT 7360, ar cr
- 8400 Anatomy of the Normal and Observed Periodontium
844380 1600-1800 M, MoosT 16104, 2 cr

PHARMACEUTICS (Phm) **Pharmacy**

- 8101 Readings in Pharmaceutics
817986 1640-1730 W, HSUnitF 7193, 7195, Bai, 1 cr
- 8105 Pharmacokinetics Research Seminar (prereq grad in pharmaceutics majoring in pharmacokinetics) (S-N only)
016948 Sawchuk, Zimmerman, 2 cr
- 8425 Advanced Topics in Pharmacokinetics (prereq 8420) (A-F only)
414332 Zimmerman, 3 cr

- 8460 Solubility Behavior of Drugs and Other Organic Compounds (prereq survey course in physical chemistry or #) (A-F only)
842970 1010-1205 TTh, HSUnitF 9105, Grant, 4 cr
- 8777 Thesis Credits: Masters
123221 1-16 cr
- 8888 Thesis Credits: Doctoral (max 18 cr per qtr)
914318 1-36 cr

PHARMACEUTICS, UNDERGRAD **(Phmc)** **Pharmaceutics** **Pharmacy**

- 5610 Principles of Drug Delivery I (prereq Chem 3302, Phys 1046, Math 1221) (A-F only)
721898 1220-1310 TWThF, MoosT 2690, Rippie, 4 cr
- 5630 Biopharmaceutics (prereq 5620) (A-F only)
015072 1430-1600 MW, MoosT 2690, Wiedmann, 3 cr
- 85681 Basic Pharmacokinetic Modelling (prereq 5680 with grade of A or B) (A-F only)
621716 Sawchuk, 2 cr
- 85681H Basic Pharmacokinetic Modelling (prereq 5680 with grade of A or B) (A-F only)
219712 Sawchuk, 2 cr
- 5730H Pharmaceutics Seminar (prereq #) (A-F only)
918885 1 cr
- 5970 Directed Studies (prereq #)
419496 1-5 cr
- 5999 Special Problems (prereq #)
819849 ar cr

PHARMACOGNOSY (Phcg) **Medicinal Chemistry and** **Pharmacognosy** **Pharmacy**

- 5899 Special Problems in Pharmacognosy (prereq #)
717768 ar cr
- 8500 Pharmacognosy Seminar
717950 1600-1700 M, MoosT 2580, Rimmel, 1 cr
- 8777 Thesis Credits: Masters
922211 1-16 cr
- 8888 Thesis Credits: Doctoral (max 18 cr per qtr)
314341 1-36 cr
- 8900 Research in Pharmacognosy (prereq #)
722257 ar cr

PHARMACOLOGY (Phcl) **Medical School**

- 5102 Pharmacology for Pharmacy Students (prereq 5101 or #) (A-F only)
022958 1010-1100 MWF, MoosT 2690, Dunham, 3 cr
- 5109 Problems in Pharmacology (prereq grad or upper div stu or #)
516413 Loh, ar cr
- 5111 Pharmacology (prereq 5110 or #)
215000 1430-1600 T, 1430-1625 Th, MoosT 2530, 0800-0850 WF, 1325-1415 Th, MoosT 2650, Hunninghake, 4 cr (1430-1600 T, 1430-1625 Th, MoosT 2530, Jan 2-Mar 20, 0800-0850 WF, 1325-1415 Th, MoosT 2650, Jan 6-Apr 10)
- 8111 Advanced Pharmacology II (prereq biochem, physiol background, 5111 or 5111 or #) (A-F only)
120358 Loh, 3 cr
- 8203 Research in Pharmacology (prereq #) (A-F only)
545541 ar cr
- 8204 Seminar: Selected Topics in Pharmacology (max 3 cr; prereq 5110 or #)
714126 1 cr
- 8206 Opioid Topics (prereq #) (A-F only)
916103 Takemori, 1 cr

- 8207 Seminar: Psychopharmacology** (SNSc 8207, max 3 cr; prereq #)
917820 Sparber, 1 cr
- 8209 Current Research in Drug Metabolism** (prereq #) (A-F only)
112910 Holtzman, 1 cr
- 8213 Renal Handling of Drugs and Organic Substances** (prereq #) (A-F only)
013399 Quebbemann, 1 cr
- 8777 Thesis Credits: Masters**
712912 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
521868 1-36 cr

PHARMACY PRACTICE (Phar) Pharmacy

- r1001 Orientation to Pharmacy** (S-N only)
343354 1220-1310 T, HSUnitF 7135, Benson, 1 cr
- 5007 Biology of Aging** (§Dent 5070, HSU 5031)
143355 1640-1825 Th, EE/CSci 3125, McKennell, 2 cr
- 5210 Terminology of the Health Sciences** (§HSU 5210)
043356 McKennell, 2 cr (for information go to rm 5-120 HSUnitF before first day of quarter)
- 5230 Pharmacy and the Law** (prereq pharmacy stu or #)
843357 1115-1205 TTh, MoosT 2620, Holmstrom, 2 cr
- 5235 Pharmaceutical Economics** (prereq #)
643358 3 cr
- 5260 Social and Behavioral Pharmacy** (prereq one course in behavioral science) (A-F only)
443359 1325-1415 MWF, MoosT 2650, Strand, 3 cr
- 5286 Community Drug Information** (prereq third yr phar student, #)
418073 Green, 1-3 cr
- 5290 Specialty Clerkships**
522311 1-16 cr
- 5291 Specialty Externship**
720881 1-12 cr
- r5303 Communications for the Health Sciences** (A-F only)
★LECT 0905-0955 T, OwreH 2230
643361 -1 LAB 1430-1625 T, HSUnitF 7135, 2 cr
443362 -2 LAB 1430-1625 W, HSUnitF 7135, 2 cr
243363 -3 LAB 1430-1625 Th, HSUnitF 7135, 2 cr
- 5322 Pharmacotherapeutics II** (prereq Phcl 5101, MChm 5330, §MChm 5340, §Phcl 5102) (A-F only)
512801 -1 LECT 1010-1100 TTh, MoosT 2690, Cipolla, 2 cr
★REC 0905-0955 Th, HSUnitF
- 5392 Hospital Practice Externship** (prereq third yr phar student) (S-N only)
919454 -1 LECT 0800-0955 W, HSUnitF 7135, Abramowitz, 7 cr
★REC
- 5395 B.S. Clerkship** (prereq third yr pharmacy student) (S-N only)
420423 -1 LECT 0800-0955 Th, HSUnitF 7135, Fletcher, 7 cr
★REC
- 5506 Pathophysiology and Therapeutics: Fluid and Electrolyte Disorders and Shock** (prereq 3rd yr pharmacy stu) (A-F only)
715986 1010-1205 TF, HSUnitF 7135, Mann, 3 cr
- 5507 Pathophysiology and Therapeutics: Neoplastic Diseases** (prereq 3rd yr pharmacy stu) (A-F only)
144644 0800-0955 F, HSUnitF 7135, Brundage, 2 cr
- 5508 Pathophysiology and Therapeutics: Infectious Diseases** (prereq 3rd yr pharmacy stu) (A-F only)
622459 1325-1520 MW, MoosT 2520, Rotschafer, Larson T., 3 cr
- 5514 Pathophysiology and Therapeutics: Clinical Nutrition** (prereq 3rd yr pharmacy stu) (A-F only)
515262 1010-1205 W, HSUnitF 7135, Barber, 1 cr

- 5515 Neuroanatomy** (prereq 3rd yr pharmacy stu) (S-N only)
114986 Graves, 1 cr (independent study ar, HSUnitF 7115)
- 5516 Pathophysiology and Therapeutics: Endocrine and Reproductive Disorders** (prereq 3rd yr pharmacy stu) (A-F only)
619321 1010-1205 M, HSUnitF 7135, Lackner, 2 cr
- r5517 Pharmacotherapy for the Elderly** (prereq 3rd yr pharmacy stu) (A-F only)
318485 1010-1205 Th, HSUnitF 7135, Larson, 2 cr
- 5550 Pharmacy Practice Clerkship: Acute Care** (prereq PharmD IV student) (S-N only)
023320 4-12 cr
- 5551 Pharmacy Practice Clerkship: Clinical Pharmacokinetics** (prereq PharmD IV student) (S-N only)
117726 4 cr
- 5552 Pharmacy Practice Clerkship: Pediatrics** (prereq PharmD IV student) (S-N only)
816059 4 cr
- 5553 Pharmacy Practice Clerkship: Clinical Elective I** (prereq PharmD IV student) (S-N only)
121851 4-12 cr
- 5554 Pharmacy Practice Clerkship: Special Elective I** (prereq PharmD IV student) (S-N only)
923505 4-12 cr
- 5555 Pharmacy Practice Clerkship: Clinical Elective II** (prereq PharmD IV student) (S-N only)
220441 4-12 cr
- 5556 Pharmacy Practice Clerkship: Clinical Elective III** (prereq PharmD IV student) (S-N only)
714787 4-12 cr
- 5557 Pharmacy Practice Clerkship: Special Elective II** (prereq PharmD IV student) (S-N only)
419854 4-12 cr
- 5558 Pharmacy Practice Clerkship: Special Elective III** (prereq PharmD IV student) (S-N only)
014956 4-12 cr
- 5777H Hospital Pharmacy Administration I** (prereq #) (A-F only)
143364 3 cr
- 5970 Directed Studies** (prereq #)
317496 1-5 cr
- 5999 Special Problems** (prereq #)
416971 ar cr

PHILOSOPHY (Phil) Liberal Arts

- r1001 Introduction to Logic**
★LECT 1325-1415 MWF, SmithH 100, Scheman
820094 -1 REC 0905-0955 T, FolH 240, 5 cr (MLK only)
914934 -2 REC 0905-0955 T, AmundH 240, 5 cr
522082 -3 REC 1010-1100 T, WullH 130, 5 cr
719892 -4 REC 1010-1100 T, FolH 218, 5 cr
021518 -5 REC 1010-1100 T, KolH S132, 5 cr
419367 -6 REC 1115-1205 T, AkerH 211, 5 cr
114017 -7 REC 0905-0955 Th, VinH 301, 5 cr
514113 -8 REC 0905-0955 Th, WullH 130, 5 cr
120089 -9 REC 1115-1205 Th, SciCB 175, 5 cr
314131 -10 REC 1115-1205 Th, SciCB 375, 5 cr
820113 -11 REC 1115-1205 Th, KolH S132, 5 cr
714689 -12 REC 1220-1310 Th, PillsH 110, 5 cr
- r1002 Introduction to Philosophy**
★LECT 0905-0955 MWF, Botany B6, Root
414170 -1 REC 0800-0850 T, FordH 115, 5 cr
314033 -2 REC 0905-0955 T, AkerH 313, 5 cr
621957 -3 REC 0905-0955 T, VinH 213, 5 cr
814120 -4 REC 1010-1100 T, VinH 213, 5 cr
112770 -5 REC 1010-1100 T, Phys 150, 5 cr
517058 -6 REC 1220-1310 T, Phys 157, 5 cr
315232 -7 REC 1220-1310 T, PillsH 110, 5 cr
815025 -8 REC 0800-0850 Th, FordH 155, 5 cr
217264 -9 REC 0905-0955 Th, FolH 426, 5 cr
622607 -10 REC 0905-0955 Th, SmithH 100, 5 cr
820601 -11 REC 1010-1100 Th, FolH 218, 5 cr
518582 -12 REC 1220-1310 Th, SciCB 175, 5 cr
- r1005 Scientific Reasoning**
★LECT 1115-1230 TTh, AkerH 209, Giere
043373 -1 REC 1010-1100 W, FordH 55, 5 cr
843374 -2 REC 1115-1205 W, FordH 150, 5 cr
643375 -3 REC 1325-1415 W, FordH 130, 5 cr
- r3002 General History of Western Philosophy**
★LECT 0945-1100 TTh, Arch 5, Hopkins
022488 -1 REC 0905-0955 W, Arch 50, 5 cr
815929 -2 REC 1010-1100 W, AkerH 313, 5 cr
519103 -3 REC 1010-1100 F, FordH 115, 5 cr
- r3003 General History of Western Philosophy**
★LECT 1325-1415 MWF, FordH 155, Lewis
243377 -1 REC 1220-1310 T, Phys 170, 5 cr
143378 -2 REC 1325-1415 T, FordH 155, 5 cr
943379 -3 REC 1220-1310 Th, NichH 209, 5 cr
- r3003H Honors Course: General History of Western Philosophy** (prereq honors regis or #)
★LECT 1325-1415 MWF, FordH 155, Lewis
143381 -80 REC 1325-1415 T, FordH 55, Lewis, 5 cr
- r3005 Introduction to the Philosophy of Plato**
943382 1220-1310 MWF, FordH 115, Peterson, 4 cr
- r3201 Introduction to Formal Logic**
★LECT 1115-1205 MWF, MoosT 2650, Hanson
044717 -1 REC 1010-1100 T, Phys 170, 5 cr
844718 -2 REC 1115-1205 T, SciCB 175, 5 cr
644719 -3 REC 1220-1310 Th, VinH 206, 5 cr
- r3231 Introduction to the Philosophy of Language** (prereq 1001 or #)
743383 1115-1230 TTh, FordH 349, Owens, 4 cr
- r3307 Social Justice and Community Service: Basic Political Values**
044720 0945-1100 TTh, FordH 120, Wallace, 4 cr
- 3601 Scientific Thought** (prereq 1002, 2 natural science courses or completion of Group B)
543384 1415-1530 TTh, FordH 115, Hellman, 4 cr
- 3970 Directed Studies** (prereq #, Δ, □)
123180 1-5 cr
- 3980 Directed Instruction** (prereq #, Δ, □)
214638 1-5 cr
- 5034 Descartes** (prereq 3003 or #)
343385 1325-1415 MWF, FordH 349, Root, 4 cr
- 5202 Symbolic Logic II** (prereq 5201 or #)
★LECT 1010-1100 MWF, FordH 130, Anderson
716720 -1 REC 1010-1100 TTh, FordH 60, 5 cr
- 5324 Ethics and Education** (prereq 8 cr in phil or educ or #)
143386 1115-1230 TTh, FordH 60, Wallace, 4 cr
- 5618 20th Century Philosophy of Science: 1950 to the Present** (prereq phil maj or phil grad stu, or #)
843388 1415-1530 TTh, FordH 60, Giere, 4 cr
- 5760 Selected Topics in Philosophy: Musical Aesthetics** (prereq 4 3xxx-5xxx cr in philosophy or #)
814635 0945-1100 TTh, FergH 203, Hellman, 4 cr
- 5770 Selected Topics in Philosophy: Ethical Issues in Biomedicine** (prereq 4 3xxx-5xxx cr in philosophy or #)
115712 1245-1400 TTh, FordH 50, Hopkins, 4 cr
- 5970 Directed Studies and Research** (prereq #, Δ, CLA approval)
820175 1-5 cr
- 5990 Directed Studies and Research** (prereq #, Δ, CLA approval)
713834 1-5 cr
- 8130 Seminar: Epistemology** (prereq 5105 or #)
643389 1535-1730 W, FordH 359, Anderson, 4 cr
- 8180 Seminar: Philosophy of Language**
317143 1535-1730 T, FordH 359, Owens, 4 cr
- 8310 Seminar: Moral Philosophy** (prereq 5311 or #)
215384 1415-1530 TTh, FordH 359, Mason, 4 cr
- r8620 Seminar: Philosophy of Biology**
544227 1535-1730 Th, FordH 359, Waters, 4 cr
- 8777 Thesis Credits: Masters**
323511 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
122344 1-36 cr

8970 Directed Study and Research (prereq passing grade on written prelim exam for PhD in philosophy, #)
318972 1-4 cr

8990 Directed Study and Research (prereq passing grade on written prelim exam for PhD in philosophy, #)
013905 1-4 cr

PHYSICAL EDUCATION (PE) School of Kinesiology & Leisure Studies Education

Courses listed below are ranked numerically according to activity level, i.e., the level or skill required. The activity level of each course is indicated by the second digit in the course number, 0=first level, 1=second level, and so on. Thus 1007, for example, is a first-level course and 1107 is a second-level course. In most cases, the lower level course is prerequisite for the higher; however, students who can demonstrate sufficient skill in activity may usually register for the most advanced course without completing the prerequisite(s). Most of the courses are considered high intensity, that is, they require a high level of physical exertion. Thus students are encouraged to consider carefully any limits on their health or physical fitness and to consult a physician if they have any questions about their health or about their ability to participate safely in the physical activities involved in any course for which they wish to register.

R1004 Diving, Springboard (prereq 1007 or #)
918000 0800-0855 TTh, UAqCtr, 1 cr (Natorium Diving Well)

R1007 Swimming (prereq non-swimmer)
820788 -1 0800-0850 MWF, CookeH 10, 1 cr
916408 -2 0905-0955 MWF, CookeH 10, 1 cr

R1014 Conditioning
119976 -1 0800-0850 MWF, FieldHse, 1 cr
414007 -2 0905-0955 MWF, FieldHse, 1 cr
220102 -3 1010-1100 MWF, FieldHse, 1 cr
323136 -4 1115-1205 MWF, FieldHse, 1 cr
419983 -5 0800-0855 TTh, FieldHse, 1 cr
121825 -6 0905-1000 TTh, FieldHse, 1 cr
419434 -7 1010-1105 TTh, FieldHse, 1 cr
144546 -8 0830-0920 MWF, Gym, 1 cr (StP)

R1015 Weight Training
515102 -1 0905-0955 MWF, StadN 205, 1 cr
923388 -2 1010-1100 MWF, StadN 205, 1 cr
719374 -3 1115-1205 MWF, StadN 205, 1 cr
913329 -4 0905-1000 TTh, StadN 205, 1 cr
121221 -5 1010-1105 TTh, StadN 205, 1 cr
219449 -6 1115-1210 TTh, StadN 205, 1 cr
944547 -7 0935-1025 MWF, Gym, 1 cr (StP)

R1032 Badminton
917977 0800-0855 TTh, NorrisH M153A, M153, M151, 1 cr

R1034 Judo (facility fee)
113412 1220-1315 TTh, StadN 207, Holm, 1 cr

R1035 Karate (facility fee)
813260 -1 0905-0955 MW, PeikG G100, Fusaro, 1 cr
223047 -2 1010-1100 MW, PeikG G100, Fusaro, 1 cr

R1036 Racquetball
217345 -1 0800-0850 MWF, StadN 208, 1 cr
722520 -2 0905-0955 MWF, StadN 208, 1 cr
319829 -3 1010-1100 MWF, StadN 208, 1 cr
318826 -4 1115-1205 MWF, StadN 208, 1 cr
016903 -5 1010-1105 TTh, StadN 208, 1 cr
516489 -6 1325-1420 TTh, StadN 208, 1 cr
923195 -7 1430-1525 TTh, StadN 208, 1 cr

R1037 Squash Racquets
116049 0905-1000 TTh, StadN 208, 1 cr

R1038 Tennis
918966 -1 0800-0850 MWF, FieldHse, 1 cr
214090 -2 0905-0955 MWF, FieldHse, 1 cr
917283 -3 1115-1205 MWF, FieldHse, 1 cr

R1044 Self Defense
223274 0905-0955 MWF, NorrisH M153A, M153, Bendickson, Brandl, 1 cr

R1048 Bowling (moderate intensity) (facility fee)
623210 -1 1010-1100 MWF, CMU B55, 1 cr
112891 -2 1115-1205 MWF, CMU B55, 1 cr
120822 -3 0905-1000 TTh, CMU B55, 1 cr
119095 -4 1010-1105 TTh, CMU B55, 1 cr

R1053 Ice Skating
920510 -1 0905-0955 MWF, WmsA W100, Patten, 1 cr
017159 -2 1010-1100 MWF, WmsA W100, Patten, 1 cr

R1056 Nordic (Cross Country) Skiing
416274 -1 1300-1500 MW, Gym, 1 cr (Jan 6-Feb 3) (StP)
415965 -2 1300-1500 TTh, Gym, 1 cr (Jan 2-30) (StP)

R1057 Skiing (facility fee)
423029 -1 1330-1530 T, CookeH 214, 1 cr
414850 -2 1530-1730 T, CookeH 400, 1 cr
521143 -3 1330-1530 Th, CookeH 214, 1 cr
019171 -4 1530-1730 Th, CookeH 214, 1 cr
819303 -5 1530-1730 F, CookeH 214, 1 cr
916117 -6 1830-2030 F, CookeH 214, 1 cr

R1059 Track and Field
122456 1010-1105 TTh, FieldHse, 1 cr

R1067 Basketball
720928 1115-1210 TTh, FieldHse, 1 cr

R1070 Ice Hockey
216941 -1 0800-0855 MW, WmsA W100, 1 cr
321788 -2 1010-1105 TTh, WmsA W100, 1 cr

R1074 Volleyball
822508 -1 0905-0955 MWF, CookeH 325, 1 cr
123283 -2 1010-1100 MWF, CookeH 325, 1 cr
121842 -3 1115-1205 MWF, CookeH 325, 1 cr

R1107 Swimming (prereq swim 100 yards)
322374 -1 1010-1100 MWF, UAqCtr, 1 cr (Natorium West)
617813 -2 1115-1205 MWF, UAqCtr, 1 cr (Natorium West)

R1135 Karate (prereq 1035)
215725 0800-0850 MW, PeikG G100, Fusaro, 1 cr

R1138 Tennis (prereq 1038 or equiv)
219144 1010-1100 MWF, FieldHse, 1 cr

R1154 Figure Skating (prereq 1053)
119436 -1 0800-0855 TTh, WmsA W100, Patten, 1 cr
814554 -2 0905-1000 TTh, WmsA W100, Patten, 1 cr

R1157 Skiing (prereq 1057) (facility fee)
120075 -1 1330-1530 T, CookeH 214, 1 cr
121171 -2 1530-1730 T, CookeH 400, 1 cr
517268 -3 1330-1530 Th, CookeH 214, 1 cr
313271 -4 1530-1730 Th, CookeH 214, 1 cr

R1174 Volleyball (prereq 1074)
922113 0800-0850 MWF, CookeH 325, 1 cr

R1205 Scuba and Skin Diving (prereq 1107 or equiv) (facility fee)
312878 1010-1205 TTh, CookeH 400, 15, Whortenbury, 1 cr

R1306 Advanced Lifesaving (prereq ability to swim 440 yds)
014388 1010-1100 MWF, UAqCtr, 1 cr (Natorium East)

R1415 Theory and Practice of Weight Training and Conditioning (prereq 1014, 1015 or #)
319314 1615-1710 MTWTh, BFAB 101, 285, Rohde, 2 cr

R1497 Directed Study (prereq 3 cr in physical education, Δ)
921897 1-6 cr

PHYSICAL MEDICINE AND REHABILITATION (PMed) Medical School

R1002 Orientation to Physical Therapy (S-N only)
414539 1220-1310 T, ChRC R220, Scudder, 1 cr

5150 Kinesiological Electromyography and Nerve Conduction (prereq #) (A-F only)
618279 1535-1730 T, 1535-1820 Th, Coleman, DeFablo, others, 3 cr

5182 Functional Neuroanatomy and Neurophysiology (prereq regis OT or PT)
621229 1010-1205 MWF, Moost 2530, Huss, 5 cr

5221 Therapeutic Procedures II (prereq regis PT)
218138 0800-0955 MTWThF, ChRC R220, Ellingham, Olson, 4 cr

5230 Theory and Technique of Muscle Function, Tests, and Measurements (prereq regis PT)
620923 1325-1520 MWF, 1325-1415 TTh, ChRC R220, Coleman, 5 cr

5270 Rehabilitation Procedures (prereq regis PT)
417117 1010-1205 MWThF, ChRC R220, Scudder, 4 cr

5289 Patient Assessment (prereq regis PT)
714143 1430-1625 MW, 1325-1625 Th, 1430-1520 F, ChRC R208, Ellingham, 3 cr

5290 Administration (prereq regis PT) (S-N only)
118500 1220-1415 T, 1220-1310 Th, Mayo C368, Allison, 3 cr (field exp ar)

5293 Introduction to Research Design (prereq 5292, regis PT)
122909 1325-1415 MWF, ChRC R208, Amundsen, 3 cr

5294 Independent Study in Physical Therapy (prereq #) (A-F only)
816286 Ellingham, ar cr

5311 Therapeutic Activities I (prereq regis OT)
316798 0800-1100 TTh, ChRC R255, R262, Thomas, 4 cr

5341 Theory I: Psychosocial Dysfunction (prereq regis OT) (A-F only)
123428 0800-0955 MWF, 1430-1625 Th, ChRC R262, Reisman, 3 cr

5344 Theory: Physical Dysfunction II (prereq regis OT) (A-F only)
613163 1430-1625 TThF, ChRC R208, Stern, 3 cr

5375 Community Resources and Health Care Issues (prereq regis OT) (A-F only)
716295 1430-1625 MW, ChRC R208, Berkeland, Meyers, 4 cr

5380 Management of Occupational Therapy Services (prereq regis OT)
423127 1220-1415 TTh, ChRC R262, Berkeland, 3 cr

5394 Evaluation and Treatment of Sensory Integrative Dysfunction (prereq 5182)
119248 1220-1415 MWF, ChRC R262, Reisman, 4 cr

5395 Independent Study in Occupational Therapy (prereq #)
715258 Berkeland, ar cr

5397 Field Work Education in Occupational Therapy (prereq 5396) (S-N only)
913881 Meyers, 12 cr

5398 Fieldwork Education in Occupational Therapy (prereq registered in program in occupational therapy) (S-N only)
322293 Meyers, 1 cr

5410 Adult Rehabilitation Medicine (prereq regis med)
316140 Dykstra, others, ar cr

5411 Rehabilitation Medicine: Children (prereq regis med)
320902 Dykstra, others, ar cr

5414 Physical Medicine and Rehabilitation for the Family Physician (prereq regis med)
614099 Dykstra, others, ar cr

5415 Private Practice in Physical Medicine and Rehabilitation (prereq regis med)
519327 Eckmann, 4.5-9 cr

5416 Physical Medicine and Rehabilitation at St. Paul Ramsey (prereq regis med)
222027 Kosiak, others, ar cr

5810 Assessment of the Elderly (prereq #)
614927 1640-1820 W, Amundsen, Ellingham, others, 3 cr (lab ar)

5814 Physiological Assessment in Physical Therapy
016321 Amundsen, 1-3 cr

5817 Special Topics in Physical Therapy
817115 Amundsen, 1-3 cr

5950 Bioelectric Measurements (prereq Phsl 5441, calculus, college physics) (A-F only)
118682 1010-1130 TTh, ChRC R208, Patterson, 3 cr

8103 Clinic (prereq regis PT)
216311 Ellingham, ar cr

8130 Seminar: Current Literature in Physical Therapy
121839 Scudder, Amundsen, 1 cr

8135 Advanced Kinesiology (prereq kinesiology course)
217619 Allison, 3 cr

- 8150 Research Methodology: Physical Therapy in Electromyography and Nerve Conduction** (prereq #)
213246 1535-1730 T, 1535-1820 Th, Allison, Gardner, 3 cr
- 8170 Special Topics in Physical Therapy** (prereq #)
916893 Amundsen, 1 cr
- 8185 Problems in Physical Therapy** (prereq regis FT)
414458 Amundsen, Allison, others, ar cr
- 8188 Teaching Practicum** (max 8 cr; prereq #)
223498 Ellingham, Allison, others, ar cr
- 8192 Research Design in Physical Therapy** (prereq #)
517352 Amundsen, 3 cr
- 8193 Research Problems in Physical Therapy** (prereq 8192 or #)
016190 Amundsen, Allison, others, ar cr
- 8195 Research in Physical Therapy** (prereq #)
215871 Amundsen, Allison, others, ar cr
- 8200 Physical Medicine and Rehabilitation Service**
114244 Awad, others, ar cr
- 8205 Readings in Physical Medicine and Rehabilitation** (max 2 cr)
016285 1000-1100 F, Mayo 825, Benninghoff, Awad, 2 cr
- 8206 Conference on Physical Medicine and Rehabilitation**
320849 0800-0900 F, ChRC R208, Benninghoff, others, 2 cr
- 8207 Basic and Applied Physiatry**
016335 0900-1000 WF, ChRC R208, Benninghoff, others, 2 cr
- 8210 Research in Physical Medicine**
513916 Awad, Benninghoff, others, ar cr
- 8212 Electromyography** (prereq #)
721240 0800-1700 MTWThF, Mayo B564, Benninghoff, others, ar cr
- 8214 Readings in Electromyography** (max 3 cr; prereq #)
116995 1000-1100 W, Benninghoff, others, 1 cr (VA Med Ctr, Rm 3R110)
- 8220 Seminar: Physical Medicine and Rehabilitation**
913931 0800-0900 W, Benninghoff, 2 cr (VA Med Ctr, Rm 3R110)
- 8777 Thesis Credits: Masters**
023074 Amundsen, 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
712795 1-36 cr

PHYSICS (Phy) Institute of Technology

- r1001 The Physical World** (§any phys courses other than 1002, 1061, no cr for IT stu; prereq 1 yr high school algebra) (companion lab is 1005)
018120 1115-1205 MTWF, Phys 133, McLerran, 4 cr
- r1005 Physics Laboratory** (no cr for IT students; prereq 1001 or f1001) (S-N only)
921821 -1 LAB 0905-1100 T, 1 cr
821584 -2 LAB 1535-1730 T, 1 cr
319572 -3 LAB 1220-1415 W, 1 cr
123616 -4 LAB 1325-1520 Th, 1 cr
621585 -5 LAB 1325-1520 F, 1 cr
- r1041 Introductory Physics** (§other intro phys crse, no cr IT ex arch, pre-arch, env des; prereq hs alg, plane geometry)
418414 -1 LECT 1430-1520 MTWF, Phys 150, Mauersberg, Jr, 4 cr (required recitation sections, 1430-1520 Th, assigned first 2 days of class) (concurrent registration in one of lab sections 1-12 of 1045 required)
★REC 1430-1520 Th,
- r1042 Introductory Physics** (§other intro physics course, no cr IT except arch, pre-arch, env design; prereq 1041)
914903 -1 LECT 1115-1205 MTWF, Phys 170, Heller, 4 cr (required recitation sections, 1115-1205 Th, assigned first 2 days of class) (concurrent registration in one of lab sections 1-7 of 1046 required)
★REC 1115-1205 Th,

- r1045 Introductory Physics Laboratory** (no cr IT except arch, pre-arch, env design; prereq 1041 or f1041) (S-N only) (f1041 required)
215835 -1 LAB 1220-1415 T, 1 cr
221685 -2 LAB 1535-1730 T, 1 cr
819673 -3 LAB 1220-1415 W, 1 cr
717656 -4 LAB 1640-1835 W, 1 cr
115586 -5 LAB 1010-1205 Th, 1 cr
013631 -6 LAB 1220-1415 Th, 1 cr
517657 -7 LAB 1535-1730 Th, 1 cr
015587 -8 LAB 1745-1925 Th, 1 cr
813632 -9 LAB 1010-1205 F, 1 cr
519683 -10 LAB 1220-1415 F, 1 cr
944838 -11 LAB 1535-1730 F, 1 cr
744839 -12 LAB 1745-1925 F, 1 cr
- r1046 Introductory Physics Laboratory** (no cr IT except arch, pre-arch, env design; prereq 1042 or f1042, 1045) (S-N only)
(f1042 required for labs 1-7)
222836 -1 LAB 1325-1520 T, 1 cr
119573 -2 LAB 1535-1730 T, 1 cr
117564 -3 LAB 1325-1520 W, 1 cr
515388 -4 LAB 1325-1520 Th, 1 cr
413519 -5 LAB 1535-1730 Th, 1 cr
222609 -6 LAB 1325-1520 F, 1 cr
420602 -7 LAB 1535-1730 F, 1 cr
(f1042 not allowed for labs 8-9)
018585 -8 LAB 1535-1730 W, 1 cr
644848 -9 LAB 1535-1730 F, 1 cr
- r1105 General Physics** (no cr for IT students; prereq 1104) (companion lab is 1108)
523555 1115-1205 MTWThF, Phys 150, Waddington, 4 cr
- r1108 General Physics Laboratory** (no cr for IT students; prereq 1107, 1105 or f1105) (S-N only)
816417 -1 LAB 0800-0955 T, 1 cr
316543 -2 LAB 1220-1415 T, 1 cr
220603 -3 LAB 1430-1625 T, 1 cr
818586 -4 LAB 0905-1100 W, 1 cr
116544 -5 LAB 1325-1520 W, 1 cr
923617 -6 LAB 1535-1730 W, 1 cr
421586 -7 LAB 0905-1100 Th, 1 cr
019574 -8 LAB 1220-1415 Th, 1 cr
017565 -9 LAB 1535-1730 Th, 1 cr
715390 -10 LAB 0800-0955 F, 1 cr
813520 -11 LAB 1220-1415 F, 1 cr
313589 -12 LAB 1430-1625 F, 1 cr
445693 -13 LAB 1640-1835 F, 1 cr
- r1251 General Physics I** (prereq Math 1211 or fMath 1211)
★LECT 1010-1100 MWF, Phys 150, Walsh, 4 cr
★REC 1010-1100 Th, VinH 301
944919 -1 LAB 0800-0955 T (IT Spec)
244920 -2 LAB 0800-0955 Th (IT Spec)
★REC 1010-1100 Th, EE/CSci 3125
144921 -3 LAB 0800-0955 W
944922 -4 LAB 0800-0955 F
★REC 1010-1100 Th, AketH 317
744923 -5 LAB 1115-1310 T (IT Spec)
544924 -6 LAB 1115-1310 Th
★REC 1010-1100 Th, Phys 170
344925 -7 LAB 1115-1310 W (IT Spec)
144926 -8 LAB 1115-1310 F (IT Spec)
★REC 1010-1100 Th, Phys 210
044927 -9 LAB 1325-1520 T (IT Spec)
844928 -10 LAB 1325-1520 Th (IT Spec)
★REC 1010-1100 Th, Phys 150
644929 -11 LAB 1325-1520 W
044930 -12 LAB 1325-1520 F
★REC 1010-1100 Th, Phys 131
844931 -13 LAB 1535-1730 T (IT Spec)
644932 -14 LAB 1535-1730 Th (IT Spec)
- r1252 General Physics II** (prereq Math 1221 or fMath 1221, 1251)
★LECT 0800-0850 MWF, Phys 150, Dahlberg, Johnson, 4 cr
★REC 0800-0850 Th, Phys 150
444933 -1 LAB 0905-1100 W
244934 -2 LAB 0905-1100 F
★REC 0800-0850 Th, Phys 133
944936 -3 LAB 1010-1205 T (IT Spec)
544938 -4 LAB 1010-1205 Th (IT Spec)
★REC 0800-0850 Th, Phys 131
744940 -5 LAB 1115-1310 W
344942 -6 LAB 1115-1310 F
★REC 0800-0850 Th, Phys 157
844945 -7 LAB 1220-1415 T (IT Spec)
444947 -8 LAB 1220-1415 Th (IT Spec)
★REC 0800-0850 Th, Phys 143
144949 -9 LAB 1325-1520 W
444950 -10 LAB 1325-1520 F
★REC 0905-0955 Th, Phys 166
144952 -11 LAB 1430-1625 T (IT Spec)
944953 -12 LAB 1430-1625 Th (IT Spec)
★REC 0905-0955 Th, Phys 170

- 744954 -13 LAB 1640-1835 T (IT Spec)
544955 -14 LAB 1640-1835 Th (IT Spec)
★REC 0905-0955 Th, Phys 131
344956 -15 LAB 0800-0955 T (IT Spec)
144957 -16 LAB 1535-1730 F
★REC 0905-0955 Th, Phys 143
044958 -17 LAB 0800-0955 S
844959 -18 LAB 1010-1205 S
★LECT 1325-1415 MWF, Phys 150,
Courant, Jones, 4 cr
★REC 1220-1310 Th, Phys 166
044961 -19 LAB 0800-0955 T
644963 -20 LAB 0800-0955 Th
★REC 1220-1310 Th, Phys 210
444964 -21 LAB 0905-1100 W
144966 -22 LAB 0905-1100 F
★REC 1220-1310 Th, SmithH 121
744968 -23 LAB 1010-1205 T (IT Spec)
544969 -24 LAB 1010-1205 Th (IT Spec)
★REC 1220-1310 Th, Phys 143
744971 -25 LAB 1115-1310 W
544972 -26 LAB 1115-1310 F
★REC 1325-1415 Th, Phys 170
044975 -27 LAB 1430-1625 T (IT Spec)
644977 -28 LAB 1430-1625 Th (IT Spec)
★REC 1325-1415 Th, Phys 133
444978 -29 LAB 1430-1625 W (IT Spec)
644980 -30 LAB 1430-1625 F (IT Spec)
★REC 1325-1415 Th, Phys 150
244982 -31 LAB 1640-1835 T (IT Spec)
944984 -32 LAB 1640-1835 Th (IT Spec)
★REC 1325-1415 Th, Phys 157
544986 -33 LAB 1640-1835 W (IT Spec)
044989 -34 LAB 1640-1835 F (IT Spec)
★REC 1325-1415 Th, Phys 143
144991 -35 LAB 0800-0955 S
044992 -36 LAB 1010-1205 S
- r1275 General Physics Laboratory I** (prereq 1271 or f1271 or f1311 or f1311) (S-N only)
619173 -1 LAB 1535-1730 F, 1 cr
817566 -2 LAB 1010-1205 S, 1 cr
- r1285 General Physics Laboratory II** (prereq 1275, 1281 or f1281 or 1331 or f1331) (S-N only)
114429 -1 LAB 1220-1415 T, 1 cr
918594 -2 LAB 1745-1925 W, 1 cr
416548 -3 LAB 1745-1925 F, 1 cr
- r1291 General Physics III** (prereq 1281) (companion lab is 1295)
421863 1325-1415 MTWThF, Phys 166, Marquit, 4 cr
- r1295 General Physics Laboratory III** (prereq 1285, 1291 or f1291 or 1341 or f1341) (S-N only)
722095 -1 LAB 0905-1100 T, 1 cr
320611 -2 LAB 1115-1310 T, 1 cr
921589 -3 LAB 1430-1625 T, 1 cr
619576 -4 LAB 0905-1100 W, 1 cr
723621 -5 LAB 1115-1310 W, 1 cr
221590 -6 LAB 0800-0955 Th, 1 cr
419577 -7 LAB 1010-1205 Th, 1 cr
417568 -8 LAB 1430-1625 Th, 1 cr
415397 -9 LAB 1115-1310 F, 1 cr
- r1452H Honors Physics II** (prereq 1451H, consent of IT Honors office)
★LECT 1115-1205 MWF, Phys 131, Halley, Ellis, 4 cr
★REC 1010-1100 T, Phys 143
245016 -80 LAB 1220-1415 T
145017 -81 LAB 1220-1415 F
★REC 1115-1205 T, Phys 236A
945018 -82 LAB 1325-1520 Th
745019 -83 LAB 1430-1625 F
★REC 0905-0955 Th, Phys 236A
145020 -84 LAB 1430-1625 T
★REC 1010-1100 Th, Phys 143
945021 -85 LAB 1220-1415 W
745022 -86 LAB 115-1310 Th
- r3015 Oscillations and Waves Laboratory** (prereq 3011)
043468 -1 LAB 1430-1730 M, Phys 62, Broadhurst, 1 cr
843469 -2 LAB 1430-1730 T, Phys 62, Broadhurst, 1 cr
143470 -3 LAB 0800-1100 Th, Phys 62, Broadhurst, 1 cr
844783 -4 LAB 1430-1730 Th, Phys 62, Broadhurst, 1 cr
- r3501 Modern Physics** (§3511-3512-3513, no cr for physics majs; prereq 1291 or 1341 or 1441 or 1106) (companion lab is 3515)
318843 1220-1310 MTWThF, Phys 166, Greenlees, 4 cr
- r3512 Quantum Physics I** (prereq 1291 or 1341 or 1441, Math 3321 or fMath 3321, 3011 recommended) (companion lab is 3515)
116866 1010-1100 MTWThF, Phys 131, Huang, 4 cr

r3601 Special Relativity (prereq 1291 or 1341 or 1441)
243461 0905-0955 MWF, Phys 131, Peterson, 3 cr

r3970 Directed Studies (prereq #, Δ)
420308 1-5 cr

r5022 Introduction to Analytic Mechanics (prereq 5021)
317790 0905-0955 MTWF, Phys 170, Tang, 4 cr

r5023 Introduction to Electric and Magnetic Fields (prereq 3011, Math 3231 or equiv)
913086 1115-1205 MTWThF, Phys 210, Kubota, 4 cr

r5032 Topics in Mathematical Physics (prereq 5031)
718015 1115-1205 MTWF, Phys 157, Hosotani, 4 cr

r5052 Classical Physics (prereq 5051)
520901 0855-1000 MWF, Phys 210, Bayman, 4 cr

r5062 Computational Methods in the Physical Sciences (§Ast 5062; prereq upper division IT/CLA or grad, 5061 or Ast 5061 or #)
113524 -1 1130-1300 Th, MechE 102, Woodward, 4 cr

r5102 Introduction to Quantum Mechanics (prereq 5101)
415111 1325-1415 MTWF, Phys 210, Gasiorowicz, 4 cr

r5122 Methods of Experimental Physics II (prereq 5121 or #)
714207 1220-1310 MWF, Phys 170, Ruddick, 4 cr (lab ar)

r5124 Experimental Project (prereq 5123, #)
621070 ar cr

r5152 Quantum Mechanics (prereq 5151)
115765 0815-0955 TTh, Phys 210, Suura, 4 cr

r5162 Introduction to Plasma Physics (prereq 5022, 5024 or #)
343466 1430-1520 MTWF, Phys 143, Lysak, 4 cr

r5202 Thermal and Statistical Physics (prereq 5201)
323539 1010-1100 MTWF, Phys 210, Shklovskii, Glazman, 4 cr

r5232 Introduction to Solid State Physics (prereq 5231)
214588 1115-1205 MTWF, Phys 143, 4 cr

r5400H Junior Honors Seminar (prereq IT or CLA upper div honors student, #) (S-N only)
414315 1535-1650 T, Phys 157, Dahlberg, Johnson, 1 cr

r5410H Senior Honors Seminar (prereq IT or CLA upper div honors student, #) (S-N only)
620386 1535-1650 Th, Phys 157, Courant, 1 cr

r5805 Contemporary Optics (prereq #)
615754 -1 1430-1545 MWF, EE/CS 3125, 4 cr

r5911 Concepts in Physics (no cr for phys maj; prereq 3511, 3512, 3513, 3515 or equiv)
145700 1615-1730 TTh, Phys 131, 4 cr (addtl 2 hr lab ar)

r5925 History of 20th Century Physics (§HSci 5925; prereq general physics or #)
543465 1245-1400 TTh, Phys 236A, Stuewer, 4 cr

r5950 Seminar (prereq Δ)
120934 1600-1730 W, Phys 131, Walsh, ar cr

r5970 Directed Studies (prereq #, Δ)
514161 1-5 cr

r5980 Research Seminar (prereq grad stu or upper div phys maj) (S-N only)
216695 1220-1310 Th, Phys 157, 1 cr

r5990 Directed Research (prereq 3rd yr, Δ)
221024 ar cr

r8082 General Relativity (prereq 8081)
943463 1325-1415 MWF, Phys 157, Olive, 3 cr

r8122 Relativistic Quantum Mechanics (prereq 8121 or #)
021275 0905-0955 MWF, Phys 236A, Rudaz, 3 cr

r8200 Seminar: Condensed Matter Physics (prereq #) (S-N only)
121968 1325-1500 Th, Phys 210, ar cr

r8212 Transport Theory (prereq 5153 or #)
122952 1010-1100 MWF, Phys 157, Valls, 3 cr

r8222 Solid-State Physics (prereq 8221)
814859 0800-0850 MWF, Phys 143, Campbell, 3 cr

r8300 Seminar: Nuclear Physics (prereq #) (S-N only)
023463 1430-1625 W, Phys 157, ar cr

r8370 Seminar: Elementary Particle Physics (prereq #) (S-N only)
522941 ar cr

r8372 Elementary Particle Physics (prereq 8371 or #)
118584 1010-1100 MWF, Phys 143, Voloshin, 3 cr

r8400 Seminar: Space Physics (prereq #) (S-N only)
143462 1430-1625 T, Phys 236A, ar cr

r8422 Solar and Magnetospheric Physics (prereq 8421)
743464 1325-1415 MWF, Phys 236A, Erickson, 3 cr

r8500 Plan B Project (no cr toward PhD; prereq #) (S-N only)
222254 4 cr

8777 Thesis Credits: Masters
320348 1-16 cr

8888 Thesis Credits: Doctoral (max 18 cr per qtr)
321192 1-36 cr

r8950 Seminar: Problems of Physics Teaching and Higher Education (prereq #)
819639 Heller, 1 cr

r8990 Research in Physics (prereq #)
717740 ar cr

PHYSIOLOGY (Phsl) Medical School

3051 Human Physiology (prereq 1 yr chemistry, biology, primarily for nursing, nutrition, medical technology and physical therapy stu)
★LECT 0905-0955 MWTWThF, OwreH 2230, Bloom, 5 cr
618055 -1 LAB 0800-0955 T, MoosT 3110
814649 -2 LAB 1010-1205 T, MoosT 3110

3053 Principles of Physiology (prereq 1 yr college chemistry, physics, math thru integ calculus, 3052, Δ)
917946 1010-1100 MWF, MirdH 5276, Levitt, 3 cr

3056 Principles of Physiology (prereq 1 yr each college chem, phys, math thru integ calc, 3055, Phsl maj or pre-maj, or #)
419028 1010-1100 MWF, MirdH 5276, Levitt, 5 cr

3091H Honors Course: Readings in Physiology (prereq honors candidates in physiology, Δ)
319958 Poppele, ar cr

3092H Honors Course: Problems in Physiology (prereq honors candidates in physiology, Δ)
216082 Poppele, ar cr

3970 Directed Studies (prereq #, Δ)
920829 ar cr

5100 Systems Physiology (prereq biochem and human anatomy; primarily for dental, pharm, med tech, and nurs anes stu) (A-F only)
★LECT 1325-1415 MTWF, MoosT 2620, Katz, 5 cr
817048 -1 LAB 1430-1625 M, MoosT 3110, (non-dental students only)
619111 -2 LAB 1325-1520 Th, MoosT 3110, (dental students only)

5110 Human Physiology (prereq 1st yr med stu or grad stu)
★LECT 1430-1520 M, MoosT 2620, 0905-0955 TTh, PWB 2470, Wangenstein, 3 cr (1430-1520 F, MoosT 2620, Feb 7-Mar 6)
019378 -1 LAB 0800-1205 M, MoosT 3110
815140 -2 LAB 0800-1205 F, MoosT 3110
819401 -3 LAB 0800-1205 W, MoosT 3110

5113 Problems in Physiology (prereq #)
122974 ar cr

r5202 Computational Neuroscience II: Cells and Circuits (prereq understanding of UNIX, 5201 or equiv)
823724 1430-1600 MW, MirdH 5276, Miller, 5 cr (lab ar)

5441 Quantitative Physiology (prereq 5440, grad stu)
115127 1010-1100 MWF, MirdH 5276, Levitt, 3 cr

5552 Readings in Physiology
115975 ar cr

5553 Research in Physiology
023267 ar cr

8113 Problems in Physiology (prereq #)
220164 ar cr

8201 Literature Seminar (S-N only)
120478 Branton, 1 cr

8202 Readings in Physiology
714823 ar cr

8203 Research in Physiology
721187 ar cr

8216 Selected Topics in Neurophysiology (prereq 5112, CBN 5111)
016240 Soechting, ar cr

8777 Thesis Credits: Masters
819866 1-16 cr

8888 Thesis Credits: Doctoral (max 18 cr per qtr)
421474 1-36 cr

PLANT BIOLOGY (PBio) Biological Sciences

5001 Basic Botany (§Bot 5001; prereq Biol 1008 or Biol 1009, #, Δ)
116956 ar cr

r5105 Morphology of Vascular Plants (§Bot 5105; prereq Biol 1103 or Biol 3012 or #)
★LECT 0830-0945 TTh, BioSci 70, May
944614 -1 LAB 1000-1245 TTh, BioSci 163, 5 cr

5109 Molecular Genetics and Biochemistry of Yeasts and Filamentous Fungi (§PiPa 5109; prereq 1 course each in genetics, biochemistry, or #)
843486 1145-1325 MW, BioSci 70, Brambl, Berman, 4 cr

r5111 Plant Cell, Tissue and Organ Development (§Bot 5111; prereq Biol 1103 or Biol 3012)
★LECT 1315-1430 TTh, BioSci 70, Biesboer
143484 -1 LAB 1445-1730 TTh, BioSci 151, Biesboer, 5 cr

5183 Water, Minerals, and Translocation (§Bot 5183, PiPh 5183; prereq 5131 or equiv)
★LECT 1145-1235 MWF, BorH 365, Markhart
144618 -1 REC 1145-1300 Th, BorH 365, Allan, 4 cr

5186 Topics in Plant Biochemistry (prereq Biol 5001 or BioC 5331)
744615 0910-1025 MW, BioSci 12, Gleason, 3 cr

r5203 Herbarium Techniques (prereq 1009 or 3201 or equiv) (S-N only)
544616 Cholewa, 1 cr (BioSci 842)

5221 Plant Molecular Evolution (prereq GCB 3022 or Biol 5003 or GCB 5022)
344617 1250-1340 MWF, BioSci 12, Doebley, Fumier, 3 cr

5960 Special Topics (prereq #, Δ)
120688 ar cr

5970 Directed Studies (prereq #, Δ)
114194 ar cr

5990 Directed Research (prereq #, Δ)
421877 ar cr

8777 Thesis Credits: Masters
521482 1-16 cr

8888 Thesis Credits: Doctoral (max 18 cr per qtr)
016304 1-36 cr

8950 Seminar (prereq #)
818040 Hackett, 1 cr

8990 Research Problems (prereq #, Δ)
120867 ar cr

PLANT BREEDING (PIBR)

8777 Thesis Credits: Masters
323072 1-16 cr

8888 Thesis Credits: Doctoral (max 18 cr per qtr)
817843 1-36 cr

PLANT PATHOLOGY (PIPA)

Agriculture

- 1500 Biotechnology: Basic Concepts and Applications** (§Agro 1500, AnSc 1500, FScN 1500, ScAg 1500, Soil 1500; prereq hi schl biol or chem or #) (A-F only)
020692 1355-1445 MWF, GrmH 110, Young, Harlander, others, 3 cr
- 3090 Research in Plant Pathology** (prereq 1001 or equiv or #)
520509 ar cr
- r5002 Introductory Plant Pathology for Advanced Students** (§1001, 3001; prereq 14 or plant science or #)
★LECT 1820-1935 TTh, BorH 365, MacDonald, 5 cr
643490 -1 LAB 1935-2120 TTh, BorH 295, AGRPGGH 106, MacDonald
- r5004 Bacterial Diseases of Plants** (prereq 5002 or #) (A-F only)
★LECT 0830-0920 TTh, BorH 365, Kennedy, 3 cr
713526 -1 LAB 1040-1235 Th, BorH 291, Kennedy
- r5006 Fungal Diseases of Plants** (prereq 20 or biol including botany, biochem, mycology, plant disease epid, plant physiol) (A-F only)
★LECT 0935-1025 TTh, BorH 365, Percich, 3 cr
120909 -1 LAB 1040-1235 T, AGRPGGH 106, BorH 295, Percich
- 5106 Mycology: Ascomycetes-Fungi Imperfecti** (prereq 5105 or MicB 3103 or #)
★LECT 1040-1130 TTh, BorH 365, Stewart, 4 cr
443488 -1 LAB 1145-1340 TTh, BorH 296, Stewart
- 5109 Biochemistry and Molecular Biology of Fungi** (prereq 8 or biochemistry or #)
916232 1145-1325 MW, BioSci 70, Brambl, Berman, 4 cr
- 8002 Plant Disease Theory II: Tissues to Whole Plants** (prereq 5005, 5006, 5007 or #, 8001)
916280 1355-1550 TTh, BorH 491, Bantari, Bushnell, Krupa, Zeyen, 4 cr
- 8090 Advanced Procedures and Research in Plant Pathology**
821116 2 cr
- 8095 Advanced Procedures and Research in Mycology**
620503 Stewart, others, 1-6 cr
- r8201 Seminar**
114812 1500-1600 M, BorH 365, 1 cr
- 8500 Research in Plant Pathology** (S-N only)
845402 Larsen, 1-8 cr
- 8777 Thesis Credits: Masters**
520767 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
415027 1-36 cr

PLANT PHYSIOLOGY (PIPH)

Agriculture

(Also See PBio)

- 8251 Seminar: Plant Physiology** (S-N only)
918708 Markhart, 1 cr
- 8777 Thesis Credits: Masters**
916229 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
514466 1-36 cr

POLISH (Plsh)

Slavic Languages & Literatures

Liberal Arts

- 1102 Beginning Polish** (prereq 1101)
643165 0905-1030 MWF, PolH 142, Potakiewicz, 5 cr
- 5900 Topics**
923228 1820-2100 T, KolH S139, 4 cr
- 5970 Directed Readings** (prereq #, Δ, CLA approval)
615124 1-4 cr

POLITICAL SCIENCE (Po)

Liberal Arts

- r1001 American Government and Politics**
★LECT 1010-1100 MTW, WilleyH 125, McGuire
315554 -1 REC 1010-1100 Th, BlegH 425, 5 cr
517643 -2 REC 1010-1100 Th, Law 1, 5 cr
013614 -3 REC 1220-1310 Th, Law 1, 5 cr
620680 -4 REC 1220-1310 Th, AndH 370, 5 cr
118674 -5 REC 1220-1310 Th, BlegH 350, 5 cr
422690 -6 REC 1220-1310 Th, SocSci 1383, 5 cr
220679 -7 REC 1010-1100 F, BlegH 245, 5 cr
016626 -8 REC 1010-1100 F, BlegH 335, 5 cr
015556 -9 REC 1010-1100 F, BlegH 340, 5 cr
421670 -10 REC 1010-1100 F, HHCtr 30, 5 cr
923701 -11 REC 1010-1100 F, HHCtr 20, 5 cr
221671 -12 REC 1010-1100 F, HHCtr 60, 5 cr
619660 -13 REC 1010-1100 F, RarigC 610, 5 cr
813615 -14 REC 1115-1205 F, BlegH 210, 5 cr
122689 -15 REC 1115-1205 F, BlegH 335, 5 cr
317644 -16 REC 1325-1415 F, BlegH 105, 5 cr
615558 -17 REC 1325-1415 F, BlegH 115, 5 cr
- r1025 World Politics**
912892 0905-0955 MWF, BlegH 5, Freeman, 4 cr
- r1041 Contemporary Political Ideologies**
219578 1115-1230 TTh, AndH 270, Chabot, 4 cr
- r1054 Introduction to Comparative Politics**
843570 1010-1100 MWF, AndH 270, Davidheiser, 4 cr
- r3051 Introduction to Political Analysis**
114978 1115-1205 MTWThF, AndH 350, 5 cr
- 3070 Directed Field Studies** (prereq #, Δ) (A-F only)
121140 1-4 cr
- 3080 Internship** (max 8 cr; prereq Δ) (S-N only)
116228 4 cr
- r3085 Introduction to Political Research** (prereq 3051 or #)
245436 0815-0930 TTh, BlegH 110, Flanigan, 4 cr
- 3110H Honors Work in Selected Fields** (max 6 cr; prereq political science honors program maj, 3109H)
813389 1-6 cr
- r3323 Civil Liberties in America** (prereq 1001 or equiv or #)
643568 0945-1100 TTh, BlegH 150, Sullivan, 4 cr
- r3352 Fieldwork in the Legislature** (prereq 1001 or equiv)
122313 1535-1730 TTh, BlegH 120, Backstrom, 4 cr
- r3659 American Political Thought**
943561 0945-1100 TTh, AndH 350, Ball, 4 cr
- r3739 The Politics of Ethnic Communities** (prereq 6 or in social science)
043566 1220-1310 MWF, BlegH 150, Nimitz, 4 cr
- r3810 Topics in International Politics and Foreign Policy: International Organizations and the Environment** (§IntR 3900; prereq 12 cr in social sciences)
645109 0815-0930 TTh, BlegH 105, Sampson, 4 cr
- r3836 Foreign Policy Decision Making** (§5876)
343564 1325-1415 MWF, BlegH 10, Laffey, 4 cr
- 3970 Directed Studies** (prereq #, Δ, □)
513446 1-6 cr
- r5322 American Social Policy** (prereq 1001 or equiv or #)
922614 1820-2050 M, BlegH 155, Jacobs, 4 cr
- r5323 American Defense Policy** (prereq 3836 or 6 cr in ROTC or non-political science grad student or #)
044586 0905-0955 MWF, AndH 230, Welles, 4 cr
- r5410 Advanced Topics in Government and Politics: Peasant Politics** (prereq 3051 or non-political science grad stu or #)
543563 0945-1100 TTh, BlegH 145, Kelliher, 4 cr
- r5461 Western European Government and Politics** (§5441; prereq 3051 or non-political science grad student or #)
418591 1325-1430 MWF, BlegH 230, Shively, 5 cr
- r5477 Middle Eastern Government and Politics** (§5457; prereq 3051 or non-political science grad student or #)
320608 1115-1230 TTh, BlegH 145, Toprak, 4 cr

- r5479 Latin American Government and Politics** (§LAS 5479; prereq 3051 or non-political science grad student or #)
344228 1010-1130 MW, BlegH 150, Selbin, 5 cr
- r5502 Principles of the American Constitution II** (prereq 1001 or equiv, 3309 or 5501 or senior standing)
443569 1415-1530 MWF, BlegH 250, Krislov, 5 cr
- r5657 The Development of Political Thought: Contemporary** (prereq 1061 recommended or 9 cr in social sciences) (A-F only)
720721 1325-1450 TTh, BlegH 440, Disch, 4 cr
- r5885 International Peace and Violence** (prereq 3835 or non-political science grad student or #)
143565 1325-1430 TTh, BlegH 215, Oren, 4 cr
- 8103 Political Science as a Profession** (prereq pol sci grad stu) (S-N only)
418039 1325-1520 T, SocSci 101, Sullivan, 3 cr
- 8125 Dynamic Analysis** (prereq 8121 or equiv or #)
043552 1325-1520 M, SocSci 101, Freeman, 4 cr
- 8140 Individual Readings and Research in Methodology** (prereq pol sci grad maj or #, Δ)
418428 1-3 cr
- 8150 Research Seminar: Methodology** (prereq pol sci grad maj or #)
118343 3 cr
- 8215 American Political Thought** (prereq pol sci grad maj or #)
843553 1535-1730 M, SocSci 101, Ball, 3 cr
- 8240 Individual Reading and Research in Political Thought** (prereq pol sci grad maj or #, Δ)
618802 1-3 cr
- 8250 Research Seminar: Political Theory** (prereq pol sci grad maj or #)
019395 3 cr
- 8301 Public Opinion and Political Participation** (prereq pol sci grad maj or #)
643554 1325-1520 Th, SocSci 1383, Flanigan, 3 cr
- 8313 Executive Process** (prereq pol sci grad maj or #)
443555 1325-1520 F, SocSci 101, Jacobs, 3 cr
- 8340 Individual Reading and Research in American Politics** (prereq pol sci grad maj or #, Δ)
718757 1-3 cr
- 8350 Research Seminar: American Politics** (prereq pol sci grad maj or #)
115905 3 cr
- 8400 International Relations** (prereq pol sci grad maj or Δ)
243556 1230-1500 F, SocSci 1383, Duvall, 4 cr
- 8411 Foreign Policy and Decision Making** (A-F only)
144585 1535-1730 Th, SocSci 1383, Sampson, 3 cr
- 8440 Individual Reading and Research in International Relations** (prereq pol sci grad maj or #, Δ)
122191 1-3 cr
- 8450 Research Seminar: International Politics and Foreign Policy** (prereq pol sci grad maj or #)
416890 3 cr
- 8633 Comparative Socio-Political Change** (prereq pol sci grad maj or #)
143557 1325-1520 W, SocSci 1383, Nimitz, 3 cr
- 8640 Individual Readings and Research in Comparative Politics** (prereq pol sci grad maj or #, Δ)
317840 1-3 cr
- 8650 Research Seminar: Comparative Politics** (prereq pol sci grad maj or #)
718516 3 cr
- 8660 Topics in Comparative Politics: Middle Eastern Women** (prereq pol sci grad stu or #)
743559 1535-1730 T, SocSci 101, Toprak, 3 cr
- 8777 Thesis Credits: Masters**
213747 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
818393 1-36 cr

PORTUGUESE (Port)
Spanish And Portuguese
Liberal Arts

- r1002 Beginning Portuguese** (prereq 1001 or #)
119119 -1 0905-0955 MTWThF, FolH 208, 5 cr
116429 -2 1115-1205 MTWThF, FolH 326, 5 cr
- r1004 Intermediate Portuguese Grammar and Composition** (prereq 1003)
720458 1220-1310 MTWThF, FolH 214, 5 cr
- r1005 Intermediate Portuguese** (prereq 1004)
943169 1010-1100 MTWThF, FolH 114, 5 cr
- r3104 The Art of Reading Luso-Brazilian Literary Texts** (prereq 3014)
243167 1115-1230 TTh, FolH 134, Reis, 4 cr
- 3970 Directed Studies** (prereq #, Δ, □)
613454 1-5 cr
- 5524 Brazilian Literature and Modernization** (prereq three 3xxx Port courses or Δ) (A-F only)
143168 1515-1800 Th, FolH 116, Reis, 4 cr
- 5970 Directed Readings** (max 15 cr; prereq #, Δ, CLA approval)
121467 1-5 cr
- 5990 Directed Research** (prereq #, Δ, CLA approval)
713459 1-5 cr
- 8777 Thesis Credits: Masters**
721870 1-16 cr
- 8970 Directed Readings in Romance Languages**
819916 ar cr

PROSTHODONTICS (Pros)
Dentistry

- 5200 Fixed Prosthodontics Seminar for Postgraduate Dental Fellows** (S-N only)
322729 1 cr
- 8003 Advanced Technical Restorative Dentistry**
116897 ar cr
- 8005 Advanced Clinical Prosthodontics I**
622221 ar cr
- 8006 Advanced Clinical Prosthodontics II** (prereq #)
123082 ar cr
- 8012 Topics in Prosthodontics** (prereq #)
116057 ar cr
- 8016 Seminar: Prosthodontics II** (prereq #)
619853 ar cr

PSYCHOLOGY (Psy)
Liberal Arts

- r1001 Introduction to Psychology**
★LECT 1325-1415 MTWTh, WilleyH 175, Burkhardt, Fox, others, 5 cr
143493 -1 REC 0905-0955 F, BlegH 10
943494 -2 REC 1010-1100 F, BlegH 10
743495 -3 REC 1115-1205 F, BlegH 10
543496 -4 REC 1115-1205 F, AkerH 209
343497 -5 REC 1220-1310 F, BlegH 10
143498 -6 REC 1220-1310 F, AkerH 209
043499 -7 REC 1325-1415 F, BlegH 150
743500 -8 REC 1325-1415 F, Phys 133
543501 -9 REC 1430-1520 F, BlegH 150
343502 -10 REC 1430-1520 F, Phys 133
- r1001H Honors Seminar: Introduction to Psychology** (prereq 1Psy 1001, permission of CLA Honors Office) (S-N only)
412919 1430-1600 T, EIH 50, Peterson, 1 cr
- r1004 Introductory Laboratory Psychology** (1004-1005); prereq soph, 1001 or 1)
★LECT 0905-0955 M, Arch 50
122229 -1 LAB 0905-1205 T, EIH 150, 4 cr
720301 -2 LAB 0905-1205 T, EIH 160, 4 cr
721805 -3 LAB 1325-1625 T, EIH 150, 4 cr
412967 -4 LAB 1325-1625 T, EIH 160, 4 cr
815218 -5 LAB 0905-1205 W, EIH 150, 4 cr
716877 -6 LAB 0905-1205 W, EIH 160, 4 cr
243492 -7 LAB 1325-1625 W, EIH 160, 4 cr
- r1005 Introductory Laboratory Psychology** (1004-1005); prereq 1004)
★LECT 0905-0955 T, SmithH 331, Fox, Peterson
620002 -1 LAB 0905-1205 Th, EIH 50, 4 cr

- 822086 -2 LAB 0905-1205 Th, EIH 60, 4 cr
112686 -3 LAB 1325-1625 Th, EIH 50, 4 cr
418512 -4 LAB 1325-1625 Th, EIH 60, 4 cr
420390 -5 LAB 0905-1205 F, EIH 50, 4 cr
514015 -6 LAB 1325-1625 F, EIH 60, 4 cr
- r1011 Career Decision Making** (cannot be applied toward any CLA degree; prereq fr or soph or #)
123065 1220-1415 T, BuH 125, Hennen, 2 cr
- r3011 Introduction to Psychology of Learning** (prereq 1001)
016870 1325-1415 MWF, NichH 45, Peterson, 4 cr
- r3051 Introduction to Cognitive Psychology** (prereq 1001)
818507 1115-1230 TTh, Botany B6, 4 cr
- r3902 Major Project in Psychology** (prereq 1005, 3801, jr or sr psychology maj)
322536 -1 1325-1520 T, AmundH 116, 4 cr
517920 -2 1010-1205 Th, ChDev 218, 4 cr
821942 -3 1010-1205 F, ChDev 218, 4 cr
- 3960 Undergraduate Seminar** (prereq 1001, #)
213263 1-5 cr
- 3970 Directed Studies** (prereq #, Δ, □)
621246 1-8 cr
- 3990 Directed Research** (prereq #, Δ, □)
121808 -1 1-8 cr
- 5012 Psychology of Learning** (prereq 1005, 3011 or EBB 3111 or #, except grad students)
514953 0905-0955 MWF, EIH N119, Overmier, 4 cr
- 5036 Vision: Computational Theory to Neural Systems** (prereq 3031, Math 3211, CSci 3104, or #) (A-F only)
316641 1115-1230 TTh, EIH N227, Kersten, 4 cr
- r5037 Psychology of Hearing** (prereq 3031 or #)
744582 1325-1440 TTh, EIH N227, Viemeister, 4 cr
- 5051 Psychology of Human-Machine Interaction** (prereq 3051 or 3031 or #)
143503 0945-1100 TTh, EIH N119, Legge, 4 cr
- 5054 Psychology of Language** (prereq 3011 except for students in honors sequence, grad students)
123526 1115-1230 TTh, EIH N119, Fletcher, 4 cr
- r5101 Personality** (§3101; prereq 5862 or fl, honors candidate or grad student)
815719 0945-1100 TTh, Arch 50, Tellegen, 4 cr
- r5138 Psychology of Aging** (prereq 3135 or 5135, 5862 or #)
015749 1325-1440 TTh, ChDev 216, McGue, 4 cr
- r5206 Research Methods in Social Psychology** (prereq #)
322228 0945-1100 TTh, EIH 225, Fleming, 4 cr
- r5604H Abnormal Psychology** (§3604; prereq honors maj or # for grad students)
715809 1430-1625 TTh, EIH N119, Leon, 4 cr
- r5701 Personnel and Industrial Psychology** (prereq 3801 or equiv, 8 cr in psychology or #)
521112 0945-1100 TTh, VinH 16, Campbell, 4 cr
- r5705 Work Motivation** (prereq 3801 or equiv, 8 cr in psychology or #)
319040 1245-1400 MW, EIH N119, 4 cr
- 5901H Honors Project** (prereq sr, #) (A-F only)
216180 4-8 cr
- 5960 Topics in Psychology** (prereq 1001, #)
120609 1-5 cr
- 8015 Seminar: Analysis of Operant Behavior** (prereq 5019 or #)
322150 1330-1500 Th, EIH N668, 3 cr
- 8040 Psychophysiology** (prereq #)
116441 0930-1100 TTh, EIH N227, Lykken, Iacono, 4 cr
- 8070 Seminar: Psychopharmacology** (prereq #)
818300 1 cr
- r8107 Cross-Cultural Study of Personality** (prereq 5101, 5604 or equiv or #)
220729 1600-1830 T, EIH N227, Butcher, 3 cr
- 8115 Scientific Study of Psychopathology** (8114-8115); prereq 8114, #)
120318 1300-1600 W, EIH N668, Depue, 3 cr
- 8120 Personality, Therapy, and Women** (prereq 5101, 8 cr in psychology or #)
213683 Faunce, 4 cr

- 8203 Impression Management** (prereq #...8208 rec)
843505 1000-1200 T, EIH N305, Gonzales, 3 cr
- 8205 Seminar: Research in Social Psychology** (prereq 8204, #)
322830 Fleming, Berscheid, others, 3 cr
- 8410 Perspectives in Learning, Perception, and Cognition** (prereq post-baccalaureate status) (S-N only)
021437 1535-1730 Th, EIH 150, 160, Overmier, 1 cr
- r8501 Counseling Psychology I: History and Theory** (prereq counseling psychology stu or #)
317613 1430-1545 W, EIH N595, Frazier, 3 cr (1 hr lab ar)
- 8515 Practicum in Student Counseling** (prereq 8501, 8502, 8503 or equiv) (S-N only)
623191 1430-1625 Th, EddyH 202, Loper, 3 cr
- 8518 Practicum in Rehabilitation Counseling** (prereq 8503 or #)
416811 1325-1520 TTh, Mayo 796, Athelstan, 3 cr
- 8521 Pre-Practicum in Applied Psychology** (prereq #) (S-N only)
415559 1535-1730 M, EIH N595, Pazandak, 3 cr (alt M bgn Jan 6)
- 8544 Seminar: Research in Counseling Psychology** (prereq #) (S-N only)
918675 Hansen, 1 cr (EIH N595)
- 8560 Internship in Counseling Psychology** (prereq #)
713803 1-12 cr
- 8612 Professional Methods in Clinical Psychology I: Assessment** (prereq clinical psychology maj)
★LECT 1415-1530 TTh, EIH N423, Butcher, Tellegen, 4 cr
518243 -1 LAB 1415-1600 W, EIH N423, Butcher
- 8620 Practicum in Clinical Psychology** (prereq #) (S-N only)
520008 1-6 cr
- 8632 Professional Methods in Clinical Psychology III: Descriptive Psychopathology** (prereq clinical psychology major, 8611, 8612, 8613)
616175 1315-1630 F, EIH N668, Iacono, 3 cr
- 8640 Seminar: Topics in Clinical Psychology** (prereq #)
319734 Klinger, 1 cr
- 8670 Internship in Clinical Psychology** (prereq PhD candidate in clinical psychology, permission of director of training program)
013161 2-4 cr
- 8704 Seminar: Industrial and Organizational Psychology** (prereq #)
043504 Campbell, Dunnette, others, 4 cr
- 8777 Thesis Credits: Masters**
916375 1-16 cr
- 8882 Seminar: Psychometric Methods** (8881-8882-8883; prereq 8881)
322617 Weiss, 1 cr
- r8884 Methods for Multivariate Data Analysis** (prereq EPsy 5261, 8260, 8261, 8262 or #)
422219 1325-1520 TTh, EIH N227, Cudeck, 4 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
920278 1-36 cr
- r8970 Seminar: Special Areas of Psychology and Related Sciences** (prereq #)
412709 -1 1215-1315 W, EIH N227, Fox, Fletcher, 1-6 cr
118593 -2 Berscheid, 1-6 cr
714000 -3 Braswell, 1-6 cr
417473 -4 Lubinski, 1-6 cr (S-N only)
323377 -5 Klinger, 1-6 cr
- 8980 Directed Teaching in Psychology** (prereq #)
120433 1-6 cr
- 8990 Research Problems** (prereq #)
420387 1-6 cr

PUBLIC AFFAIRS (PA)

- r5011 Policy Analysis I: Applied Microeconomics for Policy Analysis** (§8201; prereq intermediate microeconomics, public affairs and planning maj or #) (A-F only)
144627 1600-1745 MW, HHHCr 25, Kudrie, Brandt, 4 cr

r5022 Quantitative Methods in Public Affairs and Planning II (prereq 5901 or equiv experience working with computer software programs i.e. SPSS or #, public affairs or planning maj or #) (A-F only)
944628 -1 LECT 1600-1745 TTh, HHHctr 30, BlegH 105, Kleiner, Kudrie, 4 cr
★LECT 1600-1745 TTh, HHHctr 25, Assaad, 4 cr
144630 -1 LAB 1000-1200 T, HHHctr 35
944631 -2 LAB 1430-1545 W, BlegH 90

r5113 Public Services Redesign (§5450; prereq grad or adult special or Δ)
516587 1900-2130 M, HHHctr 30, Brandl, 3 cr

r5121 Public Budgeting I (†5121-5122; prereq grad or public health or public affairs and planning maj)
743514 1325-1500 MWF, HHHctr 25, Jernberg, Brandl, 3 cr

r5192 Topics in Public and Independent Sector Management: Managing beyond Bureaucracy (prereq grad or adult special or Δ)
445550 1815-2045 W, BlegH 110, Armajani, 3 cr

r5194 Topics in Public and Independent Sector Management (prereq grad or adult special or Δ)
544633 1900-2130 T, HHHctr 20, Van Hoomissen, 3 cr

r5198 Topics in Public and Independent Sector Management: Conflict Management, Theory and Practice (prereq grad or adult special or Δ)
145549 1800-2045 M, BlegH 255, Fiutak, 3 cr

r5199 Topics in Public and Independent Sector Management: State and Local Public Finance (prereq grad or adult special or Δ)
845545 1430-1545 TTh, HHHctr 30, Luce, 3 cr

r5201 Planning Theory (§5601, 5602; prereq grad or adult special or Δ)
143517 1815-2045 W, HHHctr 30, Bolan, 3 cr

r5211 Group Techniques in Public Affairs and Plan Making (§5514; prereq grad or adult special or Δ)
543515 1245-1400 TTh, HHHctr 85, Bryson, Finn, 4 cr

r5231 Strategy and Tactics in Project Planning (§5521; prereq grad or adult special or Δ)
843519 1900-2130 T, HHHctr 30, Bolan, 3 cr

r5302 Topics in Policy Analysis II (prereq public affairs or planning maj, 5011, 5012 or 5013 or Δ)
914447 0945-1100 MW, HHHctr 30, 3 cr

r5441 Survey of Women and Public Policy (prereq grad or adult special or Δ)
720749 1430-1545 TTh, HHHctr 25, Nelson, 3 cr

r5493 Topics in Social Policy: Policies and Practices in Nonprofit Governance (prereq grad or adult special or #)
513575 1900-2130 W, HHHctr 25, Dewar, 3 cr

r5497 Topics in Social Policy: Women and International Public Affairs (prereq grad or adult special or #)
344634 1115-1230 TTh, HHHctr 25, Ghazalla, 3 cr

r5498 Topics in Social Policy: Child Development and Social Policy (prereq grad or adult special or #)
844637 1430-1730 T, FordH 50, Brookins, 3 cr

5502 Economic Development II (prereq 5501 or equiv, grad or adult special or Δ)
143520 0945-1100 TTh, HHHctr 60, Assaad, 3 cr

r5591 Topics in Economics and Community Development: State Economic Strategy Workshop (prereq public affairs or planning maj or #)
844640 1815-2045 Th, HHHctr 60, Munnich, 3 cr

5602 Metropolitan Analysis I: Population and Housing (§Geog 5372; prereq grad stu or adult special or Δ) (A-F only)
043518 0800-1000 TTh, BlegH 415, Adams J., 4 cr

r5591 Topics in Land Use and Human Settlements (prereq grad or adult special or Δ)
★LECT 1010-1100 MW, BlegH 350, Craig, McMaster
045530 -1 LAB 1200-1400 F, BlegH 455, 3 cr

r5711 Energy Policy I (prereq grad or adult special or Δ)
016805 1115-1230 MW, HHHctr 30, Abrahamson, 3 cr

r5721 Environmental Policy I (§8140; prereq grad or adult special or Δ)
916943 0815-0930 MW, HHHctr 30, Abrahamson, 3 cr

5722 Environmental Policy II (prereq sr, grad or adult special)
245548 1115-1230 TTh, BlegH 330, Geesaman, 3 cr

r5966 General Topics: Ethics and Public Policy (prereq grad or adult special or #)
420681 1815-2045 T, HHHctr 215, Terry, 3 cr

r8691 Advanced Topics in Land Use and Human Settlements
343516 0945-1100 TTh, HHHctr 30, Lukermann, 3 cr

r8901 Plan B Paper Tutorial (prereq public aff or planning maj, 5001, 5002, 5011, 5012, 5021, 5022, or #) (A-F only)
644641 4 cr

8910 Independent Study (prereq #)
117797 ar cr

PUBLIC HEALTH (PubH)

r3003 Fundamentals of Alcohol and Drug Abuse (§3004, 5003, 5023)
520512 1010-1100 TTh, MoosT 2650, Rothenberger, 2 cr

r3034 Topics in Alcohol and Drug Problems (prereq #)
617066 ar cr

3400 Directed Studies: Biometry (prereq #)
020370 ar cr

r5003 Fundamentals of Alcohol and Drug Abuse (§3003, 3004, 5023)
222285 1010-1100 TTh, MoosT 2650, Rothenberger, 2 cr

r5004 Field Instruction in Public Health (prereq #)
112731 ar cr

r5005 Topics in Public Health (prereq advanced proposal, #)
743187 ar cr

r5008 Preventive Medicine Seminar (prereq hlth sci grad stu) (S-N only)
815686 1430-1625 T, MoosT 2146, Folsom, 1 cr (begns Jan 7, alt T)

r5015 Topics in Interdisciplinary Studies (prereq #)
617620 1430-1730 T, OwreH 2210, 3 cr

r5020 Public Health Social Work Integrative Seminar (§SW 5020; prereq dual MSW/MPH or other public hlth or social work stu or #)
015508 0905-1205 Th, Mayo A270, Bracht, 3 cr

5040 Dying and Death in Contemporary Society (§HSU 5040, Mort 5040; prereq health science maj, public health grad, educ sr, mortuary science maj or #)
720444 1640-1825 M, 1640-1730 W, MoosT 2690, Burger, Rothenberger, 3 cr

r5044 Topics in Alcohol and Drug Problems (prereq advance proposal, #)
020899 1-4 cr

r5084 Internship in Health Education Practice I (prereq health educ maj and community health educ maj or #) (S-N only)
115015 ar cr

r5085 Internship in Health Education Practice II (prereq health educ maj and community health educ maj or #) (S-N only)
721397 ar cr

5090 Research Topics in Health Education (prereq health educ maj and community health educ maj or #)
113846 2-8 cr

5096 Topics: Research (prereq health educ maj and community health educ maj or #)
116889 ar cr

r5097 Topics: Selected Readings (prereq grad student in health sciences)
121946 ar cr

5150 Topics: Environmental and Occupational Health (prereq #)
922807 -1 Greaves, ar cr
913640 -2 McGovern, ar cr
021695 -3 Olson D., ar cr

5154 Practicum in Environmental and Occupational Health (prereq environmental health maj) (S-N only)
916344 1-6 cr

5159 Seminar: Environmental Health (prereq environmental health student) (S-N only)
117127 1325-1520 Th, MoosT 2520, 2 cr

r5171 Environmental Microbiology (prereq MicB 3103 or #)
★LECT 1115-1205 TTh, PWB 5254, 5258, Vesley
144487 -1 LAB 1325-1520 T, BoynHS S35, Vesley, 4 cr

5184 Air Analysis (prereq 5211 or #) (S-N only)
921169 1430-1520 W, Mayo A269, 1535-1730 Th, BoynHS 535, Vincent, Brosseau, 3 cr

5186 Environmental Chemistry (prereq general chemistry and organic chemistry or #)
021566 0815-0930 MW, Mayo 1250, Swackhamer, 3 cr

5192 Occupational Safety
713767 1730-2030 M, MoosT 2580, Olmstead, 3 cr

5194 Injury Prevention in the Workplace, Community, and Home (§5594)
415433 0905-0955 T, 0805-0955 Th, HSUnitF 2120, Gerberich, 3 cr

r5197 Topics: Injury Prevention in the Workplace, Community, and Home (§5597; prereq #)
513544 Gerberich, 1-3 cr

5198 Safety Engineering Fundamentals (prereq public hlth or engineering grad stu, #)
145437 1010-1100 MWF, PWB 5254, Shutske, 3 cr

5243 Water and Health
221184 1325-1415 MWF, MoosT 2580, Singer, 3 cr

5253 Introduction to Hazardous Waste Management
018019 1600-1715 MW, HSUnitF 2120, 2130, Thompson, 3 cr

5262 Metabolism and Distribution of Xenobiotics (prereq 5261 or #)
521157 0815-0930 TTh, PWB 6210, Toscano, 3 cr

5326 Research in Animal/Human Health (prereq VPH or Epi maj or #)
119369 Robinson R.A., Diesch, others, ar cr

r5330 Epidemiology I (prereq basic courses in microbiology and statistics, preferably biostatistics)
★LECT 1220-1310 MWF, MoosT 2520, Sellers
015105 -1 LAB 1535-1730 T, PWB 5254, 5258, Sellers, 4 cr
719455 -2 LAB 1535-1730 F, PWB 5254, 5258, Sellers, 4 cr
★LECT 1220-1310 MWF, MoosT 2571, 2585
144490 -3 LAB 1535-1730 T, PWB 6224, Luepker, 4 cr
044491 -4 LAB 1535-1730 F, PWB 5224, Luepker, 4 cr

r5340 Epidemiology II: Strategies and Methods (prereq 5330, one biostatistics course or #, MPH or grad stu)
416887 -1 0800-0955 MW, MoosT 2580, Folsom, 4 cr
415352 -2 1115-1310 TTh, MoosT 2580, Meinick, 4 cr

5383 Pathobiology of Human Disease (prereq Biol 1009 or equiv undergrad biol course)
045558 1115-1310 TTh, MoosT 2571, Belcher, 4 cr

5386 Public Health Aspects of Cardiovascular Diseases (prereq basic epidemiology, biostatistics)
722081 1220-1415 WF, PWB 5224, Grimm, Elmer, 3 cr

r5387 Cancer Epidemiology (prereq health sci grad stu or #)
144272 1430-1520 MWF, MoosT 2580, Potter, Robison, 3 cr

- r5390 Smoking Intervention** (prereq epidemiology or community health education maj)
421491 1115-1230 TTh, Mayo A269, Lando, 3 cr
- 5393 Design and Analysis of Community Trials in Epidemiology** (prereq 5330, 5340, coursework in regression and analy of variance or #, pubh or grad stu)
413505 0905-1100 TTh, PWB 5254, 5258, Murray, 4 cr
- 5394 Mass Communication and Public Health** (\$Jour 5541; prereq credits in social or behavioral sci, public health stu or grad jour maj)
417652 1325-1415 T, 1325-1520 Th, MoosT 2154, Finnegan, 3 cr
- r5397 Social Environment and Health Behavior Change** (prereq public hlth or hlth sci or grad stu or #)
516475 1245-1400 MW, Mayo A269, Wagenaar, 3 cr
- r5399 Seminar: Topics in Epidemiology**
021065 -1 1325-1415 T, MoosT 2146, McGovern P., 1 cr (Computer Applications) (prereq epidemiology maj)
013032 -2 1325-1520 TTh, MoosT 2580, Jeffery, Perry, 3 cr (Human Behavior II) (prereq epidemiology or comm hlth educ maj)
- r5414 Biostatistical Methods I**
121291 0905-1100 TTh, MoosT 2585, Kjelsberg, 3 cr
- 5415 Biostatistical Methods II** (prereq 5404, 5409, or 5450, grade of B or better in 5414 or 5409, or #)
★LECT 1010-1100 MW, Mayo 1250, Jeffries, 3 cr
944483 -1 REC 1010-1100 Th, Mayo 1250, Jeffries
744484 -2 REC 1010-1100 F, Mayo 1250, Jeffries
- r5421 Statistical Computing II: FORTRAN and Advanced SAS** (prereq 5420, 15452, multivariable calc, linear algebra or #)
118259 1115-1230 TTh, Mayo 1250, Goldman, 3 cr
- 5452 Biostatistics II** (prereq 5450, familiarity with basic concepts of calculus, knowledge of SAS)
214879 1010-1100 MTWTh, OwreH 2210, Zelterman, 4 cr
- 5462 Clinical Trials I** (prereq biostatistics or epidemiology maj or #, 5452)
118505 1115-1205 MWF, MoosT 2580, Neaton, 3 cr
- 5470 Topics in Biostatistics** (prereq #)
423113 ar cr
- 5510 Research Methodology in Public Health Nursing** (prereq #) (S-N only)
215224 -1 Aroskar, 1-3 cr
114549 -2 Berkseth, 1-3 cr
320883 -3 Froberg, 1-3 cr
522843 -4 McGovern, 1-3 cr
617200 -5 Olson, 1-3 cr
513043 -6 Ostwald, 1-3 cr
516041 -7 Spradley, 1-3 cr
- r5530 Public Health Nursing Practicum** (prereq #) (S-N only)
517805 -1 Aroskar, 1-4 cr
723005 -2 Berkseth, 1-4 cr
020871 -3 Froberg, 1-4 cr
615186 -4 McGovern, 1-4 cr
120352 -5 Olson, 1-4 cr
122207 -6 Ostwald, 1-4 cr
020062 -7 Spradley, 1-4 cr
- r5531 Public Health Nursing Practicum** (prereq #) (S-N only)
614720 -1 Aroskar, 1-4 cr
113983 -2 Berkseth, 1-4 cr
616743 -3 Froberg, 1-4 cr
816451 -4 McGovern, 1-4 cr
422351 -5 Olson, 1-4 cr
113143 -6 Ostwald, 1-4 cr
822069 -7 Spradley, 1-4 cr
- 5575 Topics: Public Health Nursing** (prereq #)
315733 -1 Aroskar, ar cr
343175 -2 Berkseth, ar cr
143176 -3 Froberg, ar cr
043177 -4 McGovern, ar cr
843178 -5 Olson, ar cr
643179 -6 Ostwald, ar cr
843181 -7 Spradley, ar cr
- 5606 Health of Infants and Young Children** (prereq 5610 or #)
713588 1115-1205 M, 1010-1205 W, Mayo A269, Berkseth, 3 cr
- 5614 Field Experience in Maternal and Child Health** (prereq MCH grad student) (S-N only)
122241 Lia-Hoagberg, ar cr
- R5616 The Rights of Children and Youth: Abuse and Neglect**
815509 1600-1745 MW, MechE 212, ten Bensel, 4 cr
- 5648 Topics in Maternal and Child Health** (prereq #)
822668 -1 ar cr
945407 -2 Alexander, ar cr
745408 -3 Berkseth, ar cr
545409 -4 Brown, ar cr
945410 -5 Froberg, ar cr
745411 -6 Himes, ar cr
545412 -7 Leland, ar cr
345413 -8 Leonard, ar cr
145414 -9 Lia-Hoagberg, ar cr
045415 -10 Patterson, ar cr
845416 -11 Story, ar cr
645417 -12 ten Bensel, ar cr
- 5649 Maternal and Child Health Research** (prereq #) (S-N only)
718354 -1 Alexander, ar cr
817809 -2 Berkseth, ar cr
518937 -3 Brown, ar cr
513334 -4 Froberg, ar cr
922306 -5 Himes, ar cr
423242 -6 Leland, ar cr
118223 -7 Leonard, ar cr
014309 -8 Lia-Hoagberg, ar cr
322357 -9 Patterson, ar cr
817549 -10 Story, ar cr
020658 -11 ten Bensel, ar cr
- r5651 Critical Readings in Adolescent Health Seminar** (prereq #) (A-F only)
118777 0830-1000 W, Mayo A269, Resnick, 2 cr
- 5703 Public Health Administration Clerkship** (prereq student in public health administration or #) (S-N only)
917896 1-12 cr
- 5704 Field Experience: Public Health Administration** (prereq student in public health administration or #) (S-N only)
814182 -1 Block, 1-12 cr
417389 -2 Dornblaser, 1-12 cr
013340 -3 Gordon, 1-12 cr
222982 -4 Johnson, 1-12 cr
714157 -5 Litman, 1-12 cr
314873 -6 Ostwald, 1-12 cr
721934 -7 Resnick, 1-12 cr
412788 -8 Spradley, 1-12 cr
616130 -9 Veninga, 1-12 cr
321502 -10 Weckwerth, 1-12 cr
- 5707 Independent Study: Public Health Administration** (prereq student in public health administration or #) (S-N only)
617777 -1 Block, 1-12 cr
643182 -2 Ostwald, 1-12 cr
443183 -3 Spradley, 1-12 cr
243184 -4 Veninga, 1-12 cr
143185 -5 1-12 cr
- r5713 HMOs and Alternative Delivery System Management II** (prereq student in public health administration or hospital administration or #)
117508 1535-1730 T, 1535-1625 Th, Mayo C381, Christianson, 3 cr
- r5720 Management Communications** (prereq public health admin or hospital admin stu)
321967 -1 1535-1820 M, Mayo A269, Veninga, 3 cr (PubH Adm stu only)
621408 -2 1325-1615 T, Mayo A270, Veninga, 3 cr (Hosp Adm stu only)
720282 -3 0905-1150 W, Mayo A270, Veninga, 3 cr (Hosp Adm stu only)
- 5723 Administrative Residency** (prereq student in public health administration or #) (S-N only)
119310 ar cr
- r5727 Health Leadership and Effecting Change** (prereq public health stu, grad or #)
216924 1640-1925 W, HSUnitF 2110, 2140, Spradley, 3 cr
- 5728 Program Planning and Development in Public Health** (\$5502; prereq grad or public health stu or #) (A-F only)
615608 1325-1625 M, PWB 5224, Spradley, 3 cr
- r5734 Ethical Dimensions of Public Health** (\$5516; prereq public health or grad stu or #) (S-N only)
544485 0800-0850 W, Mayo C381, Aroskar, 1 cr
- r5735 Public Ethics/Politics and Public Health** (\$5523; prereq public health or grad stu or #)
415609 1535-1730 M, MoosT 2154, Aroskar, 2-3 cr
- 5736 The Elderly: A High Risk Population** (\$5517)
617665 1010-1205 M, 1010-1100 W, MoosT 2571, 2585, Ostwald, 3 cr
- 5738 Topics: Adult Health** (\$5513; prereq #) (S-N only)
713641 Ostwald, 1-3 cr
- 5739 Topics: Public Health Administration** (prereq student in public health administration or #)
113773 ar cr
- r5743 Ethics in Healthcare Administration** (prereq MHA stu) (A-F only)
445418 0800-0850 W, Mayo C381, Aroskar, 1 cr
- r5744 Principles of Problem Solving in Health Services Organizations** (prereq MHA stu) (A-F only)
121503 0800-0955 TThF, Mayo C381, Dornblaser, others, 3 cr (and case presentations as assigned)
- r5745 Advanced Problem Solving Project in Health Services Organizations** (prereq 5744) (A-F only)
620422 1535-1730 MF, Dornblaser, others, 5 cr (off-campus)
- r5751 Principles of Management in Health Services Organizations** (prereq grad level student)
314988 0905-1205 F, Mayo D230, Riley, 3 cr (Eustis Amph)
- r5752 Strategic and Facilities Planning** (prereq MHA student or #)
518226 1325-1520 TTh, Mayo C381, Miller, 3 cr
- r5753 Strategic Management in the Healthcare Industry** (prereq hospital administration student or #) (A-F only)
112736 1325-1520 MW, Mayo C381, Goes, 3 cr
- r5757 Managerial Accounting in Health Services Organizations** (prereq 5756, MHA or PHA student or #)
713784 1315-1500 MW, HSUnitF 2120, 2130, 4 cr
- r5760 Operations Research and Control Systems for Hospitals** (prereq 5404 or #)
220584 1010-1205 TTh, HSUnitF 2120, 2130, Potthoff, 3 cr
- r5767 Applied Field Research II** (prereq 5766, hospital administration stu or #) (A-F only)
617911 1535-1730 W, Mayo C381, Weckwerth, 2 cr
- 5770 Topics: Hospital and Health Care Administration** (prereq hospital administration student or #)
417800 -1 ar cr
515696 -2 Dornblaser, 2 cr
- r5852 Program Evaluation in Health and Mental Health Settings** (\$HSU 5026; prereq PubH students or grad students only, 5806 or equivalent research methods and basic statistics course)
245419 1430-1625 MW, MoosT 2571, 2585, Garrard, 4 cr
- 5881 Topics in Health Services Research and Policy: Quality of Care** (prereq #)
845710 1430-1630 T, HSUnitF 2163, 3 cr
- 5903 Nutritional Assessment** (prereq 3000 level nutrition course or equiv or #)
543174 0815-0930 TTh, Mayo A269, Buzzard, Himes, 3 cr
- 5906 Field Experience: Public Health Nutrition** (prereq public health nutrition maj) (S-N only)
616354 -1 1430-1520 T, Mayo A316, Krinke, 1-8 cr (Jan 7, Feb 4, Mar 3 only)
822590 -2 Story, 1-8 cr
- 5909 Topics in Public Health Nutrition** (prereq public health nutrition student or #)
813937 -1 Brown, 1-12 cr
922368 -2 Splett, 1-12 cr
722470 -3 Krinke, 1-12 cr
614572 -4 Buzzard, 1-12 cr
821312 -5 Story, 1-12 cr
121252 -6 Kushi, 1-12 cr
420583 -7 Himes, 1-12 cr
215353 -8 Lansing, 1-12 cr
622591 -9 1-12 cr

- 5934 Administrative Skill Building**
044488 1325-1415 T, 1220-1415 Th, PWB 5206, Splett, 3 cr
- 5935 Child and Adolescent Nutrition** (prereq basic nutrition course or #)
020529 1535-1835 M, Mayo A270, Story, 3 cr
- 8150 Research: Environmental and Occupational Health** (prereq #) (S-N only)
122983 1-6 cr
- 8191 Research: Injury Prevention in the Workplace, Community, and Home** (prereq #) (S-N only)
915453 Gerberich, others, 3-6 cr
- 8193 Occupational Injury Prevention and Safety Research Seminar** (prereq 8192, environmental hith grad maj or #) (S-N only)
645420 Gerberich, 1 cr
- 8264 Human Diseases Caused by Environmental Agents** (prereq 5261, 5262, #)
919728 1115-1205 MWF, Mayo 1250, Greaves, 3 cr
- 8269 Toxicology Seminar** (prereq 5262, 8261, #) (S-N only)
819558 1535-1625 M, Mayo 1250, Toscano, 1 cr
- 8330 Research in Epidemiology** (prereq epidemiology maj)
019381 1-8 cr
- 8331 Field Practice in Epidemiologic Investigations** (prereq epidemiology maj) (S-N only)
415769 1-8 cr
- 8332 Readings in Epidemiology** (prereq epidemiology maj, #)
322486 1-4 cr
- 8400 Seminar in Biostatistics** (prereq biostat maj or #)
122868 ar cr
- 8421 Analysis of Categorical Data** (prereq 5454 or equiv, 5459 or equiv, knowledge of FORTRAN) (A-F only)
621148 1325-1440 MW, Mayo A434, Zelterman, 3 cr
- 8431 Bayes and Empirical Bayes Methods** (prereq theoretical statistics or #)
020238 1245-1400 TTh, Mayo 1250, Louis, 3 cr
- 8443 Advanced Biostatistical Methods for Health Sciences Research** (prereq 5330, 5420, 5454, 5461 or #)
423208 1325-1440 TTh, Mayo A269, Le, 3 cr
- 8449 Topics in Biostatistics** (prereq 5450, #)
114396 ar cr
- 8450 Research in Biostatistics**
612983 ar cr
- 8760 Topics in Hospital and Health Care Administration** (prereq PhD student in hospital administration)
522759 3 cr
- 8762 Contemporary Problems of Hospital and Related Health Services**
616290 1325-1520 Th, Mayo C396, Weckwerth, 3 cr
- 8763 External Forces Affecting Health Services Delivery** (prereq PhD student in hospital administration or health services research and policy or #) (A-F only)
113370 Weckwerth, 3 cr
- 8764 Research Applications to Health Services Delivery** (prereq 8763) (S-N only)
622168 Weckwerth, 3 cr
- 8777 Thesis Credits: Masters**
014469 1-16 cr
- 8780 Advanced Statistical Methods in Health Care Research** (prereq one quarter each of applied and theoretical statistics)
416419 1325-1520 T, Mayo C396, Weckwerth, 3 cr
- 8782 Research Practicum** (prereq PhD student in hospital administration or health services research and policy or #)
122232 -1 Litman, Weckwerth, 3 cr
612823 -2 Litman, Weckwerth, 3 cr
- 8803 Long Term Care: Principles and Policies** (prereq grad level course in health care policy or #) (A-F only)
716524 1430-1700 T, PWB 5224, Rosalié Kane, 3 cr

- 8811 Seminar: Research Studies in Health Care** (#8810-8811-8812; prereq 8810 or #) (A-F only)
115605 1300-1430 MW, Mayo A270, Dowd, 4 cr
- 8820 Microeconomics of Health Care** (prereq 8761, 1 qtr calculus, 1 qtr linear algebra, or #) (A-F only)
117550 1325-1445 MW, PWB 6224, Manning, 3 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
514189 1-36 cr

RADIOLOGY (Rad) Medical School

- 0120 X-Ray Conference** (prereq #)
318468 1600-1800 T, Mayo C231, Thompson, 0 cr (Todd Amph)
- 0121 Medical Roentgenologic Conference**
719231 1130-1200 T, Mayo C231, Thompson, 0 cr (Todd Amph)
- 0123 Surgical Roentgenologic Conference**
015802 0900-1100 S, Mayo C231, Thompson, 0 cr (Todd Amph)
- 0124 Neurosurgical-Roentgenologic Conference**
413830 1300-1430 F, Mayo C231, Latchaw, 0 cr (Todd Amph)
- 0125 Cardiovascular Roentgenologic Conference**
219399 1200-1300 Th, Mayo B167, Amplatz, 0 cr (Rigler Lib)
- 0126 Roentgenologic Conference on Chest Diseases**
522230 1200-1300 M, Mayo B167, Thompson, 0 cr (Rigler Lib)
- 0220 Nuclear Medicine: Clinical Conference**
519800 1700-1800 T, Mayo C231, Boudreau, 0 cr (Todd Amph)
- 5101 Externship: Diagnostic Radiology-University Hospitals** (prereq regis med)
218382 Thompson, ar cr
- 5102 Externship: Diagnostic Radiology-Veterans Administration Hospital** (prereq regis med)
314839 Reinke, ar cr
- 5103 Externship: Diagnostic Radiology-Hennepin County General Hospital** (prereq regis med)
320110 Anderson, ar cr
- 5104 Externship: Diagnostic Radiology-St. Paul Ramsey Hospital** (prereq regis med)
423497 Kruckeberg, ar cr
- 5105 Externship: Diagnostic Radiology-St. Luke's Hospital, Duluth** (prereq regis med)
821388 Ahrens, ar cr
- 5110 Research Problems in Radiology** (prereq regis med)
719861 ar cr
- 5140 Special Problems: Roentgenology** (prereq regis med)
917235 Thompson, ar cr
- 5171 Physics of Nuclear Medicine** (SBPhy 5171, TRad 5171; prereq 5170 or #)
717835 1400-1530 TTh, Mayo B261, Ritenour, 3 cr
- 5240 Special Problems: Nuclear Medicine** (prereq regis med)
019512 Boudreau, ar cr
- 5511 Roentgen Technique**
016173 1700-1800 M, Mayo C231, Ritenour, 1 cr (Todd Amph)
- 5530 Externship in Nuclear Medicine at University Hospital** (prereq regis med)
813386 Boudreau, ar cr
- 5540 Special Problems: Radiological Physics** (prereq regis med)
614667 Ritenour, ar cr
- 8100 Gastrointestinal Roentgenology**
518131 Letourneau, ar cr
- 8101 Urologic Roentgenology**
714448 Goldberg, ar cr
- 8102 Neurological Roentgenology**
114941 Latchaw, ar cr
- 8103 Cardiovascular Roentgenology**
018053 Amplatz, ar cr

- 8104 Pediatric Roentgenology**
419465 Day, ar cr
- 8105 Pulmonary Roentgenology**
221086 Thompson, ar cr
- 8150 Research: Roentgenology**
217779 Thompson, ar cr
- 8200 Nuclear Medicine**
515942 Boudreau, ar cr
- 8210 Fundamentals of Nuclear Medicine** (prereq 1st yr resident)
517884 1600-1700 M, Mayo C231, Boudreau, 1 cr (Todd Amph)
- 8250 Research: Nuclear Medicine**
117953 Boudreau, ar cr
- 8450 Research: Radiation Biology**
518310 Ritenour, Song, ar cr
- 8550 Research: Radiological Physics**
817745 Ritenour, ar cr
- 8777 Thesis Credits: Masters**
219869 1-16 cr

RECREATION, PARK, AND LEISURE STUDIES (Rec) School of Kinesiology & Leisure Studies Education

- r1520 Orientation to Leisure and Recreation** (A-F only)
917879 0905-1100 TTh, CookeH 206, James, 4 cr
- r1600 Leadership in Social Activities** (A-F only)
919289 1325-1420 MW, CookeH 215, Magnuson C., 3 cr
- r3550 Park and Recreation Administration** (prereq 3530, 3540 or #) (A-F only)
315831 0905-1100 MW, CookeH 206, Schultz, 4 cr
- 3700 Senior Internship** (prereq sr, recreation maj or minor, Δ) (S-N only)
718161 Schultz, Schlein, others, 1-15 cr
- 3900 Directed Study** (max 9 cr; prereq recreation maj only, Δ) (S-N optional)
816272 3 cr
- r5160 Conservation of Park Resources** (prereq 1520 or 5100 or Δ) (S-N only)
220374 1615-1845 W, CookeH 206, McAvoy, 3 cr
- r5220 Therapeutic Recreation Services** (prereq 5210 or Δ) (A-F only)
015833 1115-1305 MWF, CookeH 400, Weiss, 5 cr
- 5230 Recreation and Persons with Developmental Disabilities** (prereq 5210 or Δ) (A-F only)
115404 1220-1600 W, CookeH 206, Heyne, 4 cr
- r5255 Leisure Education for Special Populations** (prereq 5220, PsyS 5110 or EPsy 5260 or #) (A-F only)
017209 1615-1830 T, CookeH 206, Weiss, 3 cr
- r5350 Wilderness Outdoor Recreation Programming** (prereq 3150 or #) (A-F only)
119405 1325-1625 Th, CookeH 206, McAvoy, 4 cr (weekend field trip ar)
- 5630 Practicum: Therapeutic Recreation** (prereq recreation M.Ed. or grad) (S-N only)
218303 Weiss, Schlein, 3-9 cr
- 5640 Practicum: Leisure Services** (prereq recreation M.Ed. or grad) (S-N only)
617892 McAvoy, Schultz, 3-9 cr
- 5695 Practicum: Sport Management** (§Kin 5695, PE 5695; prereq Δ) (A-F only)
143526 Kane, 3 cr
- r5750 Legal Issues in Leisure Services** (prereq 3550 or Δ) (A-F only)
219581 1115-1305 TTh, CookeH 206, Schultz, 4 cr
- 5900 Workshop: Contemporary Issues in Leisure Services** (max 12 cr; prereq Δ) (A-F only)
943527 1730-2000 T, Schlein, 3 cr (off-campus) (W Minnetonka Jr High, 3830 Baker Rd, Minnetonka)
- r5980 Introduction to Research** (§PE 5980; prereq MEd, grad or Δ) (A-F only)
520168 1010-1140 TTh, CookeH 214, Kane, 3 cr

- 5981 Problems** (prereq MEd or MA student or Δ)
(A-F only)
122408 ar cr
- 5983 Readings: Recreation** (prereq MEd, grad or Δ)
(A-F only)
122465 1-3 cr
- 8320 Seminar: Theoretical Perspectives of
Laisure Behavior** (prereq 5100 or Δ) (A-F
only)
844511 1325-1625 M, CookeH 109, Kane, 3 cr
- 8777 Thesis Credits: Masters**
317319 1-16 cr
- 8980 Research Problems** (prereq 5980, PsyF 5110
or EPsy 5260 or #) (S-N only)
521983 1430-1520 T, CookeH 109, Schleien, 1 cr
- 8981 Research Problems** (prereq 8980 or #) (S-N
only)
615009 ar cr

RELIGIOUS STUDIES (RelS) Liberal Arts

- 3034 Introduction to Judaism** (§1034, JwSt 1034,
JwSt 3034)
118617 1115-1205 MWF, NichH 45, Zahavy, 4 cr
- 3202 The Bible: Prophecy** (§ANE 1002, ANE 3002)
543532 1010-1100 MWF, NichH 45, Paradise,
4 cr
- 3970 Directed Studies** (prereq #, Δ, □)
618136 3-5 cr
- r5111 Interpretation of Myth** (§Hum 5711; prereq jr
or sr or #)
944578 1220-1310 MWF, FordH 349, Josephides,
4 cr
- 5890 Seminar in Religious Studies** (prereq sr maj
or #)
218396 1430-1715 W, FordH 175, Tapp, 3-5 cr
- 8777 Thesis Credits: Masters**
516444 1-16 cr
- 8970 Directed Studies** (prereq Δ)
216146 2-5 cr

RHETORIC (Rhet) Agriculture

NOTE: A \$35 microcomputer lab card will be required in all computer-assisted sections of the following rhetoric courses: 1101, 1104, 1151, 3562. This card may be purchased at the Bursar's Office. Check with the instructor on the first day of class for more information.

- r1101 Writing to Inform and Persuade** (§Comp
1011)
517500 -1 1145-1300 MW, HckrH 302, Wharton,
4 cr (computer assisted instruction)
(course fee)
620842 -2 1315-1430 TTh, HckrH 302, Walzer,
4 cr (computer assisted instruction)
(course fee)
- r1104 Library Research Methods** (S-N only)
623336 -1 LAB 0935-1025 M, CentLib 2,
Richardson, 1 cr (computer assisted
instruction) (course fee)
518288 -2 LAB 1500-1550 M, CentLib 2,
Richardson, 1 cr (computer assisted
instruction) (course fee)
922080 -3 LAB 1145-1235 T, CentLib 2,
Richardson, 1 cr (computer assisted
instruction) (course fee)
112705 -4 LAB 1500-1550 T, CentLib 2,
Richardson, 1 cr (computer assisted
instruction) (course fee)
118312 -5 LAB 1145-1235 W, CentLib 2,
Richardson, 1 cr (computer assisted
instruction) (course fee)
316686 -6 LAB 1500-1550 W, CentLib 2,
Richardson, 1 cr (computer assisted
instruction) (course fee)
- r1151 Writing in Your Major** (prereq completion of fr
communication requirement, soph status, 1104
or for College of Natural Resources stu only: FR
1104 or ForP 1104 or FW 1104)
721464 -1 0845-1000 MW, HckrH 302, Anderson,
4 cr (computer assisted instruction)
(course fee)
219452 -2 1315-1430 MW, HckrH 302,
McFarland, 4 cr (computer assisted
instruction) (course fee)

- 321449 -3 1040-1130 MWF, HckrH 210,
Anderson, 4 cr
913055 -4 1250-1340 MWF, HckrH 111,
Plomondon, 4 cr
318311 -5 1015-1130 TTh, HckrH 111, Yeager,
4 cr
722744 -6 1315-1430 TTh, HckrH 111, Yeager,
4 cr
- r1160 Efficient College Reading**
718659 1315-1430 TTh, HckrH 210, Bennett, 3 cr
- r1220 Principles of Human Communication**
621882 1315-1430 TTh, HckrH 312, Connolly, 4 cr
- r1222 Public Speaking** (prereq completion of
freshman communication requirement)
923164 -1 0830-0920 MTWTh, HckrH 222, Gore,
4 cr
723392 -2 0935-1025 MTWTh, CentLib 6, Brody,
4 cr
116320 -3 1040-1130 MTWTh, CentLib 6, Brody,
4 cr
921933 -4 0820-1000 TTh, CentLib 4, Wharton,
4 cr
016187 -5 1015-1155 TTh, CentLib 4, Bennett,
4 cr
417215 -6 1145-1325 TTh, CentLib 6, Wharton,
4 cr
714661 -7 1315-1455 TTh, CentLib 4, Smith, 4 cr
020725 -8 1435-1615 TTh, CentLib 6, Verhoye,
4 cr
117718 -9 1500-1640 TTh, CentLib 4, Smith, 4 cr
- r1301 Humanities: Modern Thought and the
Enlightenment**
113191 0935-1025 MWF, HckrH 312, Marchand,
4 cr
- r1302 Humanities: Modern Thought and the
Industrial Revolution**
213022 0845-1000 TTh, HckrH 312, Walzer, 4 cr
- r1303 Humanities: Modern Thought and the Impact
of Evolution**
614104 1145-1235 MWF, HckrH 312, Marchand,
4 cr
- r1310 Humanities: The Land in American
Experience**
144540 1145-1300 TTh, HckrH 312, Scanlan, 4 cr
- r1311 Humanities: The Family in American
Experience**
215188 1015-1130 TTh, HckrH 312, Scanlan, 4 cr
- r3254 Advanced Public Speaking** (prereq 1222)
123373 1120-1300 TTh, HckrH 222, Benson, 4 cr
- r3266 Communication, Discussion in Small Group
Decision Making** (prereq 1222 or #)
443541 0935-1025 MTWTh, HckrH 222, Gore,
4 cr
- 3270 Speech: Special Problems** (prereq #, Δ)
314808 Bennett, Gore, others, 1-5 cr
- 3374 Special Problems in Humanities** (prereq #,
Δ)
520347 Horberg, Marchand, others, 1-2 cr
- r3380 Humanities: The Literature of Social
Reflection**
816725 -1 1315-1430 T, HckrH 301, Marchand,
2 cr
122845 -2 1145-1300 Th, McNH 146, Horberg,
2 cr
- r3562 Writing in Your Profession** (prereq completion
of freshman communication requirement, 1151,
jr or sr) (A-F only)
619903 -1 1015-1130 MW, HckrH 302, Duin, 4 cr
(computer assisted instruction) (course
fee)
423399 -2 0935-1025 MWF, HckrH 111,
Plomondon, 4 cr
313402 -3 1040-1130 MWF, HckrH 111, Horberg,
4 cr
817504 -4 1355-1445 MWF, HckrH 111, Church,
4 cr
913900 -5 0845-1000 TTh, HckrH 111, Ferguson,
4 cr
120612 -6 1015-1130 TTh, HckrH 302, Gross,
4 cr (computer assisted instruction)
(course fee)
616757 -7 1145-1300 TTh, HckrH 302, Norcross,
4 cr (computer assisted instruction)
(course fee)
718726 -8 1500-1615 TTh, HckrH 302, Lay, 4 cr
(computer assisted instruction) (course
fee)

- r3572 Grammatical Editing for Technical Writers**
(prereq STC/Tech comm maj or min or pre-maj)
(S-N only)
720489 1315-1430 Th, HckrH 209, Wahlstrom,
2 cr
- r3680 Gender and the Rhetoric of Science and
Technology** (prereq 1101 or equiv)
044541 1015-1130 TTh, HckrH 210, Lay, 3 cr
- r3690 The Rhetoric of Scientific Controversy**
(prereq 1101 or equiv)
844542 1500-1615 TTh, HckrH 312, Gross, 3 cr
- 5100 Technical Communication: Special
Problems** (prereq #, Δ)
921186 Duin, McDowell, others, ar cr
- 5180 Internship in Technical Communication**
(prereq #, Δ)
914352 Duin, McDowell, others, 2-6 cr
- r5257 Scientific and Technical Presentations**
(prereq 1222, 3562 or grad status or #)
★LECT 1015-1130 TTh, HckrH 209,
Connolly, 4 cr
813372 -1 LAB 1145-1235 W, HckrH 209,
Connolly
014861 -2 LAB 1355-1445 W, HckrH 209,
Connolly
- r5258 Interviewing: Dynamics of Face-to-Face
Communication**
644543 1315-1455 TTh, HckrH 222, McDowell,
4 cr
- r5400 Dissemination and Utilization of Information**
(prereq jr, sr or grad stu)
243542 1500-1820 M, HckrH 301, Schuelke, 4 cr
- r5532 Scientific and Technical Communication
Course Development: Developing
Non-Writing Courses** (prereq 5531)
444544 1250-1340 M, HckrH 301, Lay, 1 cr
- r5541 Readings in Scientific and Technical Prose**
(prereq sr or grad status, Δ) (S-N only)
818085 1500-1615 M, HckrH 209, Ferguson,
others, 2 cr
- r5551 Report and Thesis Writing** (prereq 3562 or #)
513737 1500-1730 Th, HckrH 301, Ferguson, 3 cr
- 5571 Writing for Special Purposes** (prereq
STC/Tech comm maj or min, freshman
communication, 3562 or #)
143543 2 cr
- r5575 Newsletter** (prereq STC/Tech comm maj or min
or pre-maj, freshman comm req, 3562 or grad
stu or #)
215529 1145-1415 W, HckrH 301, Mikelonis, 3 cr
(computer use) (course fee)
- r5581 Document Design** (prereq 3562, sr or grad
status, #) (A-F only)
★LECT 1015-1130 MW, HckrH 301,
Mikelonis, 4 cr
244545 -1 LAB 1500-1550 M, HckrH 302,
Mikelonis, (computer use) (course fee)
- 8180 Design Project** (prereq MS student in
STC/tech comm plan B)
423452 4 cr
- r8210 Theory and Research in Media Selection**
(prereq MS student in STC/tech comm)
613762 1500-1730 W, HckrH 209, Duin, 3 cr
- 8777 Thesis Credits: Masters**
023222 1-16 cr

RUSSIAN (Russ) Slavic Languages & Literatures Liberal Arts

- r1102 Beginning Russian** (prereq 1101)
121856 -1 0800-0850 MTWThF, PeikH 155, 5 cr
219371 -2 0905-0955 MTWThF, PeikH 155, 5 cr
318227 -3 1010-1100 MTWThF, PeikH 155, 5 cr
114303 -4 1115-1205 MTWThF, BuH 120, 5 cr
813291 -5 1220-1310 MTWThF, ChDev 218, 5 cr
317708 -6 1430-1520 MTWThF, KolH S132, 5 cr

- r1105 Intermediate Russian** (prereq 1104)
716331 -1 0800-0955 MW, ChDev 218, Walter, 4 cr (Russian, Russian Area Studies maj only)
819513 -2 0800-0955 MW, ChDev 218, Walter, 4 cr
114003 -3 1325-1520 MW, ChDev 218, 4 cr (Russian, Russian Area Studies maj only)
613406 -4 1325-1520 MW, ChDev 218, 4 cr
616998 -5 1115-1310 TTh, PeikH 155, 4 cr (Russian, Russian Area Studies maj only)
521885 -6 1115-1310 TTh, PeikH 155, 4 cr
- r3102 Third-Year Russian** (prereq 3101)
322021 -1 0905-1100 MW, WullH 130, 4 cr
119220 -2 0905-1100 TTh, BuH 125, 4 cr
944581 -3 1325-1520 TTh, VinH 213, 4 cr
- 3105 Readings of Russian Poetry and Novel** (prereq 3104)
620825 1010-1205 MW, PeikH 215, Jahn, 4 cr
- 3311 Major Project in Russian** (prereq Russian lang maj or #)
218141 2 cr
- 3311H Honors Course: Major Project in Russian** (prereq honors sr, Russian lang maj or #) (A-F only)
714577 2-4 cr
- 3422 Literature: Tolstoy to the Present in Translation** (§5422; prereq 1106 or equiv for Russ lang/lit maj)
215082 1115-1310 TTh, BuH 123, Corten, 4 cr
- 3970 Directed Readings** (prereq #, Δ, □)
221346 3-5 cr
- 5021 Soviet Union Study Tour**
018425 6-18 cr
- 5105 Reading of Russian Poetry and Novel** (prereq 3106 or equiv)
121056 1010-1205 MW, PeikH 215, Jahn, 4 cr
- 5404 Tolstoy in Translation**
043616 1325-1520 MW, PeikH 215, Jahn, 4 cr
- 5422 Literature: Tolstoy to the Present in Translation** (§3422)
622218 1115-1310 TTh, BuH 123, Corten, 4 cr
- 5970 Directed Readings** (prereq #, Δ, CLA approval)
612756 1-4 cr
- 8777 Thesis Credits: Masters**
415741 1-16 cr

SANSKRIT (Skt) South Asian & Middle Eastern Languages & Cultures Liberal Arts

- 5132 Beginning Sanskrit** (prereq 5131)
143350 0905-0955 MWF, VinH 209, Malandra, 5 cr
- 5162 Advanced Sanskrit** (prereq 5161)
743349 Junghare, 4 cr
- 5710 Topics: Language and Literature**
943351 Malandra, 5 cr

SCANDINAVIAN (Scan) Scandinavian Studies Liberal Arts

- 3271 The Vikings at Home and Away** (§Hist 3271)
443619 0905-0955 MWF, BlegH 150, Metcalf M., 4 cr
- 3970 Directed Studies** (max 15 cr; prereq #, Δ, □)
513818 1-5 cr
- r5421 Finnish Folklore: The Kalevala**
144571 1245-1400 TTh, FolH 104, 4 cr
- 5615 Ibsen and the Beginnings of Modern Drama**
243623 1115-1230 TTh, FolH 344, Stockenstrom, 4 cr
- 5701 Old Norse Language and Literature**
143624 1430-1545 TTh, FolH 312, Grimstad, 4 cr
- 5970 Directed Studies** (prereq #, Δ, CLA approval)
120361 1-15 cr
- 6202 Proseminar: Literary Methodology**
443622 Simpson, 4 cr

- r8702 Philological Proseminar II: Introduction to Philology**
643621 1640-1835 Th, FolH 326, Liberman, 4 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
312914 1-36 cr
- 8970 Research: Scandinavian Literature and Language**
917901 1-6 cr

SCHOOL HEALTH EDUCATION (Hlth) School of Kinesiology & Leisure Studies Education

- r3330 Teaching Health in the Elementary School** (prereq elementary education maj) (A-F only)
113255 1330-1500 TTh, NorrisH 3, 3 cr

SCIENCE IN AGRICULTURE (ScAg) Agriculture

- 1500 Biotechnology: Basic Concepts and Applications** (§Agro 1500, AnSc 1500, FScN 1500, PIPa 1500, Soil 1500) (A-F only)
944449 1355-1445 MWF, GrnH 110, 3 cr
- 5009 Undergraduate Senior Thesis: Science in Agriculture** (not for grad credit; prereq #) (A-F only)
123079 Hunter, 1-5 cr

SECONDARY EDUCATION (SeEd) Curriculum And Instruction Education

- 3151 Directed Study** (prereq Δ) (A-F only)
722839 1-9 cr
- r3152 Practicum: Secondary Education** (max 7 cr; prereq educ stu, Δ) (S-N only)
419238 -1 1535-1625 Th, PeikH 375, 1 cr (math maj only)
723117 -2 1220-1310 TTh, PeikH 325, 335, 385, Orton, 2 cr (math maj only) (†3365)
314680 -3 Heller, 4 cr (science maj only)
415089 -4 4 cr (social studies post bac students only)
- 3356 Teaching Secondary School Science** (prereq jr, 5 cr introductory psychology, †3155) (A-F only)
644669 0905-1100 TTh, PeikH 365, Heller, 2 cr
- 3357 Teaching Secondary School Science** (prereq science educ maj or min...for majs, 3356, †3152) (A-F only)
044670 1415-1625 MTWThF, PeikH 365, Gennaro, 4 cr
- r3365 Teaching Secondary School Mathematics** (prereq 3150, 3155, †3152 for 2 cr) (A-F only)
318504 1325-1520 TTh, PeikH 325, 335, 385, Orton, 4 cr
- r3366 Computer Assisted Mathematics Instruction** (prereq 3155, Math 1231 or one year of calculus) (A-F only)
820614 1115-1415 MW, PeikH 355, Stochl, 4 cr
- r3368 Teaching Secondary School Mathematics** (prereq 3365, 3366) (A-F only)
814053 1325-1520 TTh, PeikH 355, 375, House, 3 cr
- 3600 Student Teaching** (prereq Δ) (S-N only)
422964 Anderson E., ar cr
- 3631 Student Teaching in Second Languages** (S-N only)
814134 Tedick, Walker, others, 3-12 cr
- 3651 Student Teaching in Science** (prereq sr, 3357, 4 cr in 3152...for minors: 3357, #) (S-N only)
844671 Heller, 1-12 cr
- r3661 Student Teaching in Mathematics** (prereq 3365 during same year) (S-N only)
518419 1630-1900 W, PeikH 385, 3-12 cr
- r5150 Advanced Methods of Teaching the Social Studies** (A-F only)
723506 0800-0955 MW, PeikH 165, Avery, 3 cr (postbac students only)

- 5151 School-Based Projects in Social Studies Education** (max 12 cr) (A-F only)
445421 Avery, 1-12 cr
- 5152 Techniques of Instruction in Social Studies** (A-F only)
643635 1630-1900 T, PeikH 165, Avery, 3 cr (MEd only)
- r5153 New Perspectives in Social Studies** (max 12 cr) (A-F only)
814666 1010-1205 MW, PeikH 165, Dalgaard, 3 cr (postbac students only)
- 5185 School and Professional Based Experiences in Second Languages and Cultures** (max 12 cr; prereq MEd students) (A-F only)
422124 -1 Jorstad, 4 cr (MEd only)
317305 -2 Lange, 1-12 cr (MEd only)
021406 -3 Paige, 1-12 cr
520669 -4 Tedick, 1-12 cr (MEd only)
443636 -5 Walker, 1-12 cr
- 5191 Workshop: Teaching of Second Languages and Cultures** (max 10 cr) (A-F only)
117581 -1 3 cr (off-campus)
744355 -2 1-10 cr (off-campus)(Interactive Video class)
- 5217 Programs and Curricula in Bilingual Education** (prereq 5216 or #) (A-F only)
143638 1535-1900 T, PeikH 25, Walker, 4 cr
- r5250 Secondary School Teaching** (prereq †5251 or reg in approved prog area practicum, educ stu or CLA music ed maj or #) (A-F only)
744677 1325-1520 MW, PeikH 40, Bruning, 3 cr
- 5251 Orientation in the Secondary Schools** (prereq †5250) (A-F only)
544678 Bruning, 0-2 cr
- 5320 Literature for Adolescents** (A-F only)
543644 0900-1400 S, PeikH 40, Beach, 3 cr (alt S)
- 5322 Teaching Writing** (A-F only)
423077 1220-1415 MW, PeikH 46, Beach, 3 cr (English postbac students only)
- 5344 Teaching Reading in Content Areas** (A-F only)
620615 -1 1220-1415 TTh, PeikH 225, Graves, 3 cr (English postbac students only)
344682 -2 1630-1915 W, PeikH 46, Graves, 3 cr
- 5350 Current Developments in English Education** (max 12 cr) (A-F only)
018876 1430-1625 TTh, PeikH 46, Law, 3 cr (English postbac students only)
- 5351 Directed Study** (max 6 cr; prereq educ or grad stu) (S-N optional)
221749 -1 Avery, ar cr
316557 -2 Bruning, ar cr
215417 -3 Finley, ar cr
123633 -4 Park, ar cr
021602 -5 Jorstad, ar cr
944662 -6 Paige, ar cr
744663 -7 Tedick, ar cr
544664 -8 Walker, ar cr
244674 -9 Gennaro, ar cr
144675 -10 Heller, ar cr
- 5362 Second Language Testing, Assessment, and Evaluation** (A-F only)
544356 1535-1830 W, PeikH 215, Tedick, 3 cr
- 5365 Planning and Assessing Second Language Instruction** (A-F only)
514046 0900-1200 S, PeikH 215, Jorstad, 4 cr
- 5395 School-Based Projects in Science Education** (max 12 cr; prereq MEd student in science education) (A-F only)
915145 -1 Finley, 1-12 cr
212937 -2 Heller, 1-12 cr
944676 -3 Gennaro, 1-12 cr
- r5404 Language, Culture, and Education** (§Spch 5404) (A-F only)
544681 1325-1520 TTh, PeikH 48, Piche, 4 cr
- 5659 School-Related Projects in Language Arts** (max 6 cr; prereq MEd student in English education) (A-F only)
116004 -1 Beach, 1-6 cr
915923 -2 Graves, 1-6 cr
344679 -3 Kegler, 1-6 cr
744680 -4 Piche, 1-6 cr
- 5700 Science Education for the Middle School** (prereq science education program participant or #) (A-F only)
721741 0905-1100 TTh, PeikH 365, Heller, 2 cr (postbac students only)

- 5701 Applying Science Education to the Middle School** (prereq science education program participant or #, 15700) (A-F only)
719732 1115-1325 W, PeikH 365, Huffman, Heller, 2 cr (postbac students only)
- 5702 Teaching Secondary School Science: A Constructivist Approach** (prereq 5700, 5701, admission to post BA sci educ prog or #, 15703) (A-F only)
117712 1415-1625 MTWThF, PeikH 365, Gennaro, 4 cr (postbac students only)
- 5703 Applying Science Methods in High Schools** (prereq 5700, 5701, admission to post BA prog in sci educ or #, 15702) (S-N only)
521742 Gennaro, Minger, 4 cr (postbac students only) (off-campus)
- 5704 Clinical Experience in Science Teaching** (prereq 5702, 5703, #, 15705) (S-N only)
644672 Heller, Olness, 6-12 cr
- 5705 Seminar: Reflecting on Clinical Experience in Science Teaching** (prereq 5702, 5703, #, 15704) (A-F only)
444673 1730-2000 Th, PeikH 365, Finley, 3 cr
- 5801 Second Language Curriculum** (max 9 cr) (A-F only)
344665 0905-1205 T, PeikH 215, Walker, 3 cr (postbac students only)
- 5802 Second Language Instruction** (max 9 cr) (A-F only)
144666 0905-1205 Th, PeikH 215, Walker, 3 cr (postbac students only)
- 5803 Second Language Research** (max 6 cr) (A-F only)
044667 1325-1415 TTh, PeikH 215, Tedick, 2 cr (postbac students only)
- 5804 Clinical Experiences in Second Languages** (max 12 cr) (A-F only)
844668 1430-1625 TTh, PeikH 215, Tedick, 4 cr (postbac students only)
- 8387 Research Seminar: Second Languages and Cultures Education** (max 9 cr; prereq 8188)
914464 1535-1815 M, PeikH 215, Jorstad, 3 cr
- 8801 Problems: Teaching Social Studies** (prereq 5150, 5152, 5156, 8104 or #)
414301 Avery, 3-9 cr
- 8871 Problems: Curriculum Construction** (prereq #)
116729 -1 Finley, ar cr
013225 -2 Heller, ar cr
116438 -3 Gennaro, ar cr
- 8894 Problems: Second Languages and Cultures Education** (max 8 cr)
017341 -1 Jorstad, ar cr
720198 -2 Lange, ar cr
115418 -3 Paige, ar cr
943639 -4 Tedick, ar cr
243640 -5 Walker, ar cr
- 8895 Readings in English Education**
314257 -1 Beach, 1-3 cr
919258 -2 Graves, 1-3 cr
144683 -3 Kegler, 1-3 cr
044684 -4 Piche, 1-3 cr
- 8896 Problems: Teaching English**
922029 -1 Beach, ar cr
222531 -2 Graves, ar cr
844685 -3 Kegler, ar cr
644686 -4 Piche, ar cr
- 8898 Readings in Second Languages and Cultures Education**
522471 -1 Jorstad, 1-3 cr
921463 -2 Lange, 1-3 cr
923634 -3 Paige, 1-3 cr
943642 -4 Tedick, 1-3 cr
743643 -5 Walker, 1-3 cr

SLAVIC (Slav) Slavic Languages & Literatures Liberal Arts

- 5504 Proseminar: Senior Thesis in Slavic Area Studies** (prereq sr maj or #) (A-F only)
719407 1315-1600 W, BlegH 205, 4 cr
- 5504H Honors Course: Proseminar: Senior Thesis in Slavic Area Studies** (prereq honors sr, Russian or East European area studies maj) (A-F only)
518260 1315-1600 W, BlegH 205, 4 cr

- 8601 Interdisciplinary Seminar in Slavic Area Studies** (8601-8602); prereq grad student in Russian area studies or #
814876 1315-1600 W, BlegH 205, 4 cr

SMALL ANIMAL CLINICAL SCIENCES (SACS) Veterinary Medicine

- 5000 Clinical Small Animal Medicine** (prereq #) (S-N only)
321984 6 cr
- 5002 Clinical Small Animal Surgery** (prereq #) (S-N only)
622249 8 cr
- 5004 Clinical Small Animal Specialties** (prereq #) (S-N only)
115810 6 cr
- 5006 Clinical Anesthesiology** (prereq #) (S-N only)
621456 Raffae, Robinson E., 4 cr
- 5008 Clinical Radiology** (prereq #) (S-N only)
014164 Feeney, Johnston G., others, 4 cr
- 5152 Diagnostic and Therapeutic Techniques** (prereq #)
318213 1300-1350 ThF, VetTchHos A325, AnScVM 135, 1400-1550 ThF, VetTchHos C254, C256, McKeever, others, 2 cr
- 5172 Small Animal Medicine** (prereq 5171 or #) (A-F only)
114656 0900-0950 MTWThF, VetTchHos A325, Hardy, Klausner, 5 cr
- 5251 Comparative Clinical Veterinary Dermatologic Pathology** (prereq grad stu or #) (A-F only)
017789 McKeever, 1 cr
- 5265 Comparative Cardiology** (prereq regis 3rd or 4th yr vet med or grad or #) (A-F only)
415061 1300-1450 M, AnScVM 335K, 385J, Ogburn, 2 cr
- 5271 Hospital Management** (prereq regis 3rd or 4th yr vet med or grad or #) (S-N only)
018084 1500-1650 M, AnScVM 135, Hardy, others, 1 cr (2nd 5 weeks)
- 5285 Canine Clinical Neurology** (prereq regis 3rd or 4th yr vet med or grad or #) (A-F only)
720346 1500-1650 M, AnScVM 135, Hardy, 1 cr (1st 5 weeks)
- 5351 Veterinary Surgery** (prereq CVM 5350 or #) (A-F only)
★LECT 1100-1150 TWThF, AnScVM 125, Wallace, Lipowitz, others, 5 cr
714305 -1 LAB 1300-1550 T, VetTchHos C254
614510 -2 LAB 1300-1550 W, VetTchHos C254
- 5398 Independent Research in Veterinary Anesthesiology** (prereq registered in veterinary medicine or grad or #)
218432 Robinson E., 1-6 cr
- 5802 Residency in Veterinary Dermatology** (prereq #) (S-N only)
543661 Johnston S., McKeever, ar cr
- 5812 Companion Animal Oncology** (prereq DVM or equiv) (S-N only)
645983 2 cr
- 8180 Advanced Clinical Neurology** (prereq #)
121324 Fletcher, Hardy, others, ar cr
- 8190 Comparative Cardiovascular Diseases** (prereq grad)
416033 Ogburn, 3 cr
- 8191 Advanced Comparative Electrocardiology** (prereq grad, #)
815137 Ogburn, 3 cr
- 8192 Special Cardiology Clinics** (prereq grad, #)
814571 Ogburn, ar cr
- 8196 Internal Medicine in Small Companion Animals** (prereq grad, #)
117783 Osborne, others, 2 cr
- 8197 Advanced Dermatologic Clinics** (prereq grad, #) (A-F only)
521031 McKeever, ar cr
- 8198 Problems in Veterinary Comparative Dermatology** (prereq grad, #)
418168 McKeever, ar cr
- 8200 Directed Studies in Veterinary Comparative Dermatology** (prereq grad, #) (A-F only)
120786 McKeever, 2 cr

- 8290 Advanced Veterinary Medicine** (prereq 5172, LACS 5162, #)
222948 Osborne, Polzin, ar cr
- 8291 Advanced Diagnosis and Therapeutics of Animal Diseases** (prereq 5172, LACS 5162, #)
819348 Osborne, others, ar cr
- 8292 Seminar: Veterinary Medicine** (prereq grad, #)
618489 Osborne, others, ar cr
- 8293 Medical Conference** (prereq 5172, LACS 5162, #)
320415 Osborne, others, ar cr
- 8297 Advanced Clinical Veterinary Ophthalmology** (prereq grad or #)
121162 Bistner, 3 cr
- 8298 Research in Veterinary Ophthalmology** (prereq grad or #)
612840 Bistner, 3-5 cr
- 8299 Research in Veterinary Medicine**
916361 Osborne, others, ar cr
- 8390 Seminar: Veterinary Surgery** (prereq 5360, 5365 or equiv, #)
119914 Wallace, Lipowitz, others, ar cr
- 8391 Advanced Small Animal Surgery** (prereq CVM 5350 or equiv, #)
115068 -1 1200-1500 M, Wallace, Lipowitz, others, ar cr
016934 -2 1200-1500 M, Wallace, Lipowitz, others, ar cr
- 8394 Surgery of the Gastrointestinal System** (prereq LACS 5160 or #)
422012 Caywood, Lipowitz, ar cr
- 8396 Advanced Veterinary Anesthesia** (prereq LACS 5355, #)
120182 Raffae, Robinson E., ar cr
- 8398 Research in Veterinary Anesthesia** (prereq grad of professional veterinary curriculum, 8396, LACS 8397 or equiv, #) (A-F only)
120268 Raffae, Robinson E., 2 cr
- 8399 Seminar: Veterinary Anesthesia** (prereq grad of professional veterinary curriculum, 8396, LACS 8397 or equiv, #) (A-F only)
815980 Raffae, Robinson E., 2 cr
- 8410 Surgical Physiology** (prereq 8391, #)
415870 Wallace, Caywood, 2 cr
- 8420 Neurosurgery** (prereq 8391 or equiv, #) (A-F only)
814005 Wallace, 2-3 cr
- 8430 Thoracic and Cardiovascular Surgery** (prereq 8391, #)
519747 Caywood, Lipowitz, others, 3 cr
- 8471 Therapeutic Radiology** (max 2 cr; prereq 5452, #)
314789 Feeney, Johnston G., others, ar cr
- 8480 Seminar: Veterinary Radiology** (prereq 5452, #)
616113 0800-0850 T, VetTchHsp 282, Walter, Feeney, 1 cr
- 8483 Abdominal Roentgenology** (max 3 cr; prereq 5452, #)
518436 Walter, Johnston G., ar cr
- 8485 Thoracic Roentgenology** (max 3 cr; prereq 5452, #)
315781 1500-1650 M, VetTchHsp 282, Feeney, Johnston G., others, ar cr
- 8490 Advanced Veterinary Radiology** (prereq 5450, 5451, 5452 or equiv, #) (A-F only)
616015 Feeney, Johnston G., others, 1-2 cr
- 8491 Fundamentals of Nuclear Medicine** (prereq #) (A-F only)
520932 Johnston G., Feeney, others, ar cr
- 8492 Radiation Biology** (max 3 cr; prereq grad, #) (A-F only)
623062 Feeney, Johnston G., others, 1-3 cr

**SOCIAL AND ADMINISTRATIVE
PHARMACY (SAPh)**
Social, Administrative, and
Hospital Pharmacy
Pharmacy

- 8100 Seminar**
112851 -1 0800-0955 Th, HSUnitF 7193, Woller,
1 cr
719486 -2 1430-1625 Th, HSUnitF 7193, Hadsall,
1 cr
815672 -3 Canafax, 1 cr
- 8200 Research Problems**
812870 ar cr
- 8220 Experimental Pharmacotherapeutics II (A-F
only)**
116343 1325-1520 T, HSUnitF 7193, Canafax,
2 cr
- 8255 Drug Marketing**
812996 Hadsall, 3 cr
- 8270 Clinical Conferences**
713106 Cloyd, 2 cr
- 8280 Administrative Clerkship**
422768 ar cr
- 8290 Clinical Clerkship (prereq 8270)**
614913 2-5 cr
- 8400 Special Clinical Problems**
621019 ar cr
- 8420 Social and Behavioral Aspects of Pharmacy
Practice**
716247 3 cr
- 8501 Pharmacy and Its Environment**
016688 3 cr
- 8611 Research Design**
117735 3 cr
- 8701 Hospital Pharmacy Administration I (A-F
only)**
617763 0800-0955 MW, HSUnitF 7164, Daniels,
3 cr
- 8702 Hospital Pharmacy Survey (prereq 8701)**
413228 Broekemeier, 1 cr
- 8777 Thesis Credits: Masters**
415030 1-16 cr
- 8888 Thesis Credits: Doctoral (max 18 cr per qtr)**
313206 1-36 cr

**SOCIAL AND PHILOSOPHICAL
FOUNDATIONS OF EDUC (SPFE)**
Educational Policy And
Administration
Education

- 8777 Thesis Credits: Masters**
519053 1-16 cr

SOCIAL WORK (SW)
Human Ecology

- r3201 Interventions with Individuals and Groups**
023639 0905-1100 MW, FordH 115, 4 cr
- 3970 Directed Studies**
513706 1-15 cr
- 3990 Directed Research (prereq #)**
622185 ar cr
- r5010 Seminar: Special Topics**
019591 -1 1535-1835 M, FordH 150, Pandey,
Johnston, others, 3 cr (Peace and
Justice)
817583 -2 1430-1730 T, OwreH 2210, Bracht,
3 cr (Community Organization for Health)
(\$PubH 5015)
843665 -3 1430-1730 T, FordH 50, Brookins, 3 cr
- r5020 Public Health Social Work Integrative
Seminar (\$PubH 5020; prereq dual MSW/MPH
or other grad public health or social work stu)**
918398 0905-1205 Th, Mayo A270, Bracht, 3 cr
- r5026 Meditation and Conflict Resolution**
114762 1800-2100 F, 0900-1700 S, McNH 22,
Umbreit, 3 cr (Jan 11-12, 24-25, Feb 1-2)

- r5102 Survey of Women and Public Policy (\$PA
5441, WoSt 5502; prereq 5111, WoSt 1001 or
#)**
614300 1430-1545 TTh, HHCtr 25, Nelson, 3 cr
- 5211 Advanced Theories of Human Growth and
Change (prereq grad standing or 12 cr in social
sciences)**
616399 1220-1520 M, FordH 60, Kivnick, 3-4 cr
- r5601 Ethno-Cultural Concepts in Social Work
Practice**
722811 0800-1100 M, FordH 70, Williams, 3-4 cr
- 8010 Field Instruction I (8010T; 4 cr or ar cr by #)
(S-N only)**
018909 Johnston, ar cr
- 8020 Field Instruction II (8020T; 4 cr or ar cr by #;
prereq 8010) (S-N only)**
718077 Johnston, ar cr
- 8030 Field Instruction in Social Work III (8030T;
prereq 8020) (S-N only)**
022815 Johnston, ar cr
- r8300 Organizations and Community Systems**
922869 0800-1100 T, FordH 349, Wattenberg,
3 cr
- r8301 Human Services Management I**
116379 0800-1100 T, FordH 130, 3 cr
- r8401 Social Work Methods II (prereq 8010, 8400)
★LECT 1315-1445 T, FordH 150**
113068 -1 REC 1500-1630 T, FordH 160, Gilgun,
3 cr
014195 -2 REC 1500-1630 T, FordH 170,
Williams, 3 cr
114477 -3 REC 1500-1630 T, LindH 325, 3 cr
- r8422 Social Work Practice with the Chronically
Mentally Ill (prereq 8122, 8400, 8401 or #)**
719357 0800-1100 M, FordH 60, Abramson, 3 cr
- r8425 Task-Centered Practice (prereq 8401)**
444656 1220-1520 M, FordH 70, Rooney, 3 cr
- r8450 Special Topics: Practice with Individuals,
Families, and Groups (prereq 8401 or #)**
116642 -1 1430-1700 T, PWB 5224, Kane, 3 cr
(Long-Term Care)
545314 -2 0905-1205 Th, PWB 5206, Frenzel,
3 cr (Clinical Practice within a Hospital
and Health Care Setting)
- r8461 Theory and Model Development in Social
Work (prereq MSW or #)**
619920 1325-1625 M, FordH 467, Hollister, 3 cr
- 8888 Thesis Credits: Doctoral (max 18 cr per qtr)**
919986 1-36 cr
- r8901 Social Work Research Methods**
017758 1220-1520 M, FordH 170, Jones, 3 cr
- r8903 Program Evaluation (prereq 8901)**
912858 1325-1625 T, FordH 70, Hollister, 3 cr
- 8970 Directed Study (prereq #)**
117421 -1 ar cr
618265 -2 ar cr
- 8990 Research Projects (max 6 cr)**
919180 ar cr
- r8992 Research Seminar (prereq 8991, doctoral
student)**
219077 0800-1100 Th, FordH 349, Gilgun, 3 cr

SOCIOLOGY (Soc)
Liberal Arts

- r1001 Introduction to Sociology**
417019 -1 0905-0955 MWF, AndH 210,
Broadbent, 4 cr
420230 -2 1115-1230 TTh, AndH 210, Blan, 4 cr
- r1001H Honors Course: Introduction to Sociology**
216731 0905-1020 MF, BlegH 205, Aminzade,
4 cr
- r1004 American Race Relations**
443667 1415-1530 TTh, AndH 230, Schaffer, 4 cr
- r3101 Introduction to American Criminal Justice
(\$CJS 3101)**
119002 1220-1310 MWF, AndH 210, Savelsberg,
4 cr
- r3201 Principles of Social Psychology (prereq
1001)**
★LECT 0815-0930 TTh, BlegH 150,
Fournier
918465 -1 LAB 0800-1000 M, BlegH 210, 5 cr
218219 -2 LAB 1015-1215 M, BlegH 210, 5 cr
822220 -3 LAB 0800-1000 W, BlegH 210, 5 cr
323752 -4 LAB 0800-1000 F, BlegH 210, 5 cr

- r3411 Understanding Formal Organizations (prereq
1001)**
844587 1115-1205 TTh, BlegH 155, Kaufman,
4 cr
- r3501 The Family System (prereq 1001 or #)**
821603 1220-1310 MWF, BlegH 5, McLeod, 4 cr
- r3503 Sex, Romance, and Relationships (prereq
1001)**
923665 0800-0850 MWF, AndH 350, Martin, 4 cr
- r3551 World Population Problems**
722016 1245-1400 TTh, AndH 330, Kennedy, 4 cr
- r3801 Sociological Methods I: Descriptive
Statistics (prereq intermediate algebra or GC
0631)**
★LECT 0930-1045 TTh, BlegH 10, Bian
119422 -1 LAB 0800-0850 MW, BlegH 90, 5 cr
721089 -2 LAB 0905-0955 MW, BlegH 90, 5 cr
722534 -3 LAB 1010-1100 MW, BlegH 90, 5 cr
522227 -4 LAB 1115-1205 MW, BlegH 90, 5 cr
722369 -5 LAB 1220-1310 MW, BlegH 90, 5 cr
845299 -6 LAB 0800-0850 TTh, BlegH 90, 5 cr
545300 -7 LAB 1100-1150 TTh, BlegH 90, 5 cr
- r3802 Sociological Methods II: Statistical Inference
(prereq 3801)**
★LECT 0800-0915 TTh, BlegH 10, Leik
118360 -1 LAB 0800-0850 MW, HHCtr 35, 5 cr
321466 -2 LAB 0905-0955 MW, HHCtr 35, 5 cr
422155 -3 LAB 1010-1100 MW, HHCtr 35, 5 cr
643666 -4 LAB 1115-1205 MW, HHCtr 35, 5 cr
- R3802H Honors Course: Sociological Methods II:
Statistical Inference (prereq 3801H or #)**
★LECT 0800-0915 TTh, BlegH 10, Leik
513690 -80 LAB 1220-1310 MW, HHCtr 35,
5 cr
- r3811 Computer Usage for Social Statistics (r3801
rec) (S-N only)**
022782 1325-1520 M, BlegH 90, Nelson D., 1 cr
- r3960 Topics in Sociology: Environmental
Sociology (prereq 1001 or #)**
618184 1220-1310 MWF, BlegH 135, Broadbent,
4 cr
- r3966 Major Projects Seminar (prereq all other
required Soc coursework, Comp 3014, Δ) (A-F
only)**
914965 -1 0905-1135 W, SocSci 1383, McLeod,
4 cr
521269 -2 0905-1135 W, Law 1, Savelsberg, 4 cr
- 3970 Directed Studies (prereq #, Δ, □)**
121431 1-15 cr
- 3990 Sociology Honors Thesis (max 8 cr; prereq jr
or sr sociology honors student, #, Δ, □)**
322827 4-8 cr
- r5102 Criminology (prereq 3101, 3102 or #)**
143669 1115-1230 TTh, BlegH 230, Kruttschnitt,
4 cr
- r5161 Criminal Law in American Society (\$CJS
5101)**
122022 0945-1100 TTh, HHCtr 25, Samaha, 4 cr
- r5211 Social Processes in Small Group Settings
(prereq 3201 or 5201 or #)**
443670 1245-1400 TTh, BlegH 235, Leik, 4 cr
- r5481 Comparative Asian Development (\$EAS
5481; prereq some social science or Asian
studies or #)**
243668 1325-1415 MWF, BlegH 120, Broadbent,
4 cr
- r5705 Background of Modern Social Thought
(prereq 8 cr in social science or #)**
618041 0945-1100 TTh, BlegH 230, Laslett, 4 cr
- r5801 Computer Methods in Social Research**
944242 1215-1530 T, HHCtr 35, Anderson, 4 cr
- r5960 Topics in Sociology: Domestic Criminal
Violence (prereq 1001 or #)**
220617 1245-1400 TTh, BlegH 150, Kruttschnitt,
4 cr
- 5970 Directed Studies (prereq #, Δ, CLA approval)**
518968 1-15 cr
- r8090 Topics in Sociology (prereq #)**
522339 -1 ar cr
814196 -2 1300-1600 W, HHCtr 30,
Galaskiewicz, 3 cr (Interorganizational
Relations) (\$Mgmt 8303)
718600 -3 1325-1645 F, BlegH 350, Aminzade,
4 cr (Democracy: Theory and Practice)

- r8415 Theories of Social Organization** (prereq 1st yr sociology grad or #)
943673 1300-1440 TTh, BlegH 145, Galaskiewicz, 4 cr
- r8501 Seminar: Contemporary Research on Marriage, Family**
743674 1300-1530 Th, BlegH 210, Laslett, 4 cr
- 8777 Thesis Credits: Masters**
621991 1-16 cr
- r8812 Intermediate Statistics for Sociologists** (prereq 3801, 3802, 3803 or #)
★LECT 1325-1440 MW, BlegH 125, Marini, 4 cr
820998 -1 LAB 1325-1440 F, BlegH 90
- r8817 Sociological Research Practicum**
143672 1325-1630 M, BlegH 350, Anderson, 5 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
217846 1-36 cr

SOIL SCIENCE (Soil) Agriculture

- r1020 The Soil Resource** (§3125)
★LECT 0935-1025 MWF, BorH 335, Cooper, (2 hr lab ar, M a.m. to W p.m.)
615849 -1 REC 0830-0920 Th, Soils S415, Cooper, 5 cr
320494 -2 REC 0935-1025 Th, Soils S415, Cooper, 5 cr
017968 -3 REC 1040-1130 Th, Soils S415, Cooper, 5 cr
013970 -4 REC 1145-1235 Th, Soils S415, Cooper, 5 cr
- 1500 Biotechnology: Basic Concepts and Applications** (§Agro 1500, AnSc 1500, FScN 1500, PIPa 1500, ScAg 1500; prereq hi schl biol or chem or #) (A-F only)
322701 1355-1445 MWF, GrmH 110, 3 cr
- r3118 Seminar: Soil and Water Pollution and Public Policy** (max 3 cr; §RCD 3118) (S-N only)
716085 1820-2020 T, BorH 375, Adams, 1 cr
- r3416 Soil Fertility** (prereq 3125)
★LECT 1355-1445 MWF, BorH 365, Malzer, 4 cr
122070 -1 REC 1250-1340 T, Soils S415, Malzer
121887 -2 REC 1355-1445 T, Soils S415, Malzer
620775 -3 REC 1500-1550 T, Soils S415, Malzer
- r3417 Soil Fertility Laboratory** (prereq r3416) (A-F only)
321998 -1 LAB 0830-1200 Th, Soils S320, Malzer, 1 cr
622901 -2 LAB 1250-1620 Th, Soils S320, Malzer, 1 cr
- r5102 Modeling of Dynamic Processes in Soil under Natural and Agricultural Ecosystems** (prereq access to IBM or compatible personal computer with at least 256 K and 2 disk drives) (A-F only)
★LECT 0830-0920 TTh, Soils S521, Molina, 3 cr
318602 -1 LAB 1315-1445 Th, Soils S415, Molina
- 5114 Special Problems in Soils** (max 10 cr; prereq 1122 or #)
816983 1-5 cr
- 5183 Water Relations, Mineral Nutrition and Translocation in Higher Plants** (prereq P1ph 3131 or PBio 3131 or equiv)
★LECT 1145-1235 MWF, BorH 365, Allan
144532 -1 REC 1145-1300 Th, BorH 365, Markhart, 4 cr
- 5210 Soil Physical Properties and the Environment** (prereq 1020/3125 or #) (A-F only)
★LECT 1040-1130 MWF, Soils S415, Reece
045298 -1 LAB 1500-1745 T, Soils S320, Reece, 4 cr
- r5240 Microclimatology** (4 cr with paper; prereq Math 1111 or 10 cr physics or #)
819009 1315-1430 TTh, BorH 375, Baker, 3-4 cr
- r5416 Soil Fertility** (§3416; prereq 3125)
★LECT 1355-1445 MWF, BorH 365, Malzer, 4 cr
213215 -1 REC 1250-1340 T, Soils S415, Malzer
422138 -2 REC 1355-1445 T, Soils S415, Malzer
515424 -3 REC 1500-1550 T, Soils S415, Malzer
★CLN

- r5417 Soil Fertility Laboratory** (§3417; prereq 3125, §5416) (A-F only)
113426 -1 LAB 0830-1200 Th, Soils S320, Malzer, 1 cr
121341 -2 LAB 1250-1620 Th, Soils S320, Malzer, 1 cr
- 5550 Peatlands: Formation, Classification, and Utilization** (prereq 1122 or #)
143694 0845-1000 TTh, BorH 375, Grigal, 3 cr
- 5605 Microbial Ecology** (§MicB 5611; prereq MicB 5105 or Biol 5013 or Soil 5610, or #) (A-F only)
918658 1015-1130 TTh, BorH 375, Sadowsky, 3 cr
- 8111 Colloquia in Soil Science** (prereq maj or min or #)
617231 -1 1-4 cr
723229 -2 1 cr
818720 -3 1 cr
- 8124 Research Problems in Soils**
113104 2-5 cr
- 8128 Seminar: Soils** (S-N only)
316042 1500-1550 M, BorH 375, 1 cr
- 8330 Advanced Soil Chemistry** (prereq physical chemistry or #)
343693 Bloom, 4 cr
- 8777 Thesis Credits: Masters**
215174 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
014889 1-36 cr

SOUTH ASIAN STUDIES (SoAS) South Asian & Middle Eastern Languages & Cultures Liberal Arts

- 5710 Seminar in South Asian Languages and Literatures**
344536 Staneslow, ar cr
- 5970 Directed Studies**
221413 ar cr
- 5990 Directed Research**
920104 ar cr
- 8777 Thesis Credits: Masters**
322276 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
613065 1-36 cr

SPANISH (Span) Spanish And Portuguese Liberal Arts

- r1101 Beginning Spanish**
118939 -1 0800-0850 MTWThF, KolH S133, 5 cr
117363 -2 1325-1415 MTWThF, KolH S133, 5 cr
- r1102 Beginning Spanish** (prereq 1101)
419935 -1 0800-0850 MTWThF, FordH 40, 5 cr
817003 -2 0800-0850 MTWThF, AmundH 156, 5 cr
121087 -3 0905-0955 MTWThF, KolH S133, 5 cr
815154 -4 1115-1205 MTWThF, AmundH 104, 5 cr
714403 -5 1220-1310 MTWThF, KolH S133, 5 cr
915744 -6 1325-1415 MTWThF, KolH S136, 5 cr
918403 -7 1430-1520 MTWThF, KolH S133, 5 cr
- r1103 Beginning Spanish** (prereq 1102)
015220 -1 0800-0850 MTWThF, ChDev 216, 5 cr
815235 -2 0905-0955 MTWThF, KolH S137, 5 cr
823285 -3 1115-1205 MTWThF, KolH S134, 5 cr
214414 -4 1220-1310 MTWThF, CivMinE 213, 5 cr
422348 -5 1325-1415 MTWThF, AmundH 156, 5 cr
218883 -6 1430-1520 MTWThF, KolH S136, 5 cr
- r1104 Intermediate Spanish** (prereq 1103 or 3 yrs high school Spanish)
617150 -1 0800-0850 MTWThF, CivMinE 213, 5 cr
613695 -2 0800-0850 MTWThF, Phys 236A, 5 cr
714594 -3 1010-1100 MTWThF, KolH S133, 5 cr
416131 -4 1115-1205 MTWThF, KolH S133, 5 cr
916165 -5 1220-1310 MTWThF, KolH S139, 5 cr
117970 -6 1325-1415 MTWThF, KolH S137, 5 cr
216843 -7 1430-1520 MTWThF, KolH S137, 5 cr
344584 -8 1430-1520 MTWThF, KolH S135, 5 cr

- r1105 Intermediate Spanish** (prereq 1104 or 4 yrs high school Spanish)
217023 -1 0800-0850 MTWThF, SmithH 111, 5 cr
916327 -2 0800-0850 MTWThF, AkerH 313, 5 cr
513379 -3 0905-0955 MTWThF, FordH 40, 5 cr
113135 -4 1010-1100 MTWThF, FordH 40, 5 cr
122076 -5 1115-1205 MTWThF, PeikH 225, 5 cr
314694 -6 1115-1205 MTWThF, Arch 60, 5 cr
117497 -7 1220-1310 MTWThF, Arch 60, 5 cr
722503 -8 1325-1415 MTWThF, Arch 60, 5 cr
417327 -9 1325-1415 MTWThF, SmithH 111, 5 cr
019204 -10 1430-1520 MTWThF, Arch 60, 5 cr
217037 -11 1430-1520 MTWThF, AmundH 158, 5 cr
- r1106 Intermediate Spanish** (prereq 1105 or 5 yrs high school Spanish)
815901 -1 0815-0930 MWF, ChDev 105, 5 cr
922449 -2 0815-0930 MWF, AmundH 104, 5 cr
514208 -3 0945-1100 MWF, ChDev 105, 5 cr
023530 -4 0945-1100 MWF, AmundH 104, 5 cr
520882 -5 1115-1230 MWF, ChDev 105, 5 cr
118603 -6 1115-1230 MWF, EIH N119, 5 cr
116561 -7 1245-1400 MWF, Arch 15, 5 cr
- r1502 Culture, Civilization of Latin America: Indian, European-Colonial, African Roots**
014973 1325-1415 MWF, FolH 208, O'Connell, 4 cr
- r3002 Reading for Speed and Comprehension** (prereq 1106 or equiv)
617939 -1 0800-0850 MWF, FolH 104, 4 cr
512815 -2 0905-0955 MWF, FolH 104, 4 cr (Spanish, Span/Port maj only)
316672 -3 1325-1415 MWF, FolH 234, 4 cr
- r3004 Written Communication: Formal and Informal** (prereq 1106 or equiv)
113112 -1 0800-0850 MWF, FolH 138, 4 cr
021180 -2 0905-0955 MWF, FolH 104, Jones, 4 cr (Spanish, Span/Port maj only)
415643 -3 1010-1100 MWF, FolH 104, 4 cr
- r3005 Oral Communication: Speaking and Listening** (prereq 1106 or equiv)
617990 -1 0800-0850 MTWThF, FolH 114, 4 cr
314145 -2 1220-1310 MTWThF, FolH 116, 4 cr (Spanish, Span/Port maj only)
721710 -3 1430-1520 MTWThF, FolH 234, 4 cr
- r3104 The Art of Reading Literary Texts** (§LAS 3104, Spn 3104; prereq 3002)
323637 -1 1115-1205 MWF, FolH 114, Spadaccini, 4 cr
021079 -2 1245-1400 TTh, FolH 240, Ramos, 4 cr (Spanish, Span/Port maj only)
- r3212 Spanish Literature: Aspects of Poetry** (prereq 3104)
843701 1325-1415 MWF, FolH 240, Sullivan, 4 cr
- r3212H Honors Course: Spanish Literature: Aspects of Poetry** (prereq 3104)
643702 1325-1415 MWF, FolH 240; Sullivan, 4 cr
- r3213 Spanish Literature: Aspects of Drama** (prereq 3104)
443703 1220-1310 MWF, FolH 240, Zahareas, 4 cr
- r3213H Honors Course: Spanish Literature: Aspects of Drama** (prereq 3104)
243704 1220-1310 MWF, FolH 240, Zahareas, 4 cr
- r3252 Spanish-American Literature: Aspects of Poetry** (prereq 3104)
123638 1010-1100 MWF, FolH 218, Jara, 4 cr
- r3252H Honors Course: Spanish-American Literature: Aspects of Poetry** (prereq 3104, honors student or #)
121607 1010-1100 MWF, FolH 218, Jara, 4 cr
- r3501 Spanish Civilization: Roots of Modern Spain and Latin America** (prereq 3002)
143705 1430-1520 MWF, FolH 138, Zahareas, 5 cr
- r3701 The Structure of Spanish and Portuguese: Phonology** (prereq 3001 or #)
943706 1115-1230 TTh, FolH 240, Ocampo, 4 cr
- r3910 Topics in Spanish Peninsular Literature** (max 12 cr; prereq 3104 or #)
743707 1115-1205 MWF, FolH 234, Jones, 4 cr
- r3910H Topics in Spanish Peninsular Literature** (max 12 cr; prereq 3104 or #)
543708 1115-1205 MWF, FolH 234, Jones, 4 cr

- 3970 Directed Studies** (prereq #, Δ, □)
921379 1-5 cr
- 3973 Major Project** (prereq #) (A-F only)
215918 2 cr
- 5107 The Literature of the Spanish Empire and its Decline** (prereq 3xxx or 5xxx level literature courses in Span or Port)
343709 1515-1800 M, FolH 116, Spadaccini, 4 cr
- 5234 Feminism and Literature in Spain** (prereq three 3XXX or 5XXX lit courses in Spanish or Portuguese or Δ)
743710 1515-1800 W, FolH 114, Sullivan, 4 cr
- 5526 Creole Consciousness and Mercantilist Culture** (prereq three 3xxx or 5xxx Span or Port literature courses or Δ)
543711 1515-1800 M, FolH 134, Jara, 4 cr
- 5534 National Literatures of Spanish America** (prereq three 3xxx or 5xxx level courses in Span or Port or Δ) (A-F only)
343712 1515-1800 F, FolH 114, O'Connell, 4 cr
- 5701 History of Ibero-Romance** (prereq 3701 or 3702 or #)
143713 1515-1625 TTh, FolH 240, Ocampo, 4 cr
- 5970 Directed Readings** (max 15 cr; prereq #, Δ, CLA approval)
613843 1-5 cr
- 5990 Directed Research** (prereq #, Δ, CLA approval)
821634 1-5 cr
- 6300 The Construction of Spanish Literary History**
943715 1515-1800 T, FolH 218, Ramos, 4 cr
- 6400 Spanish Literature and the Interaction of National Cultures**
643716 1515-1800 F, FolH 142, Spadaccini, 4 cr
- 8777 Thesis Credits: Masters**
021194 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
421054 1-36 cr
- 8970 Directed Readings in Romance Languages** (prereq Δ)
420020 ar cr

SPANISH-PORTUGUESE (SpPt) Spanish And Portuguese Liberal Arts

- 3801 Honors Seminar** (prereq 20 cr toward maj including 3104, departmental honors candidate or #)
819897 4 cr
- 3980 Directed Instruction** (max 8 cr; prereq #, Δ, □) (S-N only)
017887 1-4 cr
- 8920 Cross-Cultural Issues in Hispanic and Luso-Brazilian Literatures** (prereq #) (A-F only)
043731 1515-1800 T, FolH 344, Sousa, 4 cr

SPEECH-COMMUNICATION (Spch) Liberal Arts

- r1101 Fundamentals of Speech-Communication: Oral Communication** (§1441)
422947 -1 1010-1205 MW, FolH 312, 4 cr
118049 -2 1220-1415 MW, FolH 334, 4 cr
115130 -3 1220-1415 MW, FolH 312, 4 cr
616029 -4 0800-0955 MF, FolH 334, 4 cr
020224 -5 0800-0955 TTh, FolH 334, 4 cr
412760 -6 0800-0955 TTh, FolH 312, 4 cr
718029 -7 0800-0955 TTh, FolH 50, 4 cr
616984 -8 1010-1205 TTh, FolH 318, 4 cr
317773 -9 1220-1415 TTh, FolH 312, 4 cr
- r1313 Analysis of Oral Argument**
622235 -1 0800-0955 MW, FolH 419, 4 cr
219287 -2 0800-0955 TTh, FolH 419, 4 cr
623403 -3 1010-1205 TTh, FolH 419, 4 cr
523345 -4 1220-1415 TTh, FolH 334, 4 cr
- 3192H Honors Course: Tutorial Seminar in Speech** (prereq honors candidate in speech-communication, #, Δ)
519862 4 cr

- r3201 Introduction to Broadcasting Production**
318471 -1 0800-0955 MW, RarigC 610, 4 cr
317076 -2 1010-1205 MW, RarigC 610, 4 cr
915775 -3 1325-1520 MW, RarigC 610, 4 cr
320916 -4 0800-0955 TTh, RarigC 610, 4 cr
- r3401 Theories of Person to Person Communication** (prereq 1102 or #, Psy 1001)
019168 1115-1310 TTh, NichH 211, Hewes, 4 cr
- r3402 Communication in Relationships** (prereq 1102)
843732 -1 1325-1520 MW, FolH 50, Hewes, 4 cr (spch-comm maj only)
643733 -2 1325-1520 MW, FolH 50, Hewes, 4 cr
- r3411 Small Group Communication Processes** (§3641; prereq 1101 or #)
219824 -1 0800-0955 MW, FolH 318, 4 cr (spch-comm maj only)
113085 -2 0800-0955 MW, FolH 318, 4 cr
918496 -3 0800-0955 MW, FolH 318, 4 cr (SMgt or pre-bus or pre-mgmt maj only)
615012 -4 1010-1205 MW, FolH 318, 4 cr (spch-comm maj only)
421913 -5 1010-1205 MW, FolH 318, 4 cr
222870 -6 1010-1205 MW, FolH 318, 4 cr (SMgt or pre-bus or pre-mgmt maj only)
520171 -7 0800-0955 TTh, FolH 318, 4 cr (spch-comm maj only)
618377 -8 0800-0955 TTh, FolH 318, 4 cr
820824 -9 0800-0955 TTh, FolH 318, 4 cr (SMgt or pre-bus or pre-mgmt maj only)
419806 -10 1010-1205 TTh, FolH 312, 4 cr (spch-comm maj only)
918224 -11 1010-1205 TTh, FolH 312, 4 cr
120111 -12 1010-1205 TTh, FolH 312, 4 cr (SMgt or pre-bus or pre-mgmt maj only)
718838 -13 1220-1415 TTh, FolH 318, 4 cr (spch-comm maj only)
923259 -14 1220-1415 TTh, FolH 318, 4 cr
313027 -15 1220-1415 TTh, FolH 318, 4 cr (SMgt or pre-bus or pre-mgmt maj only)
- r3431 The Role of Persuasion in the Modern World** (soph standing rec)
117354 -1 1010-1205 MW, FolH 419, 4 cr (spch-comm maj only)
413326 -2 1010-1205 MW, FolH 419, 4 cr
- r3441 Communicating in Organizations** (prereq 1102 or 1101 or equiv)
222965 -1 1010-1205 TTh, FolH 104, 4 cr (spch-comm maj only)
119234 -2 1010-1205 TTh, FolH 104, 4 cr
- r3501 Introduction to Communication Research Methods** (prereq 3401)
222626 1010-1205 TTh, FolH 208, 4 cr
- r3601 Approaches to Public Discourse** (prereq 1101)
644154 1220-1415 TTh, FolH 306, Campbell, 4 cr
- r3605 Persuasive Speaking** (prereq 1101)
721108 -1 0800-0955 MW, FolH 312, 4 cr (spch-comm maj only)
921320 -2 0800-0955 MW, FolH 312, 4 cr
313416 -3 0800-0955 MW, FolH 312, 4 cr (SMgt or pre-bus or pre-mgmt maj only)
916148 -4 1220-1415 TTh, FolH 326, 4 cr (spch-comm maj only)
114857 -5 1220-1415 TTh, FolH 326, 4 cr
819141 -6 1220-1415 TTh, FolH 326, 4 cr (SMgt or pre-bus or pre-mgmt maj only)

- 3970 Directed Studies** (no major program or for spch-comm maj; prereq at least one spch-comm course, #, Δ, □)
918322 ar cr

- 3980 Directed Instruction** (max 8 cr, no major program or for speech-communication maj; prereq #, Δ, □) (S-N only)
113362 1-4 cr

- r5211 Contemporary Problems in American Broadcasting** (prereq 3211, sr status)
443734 -1 0905-1100 TTh, FolH 344, 4 cr (spch-comm maj only)
243735 -2 0905-1100 TTh, FolH 344, 4 cr

- r5222 Educational Television Programming and Administration** (prereq 3211 or #)
122036 -1 1600-1800 MW, RarigC 616, Goldstein, 4 cr (spch-comm maj only)
419823 -2 1600-1800 MW, RarigC 616, Goldstein, 4 cr

- r5231 Comparative Broadcast Systems** (prereq 3211 or #)
543742 -1 0905-1100 MW, FolH 326, Browne, 4 cr (spch-comm maj only)
343743 -2 0905-1100 MW, FolH 326, Browne, 4 cr

- r5401 Advanced Theories of Communication** (prereq 3401 or grad)
516198 -1 0905-1100 TTh, FolH 326, Sykes, 4 cr (spch-comm maj only)
513902 -2 0905-1100 TTh, FolH 326, Sykes, 4 cr

- r5402 Problems in Interpersonal Communication** (prereq 3401 or #)
143736 -1 1600-1800 TTh, FolH 134, Shapiro, 4 cr (spch-comm maj only)
943737 -2 1600-1800 TTh, FolH 134, Shapiro, 4 cr

- r5404 Language, Culture, and Education** (§SeEd 5404; prereq 1102, 3401 or #)
743738 1325-1520 TTh, PeikH 40, Piche, 4 cr

- r5405 Nonverbal Communication: Theory and Research**
115426 -1 1325-1520 TTh, FolH 50, Sykes, 4 cr (spch-comm maj only)
913539 -2 1325-1520 TTh, FolH 50, Sykes, 4 cr

- r5431 The Process of Persuasion** (prereq 1102, 3431)
115144 -1 1325-1520 MW, FolH 318, Albert R., 4 cr (spch-comm maj only)
116883 -2 1325-1520 MW, FolH 318, Albert R., 4 cr

- r5602 Contemporary Political Persuasion** (prereq 1101 or 1101H, 5431 or #)
543739 -1 1430-1625 MW, FolH 419, Campbell, 4 cr (spch-comm maj only)
943740 -2 1430-1625 MW, FolH 419, Campbell, 4 cr

- 5607 Rhetoric of Asia** (prereq 3601 or #)
743741 1325-1520 MW, FolH 326, Jensen, 4 cr

- 5970 Directed Readings** (prereq nine 3xxx-5xxx speech-communication cr, #, Δ, CLA approval)
512670 ar cr

- 8411 Seminar: Small Group Communication** (prereq 1101, 5411)
016562 1500-1800 M, FolH 344, Bormann, 3 cr

- 8451 Seminar: Face-to-Face Intercultural Communication** (prereq if US citizen, Anth 5101 or similar course in cultural anthropology or #...5451 rec)
516069 1535-1820 M, FolH 142, Albert, 3 cr

- 8625 Seminar: Communication Ethics** (prereq 3625 or 5625 or #)
044281 0800-1100 W, FolH 334, Jensen, 3 cr

- 8777 Thesis Credits: Masters**
521871 1-16 cr

- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
122795 1-36 cr

- 8990 Research** (prereq #, Δ)
914223 ar cr

STATISTICS (Stat) Liberal Arts

NOTE: A \$35 microcomputer lab card may be required in the following statistics courses: 3012, 5021, 5161, 5162, 5163, 5301, 5302. Check with the instructor on the first day of class for more information.

- r1001 Introduction to Ideas of Statistics** (prereq high school algebra)
★LECT 0830-0920 MWF, ClaOff B35, He, (StP)
622333 -1 LAB 0830-0920 T, ClaOff B30, 4 cr (StP)
419045 -2 LAB 0830-0920 Th, ClaOff B30, 4 cr (StP)
★LECT 1010-1100 MWF, Arch 30, Leie
518100 -3 LAB 1010-1100 T, ChDev 218, 4 cr
312895 -4 LAB 1220-1310 Th, Arch 50, 4 cr
★LECT 1325-1415 MWF, FordH 55, Maitra
015038 -5 LAB 1325-1415 T, VinH 301, 4 cr
514760 -6 LAB 1325-1415 Th, VinH 301, 4 cr
- r3011 Statistical Analysis** (prereq college algebra)
★LECT 0905-0955 MWF, MechE 108, Tierney
114740 -1 LAB 0800-0850 T, VinH 1, 4 cr
022121 -2 LAB 0905-0955 T, Phys 236A, 4 cr
912679 -3 LAB 1010-1100 T, NichH 209, 4 cr
★LECT 1040-1130 MWF, HckrH 100, Bingham, (StP)
322939 -4 LAB 1040-1130 T, ClaOff B22, 4 cr (StP)
816885 -5 LAB 1040-1130 Th, ClaOff B22, 4 cr (StP)

- ★LECT 1250-1340 MWF, ClaOff B25, Grund, (StP)
523149 -6 LAB 1250-1340 T, ClaOff B22, 4 cr (StP)
119596 -7 LAB 1250-1340 Th, ClaOff B22, 4 cr (StP)
- r3012 Statistical Analysis** (prereq 3011)
★LECT 1010-1100 MWF, AmundH 240, Geyer
113160 -1 LAB 1010-1100 T, VinH 203, 4 cr
815056 -2 LAB 1115-1205 T, VinH 203, 4 cr
220343 -3 LAB 1010-1100 Th, VinH 203, 4 cr
★LECT 1250-1340 MWF, Agr A202, Fedorov, (StP)
020983 -4 LAB 1250-1340 T, ClaOff B42, 4 cr (StP)
323640 -5 LAB 1250-1340 Th, ClaOff B42, 4 cr (StP)
★LECT 1325-1415 MWF, VinH 1, Lela
244660 -6 LAB 1325-1415 T, VinH 203, 4 cr
144661 -7 LAB 1325-1415 Th, VinH 203, 4 cr
- r3091 Introduction to Probability and Statistics** (§5121, 5131; prereq differential, integral calculus)
★LECT 0800-0850 MWF, VinH 1, Shen
417991 -1 LAB 0800-0850 T, VinH 203, 4 cr
122157 -2 LAB 0800-0850 Th, VinH 203, 4 cr
★LECT 0905-0955 MWF, FolH 306, Meeden, (IT maj)
322925 -3 LAB 0905-0955 T, VinH 203, 4 cr
623269 -4 LAB 0905-0955 Th, VinH 203, 4 cr
★LECT 1115-1205 MWF, Arch 45, Shen
720086 -5 LAB 1115-1205 T, VinH 314, 4 cr
414685 -6 LAB 1115-1205 Th, NichH 209A, 4 cr
★LECT 1220-1310 MWF, VinH 1, Tierney
014312 -7 LAB 1220-1310 T, VinH 203, 4 cr
118018 -8 LAB 1220-1310 Th, VinH 203, 4 cr
- r5021 Statistical Analysis** (§3012; prereq college algebra)
★LECT 1140-1240 MWF, ClaOff B25, Grund, (StP)
619934 -1 LAB 1035-1135 T, ClaOff B42, 5 cr (StP)
719018 -2 LAB 1140-1240 T, ClaOff B22, 5 cr (StP)
- r5121 Theory of Statistics** (§5131-5132-5133; prereq Math 1241 or Math 1331 or Math 1621)
★LECT 0900-1000 MWF, Arch 45, Dickey
522566 -1 REC 0900-1000 T, AkerH 225, 5 cr
721609 -2 REC 0900-1000 Th, AkerH 309, 5 cr
- r5122 Theory of Statistics** (prereq 5121)
★LECT 1110-1210 MWF, FordH 115, Lindgren
717527 -1 REC 1110-1210 T, JonesH 4, 5 cr
115306 -2 REC 1110-1210 Th, JonesH 4, 5 cr
- r5132 Theory of Statistics** (prereq 5131)
813162 -1 0905-0955 MWF, VinH 20, Maitra, 4 cr
121517 -2 1010-1100 MWF, VinH 203, Pruitt, 4 cr
520221 -3 1115-1205 MWF, VinH 20, Sudderth, 4 cr
- r5133 Theory of Statistics** (prereq 5132)
123199 1325-1415 MWF, VinH 203, Lane, 4 cr
- r5161 Applied Statistical Methods** (§5201, 5301, 5302, 5421; prereq §5022 or 5131, grad stu in stat or #) (A-F only)
★LECT 0900-1030 MW, ClaOff B42, Weisberg, (StP)
213733 -1 LAB 0900-1000 F, ClaOff B22, 4 cr (StP)
- r5301 Designing Experiments** (§5163; prereq 3012 or 5021 or 5133 or #)
★LECT 1350-1450 MWF, ClaOff B25, Oehlert, (StP)
715180 -1 LAB 0825-0925 Th, ClaOff B22, 5 cr (StP)
116303 -2 LAB 0930-1030 Th, ClaOff B22, 5 cr (StP)
- r5302 Applied Regression Analysis** (§5161; prereq 3012 or 5021 or 5133 or #)
★LECT 1035-1135 MWF, FScN 15, Hawkins, (StP)
223209 -1 LAB 1035-1135 Th, ClaOff B42, 5 cr (StP)
520395 -2 LAB 1140-1240 Th, ClaOff B22, 5 cr (StP)
- r5421 Analysis of Categorical Data** (§5162; prereq 3012 or 5021 or 5133 or #)
015816 1140-1240 MWF, ClaOff B30, Lamtz, 4 cr (StP)
- 5890 Senior Paper** (prereq sr in statistics) (A-F only)
718449 2 cr

- 5900 Tutorial Course** (prereq #)
813713 ar cr
- 8152 Mathematical Statistics** (prereq 8151)
317904 1110-1210 MWF, VinH 203, Meeden, 4 cr
- 8172 Theory of Inference** (prereq 8171)
144658 1415-1530 TTh, VinH 206, Geisser, 3 cr
- 8312 Linear Models** (prereq 8311)
316266 1500-1630 MW, ClaOff B30, Martin, 4 cr (StP)
- 8331 Statistical Computing** (prereq 8162 or #)
043759 1040-1130 MWF, ClaOff B30, Oehlert, 3 cr (StP)
- 8412 Multivariate Analysis** (prereq 8411)
343760 1500-1615 MW, HckrH 111, Fedorov, 3 cr (StP)
- 8777 Thesis Credits: Masters**
320768 1-16 cr
- 8801 Statistical Consulting** (prereq statistics maj or #) (S-N only)
119081 Hawkins, 1-3 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
723439 1-36 cr
- 8900 Student Seminar** (prereq statistics maj or #) (S-N only)
514452 1 cr
- 8901 Directed Readings and Research** (prereq #)
420115 1-3 cr
- 8932 Advanced Topics in Statistics: Regression Graphics** (prereq #)
143781 Cook, 3 cr
- 8933 Advanced Topics in Statistics: Inference in Artificial Worlds** (prereq #)
043762 Lane, 3 cr
- 8934 Advanced Topics in Statistics: Reliability and Lifetime Data**
244657 Chaloner, 3 cr (StP)

SUMERIAN (Sum) Classical & Near Eastern Studies Liberal Arts

- 5012 Elementary Sumerian** (prereq 5011)
443765 0905-0955 MWF, CivMinE 214, Reisman, 4 cr

SURGERY (Surg) Medical School

- 5500 Externship: Surgery at the University and Affiliated Hospitals** (prereq regis med)
113840 Cerra, ar cr
- 5502 Externship in the Surgical Intensive Care Unit** (prereq regis med)
522048 Cerra, 6-9 cr
- 5503 Research Problems in Surgery** (prereq regis med) (S-N only)
319085 Sutherland, 1-18 cr
- 5504 Hospital Base Nutrition** (prereq medical stu year 3 and 4)
015167 Cerra, 4.5-9 cr
- 5510 Advanced Surgery Externship: Subinternship** (prereq 3rd or 4th yr medical student, 5500)
714093 Najarian, 4.5-9 cr
- r5511 Emergency Medicine - St. Paul Ramsey Medical Center** (prereq 5500, 3 or 4 yr medical student)
322035 Cerra, 9 cr
- 5522 Plastic and Reconstructive Surgery** (prereq 5500)
122358 4.5-9 cr
- 5523 Externship in Colon and Rectal Surgery: Veterans Administration Hospital** (prereq regis med)
117046 Goldberg, ar cr
- 5524 Biomedical Ethics** (prereq #)
215904 4.5-9 cr
- 5526 Clinical Nutrition Seminar** (prereq acceptance to master's prog in nutr support dietetics or Kellogg MD fellowship prog) (S-N only)
616385 Shrouts, 1 cr

- 5527 Hospital Nutrition Support** (prereq acceptance to the master's program in nutrition support dietetics) (S-N only)
114776 Shrouts, 9 cr
- 8200 Clinical Surgical Problems in Management**
516749 Najarian, 5 cr
- 8201 Surgical-Roentgenological Conference**
617987 0905-1310 S, Mayo C231, Najarian, 1 cr (Todd Amph)
- 8202 Surgical Research**
116133 Najarian, 5 cr
- 8203 Surgery Complications and Research Conference**
016478 1600-1700 T, PWB 11157, Najarian, 1 cr
- 8207 Transplantation, Bone Marrow Conference**
012866 1630-1700 Th, PWB 11157, Najarian, 1 cr
- 8777 Thesis Credits: Masters**
720279 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
122134 1-36 cr

SWEDISH (Swed) Scandinavian Studies Liberal Arts

- r1102 Beginning Swedish** (prereq 1101)
118035 -1 0800-0850 MTWThF, FolH 340, 5 cr
818135 -2 0800-0850 MTWThF, FolH 426, 5 cr
416906 -3 1115-1220 MTWThF, Arch 30, 5 cr
- r1105 Intermediate Swedish** (prereq 1104 or equiv)
922788 -1 1010-1100 MTWThF, AmundH 116, 5 cr
622672 -2 1220-1310 MTWThF, FolH 419, Grimstad, 5 cr
- r3670 Readings in Swedish Literary Texts** (max 28 cr; prereq 1106 or equiv)
917140 0615-0930 TTh, FolH 138, Stockenstrom, 4 cr

TEXTILES AND CLOTHING (TexC)

Design, Housing, And Apparel Human Ecology

- r3605 Draping Design and Construction** (prereq soph, 1603, 3662 or Dsgn 1525 or Δ)
219788 1355-1550 MWF, McNH 212, 216, 3 cr
- r3621 Textiles** (prereq soph, Chem 1002, 1003 or 1005 or #)
★LECT 1040-1130 MWF, McNH 33, Bye, (1 hr ar)
321886 -1 LAB 1040-1235 TTh, McNH 322, 5 cr
213375 -2 LAB 1355-1550 TTh, McNH 322, 5 cr
- r3623 Performance Evaluation of Textiles** (prereq 3621)
818765 0830-1030 TTh, McNH 340, 3 cr
- r3644 Retail Experience Seminar I** (prereq 3rd qtr soph, 1641, 1642, 300 hrs approved selling experience) (S-N only)
813257 1040-1235 T, McNH 180, 2 cr
- 3661 Cultural Perspectives on Dress** (prereq Anth 1002 or Soc 1001)
943768 0830-0920 MWF, McNH 180, Eicher, 3 cr
- r3662 Aesthetics of Clothing** (prereq Psy 1001, Dsgn 1501 or #)
★LECT 1250-1340 TTh, McNH 316, DeLong
713266 -1 LAB 0935-1130 T, McNH 316, 3 cr
123137 -2 LAB 1355-1550 Th, McNH 316, 3 cr
- 5003 Cooperative Education Program** (5003-5004†; prereq sr, 15004, #, minimum GPA of 2.50) (S-N only)
918353 -1 4-8 cr (retail merchandising students)
315022 -2 4-8 cr (textiles and clothing students)
- 5004 Cooperative Education Integrative Paper** (5003-5004†, no grad cr; prereq sr, 15003, #) (A-F only)
214042 -1 2-4 cr (retail merchandising students)
918918 -2 2-4 cr (textiles and clothing students)
- r3662 Clothing Consumption Problems** (prereq 3621, AgEc 1101 or Econ 1002, Soc 1001, Psy 1001 or #)
921673 1355-1445 TTh, McNH 197, Williams, 3 cr

- 8661 Readings in Clothing** (prereq min 12 cr in textiles and clothing courses, #)
515925 Williams, DeLong, others, 1-3 cr
- 8663 Problems: Clothing and Textiles** (max 9 cr; prereq #)
014715 DeLong, others, 3-9 cr
- 8664 Fashion Theory and Analysis** (prereq 8662 or #) (A-F only)
743769 1450-1655 TTh, McNH 180, 3 cr
- 8668 Methodological Orientations in Clothing and Human Behavior** (prereq 8667, HEEd 8300, 8305 or equiv or #) (A-F only)
143770 0930-1110 TTh, McNH 363, Williams, 4 cr

THEATRE ARTS (Th) Liberal Arts

- r1101 Introduction to the Theatre**
713722 -1 0905-1100 MW, RarigC 190, Nolte, 4 cr
443779 -2 0905-1100 TTh, RarigC 185, Norwood, 4 cr
- r1301 Beginning Acting for Non-Theatre Majors** (prereq 1101 or f)
043776 -1 1325-1520 MW, RarigC 90, Dukes, 4 cr
843777 -2 0800-0955 TTh, RarigC 90, Ellison, 4 cr
543790 -3 1325-1520 TTh, RarigC 90, Beck, 4 cr
- r1321 Beginning Acting** (prereq 1101, 1504)
321287 -1 1325-1520 MW, RarigC 20, Matthys, 4 cr
113023 -2 1325-1520 TTh, RarigC 20, Cabot, 4 cr
- r1326 Beginning Movement for Actors** (prereq 1321)
518808 1325-1520 MW, RarigC 10, Raymond, 4 cr
- r1405H Honors Course: Introduction to the Theatre** (prereq 1101, #)
144501 1325-1520 MW, RarigC 75, Monasch, 2 cr
- r1502 Makeup for the Actor** (prereq 1504, clean-shaven face)
917347 0800-0955 TTh, RarigC 45, Olson, 2 cr
- r1504 Elements of Technical Theatre** (prereq 1101 or f)
117211 1115-1205 TTh, RarigC 190, Koski, 4 cr (lab ar)
- 3172 History of the Theatre: Neo-Classicism through Realism** (prereq 1101, theatre arts maj)
718399 1010-1205 TTh, BlegH 215, Kobialka, 4 cr
- r3311 Beginning Voice Production** (prereq 1321 or f) (A-F only)
815722 0800-0850 MTWTh, RarigC 210, Guidry, 4 cr
- r3321 Intermediate Acting** (prereq 1326)
120683 1010-1205 MW, RarigC 210, Werner, 4 cr
- 3412H Honors Course: Tutorial Seminar in Theatre Arts** (prereq candidate for honors in theatre arts, Δ)
918174 Adey, 0-3 cr
- r3701 Introduction to Directing** (prereq 1101, 1301, or 1321, or maj or min) (A-F only)
715566 1325-1520 TTh, RarigC 185, Christenson, 4 cr
- r3801 Performing Fiction**
414380 1535-1730 MW, RarigC 210, 4 cr
- r3803 Platform Performance** (prereq Management maj)
213988 -1 1325-1520 MW, RarigC 616, Piper, 4 cr
617181 -2 1325-1520 MW, BlegH 245, Scott, 4 cr
921057 -3 1325-1520 TTh, AndH 350, Bickle, 4 cr
222903 -4 1325-1520 TTh, RarigC 610, Laube, 4 cr
- r3901 Theatre Arts/Dance Senior Seminar** (prereq sr, theatre or dance maj) (A-F only)
316574 1010-1205 TTh, NorrisH 201, Shapiro, 4 cr
- r5100 Theatre Practicum** (prereq written permission, #, Δ) (A-F only)
222187 -1 1-6 cr
223002 -2 1-6 cr
- 5110 Theatre Performance** (max 9 cr; prereq written permission after casting and/or assignment to a production) (S-N only)
018196 Montgomery, 1 cr
- r5115 Playwriting** (§3115; prereq 1321 or #)
922693 1615-1845 W, BlegH 440, 4 cr
- r5130 Shakespeare** (prereq 1101 or #)
520686 1325-1520 MW, BlegH 150, Norwood, 4 cr
- r5172 History of Theatre**
843780 1325-1520 MW, BlegH 105, Gadberry, 4 cr
- r5181 Contemporary Black Theatre, 1960-Present** (§Afro 5181)
343791 1325-1520 MW, RarigC 275, Bellamy, 4 cr
- r5192 Myth and the Performance of Modern Drama II** (prereq 5191)
643781 1535-1730 MW, RarigC 75, Neely, 4 cr
- r5323 Acting for the Camera** (prereq 3321 or grad student, #, written permission)
013371 1010-1205 TTh, RarigC, 4 cr (Studio 5B)
- r5335 Acting for Music-Theatre** (prereq 5334, #)
223548 1010-1205 MW, RarigC 185, Kanee, 4 cr
- r5512 Advanced Problems in Costuming** (prereq 3515 or #)
122627 0905-1100 TTh, RarigC 275, Egan, 4 cr
- r5712 Advanced Stage Direction** (prereq 3711 or 5711)
223016 1325-1520 MW, RarigC 185, Adey, 4 cr
- r5720 Plays in Production and Performance** (max 6 cr for undergrads; prereq 5712, #, written permission)
823092 2-4 cr
- r5735 Directing the Singer Actor** (prereq 5734, #, 15334-5335-5338 not permitted)
214056 1010-1205 MW, RarigC 185, Kanee, 4 cr
- r5760 Advanced Stage Management** (max 6 cr for undergrads; prereq 5716 or f, #, written permission)
720220 Montgomery, 1-3 cr
- r5940 Topics in Theatre** (max 12 cr)
443782 1010-1205 TTh, RarigC 210, Adey, 4 cr
- r5950 Topics in Theatre** (max 12 cr)
243783 0905-1205 F, RarigC 275, Galet, 4 cr
- 5970 Directed Readings** (prereq 9 cr in theatre, #, Δ, CLA approval)
414637 -1 1-6 cr
322622 -2 1-6 cr
- r8103 The Theatre Dramaturg** (prereq 8101 or #)
543787 1535-1730 TTh, RarigC 75, Lupu, 4 cr
- r8114 History/Theory of Western Theatre: Rise of National Theatres**
343788 1325-1520 TTh, RarigC 75, Kobialka, 4 cr
- r8322 Problems in Acting** (prereq first yr MFA actor or by audition and written instr perm)
114034 1325-1520 MTWTh, RarigC 210, Balk, Carey, 4 cr
- r8335 Performance Theory and Technique** (prereq M.F.A. in acting program) (A-F only)
143792 -1 LECT 7 cr
♦ 643795 -1 LAB 0845-0925 MTWTh, RarigC 10, (Energizing)
♦ 443796 -2 LAB 0930-1020 MTWTh, RarigC 20, Nash, (Voice I)
♦ 243797 -3 LAB 1025-1115 MTWTh, RarigC 10, (Movement I)
♦ 143798 -4 LAB 0930-1020 MTWTh, RarigC 10, (Movement II)
♦ 943799 -5 LAB 1025-1115 MTWTh, RarigC 20, Nash, (Voice II)
♦ 643800 -6 LAB 1535-1730 MTWTh, RarigC 185, Balk, (Studio I)
- r8712 Seminar: Stage Direction** (prereq 5712 or equiv)
113541 0905-1205 F, RarigC 185, Kanee, 4 cr
- 8777 Thesis Credits: Masters**
419336 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
117847 1-36 cr
- 8980 Directed Instruction** (prereq Δ)
919664 1-3 cr
- 8990 Research** (prereq #, Δ)
417649 ar cr

THERAPEUTIC RADIOLOGY (TRad) Medical School

- 3100 Mathematics** (prereq #)
813923 3 cr
- 3110 Physics** (prereq #)
418431 2 cr
- 3121 Radiation Physics** (prereq #)
621165 3 cr
- 5171 Physics of Nuclear Medicine** (§Rad 5171, BPhy 5171; prereq 5170 or #)
021101 1430-1530 TTh, Mayo B261, Geise, others, 3 cr
- 5173 Physics of Radiation Therapy** (§Rad 5173, BPhy 5173; prereq 5170 or #)
118276 0730-0845 W, 1600-1715 F, UHosp 1243, Khan, others, 3 cr
- 5340 Special Problems in Radiation Therapy**
521773 Levitt, others, ar cr
- 5505 Externship in Radiation Therapy** (prereq regis med)
520378 Levitt, others, ar cr
- 5507 Advanced Externship in Radiation Therapy** (prereq regis med)
913816 Levitt, others, ar cr
- 5508 Special Problems in Radiation Biology**
114521 Song, others, ar cr
- r5509 Radiobiological Basis of Radiotherapy** (prereq medical school sr)
121073 Song, others, 9 cr
- 5512 Dosimetry of Internal and External Radiation Emitters**
518002 1200-1300 M, UHosp 1243, Khan, others, 1 cr
- 5540 Special Problems in Radiological Physics** (prereq regis med)
514578 Khan, others, ar cr
- 5800 Radiation Oncology-Pathology**
117452 ar cr
- 8300 Radiation Therapy**
413911 Levitt, others, ar cr
- 8310 Fundamentals of Radiation Therapy**
515004 1630-1730 M, UHosp 1243, Levitt, others, 1 cr (except 1st M of month, 1700-1800)
- 8315 Radiation Therapy Pathology**
122417 1 cr
- 8320 Radiation Therapy Treatment Planning Problems**
513897 Levitt, others, 1 cr
- 8325 Radiation Therapy Pediatrics Oncology**
712747 1 cr
- 8350 Research in Radiation Therapy**
022104 ar cr
- 8410 Seminar: Radiation Biology**
120156 Song, others, 1 cr
- 8450 Research in Radiation Biology**
019333 Song, others, ar cr
- 8550 Research of Radiation Physics**
123400 Khan, others, ar cr
- 8777 Thesis Credits: Masters**
121476 Levitt, others, 1-16 cr

THERIOGENOLOGY (Tgen)

- 8777 Thesis Credits: Masters**
619870 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
023513 1-36 cr

TOXICOLOGY (Txc) Veterinary Medicine

- 8777 Thesis Credits: Masters**
943902 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
543904 1-36 cr

UNIVERSITY COLLEGE (UC)

- 83075 Independent Study** (prereq Δ)
121400 ar cr
- 3211 Degree Planning** (prereq student in program for individualized learning, Δ) (S-N only)
819351 12 cr
- 3251 Directed Individualized Study** (prereq student in program for individualized learning, Δ) (S-N only)
715227 6 cr
- 3281 Major Project** (prereq student in program for individualized learning, Δ) (S-N only)
214509 12 cr
- 3282 Major Project: Extended Studies** (prereq Δ , student in Program for Individualized Learning) (S-N only)
145180 6 cr
- 3291 Graduation Dossier Preparation** (prereq student in program for individualized learning, Δ) (S-N only)
919485 12 cr
- 3292 Graduation Dossier Preparation: Extended Studies** (prereq Δ , student in Program for Individualized Learning) (S-N only)
945181 6 cr
- 3299 Graduation Review** (prereq student in program for individualized learning, Δ) (S-N only)
818149 6 cr

URBAN STUDIES (Urbs)

Liberal Arts

- 83102 Urban Studies Colloquia** (prereq #) (A-F only)
317272 1430-1630 Th, Law 3, Miller, 2 cr
- 83301 American Cities: Settings for Cultural Pluralism** (A-F only)
823240 1245-1400 TTh, AndH 270, Shanahan, 4 cr
- 83500 Workshops** (prereq jr or sr, #)
813839 1535-1835 W, SocSci 1383, Portmann, 4 cr
- 83900 Internship** (max 12 cr; prereq jr, sr, #) (A-F only)
421278 1800-2000 T, SocSci 101, de Montille, 1-6 cr
- 83970 Directed Studies** (prereq #, Δ , \square)
023124 2-6 cr

URDU (Urdu)

South Asian & Middle Eastern Languages & Cultures Liberal Arts

- 81102 Beginning Urdu** (§Hndi 1102, 5102; prereq 1101)
717270 1010-1100 MTWThF, KiaCt 190, Barker, 5 cr
- 5132 Intermediate Urdu** (§3032; prereq 5131)
913797 1115-1205 MWF, KiaCt 190, Barker, 5 cr
- 5162 Advanced Urdu** (prereq 5161)
714417 1220-1310 MWF, KiaCt 190, Barker, 4 cr

UROLOGIC SURGERY (Urol)

Medical School

- 5180 Externship in Urology** (prereq regis med)
217054 ar cr
- 8250 Urological Surgery**
822945 0800-1200 MWF, 4 cr (Mayo OR Room H)
- 8251 Cystoscopy and Urological Diagnosis**
315103 0800-1200 MTWThF, Fraley, 4 cr (Cysto Suite)
- 8252 Urological Conference**
113868 0800-0900 S, Fraley, 4 cr (Sta 57 Conf Room)
- 8253 Research in Urology**
623322 Fraley, 4 cr
- 8254 Urological Seminar**
316199 1300-1400 MWF, Mayo A503, Fraley, 3 cr

8255 Urological Radiological Conference
423385 1300-1400 MTWThF, Mayo A503, Fraley, 3 cr

8256 Urological Pathological Conference
217989 1600-1700 W, Mayo A503, Fraley, 3 cr

8257 Selected Topics on the Genitourinary System (prereq MD or PhD degree, PhD with #)
517173 2 cr

8777 Thesis Credits: Masters
519196 1-16 cr

VETERINARY BIOLOGY (VB)

Veterinary Medicine

5102 Veterinary Neurobiology (§NSc 5102; prereq #)
★LECT 1000-1050 T, 1300-1350 Th, AnScVM 125, Beitz, Fletcher, 3 cr
813792 -1 LAB 1400-1650 Th, AnScVM 104

5105 Microscopic Anatomy of Domestic Animals (prereq #)
★LECT 0900-1050 MWF, AnScVM 125, Czamecki, Gallant, 4 cr
419160 -1 LAB 1000-1130 MWF, AnScVM 104

5149 Topics of Organology (prereq 5104, #)
913184 1-5 cr

5211 Veterinary Biochemistry Laboratory (prereq #)
719391 -1 LAB 1400-1650 M, AnScVM 104, 1400-1450 M, AnScVM 135, Louis, Mickelson, 1 cr
221069 -2 LAB 1400-1650 W, AnScVM 104, 1400-1450 W, AnScVM 135, Louis, Mickelson, 1 cr

5212 Veterinary Biochemistry (prereq 5210 or #)
723408 1300-1350 MW, 1100-1150 TTh, AnScVM 135, Louis, Jorgensen, others, 4 cr

5306 Animal Physiology (prereq regis vet med or #) (A-F only)
★LECT 0800-0850 MWF, AnScVM 135, Osborn
344259 -1 LAB 1300-1750 T, AnScVM 125, 1300-1650 T, AnScVM 164, 168, 169, 173, Osborn, O'Grady, others, 5 cr
★DEM 0800-0950 Th, AnScVM 125

5401 Veterinary Pharmacology and Therapeutics II (prereq 5310, 5400 or #) (A-F only)
★LECT 0800-0850 MWF, 1400-1450 F, AnScVM 125, Brown, 5 cr
122392 -1 LAB 0900-1050 Th, AnScVM 335J, 385K, Brown

5920 Independent Research in Veterinary Biology (prereq #)
713090 ar cr

5950 Directed Studies (prereq #, Δ)
414735 1-5 cr

8111 Histologic and Ultrahistologic Techniques (prereq 5106, #)
719763 3 cr

8112 Research Propositions in Morphology (prereq #)
622414 2 cr

8113 Research Propositions in Morphology (prereq #)
817101 2 cr

8114 Research Propositions in Morphology (prereq #)
221864 2 cr

8134 Comparative Veterinary Neurology (prereq 5100, #)
120173 4 cr

8135 Comparative Veterinary Neurology (prereq 5100, #)
121470 4 cr

8136 Experimental Comparative Veterinary Neurology (§NSc 8136; prereq 8135, #)
623546 3 cr

8150 Research Problems in Veterinary Anatomy (prereq 8149, #)
113062 1-5 cr

8349 Research in Physiology (prereq #)
820337 ar cr

8448 Problems in Veterinary Pharmacology (prereq 5401, #)
620971 Larson A., Brown, others, ar cr

8777 Thesis Credits: Masters
215840 1-16 cr

8888 Thesis Credits: Doctoral (max 18 cr per qtr)
118769 1-36 cr

VETERINARY DIAGNOSTIC MEDICINE (VDM)

Veterinary Medicine

5000 Diagnostic Medicine (prereq #) (S-N only)
945004 2 cr

5511 Swine Disease Diagnosis (prereq regis vet med or grad or #) (A-F only)
745005 1500-1650 M, AnScVM 335K, 385J, 1-2 cr (1st 5 weeks)

5521 Surgical Pathology (prereq #) (A-F only)
545006 Barnes D., 3 cr

5522 Diagnostic Pathology (prereq #) (A-F only)
345007 Barnes D., 5 cr

85524 Problems in Diagnostic Pathology (prereq #) (A-F only)
145008 Kurtz, 1-4 cr

5622 Problems in Diagnostic Virology (prereq #) (A-F only)
045009 Goyal, 1-4 cr

5851 Seminar: Diagnostic Medicine (prereq #) (S-N only)
345010 1-2 cr

VETERINARY MEDICINE (CVM)

Veterinary Medicine

5260 Animal Behavior (prereq #) (A-F only)
218916 0800-0950 T, AnScVM 125, Trent, 2 cr

5800 Problems in Veterinary Research (prereq #) (A-F only)
543837 5 cr

5801 Veterinary Research Survey Seminar (prereq #) (A-F only)
143839 Pjoan, 1 cr

VETERINARY MEDICINE, GRADUATE (VMed)

8777 Thesis Credits: Masters
521403 1-16 cr

8888 Thesis Credits: Doctoral (max 18 cr per qtr)
418252 1-36 cr

VETERINARY MICROBIOLOGY (VMic)

(VMic)

8777 Thesis Credits: Masters
620128 1-16 cr

8888 Thesis Credits: Doctoral (max 18 cr per qtr)
419403 1-36 cr

VETERINARY PARASITOLOGY (VPar)

(VPar)

8777 Thesis Credits: Masters
917963 1-16 cr

8888 Thesis Credits: Doctoral (max 18 cr per qtr)
813954 1-36 cr

VETERINARY PATHOBIOLOGY (VPB)

(VPB)

Veterinary Medicine

5000 Veterinary Hospital Necropsy (prereq #) (S-N only)
917817 O'Leary, Hayden, others, 2 cr

5001 Clinical Hematology and Cytology (prereq #) (S-N only)
720041 2 cr

5002 Clinical Microbiology (prereq #) (S-N only)
822248 -1 LECT Ward, 2 cr
★REC

5400 Laboratory Animal Medicine (prereq #) (A-F only)
817888 1000-1150 T, VetS 145, Manning, Gillett, others, 2 cr

- 5504 Veterinary Clinical Pathology** (prereq 5503 or #)
★LECT 1300-1350 WTh, 1500-1550 F, VetS 145, Perman, Weiss, 4 cr
713882 -1 LAB 1400-1650 Th, VetS 225, 229
722971 -2 LAB 1400-1650 W, VetS 225, 229
- 5524 Pathology of Spontaneous Diseases of Poultry** (prereq #)
619075 Waiser, 3 cr
- 5533 Directed Studies in Veterinary Pathobiology** (prereq regis vet med, 4th yr, #)
521188 Johnson K.H., Hayden, others, ar cr
- 5602 Veterinary Parasitology II** (prereq 5601 or #)
★LECT 1300-1350 MTF, VetS 145, Stromberg, 4 cr
618766 -1 LAB 1400-1450 M, VetS 145, 1400-1650 M, VetS 225, 229
120120 -2 LAB 1400-1450 T, VetS 145, 1400-1650 T, VetS 225, 229
- 5702 Pathogenic Bacteria and Fungi** (prereq 5701 or equiv or #) (A-F only)
★LECT 0900-0950 MWF, AnScVM 135, Loken, Maheswaran, 5 cr
414086 -1 LAB 1000-1150 MWF, VetS 325
- 5704 Avian Diseases** (prereq 5503, 5703 or #)
519795 0800-0950 T, 1100-1150 Th, VetS 145, Newman, 3 cr
- 5707 Poultry Disease Control** (not open to vet med students; prereq Biol 1106, AnSc 1100, VPB 3103 or equiv)
219838 0800-0950 TTh, VetS 215, Newman, 3 cr
- 5748 Problems in Veterinary Microbiology and Public Health** (prereq 5703 or equiv, #)
214381 ar cr
- 8416 Colloquium on Current Topics in Avian Immunology** (prereq MicB 5216) (A-F only)
921964 Sivanandan, Nagaraja, 2 cr
- 8500 Seminar: Veterinary Pathology** (prereq 5503, #)
116987 O'Leary, 1-3 cr
- 8504 Seminar: Advanced Veterinary Histopathology** (prereq 5502, 5503, #)
221170 1530-1700 M, VetS 215, Hayden, 1 cr
- 8531 Hospital Pathology** (prereq 5501, 5502, 5503, #)
518193 O'Leary, Hayden, others, 1-2 cr
- 8532 Comparative Neuropathology** (prereq #)
318051 O'Leary, 2 cr
- 8533 Problems: Pathology** (prereq #)
216938 Johnson K.H., Hayden, others, ar cr
- 8534 Problems: Clinical Pathology** (prereq #)
019140 Perman, Weiss, ar cr
- 8611 Immunity to Parasitic Infections: Protozoa and Arthropods** (prereq parasitology immunology, #)
120960 Stromberg, 3 cr
- 8648 Problems in Veterinary Parasitology** (prereq 5602, #)
516296 Stromberg, ar cr
- 8700 Seminar: Veterinary Microbiology** (prereq #)
915159 Sharma J., 1 cr
- 8720 Advanced Veterinary Microbiology** (prereq #)
419305 ar cr
- 8724 Advanced Veterinary Diagnostic Microbiology** (prereq #)
416999 -1 LECT Ward, ar cr
★REC

VETERINARY PATHOLOGY (VPth)

- 8777 Thesis Credits: Masters**
017176 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
117029 1-36 cr

VETERINARY SURGERY, RADIOLOGY, AND ANESTHESIOLOGY (VSRA)

- 8777 Thesis Credits: Masters**
922886 1-16 cr

- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
914612 1-36 cr

VOCATIONAL EDUCATION (VoEd)

Vocational And Technical Education Education

- 5274 Two-Year Postsecondary Institutions** (§EdAd 5274, 8274) (A-F only)
044538 1400-1630 Th, PeikH 31, Turner, 3 cr (Mpls)
- 5300 Philosophy and Practice of Vocational Education** (A-F only)
521451 1605-1850 W, VoTech R385, Rossmann, 3 cr
- r5750 Training in Industry and Business** (A-F only)
843844 1830-2205 Th, VoTech R285, Lewis, 4 cr
- r5760 Organization Development in Industry and Business** (A-F only)
714532 1830-2205 W, VoTech R285, McLean, 4 cr
- r5770 Training and Development: Critical Review of Research in Training and Development** (S-N optional)
643845 1830-2205 W, VoTech R275, Stone, 4 cr
- r5780 Internship: Training and Development** (max 15 cr; prereq 5750) (S-N optional)
519229 -1 Swanson R., ar cr
314081 -2 McLean, ar cr
- r5900 Using Vocational Education Research** (prereq admission to grad-level program or #) (A-F only)
715051 1605-1850 T, VoTech R370, Leske, 3 cr
- r8120 History and Philosophy of Vocational Education** (prereq 8110 or #) (A-F only)
222500 -1 0935-1220 W, VoTech R380, Thomas, 3 cr
615446 -2 1605-1850 W, VoTech R280, Thomas, 3 cr
- 8610 Internship in Vocational Education** (prereq Δ) (S-N only)
213425 1-15 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
818104 1-36 cr
- r8910 Positivistic Research in Vocational Education** (prereq 5900 or equiv, 8110 or equiv) (A-F only)
721335 1605-1850 T, VoTech R285, Brown, 3 cr
- r8920 Interpretive and Critical Science Research in Vocational Education** (prereq 5900 or equiv, 8110 or equiv)
723652 1530-1815 M, VoTech R285, Plihal, 3 cr

WOMEN'S STUDIES (WoSt) Liberal Arts

- r1002 Introduction to Women's Studies**
★LECT 0905-0955 MWF, FordH 155, Dietzel, Pagenhart, (registration in rec sections may be adjusted during the first week of class)
843861 -1 REC 1220-1310 T, Phys 210, 4 cr
643862 -2 REC 1115-1205 W, EE/CSci 2260, 4 cr
443863 -3 REC 1325-1415 W, FordH 60, 4 cr
243864 -4 REC 0905-0955 Th, PeikH 315, 4 cr
219810 -5 REC 1010-1100 Th, WullH 130, 4 cr
621828 -6 REC 1325-1415 Th, FordH 150, 4 cr
- r3104 Feminist Expository Writing** (§Comp 3051; prereq fulfillment of writing prac requirement, jr, WoSt maj or min or Δ)
043860 1015-1130 MW, AkerH 215, 4 cr
- r3200 Topics in Women's Studies: Women's Psychologies** (max 12 cr)
323654 1430-1545 TTh, FordH 349, Faunce, 4 cr

- r3202 Biology of Women** (prereq Biol 1101 or Phsl 1001 or #)
621621 1820-2050 M, FordH 155, Zita, 4 cr
- r3306 U.S. Minority Women Writers** (prereq 8 cr WoSt or 4 cr WoSt and 4 cr lit or Amer, Black, Chicano or Native Amer studies)
317594 1115-1230 TTh, FordH 285, Reyes, 4 cr
- r3406 Women, Race and Class in the U.S.** (prereq 1001 or 1002 or #)
845190 1220-1335 MW, FordH 150, Albrecht, 4 cr
- r3901 Senior Seminar** (prereq jr or sr WoSt maj)
744243 1330-1600 T, FordH 175, Reyes, 4 cr
- 3970 Directed Studies** (prereq #, Δ, □)
616919 1-15 cr
- 3980 Directed Instruction** (prereq #, Δ, □)
918370 1-5 cr
- r5206 Women and Madness in History and Literature** (prereq jr)
843858 0945-1100 TTh, FordH 285, Joeres, 4 cr
- r5300 Topics: Literature by 20th-Century Japanese Women** (§CLit 5910, sec 3, Jpn 5166; max 12 cr)
143879 1245-1400 TTh, FolH 134, Monnet, 4 cr
- r5501 Women and the Law**
144580 0945-1100 TTh, BlegH 115, Balos, 4 cr
- r5502 Women and Public Policy** (prereq 1001, 1002 or #)
821035 1430-1545 TTh, HHHctr 25, Nelson, 4 cr
- 5970 Directed Studies** (max 12 cr; prereq #, Δ, CLA approval)
313447 1-5 cr
- 8511 Feminist Theory and Method** (prereq 8510, #)
818071 1330-1600 M, FordH 175, Messer-Davidow, 4 cr
- r8710 Feminist Research** (prereq 8511, #)
643859 1330-1600 Th, FordH 447, Geiger, 4 cr
- 8970 Directed Study** (prereq completion of courses approved by faculty supervisor and director of grad studies)
113677 1-8 cr

YOUTH DEVELOPMENT AND RESEARCH (YoSt) Human Ecology

- r3100 Introduction to Youthwork**
517769 1315-1430 MW, McNH 198, Walker, 3 cr
- r5120 Independent Study in Youth Studies** (max 12 cr; prereq #)
715891 Baizerman, Beker, others, ar cr
- r5133 Youth and Health** (prereq 5331, Soc 1001, CPsy 5303, PubH 3004 or #)
323055 0905-1205 T, PWB 6224, Baizerman, 3 cr (Mpls)
- r5202 Youthwork Practice: Internship and Seminar** (prereq 5201)
122859 0905-1105 Th, McNH 386A, Burnison, 4 cr
- 8002 Advanced Seminar in Youth Studies** (prereq #)
118514 Baizerman, Beker, 3 cr

ZOOLOGY (Zool) Biological Sciences

- 8777 Thesis Credits: Masters**
514323 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
120859 1-36 cr
- 8970 Seminar**
614930 0 cr
- 8980 Special Research**
223467 ar cr
- 8990 Research**
719102 ar cr

COURSES OPEN TO EXTENSION STUDENTS

General Information—The following two lists indicate those day school courses which are open to Extension students. You should use these lists with the course listings which start on page 31.

- Currently enrolled day school students may not register through Extension for day school courses.
- Extension students must meet the same prerequisites as day school students.
- No 8000-level courses are available under this program.
- Occasionally, courses not on these lists are also open to Extension students with written permission from the instructor and the department offering the course.

tion students with written permission from the instructor and the department offering the course.

Registration—If you wish to enroll in these courses through Extension Classes, you must follow the steps outlined in the brochure "A Guide for Registering Through Extension for Day School Classes" or the section on registration procedures in the 1991-92 *Extension Classes Bulletin*. Call 624-2388 for a bulletin, registration forms, and permission slips. The general Extension Classes information number is 625-3333. Information on counseling and program advising is available at 625-2500.

A few spaces are available without written permission in any of the courses listed below which are limited. (Limited-enrollment courses have R before the course number in Section 3 of this Class Schedule.) After those spaces are taken, written permission from the instructor is required. Courses which are not limited require written permission only after the first week. Call 626-1883 if you have any questions about permission requirements.

Aerospace Studies: All courses
 Afro-American Studies: All courses
 Agricultural and Applied Economics: All courses
 Agricultural Education: All courses *except* 3031, 5090, 5095
 Agronomy and Plant Genetics: All courses
 American Indian Studies: All courses
 Ancient Near Eastern: All courses *except* 3790, 3970, 5790, 5970
 Animal Science: All courses
 Anthropology: All courses
 Arabic: All courses
 Astronomy: All 1000-level courses
 Biochemistry: All courses
 Biology: 1008, 1009, 1101, 1103 sec 1 (See other list also.)
 Business and Marketing Education: All courses *except* 5600, 5603, 5604, 5605, 5606, 5900
 Chicano Studies: All courses
 Chinese: All courses
 Classics: All courses *except* 3790, 3970, 5790, 5794, 5970
 Comparative Literature: All courses

Dance: All courses *except* 3901
 Danish: All courses
 Dutch: All courses
 East Asian Studies: All courses
 Ecology, Evolution, and Behavior: All courses
 Economics: All courses *except* 3021, 3031, 3041, 3101, 3102, 3103, 3105, 3501, 3601, 3701, 3801, 5021, 5031, 5041, 5301, 5307, 5331, 5337, 5401, 5429, 5531, 5631, 5701, 5721, 5821
 Educational Policy and Administration: All courses
 English Language & Literature: All courses *except* 3960 and all courses reserved for English majors only (See other list also.)
 Entomology: All courses
 Family Practice and Community Health: 5516, 5585
 Family Social Science: All courses *except* 5249
 Finnish: All courses
 Fisheries and Wildlife: All courses
 Food Science and Nutrition: All courses
 Forest Resources: All courses *except* those offered at Cloquet or Itasca
 French: All courses
 Geography: All courses
 German: All courses
 Greek: All courses *except* 3790, 3970, 5790, 5970
 Hebrew: All courses *except* 3790, 3970, 5790, 5970
 History: All courses *except* 3955, 3961, 5500 and above
 History of Medicine: All courses
 Home Economics Education: All courses *except* 5320, 5406, 5600
 Humanities: All courses
 Industrial Education: 1110, 1120, 1130, 5300, 5301, 5303, 5330, 5360
 Industrial Engineering/Operations Research: All 3000-level courses (See other list for 5000-level courses.)
 Italian: All courses

Japanese: All courses
 Jewish Studies: All courses *except* 3790, 3970, 5790, 5970
 Landscape Architecture: 1023, 1024, 3001, 3065
 Latin: All courses *except* 3790, 3970, 5790, 5970
 Latin American Studies: All courses
 Learning and Academic Skills: All courses
 Linguistics: All courses
 Mechanical Engineering: All 3000-level courses (See other list for 5000-level courses.)
 Middle Eastern Studies: All courses
 Military Science: All courses
 Modern Greek: All courses *except* 3790, 3970, 5790, 5970
 Naval Science: All courses *except* 1202 (See other list for 1202.)
 Norwegian: All courses
 Persian: All courses
 Philosophy: All courses
 Plant Pathology: All courses
 Polish: All courses
 Political Science: All courses
 Portuguese: All courses *except* 3970 and above
 Psychology: All courses *except* 1004, 1005, and all Honors courses
 Religious Studies: All courses
 Russian: All courses
 Scandinavian: All courses
 Social Work: All courses *except* 5601
 South Asian Studies: All courses
 Spanish: All courses *except* 3970 and above
 Spanish-Portuguese: All courses *except* 3801 and above
 Statistics: All courses
 Swedish: All courses
 Turkish: All courses
 Urban Studies: All courses
 Vocational Education: All courses *except* 5750, 5760, 5790.

A Joint Day/Extension Special Permission slip, signed by the instructor and department office, is required in any of the courses listed below which are limited. (Limited-enrollment courses have R before the course number in Section 3 of this Class Schedule.) Courses which are not limited require written permission only after the first week. Call 626-1883 if you have any questions about permission requirements.

Aerospace Engineering and Mechanics: All courses
 American Studies: All courses
 Ancient Studies: 5120
 Architecture: All courses *except* 3060-3066, 3081-3083, 3091-3093, 3511, 5111-5113, 5121-5123, 5800 and above
 Art History: All courses

Biology: All courses *except* 1008, 1009, 1101, 1103 sec 1 (See other list for 1008, 1009, 1101, 1103 sec 1.)
 Civil Engineering: All courses
 Clinical Laboratory Science: All courses
 Communication Disorders: All courses
 Comparative Studies in Discourse and Society: All courses
 Design: 1501, 5507, 5514
 English Creative and Professional Writing: All 5000-level courses
 English Language and Literature: 3960 and all courses reserved for English majors only (See other list also.)
 General College: All courses *except* 0615-0618, 0643, 1041, 1043, 1045, 1051, 1086, 1365, 1374, 1421, 1454, 1483, 1537
 Genetics and Cell Biology: All courses
 Geology: All courses
 Horticultural Science: All courses
 Industrial Engineering/Operations Research: All 5000-level courses (See other list for 3000-level courses.)

International Relations: All courses *except* 3981
 Journalism and Mass Communication: 3614, 3796
 Mathematics: All courses
 Mechanical Engineering: All 5000-level courses (See other list for 3000-level courses.)
 Music: All courses (Does not include Applied Music courses.)
 Music Education: All courses
 Naval Science: 1202 (See other list also.)
 Plant Biology: All courses
 Public Affairs: All courses *except* 5002, 5021
 Public Health: All courses *except* 5150, 5621, 5649, 5703, 5704, 5707, 5713, 5720, 5723, 5728, 5735, 5736, 5738, 5739, 5744, 5745, 5752, 5753, 5757, 5760, 5794, 5906
 Rhetoric: All courses
 Sociology: All courses *except* 1004, 3201, 3501, 3503, 3802, 5161, 5705
 Speech-Communication: All courses
 Textiles and Clothing: All courses
 Theatre: All courses *except* 5100
 Youth Development and Research: 5120

FINAL EXAMINATION SCHEDULES

To find when the final exam for each of your courses is scheduled, do the following:

1. Determine the **college through which each of your courses is offered.** (To determine the college, see the last line under the department heading in the course offerings). Remember: It is the college offering the course that is important, not your college of enrollment. Schedule A, on this page, is for all courses offered through Education, Liberal Arts, Health Sciences, Dentistry, and Public Affairs. All other courses use Schedule B, on the next page.
2. Determine the **beginning time** for each of your courses using the following guidelines:
 - Use the lecture beginning time for your course rather than the lab or recitation times.
 - Each range of beginning times (0800-0859, 0900-0959, etc.) is subdivided into MWF and TTh exam times. Use MWF if your course meets for more than three days per week or if it meets on unusual days. For example, courses that meet MWThF or TWTh or TF would all follow the MWF exam time.
 - If your course meets at different times on different

days, use the day earliest in the week. A course meeting 0905-1100 T, 0800-0850 Th, for example, would follow the 0900-0959 TTh exam time.

3. Read across to find the time and day for your final examination using the beginning time for the course and the correct schedule (A or B).
4. Check the list of common exams on the next page to see if any of your courses are listed there. Common examination times *always* take precedence over schedules A and B.
5. Ask your instructor for confirmation of your exam time. Instructors may schedule 3-hour examinations for courses meeting four or more days a week. Instructors may also, with college approval in a very limited number of circumstances, request a change in exam time. See Examination Conflicts, on the next page, for information on conflicts in your final exam schedule.

NOTE: These final examination schedules do not apply to courses offered primarily to students registered in the colleges of Dentistry, Pharmacy, and Veterinary Medicine, Law School, and Medical School, or to 8000-level courses that have no regularly scheduled classrooms.

WINTER QUARTER EXAMS

SCHEDULE A: Winter 1992

Courses offered in Colleges of Education and Liberal Arts, *Health Sciences, *Dentistry, and Public Affairs

CLASS BEGINS:	EXAM TIME:	CLASS BEGINS:	EXAM TIME:
0800-0859 MWF	1030-1230 Thursday, March 19	1200-1259 TTh	1330-1530 Saturday, March 21
0800-0859 TTh	0800-1000 Thursday, March 19	1300-1359 MWF	1330-1530 Thursday, March 19
0900-0959 MWF	0800-1000 Saturday, March 21	1300-1359 TTh	0800-1000 Tuesday, March 17
0900-0959 TTh	1600-1800 Wednesday, March 18	1400-1459 MWF	0800-1000 Friday, March 20
1000-1059 MWF	1330-1530 Tuesday, March 17	1400-1459 TTh	1030-1230 Friday, March 20
1000-1059 TTh	1030-1230 Tuesday, March 17	1500-1559 MWF	1330-1530 Friday, March 20
1100-1159 MWF	0800-1000 Wednesday, March 18	1500-1559 TTh	1600-1800 Friday, March 20
1100-1159 TTh	1330-1530 Wednesday, March 18	0800-0859 S	0800-1000 Saturday, March 21
1200-1259 MWF	1600-1800 Saturday, March 21	1000-1059 S	1030-1230 Saturday, March 21

*Courses offered primarily to students other than medical or dental students.

Courses which begin anytime from 1730 to 1800 will start at 1815 during exam week.

SCHEDULE B: Winter 1992
**Courses offered in Colleges of Agriculture, Architecture and Landscape
 Architecture, Biological Sciences, Human Ecology, and Natural Resources, General
 College, Carlson School of Management, and Institute of Technology**

CLASS BEGINS:	EXAM TIME:	CLASS BEGINS:	EXAM TIME:
0800-0859 MWF	1030-1230 Thursday, March 19	1200-1259 TTh	1330-1530 Saturday, March 21
0800-0859 TTh	0800-1000 Thursday, March 19	1300-1359 MWF	1600-1800 Thursday, March 19
0900-0959 MWF	1030-1230 Saturday, March 21	1300-1359 TTh	0800-1000 Tuesday, March 17
0900-0959 TTh	1600-1800 Wednesday, March 18	1400-1459 MWF	0800-1000 Friday, March 20
1000-1059 MWF	1600-1800 Tuesday, March 17	1400-1459 TTh	1030-1230 Friday, March 20
1000-1059 TTh	1030-1230 Tuesday, March 17	1500-1559 MWF	1330-1530 Friday, March 20
1100-1159 MWF	1030-1230 Wednesday, March 18	1500-1559 TTh	1600-1800 Friday, March 20
1100-1159 TTh	1330-1530 Wednesday, March 18	0800-0859 S	0800-1000 Saturday, March 21
1200-1259 MWF	1600-1800 Saturday, March 21	1000-1059 S	1030-1230 Saturday, March 21

Courses which begin anytime from 1730 to 1800 will start at 1815 during exam week.

Winter Common Examinations—All sections of the following courses are examined together at the time indicated.

Monday, March 16

Acct 1050—1030-1230
 BFin 3000—1030-1230
 Biol 1009, 1009H, 1101—1030-1230
 BLaw 3058—0800-1000
 GC 0611, 0615, 0616, 0617, 0618, 0621, 0625, 0631, 0641,
 0643—1030-1230
 IDSc 1010, 3030—0800-1000
 Math 1008—1330-1530
 Math 1111, 1131, 1142, 1201, 1211, 1221, 1241, 1421H,
 3211, 3212, 3213, 3221, 3311, 3321, 3331, 3511H,
 3521H, 3531H—1330-1630
 Psy 1001—1900-2100
 PubH 3003—1830-2130

Tuesday, March 17

Econ 1102, 1102H—1830-2130
 Ger 1101, 1102, 1103—1830-2030
 Span 1101, 1102, 1103, 1104, 1105, 1106—1830-2030

Wednesday, March 18

CSci 3101, 3102—1830-2130
 Econ 1101, 1101H—1830-2130

Rooms—Examinations except common examinations are given in the regularly scheduled classroom unless your instructor arranges for and announces a different room. Note to instructors: See Regulations Regarding Examinations, on page 116.

Examination Scheduling Conflicts—You are required to take final examinations at the times shown. However, if you have examination conflicts or three exams within a 16-hour period, you may request adjustment with your college office and with your instructor. Such a request must be presented at least two weeks before the examination period begins.

If you miss a final, an I, an F, or an N is recorded, depending upon your standing at the time. To make up the exam, you must obtain the instructor's permission.

SPRING QUARTER EXAMS

SCHEDULE A: Spring 1992 Courses offered in Colleges of Education and Liberal Arts, *Health Sciences, *Dentistry, and Public Affairs

CLASS BEGINS:	EXAM TIME:	CLASS BEGINS:	EXAM TIME:
0800-0859 MWF	0800-1000 Friday, June 12	1200-1259 TTh	1600-1800 Tuesday, June 9
0800-0859 TTh	1030-1230 Friday, June 12	1300-1359 MWF	1600-1800 Friday, June 12
0900-0959 MWF	1030-1230 Tuesday, June 9	1300-1359 TTh	1030-1230 Wednesday, June 10
0900-0959 TTh	1330-1530 Thursday, June 11	1400-1459 MWF	1030-1230 Saturday, June 13
1000-1059 MWF	1600-1800 Wednesday, June 10	1400-1459 TTh	0800-1000 Saturday, June 13
1000-1059 TTh	0800-1000 Wednesday, June 10	1500-1559 MWF	1600-1800 Saturday, June 13
1100-1159 MWF	1030-1230 Thursday, June 11	1500-1559 TTh	1330-1530 Saturday, June 13
1100-1159 TTh	1600-1800 Thursday, June 11	0800-0859 S	0800-1000 Saturday, June 13
1200-1259 MWF	1330-1530 Tuesday, June 9	1000-1059 S	1030-1230 Saturday, June 13

*Courses offered primarily to students other than medical or dental students.

Courses which begin anytime from 1730 to 1800 will start at 1815 during exam week.

SCHEDULE B: Spring 1992 Courses offered in Colleges of Agriculture, Architecture and Landscape Architecture, Biological Sciences, Human Ecology, and Natural Resources, General College, Carlson School of Management, and Institute of Technology

CLASS BEGINS:	EXAM TIME:	CLASS BEGINS:	EXAM TIME:
0800-0859 MWF	0800-1000 Friday, June 12	1200-1259 TTh	1600-1800 Tuesday, June 9
0800-0859 TTh	1030-1230 Friday, June 12	1300-1359 MWF	1330-1530 Friday, June 12
0900-0959 MWF	0800-1000 Tuesday, June 9	1300-1359 TTh	1030-1230 Wednesday, June 10
0900-0959 TTh	1330-1530 Thursday, June 11	1400-1459 MWF	1030-1230 Saturday, June 13
1000-1059 MWF	1330-1530 Wednesday, June 10	1400-1459 TTh	0800-1000 Saturday, June 13
1000-1059 TTh	0800-1000 Wednesday, June 10	1500-1559 MWF	1600-1800 Saturday, June 13
1100-1159 MWF	0800-1000 Thursday, June 11	1500-1559 TTh	1330-1530 Saturday, June 13
1100-1159 TTh	1600-1800 Thursday, June 11	0800-0859 S	0800-1000 Saturday, June 13
1200-1259 MWF	1330-1530 Tuesday, June 9	1000-1059 S	1030-1230 Saturday, June 13

Courses which begin anytime from 1730 to 1800 will start at 1815 during exam week.

Spring Common Examinations—All sections of the following courses are examined together at the time indicated.

Monday, June 8

Acct 1050—1030-1230

BFin 3000—1030-1230

Biol 1009, 1009H, 1101—1030-1230

BLaw 3058—0800-1000

GC 0611, 0615, 0616, 0617, 0618, 0621, 0625, 0631, 0641, 0643—1030-1230

IDSc 1010, 3030—0800-1000

Math 1008—1330-1530

Math 1111, 1131, 1142, 1201, 1211, 1221, 1241, 1431H,

3211, 3212, 3213, 3221, 3311, 3321, 3331, 3511H, 3521H, 3531H—1330-1630

Psy 1001—1900-2100

PubH 3001—1830-2130

Tuesday, June 9

CSci 3101, 3102—1830-2130

Econ 1101, 1101H—1830-2130

Wednesday, June 10

Econ 1102, 1102H—1830-2130

Ger 1101, 1102, 1103—1830-2030

Span 1101, 1102, 1103, 1104, 1105, 1106—1830-2030

SCHEDULE COMMITTEE REGULATIONS REGARDING EXAMINATIONS

1. There shall be no variations from the University final examination schedule except by concurrence of the dean of the college and the director of scheduling. **This prohibition also precludes moving a final examination from a scheduled time to study day or to the last or earlier meetings of the class**, except laboratory final examinations which cannot be held in accordance with the regular final examination schedule.

All department requests for adjustment of final examination hours should be made on Form A163 by February 21 to permit publication of the change and orderly consideration of hardships. Additional common examinations may be requested on the same form, which is available in department offices.

2. Instructors requesting any variation from the official examination schedule must agree to give a special make-up examination to any student having examination conflicts or three examinations in one calendar day because of the change in hours.

3. Arranged examinations and authorized variations in published hours shall conform with the hour-periods shown in the examination schedules.

4. **No variations from the University final examination schedule will be considered official until published in the Official Daily Bulletin in the *Minnesota Daily*.**

5. Each college shall assume responsibility for making arrangements to spread out examinations for students who have more than two examinations scheduled in one day.

6. Since providing adequate seating for final examinations is a continuing problem, departments are encouraged to limit final examinations to 2 hours. Courses meeting four or more days a week may give 3-hour examinations, however, *provided the instructor notifies the Scheduling Office of her or his intention to do so on an A123 form*. For winter quarter, three hour examinations will be scheduled on the respective day the examinations would be given: March 17 (1330-1630); March 18 (0830-1130); March 19 (0830-1130, 1330-1630); March 20 (0830-1130, 1330-1630); March 21 (0830-1130, 1330-1630).

Departments are also encouraged to request alternate seating only when it is necessary for proper administration of the exam. Requests for rooms for alternate seating must be submitted by the department office on an A123 form.

Exam times and rooms for courses which begin from 0700-0759 or anytime after 1600 will not be scheduled unless they are requested on an A123 form.

All A123 forms must be received in the Scheduling Office (150 Williamson Hall for Minneapolis rooms, 130 Coffey Hall for St. Paul rooms) on or before February 7. Notification of room assignments for all A123 forms received by February 7 will be sent to departments on or before March 4.

7. University Senate policy decrees that no extracurricular events which *require* the participation of students may be scheduled from the beginning of study day to the end of finals week. Exceptions to this policy may be granted by the Senate Committee on Educational Policy. The Senate advises all faculty members that students who are unable to complete course requirements during finals week shall be provided an alternative and timely opportunity to do so.

WINTER QUARTER GRADES

Academic Staff—Grades are due in the Office of the Registrar, 150 Williamson Hall (130 Coffey Hall for St. Paul units) within 72 hours after the examination. Grades for this quarter are due beginning Friday, March 20; the grades for the last examinations are due by 8:30 a.m. on Wednesday, March 25. Messenger service is provided in Minneapolis. Please call 625-9864 when grades are ready. *Do not send grades by mail.*

Students—Winter quarter grades, in audit transcript form, will be available from March 30–April 3 in the Great Hall Annex of Coffman Memorial Union for students registered in the College of Liberal Arts, College of Education, General College, University College, School of Nursing, Graduate School, Institute of Technology, and College of Architecture and Landscape Architecture. Hours in Coffman for grade distribution are: 8–6, March 30; 8–5:30, March 31–April 1; and 8–4, April 2–3. Audit transcripts for students in St. Paul colleges will be available in 130 Coffey Hall beginning March 30. Audit transcripts for students in all remaining colleges will be distributed through college offices. You must show identification to receive grades.

NOTE: During grade distribution (March 30–April 3), unofficial transcripts will not be available in Williamson or Coffey Halls.

GRADUATION

Most colleges expect their students to apply for graduation at least two quarters before graduation. Check with your college office for college deadlines.

For winter quarter graduation, most undergraduates and students in professional programs (e.g., MEd.) must submit an Application for Degree form to the Student Relations Unit, 150 Williamson Hall (130 Coffey Hall for St. Paul students) by February 11. Your application *must* include a \$25 graduation fee (check or money order only). If you fail to apply by February 11, you will not be able to graduate until the following quarter.

For information on Graduate School graduation application and commencement deadlines, see page 8.

GRADING POLICIES AND PRACTICES

1. There are two grading systems, A-B-C-D-F and S-N. Each college (meaning also each separate school or institute) will determine to what extent and under what conditions each system may be available to its students and faculty. Any college may specify what courses or what proportion of courses taken by its students or by its prospective students must be on a particular grading system.
2. The S-N system represents a self-contained alternative to the A-B-C-D-F system, and the two may not be combined for a particular student in a particular course. Students may receive symbols only from the grading system under which they are registered.

3. When the two grading systems are available, students must declare a choice of systems as part of their initial registration. The choice may not be changed after the end of the second week of classes (first week in summer session).

4. The following symbols, as defined, may be used on the University's official transcript, the chronological quarterly record of the student's registrations, after the end of the second week of classes (end of first five days of classes for summer sessions). The official transcript is released by the University only at the student's request and is certified and signed by the University Registrar.

A—Represents achievement that is outstanding relative to the level necessary to meet course requirements.

B—Represents achievement that is significantly above the level necessary to meet course requirements.

C—Represents achievement that meets the basic course requirements in every respect.

D—Represents achievement that is worthy of credit even though it does not fully meet the basic course requirements in every respect.

F—Represents performance that fails to meet basic course requirements and is unworthy of credit.

S—Represents achievement that is deemed by the instructor to be satisfactory for the course in which the student is registered. This definition is intended to imply that the standards for S may vary from one course to another.

N—Assigned when the student does not earn an S and is not assigned an I. It stands for no credit.

W—Entered by the Office of the Registrar when a student officially withdraws from a course, in accordance with procedures established by the student's college.

I—Assigned by an instructor to indicate Incomplete, in accordance with provisions announced in class at the beginning of the quarter, when in the instructor's opinion there is a reasonable expectation that the student can complete successfully the work of the course. An I that is not made up by the end of the next quarter of residence becomes an F if the course was taken under the A-F grading system or an N if the course was taken under the S-N grading system. Instructors may set dates within the quarter for make-up examinations. In the Graduate School, in master's degree programs in undergraduate colleges, and in the doctor of medicine programs, an I remains until changed by the instructor. When an I is changed to another symbol, the I is removed from the record.

X—Reported to indicate that a student may continue in a sequence course in which a grade cannot be determined until the full sequence of quarters is completed. The instructor will submit a grade for each X when the student has completed the sequence.

In connection with all achievement symbols, but especially

in connection with S, the instructor is obligated to define to a class as explicitly as possible in its early meetings the performance that will be necessary to earn each.

V—Indicates registration as an auditor or visitor, a no credit, no grade registration.

T—Posted (in front of the original grade, if any) to indicate credits transferred from another institution. Credits and grades for courses transferred from another institution are *not* included in the calculation of the University grade point average. On occasion, credits transferred from one campus or college of the University to another may be placed in parenthesis—such bracketing indicates the course is not included in the calculation of the grade point average.

In the doctor of medicine program, O (Outstanding) and E (Excellent) may be used with S-N. In the doctor of veterinary medicine program, O (Outstanding) may be used with S-N.

5. If a student is permitted by the college to repeat a course, all grades are reported on the official transcript.
6. Any college may set special scholastic or other standards for registration in a particular course, for scholastic probation, for admission, for honors, for continued residence, for degrees, etc.
7. The grading system described here became effective fall quarter 1986, thereby replacing all previous University systems, but its definitions and provisions may not be applied retroactively to any grades or symbols recorded before that time.
8. Each transcript will be clearly identified as to the procedures under which it was produced and will be maintained and released under policies in effect during the time of registration.
9. The Assembly Committee on Student Academic Services has authority to grant to individual colleges permission to use experimental grading methods outside the provisions of this official University system, for a specified period,

provided that the proposals do not interfere significantly with the registration options of students from other colleges and programs. Such experimental systems shall be reported for information to the Twin Cities Campus Assembly as soon as permitted and, after the specified period, shall be re-evaluated, to be either extended, discontinued, or, with Assembly approval, made a regular system for the unit concerned.

10. The Assembly Committee on Student Academic Services is charged with resolving disputes between and among colleges should procedures developed under this grading system result in unacceptable complications for students registering across college lines. The committee may bring to the Assembly issues it is unable to resolve informally through negotiation, with recommendations for resolution.

ACCESS TO STUDENT EDUCATIONAL RECORDS

In accordance with regent's policy on access to student records, information about you generally may not be released to a third party without your permission. (Exceptions under the law include state and federal educational and financial aid institutions.) The regent's policy also permits you to review your educational records and to challenge the contents of those records.

Some student information—name, address, telephone number, dates of enrollment and enrollment termination, college and class, major, adviser, academic awards and honors, and degrees earned—is considered public or directory information. You may prevent release of public information outside the University only during your terms of enrollment. To do so, you must notify the records office on your campus.

Students are advised that disciplinary action will be taken if academic records are forged or altered.

The regent's policy, including a directory of student records, is available for review at the information center in Williamson Hall, Minneapolis, and at records offices on other campuses of the University. Questions may be directed to the Office of the Registrar, 150 Williamson Hall (612/625-5333).

TWIN CITIES COURSE DESIGNATORS

A

Acct Accounting
 AdEd Adult and Teacher Education
 AdPy Adult Psychiatry
 AEM Aerospace Engineering and Mechanics
 Afro Afro-American Studies
 AgEc Agricultural and Applied Economics
 AgEd Agricultural Education
 AgEn Agricultural Engineering
 AgET Agricultural Engineering Technology
 Agri Agriculture
 Agro Agronomy and Plant Genetics
 AIM Agricultural Industries and Marketing
 Air Aerospace Studies
 Akka Akkadian
 AmIn American Indian Studies
 AmSt American Studies
 ANE Ancient Near Eastern
 Anes Anesthesiology
 AnPh Animal Physiology
 AnPl Animal and Plant Systems
 AnSc Animal Science
 AnSt Ancient Studies
 Anth Anthropology
 Arab Arabic
 Arch Architecture
 ArEd Art Education
 Arm Aramaic
 Arth Art History
 ArtS Studio Arts
 Ast Astronomy

B

BA Business Administration
 Ben Bengali
 BFin Finance
 BGS Business, Government, and Society
 BioC Biochemistry (College of Biological Sciences)
 Biol Biology
 BLaw Business Law
 BME Business and Marketing Education
 BMEn Biomedical Engineering
 BMSc Biomedical Science
 BPhy Biophysical Sciences

C

CAPS Clinical and Population Sciences
 CAPy Child and Adolescent Psychiatry
 CBio Conservation Biology
 CBN Cell Biology and Neuroanatomy
 CDB Cell and Developmental Biology
 CDis Communication Disorders
 CE Civil Engineering
 CgSc Cognitive Science

Chem Chemistry
 ChEn Chemical Engineering
 Chic Chicano Studies
 Chn Chinese
 ChPh Chemical Physics
 CIE Interfacial Engineering, Center for
 CISy Curriculum and Instructional Systems
 Clas Classics
 CICv Classical Civilization
 CLit Comparative Literature
 CLS Clinical Laboratory Science
 Comp Composition and Communication
 Copt Coptic
 CPsy Child Psychology
 CSci Computer Science
 CSDS Comparative Studies in Discourse and Society
 CSDy Control Science and Dynamical Systems
 CVM Veterinary Medicine

D

Dan Danish
 Dent Dentistry
 Derm Dermatology
 DH Dental Hygiene
 DHA Design, Housing, and Apparel
 Dnce Dance
 Dsgn Design
 Dtch Dutch

E

EAS East Asian Studies
 Econ Economics
 EdAd Educational Administration
 EdPA Educational Policy and Administration
 Educ Education
 EE Electrical Engineering
 EEB Ecology, Evolution, and Behavior
 EEur East European Studies
 Elem Elementary Education
 Endo Endodontics
 Engl English Language and Literature
 EngW English: Creative and Professional Writing
 Ent Entomology
 Entr Entrepreneurship
 EPsy Educational Psychology
 ESL English as a Second Language

F

Fin Finnish
 FIME Fluid Mechanics
 ForP Forest Products
 Fors Forestry

FoSt Foreign Study
 FPAF Family Planning Administration
 FPCH Family Practice and Community Health
 FR Forest Resources
 Fren French
 FrIt French and Italian
 FScN Food Science and Nutrition
 FSMg Foreign Studies Management
 FSoS Family Social Science
 FSSP Foreign Study—SPAN
 FW Fisheries and Wildlife

G

GC General College
 GCB Genetics and Cell Biology
 Gene Genetics
 Geo Geology and Geophysics
 GeoE Geo-Engineering
 Geog Geography
 Ger German
 GPhl Germanic Philology
 Grad Graduate School
 Grk Greek

H

HCol Honors Colloquia
 HE Home Economics
 Hebr Hebrew
 HEEEd Home Economics Education
 HInf Health Informatics
 Hist History
 Hlth School Health Education
 HMed History of Medicine
 Hindi Hindi
 Hort Horticultural Science
 HSci History of Science and Technology
 HSem Honors Seminar
 Hsg Housing
 HSU Health Science Units
 Hum Humanities

I

ID Interdepartmental Study
 IDSc Information and Decision Science
 IEOR Industrial Engineering/Operations Research
 Ind Industrial Education
 InMd Interdisciplinary Medicine
 Ins Insurance
 IntR International Relations
 IofT Institute of Technology
 IR Industrial Relations
 Ital Italian

J

Jour Journalism and Mass Communication
 Jpn Japanese
 JwSt Jewish Studies

K

Kin Kinesiology

L

LA Landscape Architecture
 LaMP Laboratory Medicine and Pathology
 LAS Latin American Studies
 LAsk Learning and Academic Skills
 Lat Latin
 Law Law School
 Ling Linguistics
 LM Logistics Management

M

Mar Marathi
 Math Mathematics
 MatS Materials Science
 MBA Master of Business Administration
 MChm Medicinal Chemistry, Undergraduate
 MdBc Biochemistry (Medical School)
 MdGk Modern Greek
 ME Mechanical Engineering
 Med Medicine
 MedC Medicinal Chemistry
 MedT Medical Technology
 MeSt Medieval Studies
 MetE Metallurgical Engineering
 Mgmt Management
 MicB Microbiology
 MicE Microbial Engineering
 MidE Middle Eastern Studies
 Mil Military Science
 MinE Mining Engineering
 Mktg Marketing
 Mort Mortuary Science
 MSt Museum Studies
 MthE Mathematics Education
 MuEd Music Education
 Mus Music
 MusA Music Applied

N

Nav Naval Science
 Neur Neurology
 Nor Norwegian
 NRES Natural Resources and Environmental Studies
 NSc Neuroscience
 NSu Neurosurgery
 Nurs School of Nursing
 Nutr Nutrition

O

OBio Oral Biology
 Obst Obstetrics and Gynecology
 OCS Off-Campus Study
 OMS Operations and Management Science
 OPat Oral Pathology
 Oph Ophthalmology
 ORad Oral Radiology
 OrSu Orthopaedic Surgery
 OSur Oral and Maxillofacial Surgery
 Otho Orthodontics
 Otol Otolaryngology

P

PA Public Affairs
 Path Pathobiology
 PBio Plant Biology
 PE Physical Education
 Ped Pediatrics
 Pedo Pediatric Dentistry
 Per Persian
 Pero Periodontics
 Phar Pharmacy Practice
 Phcg Pharmacognosy
 Phcl Pharmacology
 Phil Philosophy
 Phm Pharmaceutics
 Phmc Pharmaceutics, Undergraduate
 Phsl Physiology
 Phys Physics
 PIBr Plant Breeding
 PIPa Plant Pathology
 PIPh Plant Physiology
 Plsh Polish
 PMed Physical Medicine and Rehabilitation
 Pol Political Science
 Port Portuguese
 Pros Prosthodontics
 Psy Psychology
 PubH Public Health

R

Rad Radiology
 Rec Recreation, Park, and Leisure Studies
 RelS Religious Studies
 Rhet Rhetoric
 Russ Russian

S

SACS Small Animal Clinical Sciences
 SALL South Asian Languages and Literature
 SAPH Social and Administrative Pharmacy
 ScAg Science in Agriculture
 Scan Scandinavian
 SCAS Soviet Central Asian Studies

SciC Scientific Computation
 SeEd Secondary Education
 Serb Serbo-Croatian
 Skt Sanskrit
 Slav Slavic
 SoAS South Asian Studies
 Soc Sociology
 Soil Soil Science
 Span Spanish
 Spch Speech-Communication
 SPFE Social and Philosophical Foundations of Education
 SpPt Spanish-Portuguese
 Stat Statistics
 Sum Sumerian
 Surg Surgery
 SW Social Work
 Swed Swedish

T

TexC Textiles and Clothing
 Tgen Theriogenology
 Th Theatre Arts
 TRad Therapeutic Radiology
 Turk Turkish
 Tycl Toxicology

U

UC University College
 UrbS Urban Studies
 Urdu Urdu
 Urol Urologic Surgery

V

VB Veterinary Biology
 VDM Veterinary Diagnostic Medicine
 VMed Veterinary Medicine, Graduate
 VMic Veterinary Microbiology
 VoEd Vocational Education
 VPar Veterinary Parasitology
 VPB Veterinary Pathobiology
 VPth Veterinary Pathology
 VSRA Veterinary Surgery, Radiology, and Anesthesiology

W

WRes Water Resources
 WoSt Women's Studies

Y

YoSt Youth Development and Research

Z

Zool Zoology

DIRECTORY FOR DEPARTMENT OFFICES

A

Adult and Teacher Education PeikH 175 (625-5524)
 Aerospace Engineering and Mechanics AkerH 107 (625-8000)
 Aerospace Studies Armory 3 (624-2884)
 Afro-American Studies SocSci 808 (624-9847)
 Agricultural and Applied Economics ClaOff 231 (625-1222)
 Agricultural Education VoTech 320 (624-2221)
 Agricultural Engineering AgEng 213 (625-7733)
 Agronomy BorH 411 (625-7773)
 American Indian Studies ScottH 102 (624-1338)
 American Studies ScottH 104 (624-4190)
 Anesthesiology Mayo B515 (624-9990)
 Animal Science PetH 120 (624-2722)
 Anthropology FordH 215 (625-3400)
 Architecture Arch 110 (624-7866)
 Art Education WullH 135 (625-8021)
 Art History JonesH 107 (624-4500)
 Astronomy Phys 356 (624-0211)

B

Biochemistry (BioC) GortL 140 (624-7755)
 Biochemistry (Med) MlrdH 4-225 (625-6100)
 Biological Sciences SnH 123 (624-9717)
 Biology KoltH P180 (625-6636)
 Business and Marketing Education VoTech 420 (624-7799)

C

Cell Biology and Neuroanatomy JacH 4-135 (624-1123)
 Chemical Engineering and Materials
 Science AmundH 151 (625-1313)
 Chemistry SmithH 115 (624-0026)
 Chicano Studies ScottH 102 (624-6309)
 Child Psychology ChDev 104 (624-6599)
 Civil and Mineral Engineering CivMinE 122 (625-5522)
 Classical and Near Eastern Studies FolH 331 (625-5353)
 Clinical and Population Sciences VetTchHos 225 (625-7755)
 Communication Disorders ShevH 115 (624-3322)
 Comparative Literature FolH 350 (624-8099)
 Composition and Communication LindH 209 (625-2888)
 Computer Science EE/CSci 4-192 (625-4002)
 Curriculum and Instruction PeikH 125 (625-6372)

D

Dance NorrisH 106 (624-5060)
 Dental Hygiene MoosT 5-164 (625-9121)
 Dentistry MoosT 15-209 (625-9982)
 Dermatology PWB 4-240 (625-8625)
 Design, Housing, and Apparel McNH 240 (624-9700)

E

East Asian Studies FolH 105 (624-0007)
 Ecology, Evolution, and Behavior Zoology 109 (625-4466)
 Economics Mgmt/Econ 1035 (625-6353)
 Educational Administration PeikH 275 (624-1006)
 Educational Psychology BuH 202 (624-3543)
 Electrical Engineering EE/CSci 4-178 (625-3300)
 Elementary Education PeikH 125 (625-6372)
 English LindH 207 (625-3363)
 Entomology HodsonH 219 (624-3636)

F

Family Practice, Community Health PWB 6-240 (624-2622)
 Family Social Science McNH 290 (625-1900)
 Fisheries and Wildlife HodsonH 200 (624-3600)
 Food Science and Nutrition FScN 225 (624-1290)
 Forest Products KaufL 203 (624-9219)
 Forest Resources GrnH 115 (624-3400)
 French and Italian FolH 260 (624-4308)

G

General College ApH 41 (625-3339)
 Genetics and Cell Biology BioSci 250 (624-3003)
 Geography SocSci 414 (625-6080)
 Geology and Geophysics PillsH 106 (624-1333)
 German FolH 231 (625-2080)

H

Higher Education PeikH 275 (624-1006)
 History SocSci 614 (624-2800)
 History of Medicine DiehlH 510 (624-4416)
 History of Science & Technology Phys 342E (624-7069)
 Home Economics McNH 32 (624-1717)
 Home Economics Education VoTech 325 (624-3010)
 Horticultural Science AlderH 305 (624-5300)
 Humanities FordH 314 (624-5553)

I

Industrial Education VoTech 425 (624-3004)
 Interdepartmental Study (CLA) JohH 225 (624-5701)
 International Relations SocSci 214 (624-9007)

J

Journalism, Mass Communication MurH 15 (625-9824)

L

Laboratory Medicine Mayo D242 (625-9171)
 Latin American Studies SocSci 232 (624-8543)
 Law School Law 285 (625-1000)
 Linguistics KlaCt 142 (624-3528)

M

Management, Carlson School of HHHctr 290 (624-3313)
 Mathematics VinH 127 (625-4848)
 Mathematics Education PeikH 125 (625-6372)
 MBA Program, Carlson School HHH 295 (624-0006)
 Mechanical Engineering MechE 125 (625-0705)
 Medical Technology PWB 15-170 (625-9490)
 Medicine PWB 14-110 (625-3220)
 Microbiology Mayo 1460 (624-6190)
 Middle Eastern Studies KICt 192 (624-7802)
 Military Science Armory 108 (624-7300)
 Mining Engineering CivMinE 122 (625-5522)
 Mortuary Science Mayo A275 (624-6464)
 Music FergH 100 (624-5740)
 Music Education FergH 100 (624-0071)

N

Naval Science Armory 203 (625-6677)
 Neurology PWB 12-100 (625-9900)
 Nursing HSUnitF 5-140 (624-9600)

O

Obstetrics and Gynecology MoosT 12-211 (626-3111)
 Ophthalmology PWB 9th floor (625-4400)
 Otolaryngology PWB 8-240 (625-3200)

P

Pediatrics PWB 13-107 (624-4477)
 Pharmacology MlrDH 3-260 (625-9997)
 Pharmacy HSUnitF 5-110 (624-9490)
 Philosophy FordH 355 (625-6563)
 Physical Education CookeH 224 (625-1007)
 Physical Medicine and Rehabilitation Mayo 860 (626-5961)
 Physics Phys 148 (624-7375)
 Physiology MlrDH 6-255 (625-5902)
 Plant Biology BioSci 220 (625-1234)
 Plant Pathology StakH 304 (625-8299)
 Plant Physiology BioSci 220 (625-4222)
 Political Science SocSci 1414 (624-4144)
 Psychiatry Mayo A605 (626-5400)
 Psychology EitH 106 (625-4394)
 Public Affairs HHHCtr 154 (625-9505)
 Public Health Mayo A302 (624-6669)

R

Radiology Mayo B238 (626-5529)
 Recreation, Park, and Leisure Studies CookeH 203 (625-5300)
 Rhetoric HckrH 202 (624-3445)
 Russian & East European Studies EitH 253 (625-9870)

S

Scandinavian Studies FolH 200 (625-9887)
 Secondary Education PeikH 125 (625-6372)
 Small Animal Clinical Sciences VetTchHos C339 (625-7744)
 Social, Philosophical Foundations
 of Education PeikH 275 (624-1006)
 Social Work FordH 400 (624-5888)
 Sociology SocSci 909 (624-4300)
 Soil Science BorH 439 (625-1244)
 South Asian Studies KICt 192 (624-7802)
 Spanish and Portuguese FolH 34 (625-5858)
 Speech-Communication FolH 460 (624-5800)
 Statistics VinH 270 (625-8046)
 Studio Arts ArtB 208 (625-8096)
 Surgery PWB 11-100 (625-1400)

T

Theatre Arts MdbH 208 (625-6699)

U

University College
 Intercollege Program (ICP) WullH 7 (624-2004)
 Program for Individualized Learning WesH 201 (624-4020)

V

Veterinary Biology AnScVM 295K (624-2700)
 Veterinary Pathobiology VetS 205g (625-5255)
 Vocational and Technical Education VoTech 210 (624-1221)

W

Women's Studies FordH 492 (624-6006)

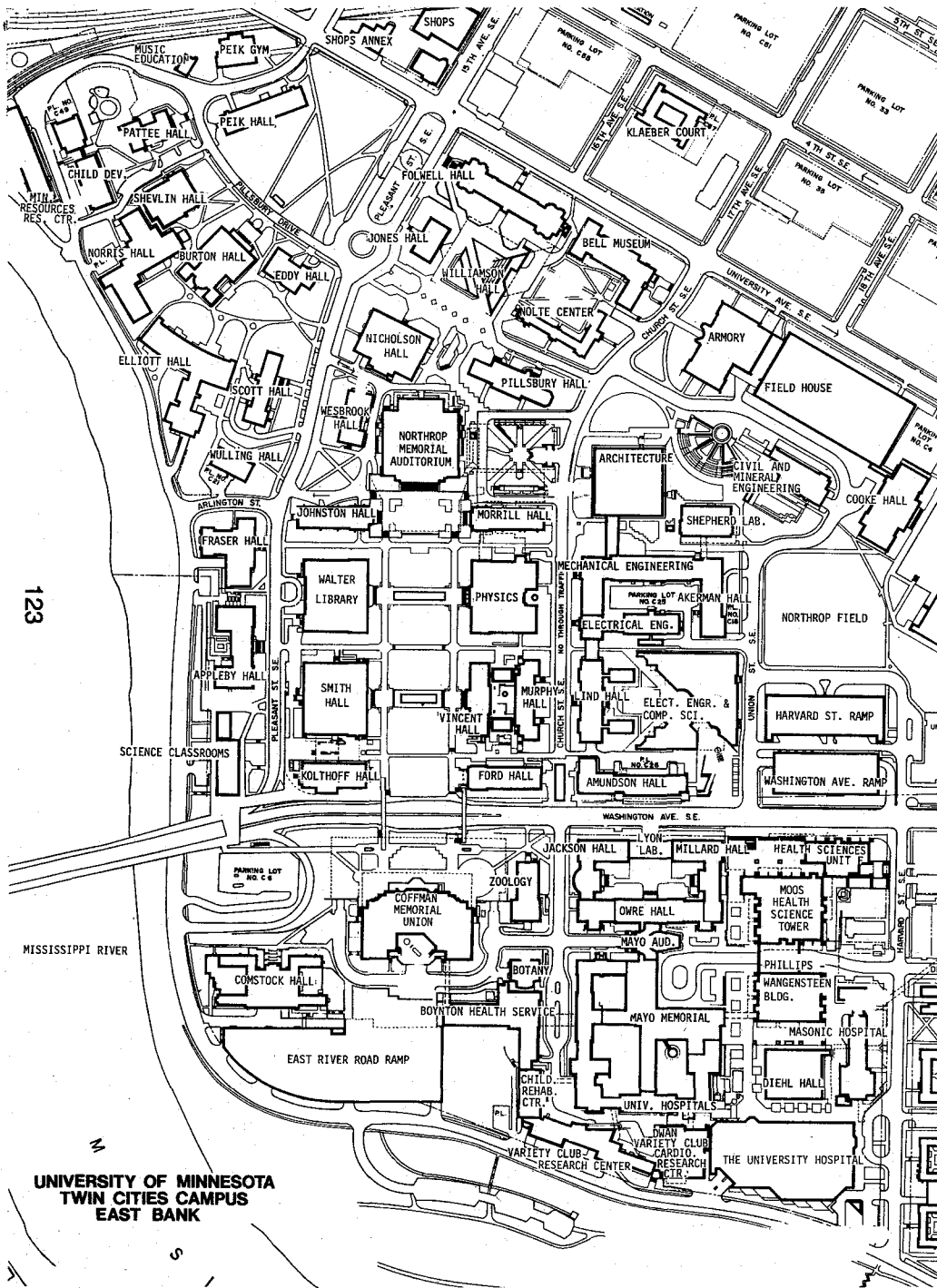
Y

Youth Development and Research McNH 386 (624-3700)

BUILDING ABBREVIATIONS AND BUILDING ACCESSIBILITY INFORMATION

MINNEAPOLIS

East Bank



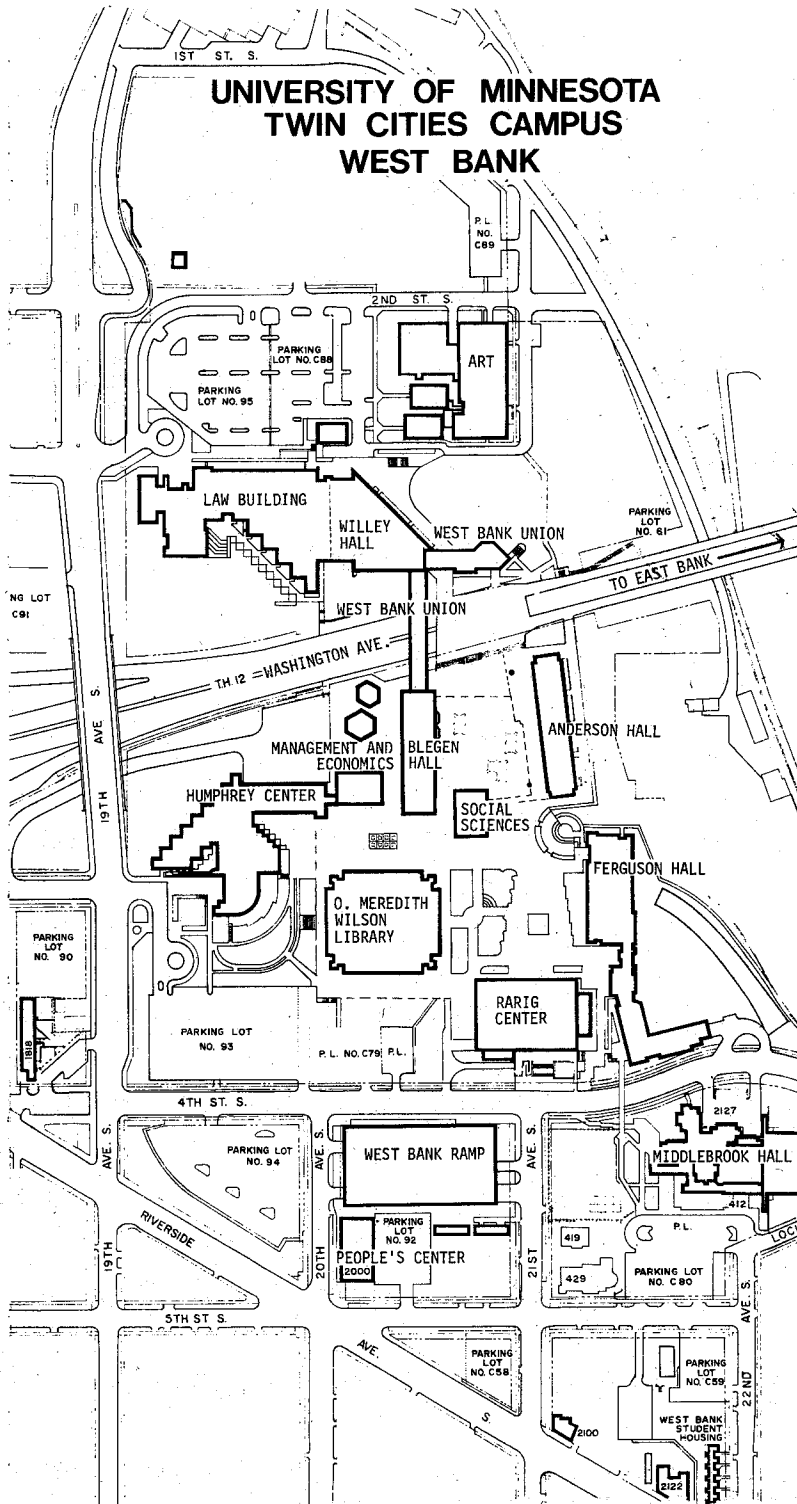
123

UNIVERSITY OF MINNESOTA
TWIN CITIES CAMPUS
EAST BANK

- AkerH, Akerman Hall □
 AmundH, Amundson Hall ♣ * L
 ApH, Appleby Hall ♣ *
 Arch, Architecture ♣ * L
 Armory □
 BelMus, Museum of Natural History ♣ * L
 BFAB, Bierman Field Athletic Building ♣ * L
 Botany ■
 BoynHS, Boynton Health Service ♣ * L
 BuH, Burton Hall ♣ * L
 CenH, Centennial Hall □
 ChDev, Child Development ♣ *
 ChRC, Children's Rehabilitation Center ♣ * L
 CivMinE, Civil and Mineral Engineering ♣ * L
 CMU Coffman Memorial Union ♣ * L
 ComH, Comstock Hall □
 CookeH, Cooke Hall □
 DiehH, Diehl Hall ♣ *
 DVCCRC, Dwan Variety Club Cardiovascular Research Center ♣ * L
 EddyH, Eddy Hall ■
 EdHAn, Eddy Hall Annex ■
 EE/CSci, Electrical Engineering/Computer Science Building ♣ * L
 ElectE, Electrical Engineering □
 Elth, Elliott Hall ♣ * L
 FieldHse, University Field House ♣
 FolH, Folwell Hall ♣ * L
 FordH, Ford Hall ♣ * L
 FraserH, Fraser Hall □
 FronH, Frontier Hall ■ *
 HL, St. Anthony Falls Hydraulic Laboratory (Hennepin Island)
 HSUnitF, Health Sciences Unit F ♣ * L
 Jach, Jackson Hall ♣ *
 JOAd, Jackson-Owre Addition ♣ *
 JohH, Johnston Hall □ * L
 JonesH, Jones Hall ■
 KlaCt, Klaeber Court ♣
 Kolth, Kolthoff Hall ♣ * L
 LindH, Lind Hall ♣ * L
 LyonL, Lyon Laboratories ♣
 Mayo, Mayo Memorial ♣ * L
 MechE, Mechanical Engineering □
 MirdH, Millard Hall ♣ *
 MMA, Mayo Memorial Auditorium □
 MoosT, Moos Health Sciences Tower ♣ * L
 MorH, Morrill Hall □ * L
 MurH, Murphy Hall ♣
 MusEd, Music Education ■
 NichH, Nicholson Hall ♣ * L
 NMA, Northrop Memorial Auditorium ♣ * L
 NorrishH, Norris Hall ♣ L
 OwreH, Owre Hall ♣ * L
 PeikG, Peik Gym □
 PeikH, Peik Hall □ *
 Phys, Tate Laboratory of Physics ♣ *
 PiH, Pioneer Hall ■
 PillsH, Pillsbury Hall ■
 Pth, Pattee ♣ *
 PWB, Phillips Wangensteen Building ♣ * L
 Sah, Sanford Hall ♣
 SciCB, Science Classroom Building □ *
 ScottH, Scott Hall ■
 ShepLab, Shepherd Laboratories ♣ *
 ShevH, Shevlin Hall ♣ *
 SmithH, Smith Hall ♣ * L
 Stad, Stadium □ L
 TerH, Territorial Hall ■
 UAqCtr, University Aquatic Center ♣
 UHosp, University Hospital ♣ * L
 VinH, Vincent Hall ♣ *
 WaLib, Walter Library ♣ * L
 WesH, Wesbrook Hall ♣
 WmsA, Williams Arena □ L
 WmsonH, Williamson Hall ♣ * L
 WullH, Wulling Hall ■ *
 Zoology ♣ * L
- CODES:**
 ♣ = accessible building
 □ = partially accessible
 ■ = inaccessible building
 * = elevator
 L = adapted restroom

For a map, *Guide for the Handicapped*, and further information, contact the Office for Students with Disabilities at 624-4037.

UNIVERSITY OF MINNESOTA
TWIN CITIES CAMPUS
WEST BANK



**BUILDING ABBREVIATIONS AND
BUILDING ACCESSIBILITY INFORMATION**

**MINNEAPOLIS
West Bank**

- AndH, Anderson Hall □ *
- ArtB, Art Building (2020 Washington Ave S) □
- BlegH, Blegen Hall ⌘ * L
- FergH, Ferguson Hall ⌘ * L
- HHH Ctr, Humphrey Center ⌘ * L
- Law, Law Building ⌘ * L
- MdbH, Middlebrook Hall ⌘ * L
- Mgmt/Econ, Management/Economics Building ⌘ *
- OMWL, O Meredith Wilson Library ⌘ * L
- RarigC, Rarig Center ⌘ * L
- SocSci, Social Sciences Building ⌘ *
- WBU, West Bank Union ⌘ L
- WilleyH, Willey Hall ⌘ * L

CODES:

- ⌘ = accessible building
- = partially accessible
- = inaccessible building
- * = elevator
- L = adapted restroom

For a map, *Campus Accessibility Guide*, and further information, contact the Office for Students with Disabilities at 624-4037.

BUILDING ABBREVIATIONS AND BUILDING ACCESSIBILITY INFORMATION

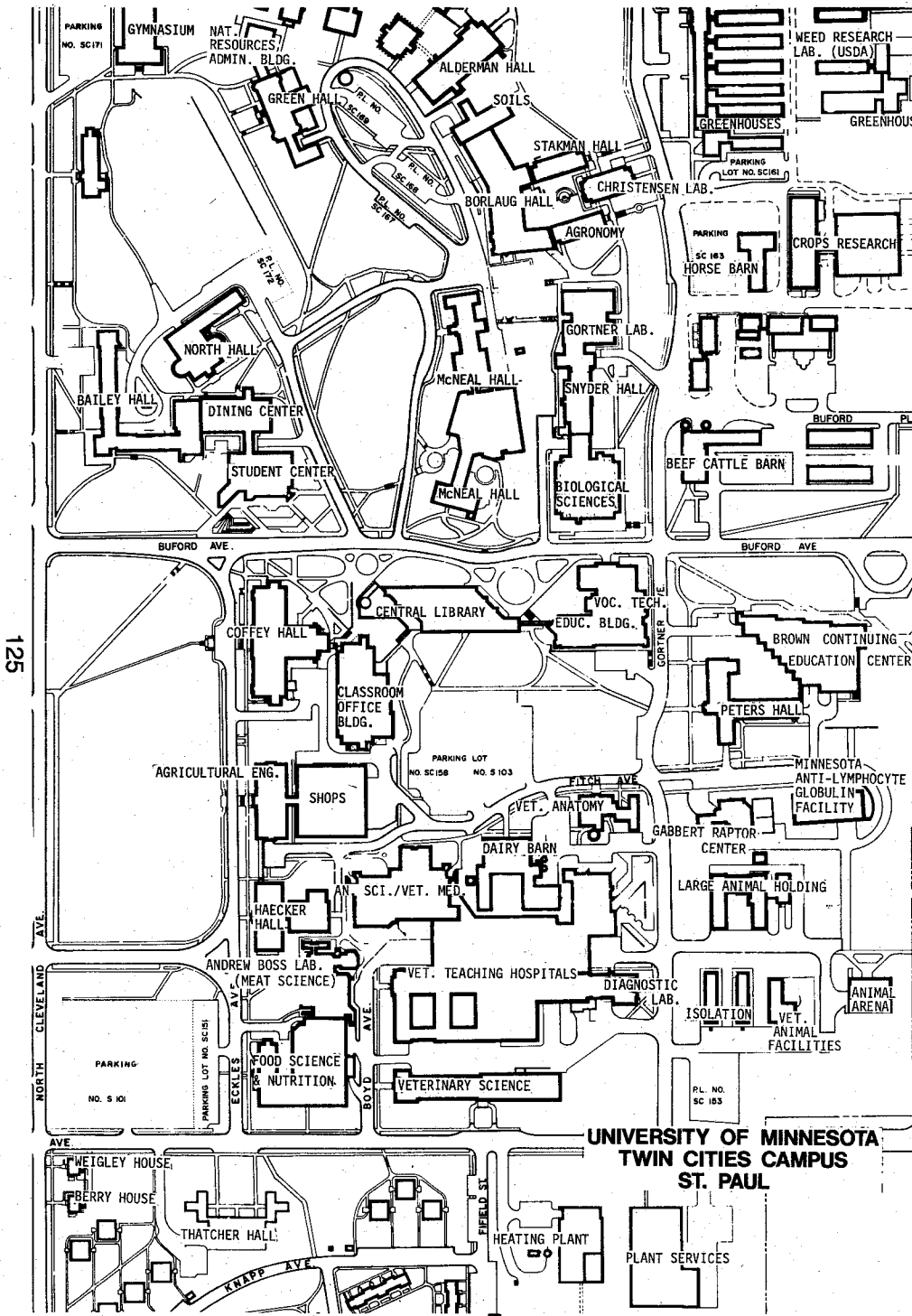
ST PAUL

- ABLMS, Andrew Boss Laboratory-Meat Science ⌘ *
 AgEng, Agricultural Engineering ⌘ *
 AgEngShop, Agriculture Engineering Shop ⌘
 Agr, Agronomy ⌘
 AgGhCl, Agronomy Greenhouse Classroom ⌘
 AgrPGGh, Agronomy/Plant Genetics Greenhouse
 AlderH, Alderman Hall ⌘ *
 AnAren, Animal Arena
 AnScVM, Animal Science, Veterinary Medicine ⌘ *
 BCB, Beef Cattle Barn ⌘
 Berry, Berry House (1304 Cleveland Ave N) ⌘
 BioSci, Biological Sciences Center ⌘ *
 BorH, Borlaug Hall ⌘ * L
 CentLib, St. Paul Campus Central Library ⌘ *
 ClaOff, Classroom Office Bldg ⌘ *
 CofH, Coffey Hall ⌘ *
 DinC, Dining Center ⌘ *
 EBCEC, Earle Brown Continuing Education Center ⌘ * L
 FScN, Food Science and Nutrition ⌘ *
 GorL, Gortner Laboratory of Biochemistry ⌘ *
 GrnH, Green Hall ⌘ * L
 Gym, Gymnasium ⌘
 HckrH, Haecker Hall ⌘
 HodsonH, Hodson Hall ⌘ *
 HrG, Horticulture Greenhouse
 Kauff, Kaufert Laboratory ⌘ *
 McNH, McNeal Hall ⌘ * L
 NatResAd, Natural Resources Administration Building ⌘ * L
 NorH, North Hall ■
 PetH, Peters Hall ⌘
 PISci, Plant Sciences ■
 SnH, Snyder Hall ⌘
 Soils ⌘
 StakH, Stakman Hall of Plant Pathology ⌘
 StCen, Student Center ⌘ * L
 VetA, Veterinary Anatomy ⌘
 VetDL, Veterinary Diagnostic Laboratories ⌘
 VetS, Veterinary Science ⌘
 VetTchHos, Veterinary Teaching Hospitals ⌘
 VoTech, Vocational-Technical Education ⌘ * L
 Weigley, Weigley House (1316 Cleveland Ave N)

CODES:

- ⌘ = accessible building
- ⌘ = partially accessible
- = inaccessible building
- * = elevator
- L = adapted restroom

For a map, *Guide for the Handicapped*, and further information, contact the Office for Students with Disabilities at 624-4037.



COMPLETING YOUR COURSE REQUEST FORM

① Student, Chris H.
1234567
Print name (last, first, middle) and ID number or Social Security number.



② College of Enrollment CLA		④ Street Address 4312 Main Street		Telephone Number 375-4343	
③ Major Anthropology		City St. Paul		State MN Zip Code 55111	
⑤ Term and Year <input type="checkbox"/> Fall <input checked="" type="checkbox"/> Winter <input type="checkbox"/> Spring <input type="checkbox"/> Summer Session I <input type="checkbox"/> Summer Session II 1992					
⑥ <input checked="" type="checkbox"/> Registration: Number of credits 14 <input type="checkbox"/> Cancel/Add: Number of credits after change _____ <input type="checkbox"/> Complete Cancellation					
NOTE: Fill in VARIABLE CREDITS only if credits are listed as "ar cr" in the Class Schedule. Fill in GRADE OPTION if mandatory grading is not listed in the Class Schedule. To change grade option or variable credits, list course as both cancellation and addition.					
COURSE(S)—First Choice (original registration)			COURSE(S)—Second Choice (or cancel/add additions)		
CALL NUMBER	GRADE OPTION	VARIABLE CREDITS	DESIGNATOR, COURSE NUMBER, AND SECTION	CALL NUMBER	GRADE OPTION
⑦ A	B	C	D	⑧	
935747			Anth 5118	4365875-N	Wbst 3400-2
724414		2	Engl 5976	136406	Anth 5131
132941			Wbst 5300		
541392			Anth 5400-2		
MPIRG (optional) Minnesota Public Interest Research Group is described in the Class Schedule. The MPIRG fee is \$2.50 per quarter (or \$1.25 per summer term) for those who pay the student services fee. Payment is refundable through MPIRG. If you choose NOT to pay, initial here.			ADVISER APPROVAL (if needed) <i>Ch. Hagedy</i>		ADDITIONAL APPROVAL (if needed)
⑩			⑪		⑫

A22-otr 9/88

- ① Print your name and student ID number (or Social Security Number).
- ② Print the college in which you are enrolled.
- ③ Print your major.
- ④ Print your complete address and phone number.
- ⑤ Indicate the term (fall, winter, spring, summer I, or summer II) and year for which you are registering.
- ⑥ Check the box for registration if this is your first registration for the quarter or term and fill in the number of credits for which you are registering. If you are making changes in your original registration (cancel/ adding), check the cancel/add box and fill in the number of credits you will have after completing those changes. Check the "Complete Cancel" box if you are cancelling all courses.
- ⑦ This section is for your first choice course requests:
 - Ⓐ Print the six digit call number. (The call number is to the left of each course listing or each section of a course.)
 - Ⓑ Mark the grading system you are requesting, only if the course is offered for both A-F and S-N. See example above and read the paragraph on Grading Option on page 28 of this Class Schedule for further information.
 - Ⓒ Print the number of credits only if you are registering for a variable credit course (i.e., 1-4 cr.) or an arranged credit course (ar cr). See example above.
- ⑧ This section is for your second choice course requests. Plan alternatives for all parts of the course (e.g., lecture, lab, recitation) in case your first choice requests are closed or otherwise unavailable. If you are cancel/ adding, list any course additions here.
- ⑨ Provide the call number, designator, course, and section numbers for any courses you are cancelling. Remember to indicate your credit total in section 6.
- ⑩ MPIRG—see instructions on form. The Minnesota Public Interest Research Group (MPIRG) is a nonprofit, nonpartisan, student-run organization funded at the Twin Cities campus by an optional quarterly fee of \$2.50. A statewide advocacy group, MPIRG gives students the opportunity to speak out on public issues and work for social change. The fee supports a professional staff for lobbying, litigation, organizing, and research.
- ⑪ College, department, and/or adviser approval, as required.
- ⑫ Additional approval, as required.


COURSE REQUEST
 University of Minnesota

Print name (last, first, middle) and ID number or Social Security number.

College of Enrollment				Street Address				Telephone Number	
Major				City		State		Zip Code	
Term and Year <input type="checkbox"/> Fall <input type="checkbox"/> Winter <input type="checkbox"/> Spring <input type="checkbox"/> Summer Session I <input type="checkbox"/> Summer Session II 19__									
<input type="checkbox"/> Registration: Number of credits ____ <input type="checkbox"/> Cancel/Add: Number of credits after change ____ <input type="checkbox"/> Complete Cancellation									
NOTE: Fill in VARIABLE CREDITS only if credits are listed as "ar cr" in the Class Schedule. Fill in GRADE OPTION if mandatory grading is not listed in the Class Schedule. To change grade option or variable credits, list course as both cancellation and addition.									
COURSE(S)—First Choice (original registration)				COURSE(S)—Second Choice (or cancel/add additions)				CANCELLATIONS	
CALL NUMBER	GRADE OPTION	VARIABLE CREDITS	DESIGNATOR, COURSE NUMBER, AND SECTION	CALL NUMBER	GRADE OPTION	VARIABLE CREDITS	DESIGNATOR, COURSE NUMBER, AND SECTION	CALL NUMBER	DESIGNATOR, COURSE NUMBER, AND SECTION
MPIRG (optional) Minnesota Public Interest Research Group is described in the Class Schedule. The MPIRG fee is \$2.50 per quarter (or \$1.25 per summer term) for those who pay the student services fee. Payment is refundable through MPIRG. If you choose NOT to pay, initial here. → <input type="checkbox"/>				ADVISER APPROVAL (if needed)				ADDITIONAL APPROVAL (if needed)	

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COURSE REQUEST
 University of Minnesota

Print name (last, first, middle) and ID number or Social Security number.

College of Enrollment				Street Address				Telephone Number	
Major				City		State		Zip Code	
Term and Year <input type="checkbox"/> Fall <input type="checkbox"/> Winter <input type="checkbox"/> Spring <input type="checkbox"/> Summer Session I <input type="checkbox"/> Summer Session II 19__									
<input type="checkbox"/> Registration: Number of credits ____ <input type="checkbox"/> Cancel/Add: Number of credits after change ____ <input type="checkbox"/> Complete Cancellation									
NOTE: Fill in VARIABLE CREDITS only if credits are listed as "ar cr" in the Class Schedule. Fill in GRADE OPTION if mandatory grading is not listed in the Class Schedule. To change grade option or variable credits, list course as both cancellation and addition.									
COURSE(S)—First Choice (original registration)				COURSE(S)—Second Choice (or cancel/add additions)				CANCELLATIONS	
CALL NUMBER	GRADE OPTION	VARIABLE CREDITS	DESIGNATOR, COURSE NUMBER, AND SECTION	CALL NUMBER	GRADE OPTION	VARIABLE CREDITS	DESIGNATOR, COURSE NUMBER, AND SECTION	CALL NUMBER	DESIGNATOR, COURSE NUMBER, AND SECTION
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A22-otr 9/88


STUDENT HOSPITALIZATION INSURANCE
 University of Minnesota

<input type="checkbox"/> Fall Quarter	<input type="checkbox"/> Winter Quarter	<input type="checkbox"/> Spring Quarter
<input type="checkbox"/> Fall Semester	<input type="checkbox"/> Spring Semester	/
Student Name (last, first, middle initial)		Student ID Number
<p>If you are taking 6 or more credits, you will automatically be charged for University-sponsored hospitalization insurance unless you check the first box below, fill in the name of your insurance company and policy number, and sign the bottom of this form. (If you are taking 6 or more credits and do not have hospitalization insurance, you do not have to fill out this card.)</p> <p><input type="checkbox"/> I am adequately covered by the hospitalization insurance indicated below. (If you do not provide complete information, you will be charged for insurance.) You may receive a full refund by returning to the Registration Center with your insurance information by the end of the first week of classes.</p>		
Name of Insurance Company or HMO		Policy Number
<p><input type="checkbox"/> Although I am taking fewer than 6 credits, I would like to purchase University-sponsored hospitalization insurance. I understand that I will also be charged the entire student services fee.</p>		
Signature		Date

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STUDENT HOSPITALIZATION INSURANCE
 University of Minnesota

<input type="checkbox"/> Fall Quarter	<input type="checkbox"/> Winter Quarter	<input type="checkbox"/> Spring Quarter
<input type="checkbox"/> Fall Semester	<input type="checkbox"/> Spring Semester	
Student Name (last, first, middle initial)		Student ID Number
<p>If you are taking 6 or more credits, you will automatically be charged for University-sponsored hospitalization insurance unless you check the first box below, fill in the name of your insurance company and policy number, and sign the bottom of this form. (If you are taking 6 or more credits and do not have hospitalization insurance, you do not have to fill out this card.)</p> <p><input type="checkbox"/> I am adequately covered by the hospitalization insurance indicated below. (If you do not provide complete information, you will be charged for insurance.) You may receive a full refund by returning to the Registration Center with your insurance information by the end of the first week of classes.</p>		
Name of Insurance Company or HMO		Policy Number
<p><input type="checkbox"/> Although I am taking fewer than 6 credits, I would like to purchase University-sponsored hospitalization insurance. I understand that I will also be charged the entire student services fee.</p>		
Signature		Date

A290-otr 8/90

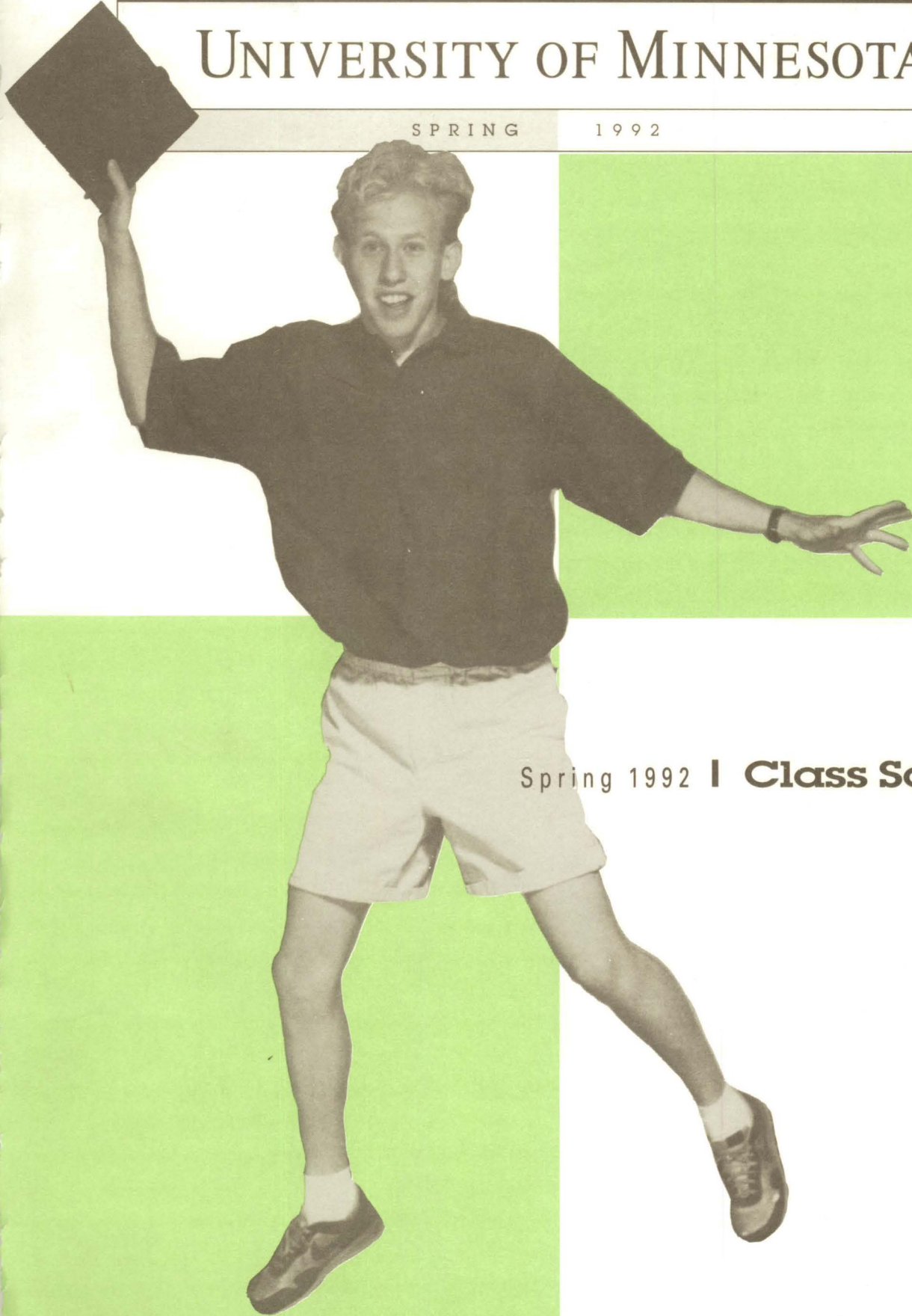
University of Minnesota Twin Cities

Winter 1992 Class Schedule

Twin Cities Campus Class Schedule

UNIVERSITY OF MINNESOTA

SPRING 1992



Spring 1992 | **Class Schedule**

WALT
UNA

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**THIS CLASS SCHEDULE CAN BE RE-
CYCLED WITH NEWSPRINT. LOOK
FOR THE GOLD NEWSPRINT-RECY-
CLING BARRELS AROUND CAMPUS.**



*Published by the University of Minnesota, Office of the Vice President for Student Affairs,
Office of the Registrar*

EQUAL OPPORTUNITY

The University of Minnesota is committed to the policy that all persons shall have equal access to its programs, facilities, and employment without regard to race, color, creed, religion, national origin, sex, age, marital status, disability, public assistance status, veteran status, or sexual orientation.

In adhering to this policy, the University abides by the requirements of the Minnesota Human Rights Act, Minnesota Statute Ch. 363; by the Federal Civil Rights Act, 420 S.C. 2000e; by the requirements of Title IX of the Education Amendments of 1972; by Sections 503 and 504 of the Rehabilitation Act of 1973; by Executive Order 11246, as amended; by 38 U.S.C. 2012, the Vietnam Era Veterans Readjustment Assistance Act of 1972, as amended; and by other applicable statutes and regulations relating to equality of opportunity.

Inquiries regarding compliance may be directed to Patricia A. Mullen, Director, Office of Equal Opportunity and Affirmative Action, 419 Morrill Hall, University of Minnesota, 100 Church Street S.E., Minneapolis, MN 55455, (612) 624-9547.

UNIVERSITY CALENDAR

Twin Cities Campus

Winter Quarter 1992

FEBRUARY 1992

24 Spring quarter registration begins.

MARCH 1992

13 Last day of instruction.

14 Study day.

16-21 Final examinations.

21 *End of winter quarter.*

Commencement. Commencement ceremonies are held by colleges once or twice a year. Check with your college office for information.

Spring Quarter 1992

MARCH 1992

27 Last day to register for spring without paying late registration fee.

30 *Spring quarter classes begin.*

APRIL 1992

1 Last day for Graduate School students who want to participate in spring commencement ceremony to pay graduation fees.

8 Last day for undergraduates and students in professional degree programs to pay graduation fees for spring quarter.

10 Last day to cancel individual course without transcript record.

15 Graduate School application deadline for first term of summer session.

MAY 1992

14 Summer registration begins for currently enrolled students.

15 Graduate school application deadline for second term of summer session.

18 Early registration for fall 1992 begins.

25 Memorial Day, holiday. Classes excused and University offices closed.

JUNE 1992

5 Last day of instruction.

6 Study day.

8-13 Final examinations.

13 *End of spring quarter.*

Commencement. Commencement ceremonies are held by colleges once or twice a year. Check with your college office for information.

Summer Session—First Term 1992

JUNE 1992

11 Last day for undergraduates and students in professional degree programs to pay graduation fees for first term.

16 *First term classes begin.*

JULY 1992

3 Independence Day, holiday observed. Classes excused and University offices closed.

15 Graduate School application deadline for fall quarter.

21 *End of first term.*

Commencement. Commencement ceremonies are held by colleges once or twice a year. Check with your college office for information.

Summer Session—Second Term 1992

JULY 1992

22 Last day for undergraduates and students in professional degree programs to pay graduation fees for second term.

23 *Second term classes begin.*

AUGUST 1992

26 *End of second term.*

Commencement. Commencement ceremonies are held by colleges once or twice a year. Check with your college office for information.

31 Registration reopens for fall.

1992

JANUARY							FEBRUARY						
S	M	T	W	T	F	S	S	M	T	W	T	F	S
			①	2	3	4							1
5	6	7	8	9	10	11	2	3	4	5	6	7	8
12	13	14	15	16	17	18	9	10	11	12	13	14	15
19	20	21	22	23	24	25	16	17	18	19	20	21	22
26	27	28	29	30	31		23	24	25	26	27	28	29

MARCH							APRIL						
S	M	T	W	T	F	S	S	M	T	W	T	F	S
1	2	3	4	5	6	7				1	2	3	4
8	9	10	11	12	13	14	5	6	7	8	9	10	11
15	16	17	18	19	20	21	12	13	14	15	16	17	18
22	23	24	25	26	27	28	19	20	21	22	23	24	25
29	30	31					26	27	28	29	30		

MAY							JUNE						
S	M	T	W	T	F	S	S	M	T	W	T	F	S
					1	2				1	2	3	4
3	4	5	6	7	8	9	7	8	9	10	11	12	13
10	11	12	13	14	15	16	14	15	16	17	18	19	20
17	18	19	20	21	22	23	21	22	23	24	25	26	27
24	25	26	27	28	29	30	28	29	30				
31													

JULY							AUGUST						
S	M	T	W	T	F	S	S	M	T	W	T	F	S
				1	2	③							1
5	6	7	8	9	10	11	2	3	4	5	6	7	8
12	13	14	15	16	17	18	9	10	11	12	13	14	15
19	20	21	22	23	24	25	16	17	18	19	20	21	22
26	27	28	29	30	31		23	24	25	26	27	28	29
							30	31					

SEPTEMBER							OCTOBER						
S	M	T	W	T	F	S	S	M	T	W	T	F	S
				1	2	3					1	2	3
6	⑦	8	9	10	11	12	4	5	6	7	8	9	10
13	14	15	16	17	18	19	11	12	13	14	15	16	17
20	21	22	23	24	25	26	18	19	20	21	22	23	24
27	28	29	30				25	26	27	28	29	30	31

NOVEMBER							DECEMBER						
S	M	T	W	T	F	S	S	M	T	W	T	F	S
1	2	3	4	5	6	7				1	2	3	4
8	9	10	11	12	13	14	6	7	8	9	10	11	12
15	16	17	18	19	20	21	13	14	15	16	17	18	19
22	23	24	25	26	27	28	20	21	22	23	24	25	26
29	30						27	28	29	30	31		

- First and Last Days of Instruction
- Final Examination Dates
- Classes Excused or Holidays

STUDENT RESPONSIBILITY

The policies in this *Class Schedule* directly affect your registration. You are responsible for all the information contained in this book: avoid potential problems by reading carefully through the various sections. You can receive credit only for those courses for which you are properly registered. Likewise, you must pay for any course for which you register unless you officially cancel at your registration center. In addition, if you attend a class without registering for it, you will be considered an auditor in the course and will be billed for full tuition and fees. To prevent misunderstandings and errors in registration, you should register in person. If you cannot register in person, you can have someone register for you only with your written permission and student ID card.

RECENT CHANGES

If you are a continuing or returning student, the following recent changes in procedures or policy will be of special interest to you:

- Winter quarter grades p. 10
- Registration requirements for graduate assistants p. 26
- Directory of advising offices p. 118

The contents of this schedule and other University bulletins, publications, or announcements are subject to change without notice. University offices can provide current information about possible changes.

Because this *Class Schedule* was prepared in December, scheduling changes may also occur before or during registration. Registration terminals always contain the most current and accurate information. Hour and day changes are published in the Official Daily Bulletin, a column in the *Minnesota Daily*, and are posted with the Section Status Report. Room changes are posted on classroom doors.

DESIGNATOR CHANGES

There are no designator changes this quarter. A complete list of designators and abbreviations can be found on pages 115-116.

Minneapolis students with mobility restrictions (including temporary problems) can register at 150 Williamson Hall. The registration center in 130 Coffey Hall, St. Paul, is for students in St. Paul colleges. Students in units based both in Minneapolis and St. Paul (the Graduate School, and the colleges of Education and Architecture and Landscape Architecture) may use either registration center.

Step 3 Pay your tuition and fees. See pages 21-23 for complete information on paying your fees .

Late Registration Fee—You must register by March 27 to avoid a late registration fee. Students who register from March 30-April 10 will be charged a \$10 late registration fee. Students who register on or after April 13 will be charged a \$20 late registration fee.

A Registration Check List—Run through this check list before you go to your registration center. You will be able to avoid frustrating delays by following these hints:

Fill out a Course Request form completely. (Course Request forms are found on page 123.) Be sure to list a new address on the form if you have moved or have a new local address; a correct address will be needed for mailing your Registration Status Notice for the next registration period. List alternate courses in case your first choices are not available. Obtain college or adviser approval (departmental approval in I.T.) as required.

Do you know the name and policy number of your hospitalization insurance company or HMO? Unless you provide this information on the Student Hospitalization Insurance Form (on page 125) every quarter when you register, you will **automatically** be charged for University-sponsored hospitalization insurance if you take 6 or more credits. See Health Service and Hospitalization Charges, page 17, for more information.

Have you checked the Section Status Report? Check the report (posted outside of 101 Fraser Hall, B18 and 16 Johnston Hall, 4 Mechanical Engineering,

REGISTRATION INSTRUCTIONS

Steps in Registration

- Step 1 Complete the registration check list on this page and the next.**
- Step 2 Bring your Course Request form and this *Class Schedule* to your registration center.** The registration center in 202 Fraser Hall, Minneapolis, is primarily for students in Minneapolis colleges, although St. Paul students may also register there.

170 Anderson Hall, and 130 Coffey Hall) to see if space is available in limited enrollment (**R**) courses. Remember: The Section Status Report lists only limited enrollment courses. If you use it exclusively to plan your program, you may overlook courses that have no limit on enrollment.

Do you need any Registration Override Permits? Is there a # or Δ or □ in the prerequisite statement of your course? (All symbols used in prerequisite statements are defined on page 28.) Are you trying to register in a closed course? Remember: You must have a signed Registration Override Permit; handwritten notes will not be accepted.

Do you have any holds you need to clear? You will not be able to register if you have any holds on your record. Clear your holds as soon as possible. See Holds, below, for further information.

International students—Have you registered for a full course of study? See page 6, for credit requirements. **Are you new to campus?** You must go to the Office of International Education before you register. See page 5.

Are you a CLA student? Read your college instructions on pages 8-9.

Are you a student in the Graduate School? The Graduate School instructions on pages 6-8 govern your registration.

Are you taking Carlson School of Management courses? Read the special instructions on pages 9-10 that apply to those courses.

Are you taking Institute of Technology courses? There are instructions on page 10 that apply to I.T. courses.

HOLDS

If you have a hold on your record, you may not register or, in many cases, obtain transcripts until that hold is cleared with the office imposing the hold. A hold may be imposed for financial indebtedness to the University (e.g., for unpaid tuition or fees, unpaid library fines, or delinquent health service payments) or for disciplinary or scholastic reasons. You will usually be notified of an existing or impending hold by the department or office authorizing the hold. Notice of any hold, including the name of the department or office where it may be cleared, also appears on your Registration Status Notice.

To remove a hold from your record, you must first pay the debt owed, correct the scholastic deficiency, or be cleared by the Special Counseling Office. For most debts, you will receive a billing statement, which you will submit with payment at the Bursar's Office; you may present the receipted billing statement to the department or office that authorized the hold as evidence that the debt has been paid.

When you clear any hold *in advance of registration*, the unit imposing the hold must notify your registration center (202 Fraser Hall in Minneapolis, 130 Coffey Hall in St. Paul) that the hold may be removed from your record. *If you have not cleared holds in advance*, you may be given a hold release to take with you to your registration center. When you are given a *permanent hold release*, you must leave the release form with the operator when you register. On occasion, units may issue *temporary hold releases*. Temporary releases will allow you to either receive one transcript or to register during the quarter in progress. Because a hold remains on your record until it is permanently cleared, you must show a temporary release for registration each time you return to your registration center. If you are issued a temporary hold release for registration, be sure it is returned to you after you have registered.

If, in order to register, you pay a Student Accounts Receivable hold for a previous quarter with a personal check, and that check does not clear the bank, you will be sent a notice by Student Accounts Receivable. Your current registration may be cancelled if you fail to respond to this notice and pay your debt.

STUDENTS WITH DISABILITIES

The Office for Students with Disabilities (OSD) can assist disabled students in accessing campus programs and facilities by providing services such as advocacy, support, information, academic assistance, interpreters, readers, tutors, and adaptive testing. For more information, contact OSD at 16 Johnston Hall, 624-4037 (V/TDD).

These procedures should be followed for classroom or registration accessibility:

- **Classroom Changes**—Requests for room changes for courses scheduled in inaccessible locations should be made directly to the department offering the course.
- **Early Registration**—If you need to schedule clustered classes, sign language interpreters, or arrange for taped textbooks, you must contact your college office for permission to register early.
- **Registration**—Students with disabilities that prevent them from standing in lines or who find Fraser Hall inaccessible may register at Student Relations, 150 Williamson Hall.

INTERNATIONAL STUDENTS

If you hold a non-immigrant visa of any type, have been formally admitted to the University of Minnesota, and are registering for the first time, three holds have been placed on your record—AI (check of non-immigrant status documents), ME (health clearance), and AZ (English proficiency). Please read the following information carefully.

Preregistration Program and Document Check (AI Hold)—Go to the Office of International Education (OIE), 20 Nicholson Hall. You must sign up for a mandatory Preregistration Program for International Students. During this program, you will receive information about living and studying in the U.S. and at the University. You will also have your non-

immigrant status documents checked and your AI, ME, and AZ holds released. You must bring your passport and non-immigrant status documents (I94 form, pages 3-4 of your I-20AB, and/or IAP-66). Sponsored students must also provide documentation of their financial support. If you are a permanent resident, you must present documented evidence of your status.

Health Clearance (ME Hold)—If you are not a citizen of the United States and if you are registering for the first time at the University, you must have a health clearance in order to register. You will be given a release for this hold after your visit to Boynton Health Service. This visit is arranged as part of the OIE Preregistration Program for International Students. If you arrived too late to attend the OIE preregistration program, go immediately to the information desk at Boynton Health Service, 410 Church Street, Minneapolis, for instructions.

At that visit, you will be tested for tuberculosis unless you have been tested within the past 12 months and bring proof in English of your testing. A positive reaction to the tuberculin test indicates that you have been exposed to tuberculosis but it does not necessarily mean that you have contracted the disease. If your test is positive, you will be allowed to register for classes, but you will be required to have a chest x-ray and to return for the results.

In addition to the above health clearance, Minnesota law requires that all students provide in writing the month and year when they were immunized against measles, mumps, rubella, tetanus, and diphtheria. You must complete and sign the Student Immunization Form you received with your admission letter. See Immunization Clearance, page 17.

Mandatory Health/Hospitalization Insurance—All international students must carry hospitalization insurance for themselves and their dependents. Insurance coverage must be continuous from the date of arrival in the U.S. through the final date of departure from the U.S. This means that international students must have insurance coverage even if they are registered for fewer than 6 credits or are away from campus for the summer or an academic quarter. See Health Service and Hospitalization Charges, page 17.

English Proficiency (AZ Hold)—All new international students have holds placed on their records to make sure that they meet the University's English proficiency requirements. The AZ hold will be released by the Minnesota English Center (MEC) as part of the OIE mandatory Preregistration Program for International Students (see above).

Permanent AZ hold releases will be given to international students who have TOEFL scores that meet or exceed the minimum required by their college, or who have completed two years of academic work at a U.S. college.

Students with a TOEFL score lower than that required by their college, or for whom the TOEFL was waived at the time of admission, may be required to take the Minnesota Battery English Language Proficiency test. Register for this test at the MEC office as soon as possible because results are not available for two weeks. You must pay a \$25 testing fee when you register for the test. You can receive information about

the test and about requirements for English classes by visiting the MEC office (102 Klaeber Court, 320 16th Avenue S.E.) or by calling 624-1503.

If you have not met the English requirements for your college, you will be required to register for 1-3 noncredit English classes each quarter until you achieve the required test score.

Full Course of Study—All foreign students holding F-1 and J-1 visas are required by the Immigration and Naturalization Service to register for a full course of study each academic quarter. (NOTE: For graduate students and adult specials, a full course of study is 7 credits; for undergraduates it is 12 credits.) Exceptions to this rule are possible only in a limited number of circumstances. In such instances an Application for Exception from the Full Course of Study Requirement must be completed, signed by your adviser, and submitted to the OIE, 20 Nicholson Hall, by the first day of each quarter for undergraduates, and by the end of the second week of each quarter for graduate students and adult specials. (Forms are available at the OIE or 130 Coffey Hall.) If you have questions about this requirement, call 626-7100.

GRADUATE SCHOOL REGISTRATION INSTRUCTIONS

New Students—If you are registering for the first time in the Graduate School, obtain your registration materials in 309 Johnston Hall.

Active Students—If you have registered in the Graduate School at least once in the last two years, have your adviser sign your Course Request form. Follow the steps below to clear any Graduate School holds:

MAST PROG	Take signed master's program to 316 Johnston Hall.
DOCT PROG	Take signed doctoral program to 316 Johnston Hall.
SPEC PROG	Take signed specialist program to 316 Johnston Hall.
THES TITLE	Take signed thesis title to 316 Johnston Hall.
BACH DEGREE	Take bachelor's transcript, showing degree awarded, to 316 Johnston Hall.
GPA	Take letter releasing hold from major field director of graduate studies to 316 Johnston Hall.
INCOMPLETE	Take letter releasing hold from major field director of graduate studies to 316 Johnston Hall.
DEAN'S HLD	Go to 316 Johnston Hall for explanation and instructions for clearing.
GS DEG AWD	Go to 306 Johnston Hall for change of status or readmission information.
GRAD ASST	Go to 416 Johnston Hall for explanation and instructions for clearing.

Have your adviser sign your Course Request form.

Inactive Students—If you have not registered in the Graduate School at least once in the last two years, you must be

readmitted before you will be allowed to register. Contact the Graduate School Admissions Office, 306 Johnston Hall (625-8060).

Maximum Credits—The maximum credit load for fall, winter, and spring quarters is 18.

Grading Option—Two grading systems, A-B-C-D-F and S-N, are used in the Graduate School. You must designate your grading option for each course at registration. (However, if either A-F only or S-N only is printed after the prerequisite statement for a course, you must register for that grading system.) Any change to your designated grading option must be made at your registration center during the first two weeks of the quarter on a Course Request form signed by your adviser. Similarly, any change to or from auditor status must be made during the first two weeks of the quarter on a Course Request form signed by your adviser. See below for specific deadlines.

Registration Deadlines—Students in the Graduate School must register no later than the end of the second week of the quarter. Friday of the second week (April 10 for spring 1992) is the last day to:

- register,
- add a course or change sections of a course,
- change grading option, including changing to or from audit status, and
- cancel a course without a *W* appearing on your record.

All changes in registration require your adviser's signature. Courses may be cancelled through Friday of the sixth week of the quarter. Courses cancelled after the sixth week will require the signature of *both* your adviser and the instructor. No registration changes will be permitted after the last day of instruction.

These registration deadlines are strictly enforced. (Remember, registration changes are not effective until you take a completed Course Request form to your registration center.) Exceptions will be considered only by written request to the Graduate School. Such requests will *not* be routinely approved. If circumstances will prevent you from meeting the above deadlines, contact the Graduate School *before* the deadline.

NOTE: These deadlines in no way change the current policy regarding assessment of late registration fees (you must register before the beginning of the quarter—by March 27 for spring 1992—to avoid such a fee); nor do they affect the University's refund policies.

Thesis Credits—All students are required to register for thesis credits before receiving a Plan A master's or a professional master of engineering degree (at least 16 credits of 8777 required), or a Ph.D. or Ed.D. degree (at least 36 credits of 8888 required). D.M.A. students should consult their department or the Graduate School to determine their requirement. Doctoral students may not register for thesis credits until the quarter after they have passed their preliminary oral examinations.

Some students who were first registered in the graduate School before fall quarter 1983 may have their thesis credit

requirements reduced or eliminated. For more information, contact 316 Johnston Hall (625-3490).

Tuition for thesis credits is assessed the same way course credits are assessed, with both resident and nonresident rates. Those doctoral students who are in the final stages of completing their degree requirements will be able to register for thesis credits only, at a reduced rate of \$30 per credit, if they meet *all* the following conditions:

- have passed the preliminary oral examination,
- have registered for a minimum of 36 doctoral thesis credits,
- have registered for a minimum of 7 full-time-equivalent quarters in the Graduate School, *and*
- are registering only for doctoral thesis credits.

NOTE: Full rates are assessed at registration for thesis credits only. Tuition will be adjusted to the reduced rate on the second bill you receive from Student Accounts Receivable.

You must register for all thesis credits under your major field course designator. (Note that any earlier thesis credit registrations under the designator Grad will remain on your transcript and will still count toward your Graduate School degree requirements.) In most cases, your course designator will match that of the department in which you take your major field courses. Some major fields will share a single designator, while new designators have been created for interdisciplinary graduate programs. Consult the course listings in Section 3 for the proper designator and current call numbers.

If you have any questions about registering for thesis credits, including which course designator to use, contact your director of graduate studies or the Graduate School, 316 Johnston Hall (625-3490).

Doctoral Residency Requirement—Doctoral students are required to complete a residency requirement of 7 quarters full-time registration. Full-time registration during the academic year is defined as 7 or more credits per quarter.

All credits taken in the Graduate School may be used to fulfill the residency requirement. During the academic year, part-time students (registering for 1-6 credits) will accumulate 0.1 quarter residency for each credit taken. Credits for registrations in first and second terms of the summer session will be added together. For 7 or more total credits, 1.0 quarter of residency will be granted; if the credit total is 1-6, 0.1 quarter of residency will be granted for each credit taken.

Residency may not be earned for credits accepted for transfer to a doctoral degree program, nor can residency be earned using master's degrees from other institutions or from other colleges of the University.

Some students who were first registered in the Graduate School before fall 1984 may be exempted from the residency requirement. For more information, contact 316 Johnston Hall (625-3490).

Graduate Assistants—University policy requires that you register every quarter you hold an appointment of at least 12.5% (65 hours) or more, including the quarter in which you graduate. This requirement applies to fall, winter, and spring quarters; if you were registered the previous spring or are

newly admitted for the following fall, registration in summer is *not* required to hold an assistantship.

Registration of one or more credits taken either A-F or S-N will fulfill this requirement. Beginning winter 1992, audit (V) registration by itself will not be considered sufficient to hold an assistantship. If you have questions about this requirement, call the Graduate Assistant Office, 626-1310.

Tuition Privileges for Graduate Assistants, Fellows, and Trainees—See page 26 for information.

Graduate Assistant Health-Care Plan—See page 18 for information.

Doctoral Oral Examinations—You must schedule your preliminary and final oral exams *at least one week in advance*. You may schedule your exams by going to 316 Johnston Hall or by calling 625-5367 for a preliminary oral exam or 625-5833 for a final oral exam. These exams should not be scheduled from the beginning of second term of summer session to the beginning of fall quarter unless members of the assigned committee can be assembled without substitution. If you are not active (registered in the Graduate School at least once in the last two years), you may not schedule your examination. Contact the Graduate School Admissions Office, 306 Johnston Hall (625-8060), regarding readmission.

Graduation—Graduate School degrees are awarded monthly. To graduate at the end of any given month you must:

- *submit your Graduate School Application for Degree form* in 150 Williamson Hall or 130 Coffey Hall on or before the first workday of the month. When you submit your application, you must also pay your \$25 graduation fee.
- *complete all other requirements* by the last workday of the month.

Graduating before the end of the quarter may affect your eligibility for student loans, housing, etc. Check with the appropriate office if you have questions on eligibility.

Plan A master's, professional master of engineering, and doctoral students receive an Application for Degree form plus detailed graduation instructions when they register their thesis or project titles in the Graduate School, 316 Johnston Hall. Plan B and specialist students receive Application for Degree forms and graduation instructions when they pick up their Final Examination Report forms from the Graduate School, 316 Johnston Hall. Students must be active (registered in the Graduate School at least once in the last two years) and have approved program or thesis proposal forms on file at the Graduate School before Applications for Degree and other graduation forms can be released.

Spring Commencement Ceremony—The spring commencement ceremony will be held on May 15, 1992 for all students graduating from January through June. If you wish to attend this ceremony and/or have your name appear in the commencement program, do the following by April 1:

- *complete your commencement attendance form* and

return it to 316 Johnston Hall, and
• *pay your graduation fee* (see above).

You should pick up a commencement handbook (containing information on academic costume, rehearsal, parking, and other topics) at University Relations, 6 Morrill Hall, at the information desk in the west bank bookstore, at the St. Paul campus bookstore, or at 130 Coffey Hall.

REGISTRATION INSTRUCTIONS FOR COLLEGE OF LIBERAL ARTS STUDENTS

Before Registering—You may not register until all holds have been cleared from your record. To clear CLA holds follow these steps:

- | | |
|-----------------------|---|
| ADV APP or SPRING SIG | Your adviser must sign your Course Request form. Get your adviser's approval at least 24 hours before you register. |
| CLA, CLA2, or CSS | A scholastic committee action. Contact your college office. |
| MAJ PROG | You must bring an approved program from your major department to your college office. |
| ORIENT MTG | Contact the office named. |
| UD MAJ MTG | Contact your college office, make an appointment, and attend this orientation. |
| REASSIGN | Students will be asked to confirm or change their intended major. Contact 214 Johnston Hall. |

Read official CLA communications—you are responsible for knowing their contents:

- | | |
|------------------|---|
| All CLA students | • any material available at your <i>Class Schedule</i> distribution point. |
| | • registration, grading, and progress policies published in the <i>CLA Bulletin</i> . |
| Honors students | • (admitted to the Honors Program)—honors course listings available in 115 Johnston. |

Read the CLA instructions on this page and the next.

Check the Section Status Reports in Johnston Hall, ground floor, or in your college office.

Registration Deadlines—CLA strictly enforces the following registration deadlines. Be sure to make any adjustments in your registration promptly. All changes must be made at the registration center in 202 Fraser Hall.

Friday of the second week (April 10 for spring 1992) is the last day to:

- *register* (instructor's signature needed after the fifth day of the quarter),
- *add a course or change sections of a course* (instructor's signature needed after the fifth day of the quarter),
- *change grading systems* (to or from S-N grading), and
- *cancel a course without transcript notation*.

Any course cancellations must be done through 202 Fraser Hall by Friday of the sixth week of the quarter (May 8 for spring 1992).

You may cancel completely (cancel *all* your courses) through June 5, 1992. CLA students must submit to their college office a written request for a leave of absence if they plan to either withdraw from all courses or not enroll in a subsequent quarter. Students who withdraw without receiving an approved leave of absence will be required to reapply for admission.

Exceptions to these deadlines may be approved only by petition to the CLA scholastic committee. Such petitions are not routinely approved. If circumstances prevent you from meeting a deadline, you must contact your college advising office *before* the deadline.

Program Approval—Registration for more than 19 credits per term requires approval of the scholastic committee.

Registrations for *independent study, extra credit, directed study, directed research, and directed instruction* require the approval of the instructor, department, and college. Obtain a special permission slip for independent and directed study from the department, get approval of the instructor and department, and bring the form to 214 Johnston Hall for college approval.

Registration in 8000-level courses must be approved by the instructor, the director of graduate studies, and the Graduate School. Approval forms are available in 306 Johnston Hall.

5000-level courses are intended for juniors, seniors, and graduate students. 3000-level courses are intended for sophomores, juniors, and seniors. To prevent inappropriate registrations, sophomores should not register for 5000-level courses, nor freshmen for 3000- or 5000-level courses without first consulting their college advising office.

Courses not listed in the *CLA Bulletin* may not be applicable towards a CLA degree. Consult your college advising office before registering for courses not listed in the *CLA Bulletin*.

S-N Registration—Changes to or from S-N registration may be made through the first two weeks of the quarter. Follow the cancel/add procedure outlined on page 11. For *sophomores, juniors, seniors, and adult specials*, there is no limit on the number of S-N courses in one quarter; *freshmen* may take no more than *half* of a quarter's credits S-N.

The number of S-N credits that can be applied to a CLA degree is limited. See the *CLA Bulletin* for details. Courses in departmental majors may be taken S-N only if the department has approved such a policy. Otherwise, S-N registration is allowed in all courses listed in the *CLA Bulletin*.

Ask in your college office about restrictions on the use of S-N credits in premedicine, predentistry, prepharmacy, and all interdepartmental programs (such as American Studies, International Relations, and Urban Studies). If you are in a preprofessional program, you should follow the requirements of the college that you plan to enter.

REGISTRATION INSTRUCTIONS FOR CARLSON SCHOOL OF MANAGEMENT COURSES

UNDERGRADUATE COURSES

Carlson School of Management Majors—Students enrolled in Carlson School undergraduate degree programs may register for 3000- and 5000-level Carlson School courses on or after their queue time. Undergraduates may not register for more than 20 credits without approval from an adviser in the undergraduate studies office, 290 Humphrey Center.

Degree-seeking Students in Approved Units—If you are a student in an approved unit with 90 or more credits and your GPA is 2.8 or higher, you may register for all 3000- and 5000-level general management courses (excluding practicum, honors, and special sections). You may register for these courses during queued registration by going directly to your registration center. Your college office can provide you with a detailed list of general management courses. Approved units include the following major programs: College of Agriculture—agricultural business, food science, animal and plant systems (environmental horticulture emphasis) nutrition; College of Education—business studies, business and marketing education, recreation, park, and leisure studies; College of Human Ecology—all majors; College of Liberal Arts—journalism (professional track), international relations (commerce and political economy tracks), urban studies; College of Natural Resources—fisheries and wildlife, forest resources (management and administration emphasis), forest products marketing, production management, urban forestry; Institute of Technology—actuarial science, computer science, mechanical engineering (EIP and IE emphasis). BIS and ICP majors should consult their program offices for information.

Other non-Carlson School of Management Students—Any non-Carlson School student with 90 or more credits and a cumulative GPA of 2.8 or higher may be able to register for open 3000- and 5000-level Carlson School courses during open registration by bringing a current transcript to 290 Humphrey Center.

Accounting Courses—Accounting 1050 is available to all students who have completed 40 or more credits. Accounting 3001 is available to all Carlson School students and select majors outside the Carlson School. Students registering for Accounting 3101 must have received either an A or B in Acct 1050 (or Acct 1024 and 1025), or have passed the Acct 3101 pretest. For details, go to 290 Humphrey Center or call 624-3313. Non-accounting majors may submit an accounting request form in 290 Humphrey Center to obtain permission to register for 3000- and 5000-level accounting courses; non-Carlson School students must attach a current transcript which shows 90 credits completed and a GPA of 2.8 or higher.

GRADUATE COURSES

Carlson School of Management and IR Graduate Students—Graduate students enrolled in the Carlson School or

the Industrial Relations program may register for most Carlson School courses on or after their queue time. M.B.A. courses are restricted to students enrolled in the M.B.A. program.

Non-Carlson School of Management Graduate Students—Non-Carlson School graduate students may request approval to register for Carlson School graduate courses by completing a petition for entry form. Approval will be given just prior to the first class meeting based on availability of space in courses. Forms and additional information will be available in 295 Humphrey Center after March 2. Approval for IR graduate courses must be obtained from the director of graduate studies in Industrial Relations, 537 Management/Economics.

Adult Special Students—Adult special students generally may not register for graduate courses. Any exceptions for IR courses must be approved by the director of graduate study in Industrial Relations, 537 Management/Economics.

REGISTRATION INSTRUCTIONS FOR INSTITUTE OF TECHNOLOGY COURSES AND STUDENTS

Engineering Courses—If you are *not* enrolled in the Institute of Technology, you may not register for any engineering course without an approved and signed Registration Override Permit from the department offering the course.

Department Approval—If you are enrolled in the Institute of Technology, you must obtain department approval on your Course Request form before you register or cancel/add.

Credit Limit—Registration for more than 19 credits requires college approval for students enrolled in the Institute of Technology. Apply for this approval in 105 Lind Hall before you register.

Grading Option—Students in the Institute of Technology may change their designated grading options (i.e., to or from S-N grading) without approval through the second week of the quarter. Changes after the second week require approval from 105 Lind Hall.

Course Cancellations—If you are enrolled in the Institute of Technology, you must obtain department approval for all cancellations through the sixth week of the quarter. Cancellations after the sixth week require approval from 105 Lind Hall.

THE FIRST WEEK OF CLASS

Spring quarter classes begin Monday, March 30.

Mandatory Attendance—You must attend the first class meeting of every course in which you are registered, unless you obtain approval for your intended absence before the first meeting. Without this prior approval, you may lose your place in class to another student. If you wish to remain in a course from which you have been absent the first day without prior

approval, contact your instructor as soon as possible. Instructors have the right to deny you admission if the course is full. You must *officially* cancel any course to which you are denied admission.

Gaining Admission to a Closed Course—You should first go to the department offering the course, where you may be put on a waiting list or be referred to the instructor for permission to register. Attend the first class meeting if you are on a waiting list or need the instructor's permission, to see if more students will be admitted. To register in a closed course you must have a signed Registration Override Permit from the instructor.

Senior Citizen Education Program—If you are 62 or older and a Minnesota resident, you may audit courses free of charge or take courses for credit at \$6 per credit whenever space is available after the first day of class. (The Section Status Reports located outside of 101 Fraser Hall, B18 and 16 Johnston, 4 Mechanical Engineering, 170 Anderson Hall, and 130 Coffey Hall, can tell you if a course with limited enrollment—R before the course number—is open or closed. If a course is not on the report, it has no limit on enrollment and space will be available.) Under this plan, you will not pay the student services fee, but must pay any required laboratory or materials fees.

Registration for the Senior Citizen Education Program is on the second day of class (Tuesday, March 31 for spring quarter). Attend the first day of class, however, to see if space is available and to receive information about class procedures. To register, go to 202 Fraser Hall (150 Williamson Hall for those with mobility impairments) or 130 Coffey Hall with your registration forms and identification to verify age and Minnesota residency. Call 625-5333 for more information.

Winter Quarter Grades—Winter quarter grades, in audit transcript form, will be available from March 31-April 3 in the Great Hall Annex of Coffman Memorial Union for students registered in the College of Liberal Arts, College of Education, General College, University College, School of Nursing, Graduate School, Institute of Technology, and College of Architecture and Landscape Architecture. Hours in Coffman for grade distribution are: 8-5:30, March 31-April 1, and 8-4, April 2-3. Audit transcripts for students in St. Paul colleges will be available in 130 Coffey Hall beginning March 31. Audit transcripts for students in all remaining colleges will be distributed through college offices. You must show identification to receive grades.

NOTE: During grade preparation and distribution (March 26-April 3), unofficial transcripts will not be available in Williamson or Coffey Halls.

CHANGE OF REGISTRATION

General Guidelines—Subject to certain limitations, you may add or cancel courses or may change grading systems. Course cancellations and changes to or from S-N grading are generally allowed without college permission during the first two weeks of the quarter or before.

When you cancel an individual course during the first two weeks of the quarter there is no transcript record of that course. If you cancel *all* courses during the first two weeks of the quarter, a notation of cancellation will appear on your record, although no Ws will be recorded. Cancellation of any course after the second week of the quarter will generally result in a W on your record.

Graduate students must follow all registration deadlines outlined on page 7.

When to Cancel Courses—If you decide before the quarter begins not to attend, cancel before the first day of classes. If you stop attending class for any reason, cancel immediately. On occasion, a course may be cancelled by the department offering the course. Contact the department immediately to see if other arrangements have been made. If no arrangements exist, it is then your responsibility to remove the course from your record by filing an official cancellation at your registration center.

Cancellations are effective the day you *officially* cancel (by taking a completed Course Request form to your registration center) *not* on the date you stopped attending class. If you fail to cancel any course for which you have registered but not paid, you will receive billing statements from Student Accounts Receivable for your tuition and fees, including additional billing charges and late payment fees. If you fail to pay by the due date on your billing statement, a hold will be placed on your record.

Tuition Charges and Refunds for Course Additions and Cancellations—Full tuition is charged on a per-credit basis for all changes in registration that increase your credit load, except for those credits that fall within the 14-18 credit undergraduate or 7-15 credit graduate plateaus. For example, if you are an undergraduate and add a 4-credit course, increasing your credit load from 12 to 16 credits, you will be charged only for your 13th and 14th credits because your 15th and 16th credits fall within the undergraduate plateau.

No additional tuition is charged when any course addition is balanced *at the same time* by a course cancellation, i.e., a cancellation equal to the number of credits being added *or* a cancellation and course addition that keeps the total number of credits within the undergraduate or graduate plateaus.

Refunds are issued on a per-credit basis according to the refund rate that applies to the date of cancellation. (In a very limited number of circumstances, retroactive cancellations and refunds may be authorized.) For more information on refunds, see pages 23-24. There is no refund for those credits that fall within the undergraduate or graduate plateaus. For example, if you are an undergraduate registered for 14 credits and you cancel a three credit course, lowering your credit load to 11, you will receive a refund for 3 credits. If you are registered for 18 credits, however, and cancel 3 credits, you will not be issued a refund because your credit total remains within the plateau.

How to Change Your Registration—To change your course load or grading system, you should:

1. Fill out a Course Request form. Use the extra form in

this schedule or obtain a form from your college office or registration center. Check the box indicating cancel/add and note the number of credits you will have after this change. If you are cancelling *all* courses, check the appropriate box.

2. Obtain instructor, adviser, and/or college office approval if required.
3. Turn in your Course Request form at your registration center, where you will receive a revised fee statement. Any assessment or credit amount that results from a change in registration is posted to your account at Student Accounts Receivable. New assessments will appear on your next billing statement. See Payment of Fees, pages 21-23, for more information.

CHANGE OF COLLEGE

Any student who wishes to transfer from one college of the University to another summer or fall quarter should submit a completed Application for Change of College or Status to the Office of the Registrar (150 Williamson Hall or 130 Coffey Hall) according to the following schedule for admitting colleges. Applications and general information are available from the Office of the Registrar. College offices can provide information on admission requirements.

NOTE: These dates are not applicable to programs in the Graduate School.

Summer 1992

Agriculture	May 15
Biological Sciences	May 15
Education	
Master of Education	April 1
Natural Resources	May 15

Fall 1992

Agriculture	June 1
Biological Sciences	June 1
Dental Hygiene	April 15
Education	
Undergraduate	March 1
Master of Education	July 1
Postbaccalaureate (Agricultural, Business, Industrial, and Marketing Education)	July 1
Human Ecology	June 1
Institute of Technology	
Undergraduates	April 1
Adult Specials	September 1
Liberal Arts	
Undergraduates	June 1
Adult Specials	September 1
Management	
Undergraduates	June 1
Adult Specials	July 15
Medical Technology	May 30
Mortuary Science	July 15
Natural Resources	June 1
Nursing	April 15
Occupational Therapy	March 15
Pharmacy	March 1

REGISTRATION QUEUE—SPRING QUARTER 1992

The registration queue on this page and the next has three parts—stage 1 for graduate, pharmacy, and public health students, and seniors (135 or more credits); stage 2 for juniors, sophomores and freshmen; and stage 3 for adult and high school specials. Within each stage, there are name ranges—listing last names (up to 10 letters) and sometimes partial first names. To find your registration time, locate the name range for your last name. For example, if you are a junior named Chris R. Student, your name falls between Streets, Jb—Sutherland in stage 2, and you may register at or after 1:30 p.m. on March 2.

MORNING HOURS

Stage 1: Graduate, Pharmacy, and Public Health Students and Seniors (135 or more credits)

	8:00 a.m.	8:30 a.m.	9:00 a.m.	9:30 a.m.	10:00 a.m.	10:30 a.m.	11:00 a.m.	11:30 a.m.
February 24	Olson, R-Paulson, Al	Paulson, Am-Pieper, Jon	Pieper, Joo-Ransom, Pag	Ransom, Pah-Rogers, Dou	Rogers, Dov-Sapmaz, Arz	Sapmaz, Asa-Sciarra, No	Sciarra, Np-Sisola, Lau	Sisola, Lav-Stallons, J
February 25	Amado, Elid-Aurzada, Mi	Aurzada, Mj-Beehler, Ca	Beehler, Cb-Blair, Mich	Blair, Mici-Brew, Brend	Brew, Brene-Byrne, Rich	Byrne, Rici-Charles, Sa	Charles, Sb-Clark, Kris	Clark, Krit-Crain, Thom
February 26	George, Cas-Gorak, Kath	Gorak, Kati-Gunnufson	Gunnufsoo-Hansen, Tas	Hansen, Tat-He, Meng Ta	He, Meng Tb-Higgins, Pa	Higgins, Pb-Holmes, Kat	Holmes, Kau-Hu, Jinfu	Hu, Jinfv-Ihroke, Nat
February 27	Kurtz, Babf-Laska, Jenn	Laska, Jeno-Lessard, Pa	Lessard, Pb-Lockhart, W	Lockhart, X-Lynch, Marg	Lynch, Marh-Manzavrako	Manzavrakp-Mazis, John	Mazis, Joho-McTighe, Ka	McTighe, Kb-Miencha, Ny

Stage 2: Juniors, Sophomores and Freshmen

	8:00 a.m.	8:30 a.m.	9:00 a.m.	9:30 a.m.	10:00 a.m.	10:30 a.m.	11:00 a.m.	11:30 a.m.
February 28	Olson, R-Ou, Tola	Ou, Tolb-Panillio, J	Panillio, K-Paulson, Ma	Paulson, Mb-Persons, Sc	Persons, Sd-Peterson, T	Peterson, U-Pierson, Da	Pierson, Db-Poon, Kathl	Poon, Kathm-Purcell, Aa
March 2	Sandon, Loo-Scheuerman	Scheuermoo-Schnittker	Schnittkes-Schwartz, L	Schwartz, M-Seybolt, Ha	Seybolt, Hb-Showalter	Showaltes-Skemp, Jeff	Skemp, Jefg-Smith, Nico	Smith, Nicp-Sopkowiak
March 3	Thoresen, K-Torgersen	Torgerseoo-Troyer, And	Troyer, Ane-Ungar, Shir	Ungar, Shis-Varebrook	Varebrool-Volkart, Vi	Volkart, Vj-Walker-Hil	Walker-Him-Watkins, Na	Watkins, Nb-Wells, Kore
March 4	Achter, Jum-Alferness	Alfernesoo-Anderson, C	Anderson, D-Andersson	Anderssoo-Aschenbren	Aschenbreoo-Baker, Chad	Baker, Chae-Barrett, Da	Barrett, Db-Beatty, Sha	Beatty, Shb-Benik, Scot
March 5	Brunke, Grf-Burkstrand	Burkstrane-Campagna, J	Campagna, K-Carpenter	Carpentes-Chandler, A	Chandler, B-Christense	Christensf-Clinite, Ro	Clinite, Rp-Conrad, Pam	Conrad, Pan-Cox, Cynthi
March 6	Dupont, Reo-Ehlenz, Chr	Ehlenz, Chs-Elston, Mic	Elston, Mid-Erickson, R	Erickson, S-Fackler, Ke	Fackler, Kf-Ferlet, Jea	Ferlet, Jeb-Flesche, Je	Flesche, Jf-Foster, Mic	Foster, Mid-Frey, Clayt
March 9	Gustafsoo-Halim, Hart	Halim, Haru-Hansen, Eri	Hansen, Erj-Harms, Mich	Harms, Mici-Hauge, Char	Hauge, Chas-Hegle, Susa	Hegle, Susb-Heno, Steve	Heno, Stevf-Higo, Yukik	Higo, Yukil-Hobot, Robe
March 10	Johnson, Bs-Johnson, Ki	Johnson, Kf-Jonas, Bria	Jonas, Brib-Justin, Jud	Justin, Jue-Karnes, Joa	Karnes, Job-Kelley, Ala	Kelley, Alb-Khambounmy	Khambounmz-King, Laura	King, Laurb-Kline, Rona
March 11	Larsen, Heb-Law, Miriam	Law, Mirian-Lee, Jejeon	Lee, Jejeoo-Lende, John	Lende, Joho-Licht, Rich	Licht, Rici-Linkert, Ma	Linkert, Mb-Longley, Mi	Longley, Mj-Lucas, Marn	Lucas, Maro-Luu, Thao T
March 12	McGurran, E-Meagher, Ji	Meagher, Jj-Merila, Mar	Merila, Mas-Michaelson	Michaelsoo-Miller, Sco	Miller, Scp-Moen, Natas	Moen, Natat-Morain, Ang	Morain, Anh-Mortensen	Mortenseoo-Mugerauer
March 13	Nienaber, M-Nordberg, D	Nordberg, E-Novotny, Br	Novotny, Bs-O'Connell	O'Connellm-Obert, Carr	Obert, Cars-Okerstrom	Okerstron-Olson, Chri	Olson, Chrj-Olson, Qzzz	

Stage 3: Adult and High School Specials

	8:00 a.m.	8:30 a.m.	9:00 a.m.	9:30 a.m.	10:00 a.m.	10:30 a.m.	11:00 a.m.	11:30 a.m.
March 13								Olson, R-Schlottman

NAME ROTATION THROUGH FUTURE QUEUES	Fall 1992	Winter 1993	Spring 1993
Registration Starts:	May 18, 1992	November 12, 1992	February 23, 1993
Each Stage Queue Begins:	Buenger	Sanford	Kent

AFTERNOON HOURS

Stage 1: Graduate, Pharmacy, and Public Health Students and Seniors (135 or more credits)

	12:00 noon	12:30 p.m.	1:00 p.m.	1:30 p.m.	2:00 p.m.	2:30 p.m.	3:00 p.m.	3:30 p.m.
February 24	Stallons, K-Swanson, Da	Swanson, Db-Timmons, Sh	Timmons, Si-Vanney, Guy	Vanney, Guz-Wattenbarg	Wattenbarh-Wilson, Tam	Wilson, Tan-Yue, Dongxi	Yue, Dongxj-Abadie, Tab	Abadie, Tac-Amado, Elic
February 25	Crain, Thon-De Decker	De Deckes-Do, Kien Ma	Do, Kien Mb-Earl, Tracy	Earl, Tracz-Enis, Rober	Enis, Robes-Fernandez	Fernandfa-Frager, Sta	Frager, Stb-Fussy, Carl	Fussy, Carm-George, Car
February 26	Ihrcke, Nau-Jan, Brian	Janz, Briao-Johnson, Cr	Johnson, Cs-Jorgenson	Jorgensoo-Keenan, Tod	Keenan, Toe-Kinney, And	Kinney, Ane-Koneru, Pra	Koneru, Prb-Krause, Mic	Krause, Mid-Kurtz, Babe
February 27	Miencha, Nz-Mischinski	Mischinskj-Moore, Mich	Moore, Mici-Munson, Jan	Munson, Jao-Nelson, Amy	Nelson, Amz-Nguyen, Bru	Nguyen, Brv-Nordrum, Je	Nordrum, Jf-O'Dougherty	O'Doughertz-Olson, Qzzz

Stage 2: Juniors, Sophomores and Freshmen

	12:00 noon	12:30 p.m.	1:00 p.m.	1:30 p.m.	2:00 p.m.	2:30 p.m.	3:00 p.m.	3:30 p.m.
February 28	Purcell, Ab-Rapp, Jerem	Rapp, Jeren-Reil, Tom E	Reil, Tom F-Riebesell	Riebeselm-Rodgers, Mi	Rodgers, Mj-Ross, Micha	Ross, Michb-Russell, Pe	Russell, Pf-Sahar, Maso	Sahar, Masp-Sandon, Lon
March 2	Sopkowiak-Stanchfiel	Stanchfiem-Stevens, Ev	Stevens, Ew-Streets, Ja	Streets, Jb-Sutherland	Sutherland-Taerud, Cyn	Taerud, Cyo-Terwelp, Ka	Terwelp, Kb-Thomas, Dav	Thomas, Daw-Thorensen, J
March 3	Wells, Korf-Whipkey, Mi	Whipkey, Mj-Williams, A	Williams, B-Winquist, W	Winquist, X-Wooters, He	Wooters, Hf-Yang, Yu-Ch	Yang, Yu-Ci-Zamora-Ahl	Zamora-Ahm-Zink, Chad	Zink, Chae-Achter, Jul
March 4	Benik, Scou-Berman, Pau	Berman, Pav-Binter, Jul	Binter, Jum-Blomgren, T	Blomgren, U-Bonk, Cynth	Bonk, Cynti-Boysen, Ste	Boysen, Stf-Brezny, Chr	Brezny, Chs-Brown, Andr	Brown, Ands-Brunke, Gre
March 5	Cox, Cynthj-Currier, Gr	Currier, Gs-Dancik, Den	Dancik, Deo-Day, Brian	Day, Briao-Denny, Timo	Denny, Timp-Dittel, Lor	Dittel, Los-Dorr, Trevo	Dorr, Trevp-Drury, Sean	Drury, Seao-Dupont, Ren
March 6	Frey, Clayu-Gallagher	Gallaghes-Gearhart, R	Gearhart, S-Giel, Brian	Giel, Briao-Glode, Ed J	Glode, Ed K-Grabow, Kar	Grabow, Kas-Griffith, M	Griffith, N-Gruber, Lyn	Gruber, Lyo-Gustafson
March 9	Hobot, Robt-Holland, Ma	Holland, Mb-Horvat, Jam	Horvat, Jan-Hughes, Sha	Hughes, Shb-Idelkope, J	Idelkope, K-Jackson, Te	Jackson, Tf-Jelinek, Ch	Jelinek, Ci-Jeter, Rodn	Jeter, Rodo-Johnson, Br
March 10	Kline, Ronb-Knutson, Th	Knutson, Ti-Kopecky, An	Kopecky, Ao-Kraling, Ja	Kraling, Jb-Krolnik, An	Krolnik, Ao-Kuncel, Nat	Kuncel, Nau-Laing, Scot	Laing, Scou-Lang, David	Lang, Davie-Larsen, Hea
March 11	Luu, Thao U-Mader, Bria	Mader, Brib-Maleitzke	Maleitzkf-Maresh, Roc	Maresh, Rod-Martin, Lau	Martin, Lav-Mattson, An	Mattson, Ao-McClellan	McClellao-McDonald, J	McDonald, K-McGurran, D
March 12	Mugeraues-Murray, Aim	Murray, Ain-Napper, Mel	Napper, Mem-Nelson, Eri	Nelson, Erj-Nesbit, Cha	Nesbit, Chb-Nguyen, Chi	Nguyen, Chj-Nguyen, Quy	Nguyen, Quz-Nguyen, Xua	Nguyen, Xub-Nienaber, L

Stage 3: Adult and High School Specials

	12:00 noon	12:30 p.m.	1:00 p.m.	1:30 p.m.	2:00 p.m.	2:30 p.m.	3:00 p.m.	3:30 p.m.
March 13	Schlottmao-Tuzinski, T	Tuzinski, U-Barber, Tim	Barber, Tin-Dam, Cao Vi	Dam, Cao Vj-Greene, Eli	Greene, Elj-Karulak, Ni	Karulak, Nj-McCaughley	McCaughlez-Muirie, Jil	Muirie, Jim-Olson, Qzzz

REGISTRATION SERVICES

Registration Center

202 Fraser Hall, Minneapolis
Monday 8 a.m.-6 p.m.; Tuesday-Friday 8-4
(March 31-April 1: 8 a.m.-5:30 p.m.)

For turning in scholarships, registration materials, cancel/add materials, and obtaining fee statements; processing payroll deductions

Office of the Registrar

150/155 Williamson Hall, Minneapolis
Monday 8 a.m.-6 p.m.; Tuesday-Friday 8-4
(March 31-April 1: 8 a.m.-5:30 p.m.)

Transcript Service (155), 624-4115

For regular service for official transcripts (\$3 charge), rush service for official transcripts (\$9 charge), and for unofficial copies of student records (limit one copy per day)

Student Relations (150), 625-5333

For assistance with individual student record problems, questions; registration services for students with mobility impairments; name and address changes; student loan deferments; turning in Application for Degree forms and Application for Change of College or Status forms

Certifications (155)

For certification letters and Veterans certification

St. Paul Admissions and Records

130 Coffey Hall, 624-3731
Monday 8 a.m.-6 p.m.; Tuesday-Friday 8-4
(March 31-April 1: 8 a.m.-5:30 p.m.)

Registration Service

For turning in scholarships, registration materials, and cancel/add materials and obtaining fee statements; processing payroll deductions (St. Paul colleges, Architecture and Landscape Architecture, Education, and Graduate School only)

Student Contact Area

For registration services for students with disabilities. For assistance with individual student record problems and questions; for certifications; for turning in Application for Degree forms, Application for Change of College or Status forms, and address changes. For regular service for official transcripts (\$3 charge), rush service for official transcripts (\$9 charge), and for unofficial copies of student records (limit one copy per day). For obtaining college bulletins

Student Accounts Receivable

20 Fraser Hall, Minneapolis 625-8500
107 Coffey Hall, St. Paul
Monday-Friday 8-3:30

For obtaining refunds, payroll deduction information, obtaining fee payment verifications, receiving assistance with student billing problems, questions. Picture ID required for service

Bursar's Office

145 Williamson Hall, East Bank
Anderson Hall ground level, West Bank
107 Coffey Hall, St. Paul
Monday-Friday 8-3:30

For paying tuition and fees, cashing refund vouchers and checks (student ID card and bottom half of fee statement necessary for check cashing; \$50 limit per day; \$.25 charge per check; \$15 charge for returned check), purchasing deposit cards and student ID card authorizations

ID Card Office

248 Williamson Hall, Minneapolis
Monday-Friday 8-4
(March 31-April 1: 8 a.m.-5:30 p.m.)

For obtaining new student ID cards; lost student ID cards turned in

Information Center

first floor concourse,
Williamson Hall, Minneapolis
Monday-Friday 7:45-4:30
(March 31-April 1: 8 a.m.-5:30 p.m.)

For obtaining college bulletins, maps, campus bus information (route 13 and MTC routes 52 only), and miscellaneous publications and information; no *Class Schedules* issued

TWIN CITIES CAMPUS TUITION SCHEDULE 1991-92¹

Tuition Rates for Undergraduates—The following per-credit tuition rates have been approved for the 1991-92 academic year.

Your tuition is always tied to the college in which you are registering. If there is only a single set of rates (resident and nonresident) listed below for your college, school, or program, you will pay that rate regardless of your class standing. When there are both lower and upper division rates listed for your college, you will pay lower division rates *through the quarter in which you have registered for your 90th credit*. Upper division rates are assessed thereafter. Adult special students pay upper division rates. For information on Minnesota resident status, see the next page.

There is a 14-18 credit plateau for all units listed below. Credits 1 through 14 are assessed on a per-credit basis. There is no charge (except for course fees) for your 15th, 16th, 17th, and 18th credits. Each credit above 18 is assessed on a per-credit basis. Credits for three Math courses—1008, 1111, and 1201—do not count in the tuition plateau.

Students registering in:	Resident	Non-Resident
Lower Division: Colleges of Agriculture, Architecture and Landscape Architecture, Education, General College, Human Ecology, Liberal Arts, Natural Resources, Institute of Technology, and University College	\$58.93	\$173.84
Upper Division: General College, College of Liberal Arts, and University College	\$60.57	\$178.68
Upper Division: Colleges of Architecture and Landscape Architecture, Education, and Institute of Technology	\$69.70	\$205.62
Upper Division: Colleges of Agriculture, Human Ecology, and Natural Resources	\$72.59	\$214.14
Management, Carlson School of	\$64.44	\$190.10
Biological Sciences, College of	\$72.59	\$214.14
Dental Hygiene, Program in Medical Technology, Department of Mortuary Science, and Programs in Occupational Therapy and Physical Therapy	\$73.00	\$215.35
Nursing, School of	\$73.00	\$146.00
Pharmacy, College of Bachelor of Science	\$80.00	\$160.00
Pharmacy, College of B.S. Seniors	\$35.51	\$64.60

Graduate School Tuition Rates—The following rates have been approved for the Graduate School for 1991-92. For information on who may register for thesis credits beyond requirement, see page 7.

Part-time rates:	Resident	Non-Resident
1-2 credits	\$301.15	\$602.30
3 credits	\$383.92	\$767.84
4 credits	\$511.89	\$1,023.78
5 credits	\$639.86	\$1,279.72
6 credits	\$767.83	\$1,535.66
Full-time rates:		
7-15 credits	\$1,084.00	\$2,168.00
per credit for each credit over 15	\$90.33	\$180.66
Thesis credits beyond requirement:		
Doctoral candidates only (per credit)	\$30.00	\$30.00
M.B.A. rates:		
M.B.A. day program (per credit)	\$168.00	\$255.94
M.B.A. evening program (per credit)	\$168.00	\$168.00

ADDITIONAL FEE INFORMATION

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Payment dates for spring quarter	21
Financial aid recipients	22
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¹Tuition and fees are subject to change without notice.

Professional School Tuition Rates—The following rates have been approved for professional school students and the departmental masters for 1991-92. Some schools have a 14-18 credit plateau. With this plateau there is no charge (except for course fees) for the 15th, 16th, 17th, and 18th credits. Each credit above 18 is assessed on a per-credit basis. Most other schools have term rates for 12 or more credits.

Students registering in:		Resident	Non-Resident
Dentistry, School of	per credit	\$186.67	\$280.00
	term (12 or more credits)	\$2,240.00	\$3,360.00
Departmental Masters, Colleges of Agriculture and Education	per credit	\$77.00	\$154.00
	14-18 credit plateau	\$1,078.00	\$2,156.00
Law School (semester rate)	per credit	\$213.33	\$426.66
	term (12 or more credits)	\$2,560.00	\$5,120.00
Medical School	1-5 credits	\$739.00	\$1,478.00
	6-10 credits	\$1,478.00	\$2,956.00
	11-15 credits	\$2,217.00	\$4,434.00
	16 or more credits	\$2,956.00	\$5,912.00
	Medical fellow specialists residency program (per term)	\$121.00	\$121.00
	Psychology fellow specialists (per term)	\$121.00	\$121.00
Nurse Anesthetist (Medical School)	per credit	\$90.00	\$265.50
	14-18 credit plateau	\$1,260.00	\$3,717.00
Pharmacy, College of (Pharm.D. program)	per credit	\$85.00	\$170.00
	14-18 credit plateau	\$1,190.00	\$2,380.00
	Pharm.D. clerkship (per term)	\$121.00	\$121.00
Public Health, School of	per credit	\$77.00	\$154.00
	14-18 credit plateau	\$1,078.00	\$2,156.00
Veterinary Medicine, College of	per credit	\$172.92	\$259.38
	term (12 or more credits)	\$2,075.00	\$3,112.50
	Veterinary fellow specialists (per term)	\$121.00	\$121.00

STUDENT SERVICES FEE

All students registered for 6 or more credits must pay a \$118.03-per-quarter (\$177.05-per-semester) student services fee in addition to tuition. Courses that carry no degree credit (Comp 0011, GC 0401, 0402, 0419, 0611, 0615, 0616, 0617, 0618, 0621, 0623, 0625, 0631, 0641, 0643, and all courses in which you register as an auditor) count in the determination of the credit total for the student services fee on a one class hour = one credit basis. For example, registration in GC 0625, which meets for 5 class hours per week, counts as 5 credits towards assessment of the fee. Credit courses for which a course fee is charged instead of tuition (Math 1008, 1111, and 1201) also count in the determination of the credit total for the student services fee. The fee is distributed among the following programs:

All-Campus Elections Commission	\$.138
Board of Student Publications (<i>Minnesota Daily</i>)	4.05
Boynton Health Service	54.00
Coffman Memorial Union	15.41
Community Child Care Center	.39
Council of College Boards	.238
Cultural Programs	1.47
Gay, Lesbian, and Bisexual Association	.20
International Study and Travel Center	1.06
Minnesota International Student Association	.524
Recreational Sports Building Fund	5.00
Recreational Sports Operations	10.49
St. Paul Board of Colleges	.162
St. Paul Student Center	7.53
Student Advocate Service	.30
Student Emergency Loan Fund	.238
Student Legal Services	4.99
Student Ombud Service	.47
Student Organization Financial Management	.27
Union Expansion Fund	5.94
University YW	.20
West Bank Union	4.77
WMMR	.19
TOTAL	\$118.03

Students who are registered only for research or other independent work do not need to pay the student services fee if the work is done exclusively outside the 9-county metro area (Hennepin, Ramsey, Dakota, Washington, Scott, Anoka, Carver, Wright, and Chisago). Students meeting the exemption criteria may elect to pay the fee if they wish to use or support the services covered by the fee.

RESIDENCE REGULATIONS

Because the University is a state institution, residents of Minnesota pay lower tuition than nonresidents, and, in many programs, receive priority consideration for admission. To qualify for resident status, you must reside in Minnesota for at least one calendar year *prior* to the first day of class attendance. During that one year waiting period, your primary reason for living in Minnesota must be something other than school attendance. There are few exceptions to this rule, and these generally apply to veterans, migrant workers, specific federal employees, refugees, and faculty at Minnesota col-

leges. Students holding temporary international visas (F-1, J-1, H-1, etc.) *do not* qualify for resident tuition.

If you have moved here from another state, resident status is not automatically granted; you must apply and present evidence that: you have abandoned your former domicile; you have made Minnesota your *permanent* home; you are not a tax dependent of a parent or spouse living out-of-state; and you have taken reasonable steps to substantiate your desire to remain in Minnesota. Although acceptance of employment, registration of automobiles, payment of local taxes, etc. may support an application for resident status, these actions, by themselves, do not constitute sufficient evidence of residence.

You may apply for or appeal your resident status by obtaining an application in 240 Williamson Hall or 130 Coffey Hall. An administrative classification will follow a review of the application. To appeal, you must file within 30 days after notification of classification. If the review board finds that an erroneous classification has been made, it will be corrected.

HEALTH SERVICE AND HOSPITALIZATION CHARGES

General Information—All students who take 6 or more credits must pay the student services fee. By paying the fee, you become eligible to receive most outpatient services at Boynton Health Service at no charge and others at reduced cost. Coverage for spring quarter begins Monday, December 23. (Students whose programs do not follow the regular quarterly calendar are usually covered on their first day of class. Call 624-1471 for further information.) If you do not pay the student services fee, you may purchase outpatient health coverage through the Extended Coverage Benefits plan available at the cashier's window, second floor, Boynton Health Service. Your spouse may also buy the Extended Coverage Benefits plan if both you and your spouse are covered by University-sponsored hospitalization insurance. Students who do not pay the student services fee or purchase extended coverage (and spouses and children of students) may use Boynton Health Service on a fee-for-service basis.

Boynton Health Service is open 8 a.m.-5 p.m. Monday through Friday. Prepaid medical care at Boynton includes general medical services, internal medicine, orthopedics, chest clinic, women's clinic, laboratory procedures, and eye clinic. Partial fees are charged for routine physical exams, annual dental exams, and some specialty care. Charges for mental health clinic visits, x-rays, and minor surgical procedures must be submitted by you to your hospitalization insurance company; your student services fee will cover the costs that your hospitalization insurance does not. Students without hospitalization insurance will be responsible for full payment of these charges. Full fees are charged for prescription drugs, eye glasses, and most dental care.

During the hours that Boynton is closed, emergency care is available at the University Hospital emergency department. However, the charges for such after-hours care are only partially covered by the student services fee. In most cases, Boynton will pay 50% of charges that cannot be collected from your insurance. You are responsible for the remainder of the

bill or for the entire bill if you do not have insurance. Visits to other emergency rooms are not covered by the student services fee. Follow-up care after an emergency must be obtained at Boynton to be covered.

For detailed information, see *Welcome to Boynton*, a brochure available at Boynton Health Service. General information and a copy of the brochure may be obtained by calling 625-8400.

Hospitalization Insurance—The Board of Regents requires all students taking 6 or more credits per quarter to carry hospitalization insurance. International students must carry hospitalization insurance for themselves and their dependents for the entire time they are in the U.S. If you already have insurance, be sure to fill in the name of your insurance company and your policy number on the hospitalization insurance form in the back of this *Class Schedule* and bring the form with you when you register. If you do not provide your insurance information when you register, you will automatically be charged for University-sponsored hospitalization insurance. To cancel this assessment and receive a full refund, you must return to your registration center with your insurance information by the end of the *first* week of classes.

Even if you are taking fewer than 6 credits, you have the option of purchasing hospitalization insurance. Coverage may be purchased at registration or at the cashier's window, second floor, Boynton Health Service. You must pay either the student services fee or the extended coverage benefit fee in order to be eligible to purchase this insurance. Coverage must be purchased by the end of the second week of classes (April 10 for spring quarter).

For more information on insurance or an insurance brochure, contact the Student Insurance Office at Boynton, room W228 (624-0627).

Summer Insurance Coverage—If you enroll in the University-sponsored hospitalization insurance plan during spring quarter, you may purchase summer coverage, even if you do not take summer classes. It is important to maintain insurance coverage through the summer so you are protected in case of a summer accident or illness. You may also purchase the Extended Coverage Benefits plan for \$110 for summer 1992, but you are not required to do so in order to be eligible to purchase the hospitalization insurance.

For information about purchasing summer insurance coverage, contact the Student Insurance Office at Boynton Health Service, room W228, (624-0627).

Immunization Clearance—Minnesota law requires all students born after December 31, 1956, to provide documentation of immunization for measles, mumps, rubella, tetanus, and diphtheria. This documentation must be entered on a Student Immunization Record and must include the month and year each immunization was given. Forms are available at your registration center and at the Boynton Health Service information desk. You only need to fill out a student immunization form the first time you register for classes.

Check your medical or high school immunization records. All students are legally required to provide information on immu-

nizations or exemptions; students who fail to provide the required information will have holds placed on their records and will not be allowed to register for classes. (The law does allow for some exceptions based on documented medical or conscientious exemptions.) If you need any of the required immunizations, call your family doctor or the Boynton Immunization Clinic (625-2929) for an appointment.

GRADUATE ASSISTANT HEALTH-CARE PLAN

University subsidized health insurance, provided through Group Health, Inc., is available to graduate and professional students who are either:

- graduate assistants with appointments of 25% or more in class titles 9511 (teaching assistant), 9521 (research assistant), or 9531 (administrative fellow), or
- enrolled in the Graduate School, hold a fellowship or traineeship, and receive a stipend or \$7875 or more for the academic year (fall, winter, and spring quarters) provided their college or department agrees to pay the full insurance premium during the academic year.

Students whose eligibility changes from one category above to the other must contact the Graduate Assistant Insurance Office (GAIO) to ensure continuity of coverage.

For graduate assistants, the University will pay a portion of the health insurance premium equal to twice their appointment percentage (e.g., 50% for a graduate assistant with a 25% appointment). All eligible fellowship and traineeship holders receive 100% subsidies during the academic year only.

To receive this coverage you must apply for it during the first quarter of your assistantship, traineeship, or fellowship, and by the enrollment deadline. For most students, this deadline is the end of the second week of classes (April 10 for spring quarter). Plan members will be billed quarterly for any portion of the premium they owe. Those on a provisional hourly appointments who work less than the estimated number of hours will be billed for an additional portion of the premium. NOTE: Students registering for less than 6 credits *no longer* have to pay the student services fee to receive this coverage.

Once enrolled, you remain a plan member until you lose eligibility (e.g., your assistantship, fellowship, or traineeship ends, or drops below the qualifying level). Upon loss of eligibility you *must* complete a cancellation form and return it to the GAIO; you will be billed for the full insurance premium until you do so. When you cancel you can elect to continue coverage for a period of time at your own expense; you are then responsible for the full amount of the health insurance premium. Students who lose eligibility, continue coverage, and then become eligible again must contact the GAIO.

Coverage for dependents of eligible students is available through a separate Group Health plan. For information on dependent coverage, contact Group Health at 623-8600. The cost of dependent coverage is borne entirely by the student and is not subsidized by the University.

Graduate assistants on the State Health Plan may apply for the Graduate Assistant Plan, but only under certain condi-

tions (contact the GAIO for details.) Graduate students who leave the State Plan will not be allowed back in the State Plan under any circumstances.

For further information, contact the GAIO in 411 Johnston Hall, 625-4346.

TRANSCRIPT FEES

There are two types of service for *official* transcripts: regular service and rush service. (Official transcripts are certified and signed by the University Registrar.) Regular service is available for \$3 a copy. Processing time for regular service is 2-3 workdays; after processing, your copies will be mailed to the places you have specified. Rush service on your official transcript requests is available for \$9 a copy. Rush service guarantees your transcript will be issued to you in person or put in the mail on the same day it is requested. You must have a picture ID (U of M student ID card, driver's license, or current passport) to receive over-the-counter rush service. Prepaid courier service may also be requested for both regular and rush service. Visit the transcript service (155 Williamson Hall, Minneapolis, or 130 Coffey Hall, St. Paul) for more information or call 625-5333.

Official transcripts can be requested by mail. Requests can also be dropped off at the locations below. No phone or FAX requests will be accepted. Requests should include your full name, your student ID number, college, dates of enrollment, and complete address(es) to send the transcript(s) to. Minneapolis students should send their requests to the Certifications Unit, 155 Williamson Hall, 231 Pillsbury Drive S.E., Minneapolis, MN 55455. St. Paul students should send their requests to St. Paul Admissions and Records, 130 Coffey Hall, 1420 Eckles Avenue, St. Paul, MN 55108. (*If your last registration in Extension was spring 1989 or earlier, you must request your Extension record at the Certifications Unit in Minneapolis.*) Your request must include a check or money order payable to the University of Minnesota for \$3 or \$9 per transcript or the same amount in transcript vouchers from the Bursar.

You may pick up an *unofficial* copy of your record by presenting a picture ID at the transcript window in 155 Williamson Hall or at 130 Coffey Hall. There is no charge for an unofficial copy of your record; there is, however, a limit of one copy per day. Unofficial transcripts are never available, however, during grade preparation and distribution (March 26-April 3).

Students are advised that disciplinary action will be taken if academic records are forged or altered.

SPECIAL FEES¹

BILLING CHARGE

\$5 per billing cycle for a maximum of \$10 per quarter.

BUSINESS QUARTERLY

\$2.75—Required of all Carlson School of Management students who pay the student services fee. Assessed at registration.

COGS (COUNCIL OF GRADUATE STUDENTS)

\$1.37—Required of *all* students in the Graduate School.

COLLEGE OF EDUCATION—PLACEMENT SERVICE FEE

\$40—Registration fee for graduate students, alumni, and others (annual fee).

\$25—College of Education students completing a teacher licensing program (annual fee—assessed with graduation fee)

\$8—Vacancy bulletin service fee to receive vacancy bulletins by mail (quarterly fee)

Bachelor of Science degree candidates in the teacher licensing program areas from the College of Education are required to register with the placement section of the Education Student Affairs Office or to secure an official exemption from that office. Graduate students and alumni seeking employment in education positions may also use the placement services.

CREDIT BY SPECIAL EXAMINATION

\$30—Check with your college office for further information.

DIPLOMA, OVERSEAS MAILING

\$5—For sending a diploma *air mail* to address outside the United States, Canada, or Mexico. (Fee optional)

DIPLOMA REPLACEMENT FEE

\$15

ENGLISH FOR INTERNATIONAL STUDENTS

For international students who are required to take English as a Second Language courses—a fee ranging from \$585 (5 hours per week) to \$1485 (25 hours per week) is charged separate from tuition and fees charged for academic classes.

GRADUATE AND PROFESSIONAL STUDENT ASSEMBLY (GAPSA)

\$1.29—Assessed quarterly to *all* students in most professional schools and students in the Graduate School.

GRADUATION FEE

\$25—Each degree, includes diploma.

HOSPITALIZATION INSURANCE, UNIVERSITY SPONSORED

\$141 per quarter—Available only to students who pay the student services fee or the extended coverage fee.

INTERNATIONAL STUDENT AID FEE

\$4 per quarter—Required of *all* students who hold nonimmigrant visas.

I.T. BOARD OF PUBLICATIONS

\$2.90—Required of all Institute of Technology students who pay the student services fee—assessed at registration.

LATE PAYMENT FEE

\$15 per billing cycle for a maximum of \$45 per quarter.

LATE REGISTRATION FEE

\$10 through the first two weeks of classes and \$20 thereafter.

MINNESOTA PUBLIC INTEREST RESEARCH GROUP (MPIRG)

\$2.50 (refusable/refundable)—Assessed with student services fee.

MINNESOTA STUDENT ASSOCIATION (MSA)

\$1.43—Assessed to *all* undergraduates, departmental masters, and students in pharmacy.

MUSIC PRACTICE ROOMS

Rooms with upright or grand piano, harp, harpsichord, organ, or percussion as well as rooms with no instrument are available on a quarterly basis. Check in 100 Ferguson Hall for rental information and rates.

ORIENTATION FEE

\$32—Required of all new students *except*: high school and adult specials; graduate students who attended the University as undergraduates; students in law, medicine, veterinary medicine, dentistry, and public health; and students in postbaccalaureate education, master of education, and master of agriculture programs.

RECREATIONAL SPORTS PARTICIPATION FEE/LOCKER RENTALS

Currently enrolled students who do not pay the student services fee must purchase a quarterly permit to become eligible to use recreational facilities and programs. Similar permits (at different costs) are available for faculty and staff.

For further information, including the current fee rates, call or visit one of the Recreational Sports offices: 101 Cooke Hall, Minneapolis, (625-6800) or 104 St. Paul Gym (625-8283).

Sports lockers and towel service can be rented at the equipment rooms in the University Recreation Center, Norris Hall, and the St. Paul Gym at the following rates:

\$1—Daily rate for locker/towel/rental

\$15—Quarterly locker/towel/rental for students

\$20—Quarterly locker/towel/rental for staff/faculty

SERVICE FEE, INTERNATIONAL PROGRAMS

\$250-\$400 per quarter according to services provided—For international students supported under contractual arrangements with sponsoring agencies or entities requiring special administrative or management services beyond those normally provided.

SPEECH AND HEARING CLINIC

U of M students, staff, and faculty are not charged for clinical services provided in the Speech and Hearing Clinic.

¹Fees are subject to change without notice.

COURSE FEES¹

All fees are per quarter unless otherwise indicated.

Students taking the following courses will pay course fees as follows:

COMPOSITION AND COMMUNICATION

\$205—0011

ECOLOGY AND BEHAVIORAL BIOLOGY

\$15—5014, 5016, 5132, 5134—Transportation Fee

FIELD STUDIES HEALTH SERVICE FEE

\$54 per quarter—Required of students on University field studies such as Anthropology, Geology, etc. (covers outpatient medical care for emergency illness at nearest facility on approval of the person in charge of the group. Eligible charges which are not collectible from a student's insurance carrier will be paid by Boynton Health Service up to a maximum of \$100 per visit).

FOREST PRODUCTS

\$50—For P 3300 Wood Industries Tour

GENERAL COLLEGE

\$205—0401, 0402, 0419, 0611, 0615, 0616, 0617, 0618, 0621, 0623, 0625, 0631, 0641, 0643—Preparatory Mathematics and Composition

LANDSCAPE ARCHITECTURE

\$35—5073, 5107

MATHEMATICS

\$236—1008

\$295—1111, 1201

MUSIC, APPLIED

Applied lessons—1 half-hour lesson per week for 2 credits; 2 half-hour lessons or 1 hour lesson per week for 4 credits.

Music majors who have passed the entrance exam: \$0 per 2 credits
Majors taking extra credits (beyond requirement) or taking lessons on a second instrument: \$45 per 2 credits

Students taking lessons for minor in music: \$45 per 2 credits

Non-majors, elective credit: \$115 (0-2 credits)

PLANT BIOLOGY

\$20—1009 Transportation Fee

SOIL SCIENCE

\$6—3220 Field Course

\$19—3520, 5510 Transportation Fee

STUDIO ARTS²

Materials fees:

\$5—1101, 1102, 1404, 5190

\$20—1702, 3720

\$25—1701, 3710, 5710, 5790

\$30—3430, 5430, 8360

\$35—1510, 1520, 1530, 1540, 3306, 5360

\$40—3510, 3520, 3530, 3540, 3550, 5510, 5520, 5530, 5540, 5550, 5590

\$45—3830

\$50—1301, 1302, 1811, 1812, 3301, 3302, 3303, 3304, 3305, 3307, 5310, 5320, 5330, 5340, 5350, 5370, 8310, 8320, 8330, 8340, 8350, 8370

\$55—5830

\$60—1802, 3810, 5390

\$66—5890

\$70—5810

\$80—3820, 5821

\$95—5820

\$225—8810

Arranged (amount adjusted to individual needs of students or particular class project)—3420, 3970, 3980, 5420, 5970, all other 8000-level courses

¹Fees are subject to change without notice.

²Materials fees—assessed at the time of registration. Arranged fees are collected by department.

DEPOSIT CARDS AND RENTAL CARDS

Deposit Cards—Deposit cards may be purchased from the Bursar's Offices, 145 Williamson Hall, 107 Coffey Hall, or 101a Anderson Hall (no pharmacy cards available at Anderson Hall). Chemistry cards are \$30; microcomputer lab cards are \$35; pharmacy cards are \$10; art cards are \$5. Chapter 31 veterans (veterans on vocational rehabilitation) should obtain a voucher from the Certifications Unit, 155 Williamson Hall, and present this voucher at the Bursar's Office when they purchase a card.

Chemistry and Pharmacy Cards—Chemistry and pharmacy cards must be presented for admittance to the first meeting of lab classes. One card may serve for more than one class. Partially depleted cards are acceptable for admittance to class, provided that the unused portion is not less than the minimum stipulated for that course. The deposit card requirement is waived for graduate teaching assistants.

Lab material and breakage will be charged against your deposit card. Any unused balance will be refunded at the end of the course. You must present your deposit card to be assigned a lab desk. If you are disabled, you should speak with your instructor about any special arrangements that are necessary.

Microscope Rental Cards—Students enrolling in the following courses who do not provide their own microscopes must purchase one microscope rental card for Biology 3013 and two cards for the following Microbiology courses: 1101, 3103, 5105, 5106, 5233, 5234. The nonrefundable cards are \$3 each and may be purchased from the Bursar's Offices.

¹Fees are subject to change without notice.

FACILITY FEES¹

Students registered in the following courses must pay the amount indicated to the appropriate facility operator for the use of the facility and/or equipment.

AnSc 1601 Horse Equitation	\$60
PE 1034 Judo	\$18 (maximum)
PE 1035 Karate	\$23 (maximum)
PE 1048, 1148 Bowling each	\$15 (maximum)
PE 1057, 1157, 1257 Skiing each	\$75 (maximum)
PE 1205 Scuba and Skin Diving	\$25 (maximum)

¹Fees are subject to change without notice.

STUDENT ID CARD REPLACEMENT

Student ID cards are required in many areas of the University to process student services. Cards can only be produced for students who are registered for a current or future quarter.

You will not be charged a replacement ID fee if you request a legal name change (you must provide a copy of legal documentation if you are requesting a change in both first and last names); a multi-part name change (ST JAMES rather than STJAMES); or a social security number update (you must show a copy of your SSN card). You will also not be charged for card replacement due to: typographical errors, a name cut off due to lack of available space, an embossed surface or bar code that is worn due to normal wear and tear, or if you have not registered within the past two years and have lost or never been issued a card. For all of the above, you may obtain a new card at the ID Office, 248 Williamson Hall.

You will be charged a replacement fee if you have registered within the past two years and need a replacement ID for any reason other than those listed above or if you need to replace a card damaged due to negligence. In these instances, you will need to purchase an authorization card for \$10 at the Bursar's Offices, 145 Williamson Hall, 107 Coffey Hall, or 101a Anderson Hall. Bring the authorization card to the ID Office, 248 Williamson Hall, where your student status will be verified and you will be issued a new ID card. (NOTE: Lost ID cards that have been turned in are kept at the ID Office for 6 months.)

PAYMENT OF FEES

BILLING AND PAYMENT DATES FOR SPRING QUARTER			
STATEMENT	BILLING DATE	PAYMENT DATE	BALANCE DUE
Billing Statement #1	April 6	April 24	30%
Billing Statement #2	April 30	May 18	60%
Billing Statement #3	May 22	June 10	100%

Student Accounts Receivable Billing System for Tuition and Fees—Every student has an account at Student Accounts Receivable and receives a bill for tuition and fees at the beginning of each quarter. Each time you register for, cancel, or add courses, your tuition and fees will be charged to your account. This account, unlike individual fee statements, will reflect your *total* charges for tuition and fees.

You will continue to receive fee statements, but they will not carry payment due dates. Instead, your tuition due dates will be on your billing statements.

This billing system allows installment payments, with three payments possible over the quarter. Your first billing statement will list both your total tuition charges *and* a minimum payment amount. To make installment payments you need only pay the minimum payment listed. You will receive up to two additional billing statements during the quarter, each indicating a minimum amount due. There is a nominal billing charge (\$5) for each installment. If you choose to pay less than the *full* amount, you will be assessed this \$5 billing charge on your next statement. Every time you pay less than the *minimum* amount due, you will be charged \$15 in late payment fees in addition to the \$5 billing charge and a hold will be placed on your record. (Billing charges and late payment fees will appear under Charges and Debits on your bill.) Any bill can be paid *in full* by the due date to avoid billing charges.

Installment payments may not be suitable for certain students who need to be certified as having paid tuition and fees in full by the beginning of the quarter. Check with the Certifications Unit, 155 Williamson Hall, for more information.

You can make installment payments only for charges for the current quarter—balances or transactions from previous quarters are always due in full. You will be assessed billing charges for the current quarter if you have a previous balance outstanding. Any payments that you make will *always* be applied to the oldest charge on your account.

The chart at the top of the page lists the billing dates and the payment dates for spring quarter. For spring quarter, your first billing statement will be issued on April 6 and your first payment must be received by April 24. (**NOTE: Allow approximately one week for your billing statements to reach you by mail.**) This first billing statement will list a minimum payment of 30% of all *unpaid* charges for spring

quarter plus 100% of any previous charges. Your second bill will be issued on April 30 and due by May 18. The minimum payment for the second bill is 60% of your unpaid balance for the quarter (plus 100% of any charges for previous quarters or terms). The final bill for the quarter will be issued on May 22 and due by June 10. With the final bill you will be expected to pay any amount not yet paid. For example, if the unpaid balance of your tuition and fees total \$900, the minimum payment on your *first* bill would be \$270 (30% of your balance) and this amount would be due by April 24. After you make your first payment of \$270, your *second* bill would list a minimum payment of \$381 (60% of the balance of the \$630 remaining on your account plus the \$5 billing charge) and would be due by May 18. Your final bill would be for \$259 (your balance of \$254 plus a \$5 billing charge); payment would be due by June 10.

NOTE: Students in units that do not follow the regular quarterly calendar (e.g., Dentistry, Medicine, Law) may have billing and due dates that differ from the above schedule. Contact Student Accounts Receivable, 625-8500, for information on billing schedules for your unit.

It is your responsibility to report any change in address to the University. When you register, verify that the address printed on your course confirmation form is correct. (You may report an address change to Student Accounts Receivable by calling 625-8500.) If you do not receive any billing statement, you *must* obtain a payment voucher on or before the payment due dates listed on the chart at the top of this page. Payment vouchers are available at Student Accounts Receivable, 20 Fraser Hall in Minneapolis (Bursar's departmental window, 145 Williamson Hall, for students with mobility impairments) or 107 Coffey Hall in St. Paul. If you want to pay your balance *before* you receive your billing statement, go to Student Accounts Receivable where a payment voucher will be prepared for you.

When to Pay—For students who register through April 6, the first payment is due by April 24. Students whose registrations occur after the first billing date will be billed in the next billing cycle (April 30) and will have a May 18 due date. Always pay by the due date listed on your bill.

REMEMBER: Initial registrations that occur after March 27 are subject to late registration fees.

Where to Pay—Pay your tuition and fees at the Bursar's Office (145 Williamson Hall on the east bank, ground floor of Anderson Hall on the west bank in Minneapolis, or 107 Coffey Hall in St. Paul). Your billing statement (or fee statement) and a check or money order may also be dropped in any of the fee deposit boxes on campus: in the Fraser and Coffey Hall registration centers; both concourses of Williamson Hall; Anderson Hall; Coffman Union Service Center; and all dorms. Payments are picked up at 8 a.m. and are credited to the previous day. The receipted statement may be picked up after five workdays at 145 Williamson Hall or 107 Coffey Hall. Your receipted statement will be mailed to you if you enclose a self-addressed, stamped envelope.

Mailing Your Payment—Your billing statement (or fee statement) and a check or money order may be mailed, using the envelope enclosed with your billing statement, to the Bursar's Office, PO Box 88, Minneapolis, MN 55440-0088. Write your student ID number on your check or money order and enclose all copies of your statement. (If you are paying with your fee statement, do not remove the student copy before sending in payment but do remove the lower portion—your course confirmation form.) Your mailed payment must be received by the billing statement due date, or you will be billed for additional charges on the following statement. If you want your receipted statement returned to you by mail, you must enclose a self-addressed, stamped envelope. If you do not include this return envelope, you can pick up your receipted copy after five workdays at the Bursar's Office in Minneapolis (145 Williamson Hall).

Monthly Budget Plan—A monthly budget plan is offered for the academic year. With this plan, you or your sponsor (your parent or spouse, for example) can pay your estimated fall, winter, and spring quarter tuition and University housing costs in 9 equal installments. These installments will run from July through March each year.

You can request information about this plan from Student Accounts Receivable, including information on entering the plan mid-year, by calling 625-8500 or by going to 20 Fraser Hall or 107 Coffey Hall.

Collection Procedures and Costs—Past due accounts may be subject to handling charges and collection procedures. Collection can include court action or referral to outside collection agencies. You are responsible for any and all costs necessary for the collection of any amount not paid when due.

Fee Statements, Course Confirmation Forms—Do not destroy or throw away any fee statements you receive from the registration center. Although your tuition is billed by Student Accounts Receivable, you may use your fee statements to pay at the Bursar's Office prior to receiving your billing statement.

The bottom half of your fee statement—your course confirmation form—is your proof of enrollment. Keep all copies for the quarter together with your student ID card. Many University facilities such as the libraries, Boynton Health Service, the Bursar's check cashing service, and athletic facilities require your course confirmation form as proof of enrollment. In addition, if you do not have these copies, you will not be able

to pick up your financial aid or loan checks without a lengthy replacement procedure.

Duplicate Fee Statements—Duplicate unreceipted fee statements for the current quarter may be obtained at your registration center. If your fees are paid, Student Accounts Receivable can issue a payment verification letter or validate your unreceipted copy at 20 Fraser Hall or 107 Coffey Hall (150 Williamson Hall for students with mobility impairments).

Credit Balance Fee Statements—Credit balance fee statements have a dollar amount in the "Amount Due" box that is followed by "CR," which means that your obligation to the University has been reduced by that amount. If you have already paid your fees *in full*, you may obtain a refund by presenting the credit balance fee statement to Student Accounts Receivable. (See also Refunds, on page 23.) If all of your fees have not been paid and the amount on the credit balance fee statement is less than what you owe, this credit will be reflected on your next bill from Student Accounts Receivable. This credit could also lower the minimum amount due on your current billing: for information on your current billing, call Student Accounts Receivable at 625-8500. If all of your fees have not been paid and the credit amount is *more* than the amount that you owe, go to Student Accounts Receivable for further information or call 625-8500.

Zero Balance Fee Statements—Zero balance fee statements have zeros printed in the "Amount Due" box on the fee statement. This means that no *additional* tuition and fees have been charged to your account at Student Accounts Receivable. All previous amounts owed remain unchanged. If you have questions about your balance, call 625-8500 for more information.

Credit for Tuition Deposit—If you are registering for the first time at the University and you paid a tuition deposit, you will receive credit for that deposit on your first billing statement from Student Accounts Receivable.

Paying Tuition Holds—After the due date, you must pay the current amount due on your account to receive a hold release. If, in order to register, you pay a Student Accounts Receivable hold for a previous quarter with a personal check and that check does not clear the bank, you will be sent a notice by Student Accounts Receivable. Your current registration may be cancelled if you fail to respond to this notice and pay your debt.

NOTE: If you pay a hold by check, it will be two weeks before you can obtain a transcript. For an immediate transcript release, pay with cash.

Financial Aid Recipients—You must turn in your Course Request form and receive your course confirmation form by March 27, even though you will have not yet received your financial aid check. If you register after March 27, you will be charged a late registration fee.

If you present a restrictively endorsed financial aid check in payment of tuition and fees, it will be applied in full toward the total amount of tuition and fees assessed. You are not eligible for installment payments if your financial aid check is 100%

or more of your tuition and fees.

If your check is less than 100% of the amount due on your billing statement, you can make installment payments—your check, *in full*, would be your first payment, and your balance would be billed during the next billing cycle. With a financial aid check that is less than the minimum due, you can still make installment payments by using other funds to complete the first payment. Call Student Accounts Receivable (625-8500) for further information.

REMEMBER: If, for any reason, you do not receive your financial aid, you are still responsible for paying your tuition and fees.

Tuition and Fees Paid by Various Agencies—If you have authorization for the University to bill a sponsor for your tuition and fees, you should bring your authorization *before the beginning of registration* to your registration center (202 Fraser Hall for Minneapolis students, 130 Coffey Hall for St. Paul students, or 150 Williamson Hall for students with mobility impairments). If you are unable to present your authorization before the beginning of registration, bring it with you when you register. International students who need assistance with documentation or translation should contact the Office of International Education, 626-7100.

NOTE: You will have a hold placed on your record if your sponsoring agency falls behind in payment for more than two quarters. You will be held responsible for all unpaid tuition and fees if your sponsoring agency does not fulfill its obligations. It is your responsibility to monitor payments made to your account by your sponsor.

Regents' Scholarships—If you are registering for a course with a Regents' Scholarship, you should bring your authorization to your registration center when you register. If you receive your authorization after you have registered, you must return to your registration center for an adjusted fee statement. (Regents' Scholarship authorizations should never be mailed to the Bursar.) If you fail to receive authorization by the due date on your first billing statement from Student Accounts Receivable, you will be liable for billing charges and late payment fees. Regents' Scholarships cover only tuition for approved courses. You are responsible for all course fees and special fees. If you fail to pay these fees by the due dates on your billing statements, you will be liable for billing charges and late payment fees.

Payroll Deduction for Graduate Assistants—To be eligible for payroll deduction, you must be enrolled in the Graduate School or in a professional post-baccalaureate degree program and hold at least a 25% graduate assistant appointment for the entire quarter. Those students holding only hourly graduate assistant appointments, including those teaching classes in Continuing Education and Extension, are not eligible. Your tuition and student services fee must total at least \$150. (The student services fee is the only deductible fee.) In addition, you must earn enough in your last four pay periods to cover your tuition and fees in four equal installments (see NOTE, below).

Application for payroll deduction is *never* possible after the

fifth day of the quarter. Request payroll deduction when you register. After you fill out a payroll deduction authorization card, you will be credited directly on your billing statement for the amount to be deducted.

All students must pay all fees not covered by payroll deduction (e.g., MPIRG, hospitalization, course fees) by the due dates on their billing statements to avoid billing charges and late payment fees.

If upon review Student Accounts Receivable denies your application for any reason (e.g., temporary or incorrect Social Security Number, insufficient income to cover deducted amount in four payments), a billing statement with a new due date will be sent to you. This bill must be paid by the due date to avoid a billing charges and late payment fees.

If you cancel/add anytime through the first week of the quarter, go to Student Accounts Receivable (20 Fraser Hall) to have your payroll deduction application adjusted. After the first week of the quarter, tuition and fees for added courses cannot be put on your payroll deduction and must be paid by the due dates on your billing statements. If you cancel courses after the first week of the quarter, you cannot receive a refund for credited tuition and fees until the last of the four payroll deductions has been made.

NOTE: Tuition and fees are withheld in four equal installments from the last four pay periods of the quarter. For example, if your tuition and deductible fees total \$400, this amount will be withheld from your last four paychecks in equal installments of \$100. To be eligible for payroll deduction, you must net at least \$120 per paycheck (the extra \$20 is added because no payroll check can be issued for less than \$20). If you discover, after you have applied, that your net pay will not cover your deductions, contact Student Accounts Receivable in 20 Fraser Hall (625-8500) for a new fee statement. If you are ineligible for payroll deduction, you can make installment payments by paying the minimum amount due on your billing statements.

REFUNDS

Tuition and Course Fees—Tuition and course fees are refunded on the following general schedule: if you cancel during the first week of the quarter or before, you will receive a 100% refund; 75% during the second week; 50% during the third week, and 0% thereafter. Refer to the table below for those dates for spring quarter.

REFUND SCHEDULE FOR SPRING 1992	
For refund of:	Cancel by:
100%	April 3
75%	April 10
50%	April 17
0%	on or after April 20

Special length courses that begin after the first week of the quarter may be cancelled for a 100% refund through the first day of the course. Cancellations after the first day of the course but during the second and third weeks of the quarter follow the refund schedule above. After the third week of the quarter, no refund is available if the course is cancelled after the first day.

Remember: Cancellations are effective the day they are processed. Your refund will be based on the date you *officially* cancel (by taking a completed Course Request form to your registration center) not on the date you stopped attending class. Cancel immediately if you stop attending class for any reason.

In a very limited number of circumstances (e.g., active military duty, scholastic drop) retroactive cancellation may be possible. If retroactive cancellation is authorized within one calendar year after the end of the quarter, you may be entitled to a tuition refund: Check with the Student Relations staff in 150 Williamson Hall (625-5333) or 130 Coffey Hall (624-3731) for details.

If your tuition and fees are not paid in full, any refund you receive will be a monetary credit applied to your unpaid balance. Read Payment of Fees, pages 21-23.

Student Services Fee and University-Sponsored Hospitalization Insurance Fee—If you drop your credit load to below 6 credits, you can request a refund of the student services fee and the University-sponsored hospitalization insurance fee when you process your cancellation. All refunds of these fees are based on the date that the cancellation is processed (see above table for deadlines) and are not affected by retroactive cancellation. If you wish to continue your hospitalization insurance, you cannot receive a refund of the student services fee.

If you receive a refund of the student services fee, you can no longer use the services provided by the fee. To continue using these services, you must continue to be registered and not be issued any refund.

If you cancel *all* courses and qualify for a tuition refund, you must also accept a prorated refund of the student services fee unless you retain University-sponsored hospitalization insurance.

Special Fees—The orientation fee and the late registration fee are never refunded. MPIRG is not refunded through the Registration Centers—refund instructions are published every quarter in the *Minnesota Daily*. All other special fees assessed at registration are refunded through the third week of the quarter at the same rate as tuition and course fees. There is no refund of special fees after the third week of the quarter, even if retroactive cancellation is authorized.

How to Obtain Your Refund—If you have paid your fees in full, you may obtain a refund by presenting your credit balance fee statement and picture ID to Student Accounts Receivable, 20 Fraser Hall or 107 Coffey Hall. There is a two week waiting period for your refund beyond the last date any payment was receipted, unless your fees were paid only with cash or a University of Minnesota check. You can request a refund be sent to you by mail by calling Student Accounts Receivable,

625-8500. Allow an additional three to four weeks, beyond the two week waiting period, for a refund by mail.

If you have *not* paid your fees in full, any refund you receive will be a monetary credit applied to your unpaid balance. Read Payment of Fees, pages 21-23.

Refunds for Students on Payroll Deduction—If you cancel courses, you cannot receive a refund for tuition and fees that are being deducted until after all four payments have been deducted from your check. To receive a refund, bring your *last* pay check stub to Student Accounts Receivable at 20 Fraser Hall (Bursar's departmental window, 145 Williamson Hall, for students with mobility impairments) in Minneapolis or 107 Coffey Hall in St. Paul.

Financial Aid Refund Policy—If you receive financial aid, you must maintain full-time status (a minimum of 12 credits for undergraduates, 7 credits for graduate students). If you cancel courses and your credit total falls below full-time status, report your cancellation to Student Accounts Receivable, 20 Fraser Hall. Federal regulations require that all or a portion of your tuition refund must be credited to the financial aid funds from which you received assistance. Refunds may also be sent to the lender of a student loan to reduce the principal on that loan. Repayment of financial aid is calculated according to the date on which your cancellation is effective. If you cancel courses at the 100% refund rate during a quarter, you must repay all financial aid received during that quarter. If the refund amount is insufficient to repay the appropriate financial aid fund, you will be billed for the difference by Student Accounts Receivable. You will be notified by mail of the disposition of your refund.

VETERANS CERTIFICATION

Students under Chapters 30, 32, 35, 106, and 901—The following is a summary of University and Department of Veteran Affairs (V.A.) procedures and does not include all the information you may need. You can contact the Certifications Office, 155 Williamson Hall, 625-8076, or the St. Paul Veterans Assistance Office, 190 Coffey Hall, 625-5284, for further information. However, only the V.A. can determine an applicant's eligibility for educational assistance. Because eligibility criteria are different for the several educational assistance programs and the benefits for the programs vary, students with specific questions about eligibility should contact the V.A. If you plan on attending fall, winter, and spring quarters, you can request certification for the entire academic year by coming in person to the Certifications Office or the St. Paul Veterans Assistance Office. If you enroll for (or drop to) less than half time, you can be certified only for the current term; when you register for the next term you will have to reapply for certification.

You can request continuous enrollment/payment during winter or spring quarters for the next quarter if you did not initially sign up for the academic year. Continuous enrollment/payment *cannot* be requested in the following instances:

- if you are attending less than half time, are on active duty, or are receiving chapter 901 benefits, *or*
- if you withdrew from all courses in the preceding term.

If you will be enrolling at a half-time rate or more when you enter school initially or reenter, but are not eligible for continuous payment, you may elect to be paid in advance for the first partial (or full) month of training plus the following full month. Payment for the next month, however, will not be available until the very end of that month. This means that if you receive advance payments for March and April for spring, you will not receive your May check until about June 1. Advance payment for spring may be requested from December 20-January 30.

If you do not participate in advance payment or if you are not eligible for continuous pay, you must be officially registered before requesting certification. Certification cannot be sent to the V.A. until the first day of the quarter.

Whenever you register for extension courses you are required to show a paid fee statement by the first day of each quarter to be certified. If you requested certification for the academic year, you must be officially registered by the first day of each quarter. Failure to register by the first day of the quarter will result in notification of the V.A. and cancellation of payments.

If you cancel any or all of your courses, notify the Certification Office or the St. Paul Veterans Assistance Office. Your reduction in credits will be reported to the V.A. The V.A. will adjust your benefits retroactive to the first day of the quarter and may require you to repay all money paid to you for any courses that you cancel.

Any grade of N will be reported to the V.A. The V.A. will adjust your benefits retroactive to the first day of the quarter and require that you repay all money paid to you for that course. Likewise, any grade of I will be reported to the V.A. However, the V.A. will allow one year for completion of the course before repayment is required. You are responsible for notifying the Certifications Office or the St. Paul Veterans Assistance Office once you receive a grade to replace the I.

Whenever you claim mitigating circumstances for reductions in your credit load, you should present written evidence to the Certifications Office to be included with the report submitted to the V.A.

Chapter 31 Veterans—If you receive vocational rehabilitation assistance, you can refer questions to the scholarship terminal at 202 Fraser Hall. Bring your fee statement and course list to the appropriate bookstore to obtain books and supplies.

CERTIFICATION FOR FULL-TIME OR HALF-TIME STATUS

Occasionally you may be required to have your attendance at the University certified as full time or half time in order to defer payment of your student loan. This certification is especially required of transfer students who received loans at their previous institutions.

For students in undergraduate and professional units (law, dentistry, medicine, and veterinary medicine) full-time status is defined as 12 or more credits per quarter; half-time status is 6-11 credits per quarter.

For students in the Graduate School, the Pharm.D. program, master's programs in agriculture and education, and dental and psychology fellow specialist programs, full-time status is defined as 7 or more credits per quarter; half-time status is 3-6 credits per quarter. For students in master's programs in public health, full-time status is 9 credits; part-time status is 4 credits. Audit registrations are not applicable for certification purposes. To have your attendance certified, bring your loan deferment form to 150 Williamson Hall (130 Coffey Hall for St. Paul students).

Minnesota law allows a student who takes at least 60% of a full-time credit load to qualify as a full time student for purposes of continued insurance coverage on a family policy *if the reduced credit load is due to illness, injury, or mental or physical disability and with appropriate documentation from a physician.* Insurance companies are responsible for informing you of this option if it applies to you. You can receive certification of your credit load and the number of credits required for a 60% credit load in 150 Williamson Hall (130 Coffey Hall for St. Paul students). Your physician should then forward your certification with the appropriate medical documentation to your insurance company.

More information about deferments and other exceptions to the definitions of full-time and half-time status is available at 150 Williamson Hall or 130 Coffey Hall.

RECIPROCITY

The University has reciprocity agreements with Wisconsin, North Dakota, South Dakota, and Manitoba; and a limited Western Undergraduate Exchange Program with Alaska, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, and Wyoming. If you are a resident of any of these states or provinces, you may qualify for reciprocity tuition rates, which are lower than nonresident tuition rates and, in some cases, comparable to resident rates. There are some exceptions:

- Wisconsin students entering the School of Dentistry, the Medical School, or the College of Veterinary Medicine for the first time are not eligible for reciprocity.
- Students who first enroll during the summer must *reapply* for reciprocity for the academic year.

You must apply for reciprocity prior to the quarter in which you wish your reciprocity to begin. As soon as you receive an approval letter from your home state, take that letter to your registration center and obtain an adjusted fee statement. After your first year, *provided you have earned credits*, your reciprocity will automatically be renewed.

Delays in your reciprocity eligibility will not exempt you from billing charges or late payment fees. For information and application forms, check with your home state reciprocity office. You can also obtain application forms and information in 240 Williamson Hall or 130 Coffey Hall.

TUITION BENEFITS FOR GRADUATE ASSISTANTS

Important Notice for Graduate Assistants—University policy requires that you register every quarter you hold an appointment of at least 12.5% (65 hours) or more, including the quarter in which you graduate. This requirement applies to fall, winter, and spring quarters; if you were registered the previous spring or are newly admitted for the following fall, registration in summer is *not* required to hold an assistantship.

Registration of one or more credits taken either A-F or S-N will fulfill this requirement. Beginning winter 1992, audit (V) registration by itself will not be considered sufficient to hold an assistantship. If you have questions about this requirement, call the Graduate Assistant Office (GAO), 626-1310.

Tuition Benefits—Graduate assistants who hold at least a 25% time appointment for six full pay periods (130 hours per quarter) receive tuition benefits (tuition waivers) equal to twice the percentage of their appointment for the quarter in which they hold the appointment. For example, those holding a 25% appointment will receive a 50% tuition benefit, while those with an appointment of 50% or more will receive a 100% tuition benefit. These benefits waive tuition only and do not cover the student services fee or course fees.

For benefit purposes, the quarter is defined as six full pay periods: 9/16-12/15 for fall; 12/16-3/15 for winter; and 3/16-6/15 for spring. *Appointments which begin after the quarter has started will be prorated*, but must be the equivalent of at least a 25% appointment for the entire quarter to qualify. For example, a 50% appointment for half the quarter would be adjusted to a 25% appointment for benefit purposes, and a 50% tuition benefit would be awarded.

Tuition benefits will be available to teaching assistants, research assistants, administrative fellows, legal project assistants, dental fellows, medical fellows, and veterinary medical associates/teaching assistants.

Graduate assistants with percentage appointments who are paid on regular payroll are eligible for the tuition benefit at the beginning of the quarter. If you are on regular payroll but do not automatically receive the tuition benefit when you register, you must obtain an authorized Tuition Benefit Information Form and a photocopy of your payroll document (PAF) from your work department. Take the tuition benefit form and the PAF to the GAO, 416 Johnston Hall, before returning to registration to obtain a corrected fee statement.

As a graduate assistant on miscellaneous hourly or biweekly payroll, you may be eligible for a provisional tuition benefit at the beginning of the quarter, provided your work department can predict fairly accurately the number of *hours* (not the percentage) you are expected to work as a graduate assistant for the quarter. (For a miscellaneous payroll *percentage* appointment, follow the instructions in the preceding paragraph.) Your work department should provide you with a letter on department stationery estimating the number of hours you are expected to work, a copy of your PAF, and a Tuition Benefit Information Form. When you have these items, go to the GAO, 416 Johnston, to finish processing your tuition benefit.

Qualifying hourly graduate assistants who can not (or choose not to) receive tuition benefits provisionally may receive those benefits retroactively. To receive benefits retroactively, you must bring documentation of the total hours paid as a graduate assistant for the quarter to the GAO, along with an authorized Tuition Benefit Information Form. This documentation must be copies of authorized timecards and/or payroll abstracts. After you bring these items to the GAO, you may proceed to registration for a credit balance fee statement. In some cases (CEE, work-study, or independent study), a credit balance fee statement reflecting your tuition benefit will automatically be mailed to you 3-4 weeks after the end of the quarter. CEE, work-study, and independent study graduate assistants not wishing to wait 3-4 weeks can walk through the appropriate documentation as outlined above.

To avoid billing charges and late payment fees you must pay in full by the due date on your first billing statement from Student Accounts Receivable. If you are paid on regular payroll and are entitled to a tuition benefit (whether or not your tuition benefit has been entered into the registration system), or if you are eligible to receive a provisional tuition benefit at the beginning of the quarter, your tuition benefit credit must be processed and you must pay any remaining balance by the due date on your billing statement to avoid billing charges and late payment fees. In all other instances, you must pay *all* tuition and fees in full by the due date on your billing statement to avoid billing charges and late payment fees. Graduate assistants whose remaining tuition and fees total \$150 or more may qualify for payroll deduction. See page 23 for application procedures.

If you have paid in full and subsequently receive a tuition benefit credit, you can take your credit balance fee statement to Student Accounts Receivable to receive a refund. Read *How to Obtain Your Refund* on page 24.

NOTE: If you do not complete your appointment (i.e., leave in the middle of the quarter, graduate early, or work less than the estimated number of hours), you will be billed for a portion of your tuition. If you work fewer than 130 hours between the quarter dates listed above, this billing would completely cancel your tuition benefit. (Nonresidents would then be charged the nonresident tuition rate.)

More information on tuition benefit eligibility and procedures is available from your department or the GAO, 416 Johnston Hall, 626-1310.

Graduate Assistant Health-Care Plan—See page 18 for information.

RESIDENT TUITION PRIVILEGES

Graduate Assistants and Immediate Family Members—Non-resident students enrolled in the Graduate School or in another post-baccalaureate degree program who hold at least a 25% time appointment as a teaching assistant, research assistant, or administrative fellow are eligible for resident tuition rates. This eligibility extends only to parent, spouse, child, or ward.

If you hold such an appointment, and your appointment has been processed, you will automatically be charged the resi-

dent tuition rate when you register. If you are charged the nonresident tuition rate, you should contact the Graduate Assistant Office (GAO), 416 Johnston Hall, 626-1310.

If you hold such an appointment and you want your family member to receive resident tuition rates, you must contact the GAO for more information.

Graduate School Fellows/Trainees and Immediate Family Members—Graduate students who hold fellowships or traineeships are eligible for resident tuition rates, provided the award is administered by the University and the stipend is at least equal to a 25% time graduate assistantship. This eligibility also extends to members of the *immediate* family (i.e., parent, spouse, child, or ward).

If you hold a fellowship or traineeship, codes for resident tuition have, most likely, already been entered into the computerized registration system. If, for some reason, you are charged the nonresident tuition rate when you register, you should contact the Graduate Fellowship Office, 422 Johnston Hall, 625-7579.

If you hold a qualifying fellowship or traineeship and you want your family member to receive resident tuition rates, contact the Graduate Fellowship Office for more information.

Professional School Fellows/Trainees and Immediate Family Members—Professional school fellows/trainees and immediate family members are also eligible for resident tuition rates, provided the fellowship/traineeship is at least equal to a 25% graduate assistantship. If, for some reason, you are charged the nonresident tuition rate when you register, first contact your department payroll personnel and then the Graduate Assistant Office, 416 Johnston Hall.

Former Graduate Assistants, Trainees, and Fellows and Immediate Family Members—If you no longer hold a graduate assistantship, fellowship, or traineeship, but *have* held qualifying appointments for three or more quarters, you and your immediate family members may still be eligible for up to six more quarters of resident tuition. Contact the Graduate Assistant Office, 416 Johnston Hall, 626-1310, for more information.

Academic Appointees and Immediate Families—Academic appointees at the University of Minnesota and their immediate family members are eligible to pay resident tuition rates subject to the following rules concerning class title and percentage of appointment.

Appointees (and their immediate family members) who hold 75% appointments for an entire quarter in the following class titles are eligible to pay resident rates during that quarter:

- all 93xx academic administrative classes
- all 94xx faculty rank classes
- 9544—Pharm D associate
- 9546—post doctoral associate
- 9548—veterinary medical assistant
- 9551—post doctoral fellow
- 9556—medical fellow specialist
- 9563—dental fellow specialist
- all 96xx Agricultural Extension Service classes
- all 97xx professional classes

Appointees (and their immediate family members) who hold at least a 25% appointment in the following class titles, with a level of support equal to or greater than that provided by a 25% graduate assistantship, are eligible to pay resident tuition rates during the quarter of their appointment:

- 9538—legal project assistant
- 9545—pre-doctoral assistant
- 9550—pre-doctoral fellow
- 9558—psychology fellow specialist

To claim the resident tuition benefit, appointees or immediate family members from both groups listed above should have the appointee's employing department complete a Tuition Status Verification form. A separate form will be needed for each individual appointee or immediate family member for each quarter in which resident tuition is requested. Completed forms should be taken to your registration center, 202 Fraser Hall (130 Coffey Hall for St. Paul students); resident rates will then be assessed.

Appointees to the above class titles do not accrue extended resident tuition credit. Resident tuition privileges are available to appointees and their immediate family members *only* during quarters of qualifying appointment.

Civil Service Employees—Civil service employees of the University of Minnesota who work 75% time or more during an entire quarter and their immediate family members are eligible to pay resident tuition rates. These resident tuition privileges are available *only* during quarters of qualifying employment.

To claim the resident tuition benefit, *employees on regular payroll* or their immediate family members should have the employee's department complete a Tuition Status Verification form. Every quarter a separate form is needed for each employee and family member. Completed forms should be taken by the student to the Registration Center, 202 Fraser Hall (130 Coffey Hall for St. Paul students); resident rates will then be assessed. *Employees on miscellaneous payroll* and their immediate family members must initially pay nonresident tuition and be reimbursed after the quarter ends. The employment department must certify that the employee worked at least 390 hours during the quarter.

HOW TO USE THIS SCHEDULE

Call Number—This six-digit number appears to the left of each course or each section of a course. You must use the course numbers and these specific call numbers when you fill out your Course Request form.

Prerequisites—In order to enroll in some courses, you must either complete or concurrently enroll in certain other courses or have certain qualifications or class standing. These requirements, known as prerequisites, are listed inside the parentheses after the course titles. If no prerequisites are listed, there are usually none, except for the class standing requirement indicated by the course number.

Class standing requirements, unless otherwise noted, are indicated by course numbers as follows:

- 0000 to 0999 noncredit courses
- 1000 to 1999 introductory courses—primarily for freshmen and sophomores
- 3000 to 3999 intermediate courses—primarily for juniors and seniors, but sometimes open to others with a C average overall and in prerequisites
- 5000 to 5999 advanced courses—open to juniors, seniors, and graduate students
- 8000 to 8999 graduate courses—open to graduate students only

When courses that must be taken in sequence are prerequisites, only the last course of the sequence is listed.

When no course designator precedes the course number listed as a prerequisite (e.g., 'prereq 3221'), that course is in the same department as the course being offered. Likewise, a prerequisite reading "6 cr" means 6 credits in courses offered by the same department.

Work equivalent to a prerequisite course (having either the same content or requiring the same competence) is ordinarily accepted in place of that prerequisite. An instructor may, in some instances, waive prerequisites at her or his discretion. See your college bulletin for further information.

A comma always means "and."

In addition to the prerequisites listed above and expressed in the symbols listed below, departments and colleges may use the registration system to help place certain categories of qualified students into courses or sections on a priority basis (seniors, majors, etc.). If you meet all stated prerequisites for the course, including class standing, you may also need to meet other qualifications established at the time of registration. For this reason, it is helpful to list both first *and* second course choices on your Course Request form.

Class Standing—Your class standing is determined by the number of credits you have completed:

Freshman	1-45 credits
Sophomore	46-90 credits
Junior	91-135 credits
Senior	136 or more credits

Symbols—The following symbols are used throughout this schedule:

- † All courses preceding this symbol must be completed before credit will be granted for any quarter of the sequence.
- § Credit will not be granted if credit has been received for the course listed after this symbol.
- ¶ Concurrent registration is required (or allowed) in the course listed after this symbol.
- # Registration Override Permit, completed and signed by the instructor, is required for registration.
- Δ Registration Override Permit, completed and signed by the department offering the course, is required for registration.
- Registration Override Permit, completed and signed by the college offering the course, is required for registration.
- H Honors course (follows the course number).
- R The letter R preceding the course number indicates limited enrollment.
- ★ This symbol designates a part of a course (e.g., lecture) for which you are automatically registered when registering for a corresponding part of the same course (e.g., lab).
- ◆ This symbol will precede the call numbers of a course with multiple section types (e.g., LECT, LAB, REC) without automatic registration. You must select and register for one of each of the parts of the course.

Number of Credits—The number of credits approved for a particular course or section of a course appears at the end of the time and room information for each course or course section: e.g., 1015-1100 MWF, BlegH 450, Brown, 4 cr. You must register for the number of credits indicated; you may not, for example, take a 4-credit course for either more or fewer than the approved 4 credits. (Extra credit is sometimes possible, however, through X registration. See below.) A few courses are offered for a variable number of credits, as indicated by the notation "ar cr" (credits arranged) or by an optional-credit notation (e.g., "3-4 cr"). In such cases, you may register for the number of credits agreed upon by you and the instructor.

Registering for Topics Courses—A number of departments offer "topics" courses. A "topics" course usually is assigned a single course number (e.g., 3910), but subjects, course titles, and number of credits may change from quarter to quarter. Besides the usual prerequisites, there sometimes are limitations on registration for these courses. You usually

may not register for the same course more than a certain number of times over a series of quarters. In the course listing, this restriction appears as part of the prerequisite information inside the parenthesis: "(max 12 cr; prereq...)," for example, means your total registrations in the course may not exceed a maximum total of 12 credits.

Directed or Independent Study—Most colleges permit directed or independent study (X and Y registration) in their regular courses. Through X registration, you can earn extra credits (with a limit of 3) in a course by arranging with the instructor to complete additional work or explore a subject in more depth. Through Y registration, you can complete a course by studying independently under the instructor's guidance without attending class. Regular fees, deadlines, and grading policies apply, and you must register only for the number of credits approved for the course. Requirements for completing the course must be agreed upon by you and your instructor.

Both types of registration require instructor and department approval. When you receive this approval, you must also obtain a call number with which to register for the course (call numbers for X and Y registrations are not available at the registration centers). For further information, check with your college or department office.

Auditing Courses—Most colleges permit auditing in their courses. As an auditor, you enroll in, pay tuition and fees for, and attend classes but do not complete assignments or take examinations. You receive no credit for the course, but the course will be placed on your transcript with the symbol V (Visitor) to indicate your special registration status. Although you do not receive credit, the credit value for the course counts in determining the credit total for the student services fee.

Colleges may have additional requirements for you to meet before you register as an auditor. It may be necessary to have approval from your adviser, instructor, and/or special scholastic committees. Many colleges do not permit registration as an auditor in required courses. Nor do colleges generally allow you to repeat an audited course for credit. For further information, check with your college office.

To register as an auditor once you have received any necessary approval, list the course on your Course Request form and place a V in the grading option column for that course.

Grading Option—If either A-F only or S-N only is printed after the prerequisite statement for a course, you must register for that grading system. If no grading system is listed, you may often register for either A-F or S-N grading. For information on courses offered for S-N grading and any degree or quarter limits on credits taken under this system, consult both your own college office and the college offering the course. You may not change your grading option after the second week of classes.

Course Changes—Your registration terminal always contains the most current and accurate information. Hour and day changes are also published in the Official Daily Bulletin, a column in the *Minnesota Daily*. Room changes are posted on classroom doors.

Choice of Classes—When section numbers precede the hours and days listed, you may choose the section in which you wish to enroll (see the first example below). Many courses have a choice of laboratory or recitation periods but only a single lecture period, in which all students taking the course are automatically registered (see the second example below). If laboratory or recitation sections are distributed under different lecture hour headings (as in the third example below), then your choice of laboratory or recitation hours determines which lecture you are automatically registered in. Occasionally there will be a choice of both lecture and laboratory or recitation periods. If the sections are listed after two or more lecture hour headings (as in the fourth example below), then you must register for and attend any one lecture and any one lab or recitation section.

Example 1

315330—1 0815-0900 TThS
115331—2 0915-1000 MWF
015332—3 1115-1200 TThS

Example 2

★ LECT 1015-1100 MWF
815333—1 LAB 1215-1400 M
615334—2 LAB 1215-1400 W

Example 3

★ LECT 0915-1000 T
415335—1 LAB 1015-1200 T
215336—2 LAB 1015-1200 Th
★ LECT 0915-1000 Th
115337—3 LAB 1315-1500 T
645742—4 LAB 1315-1500 Th

Example 4

◆ 873302—1 LECT 0815-0900 T
◆ 637303—2 LECT 0914-1000 Th
437304—1 REC 1015-1200 T
237305—2 REC 1315-1500 T
137306—3 REC 1015-1200 Th
937307—4 REC 1315-1500 Th

Course Descriptions—Courses are listed in this *Class Schedule* with a minimum of information—title, prerequisites, day and time, location, and sometimes instructor. For more information about a course, you should consult your college bulletin, where course listings include descriptions of course content. You should not choose your classes on the basis of title alone. Bulletins are available from the information center in Williamson Hall and from 130 Coffey Hall. You may also consult bulletins in the libraries and in college and department offices, but these copies may not be removed.

In addition, department offices (e.g., Philosophy) may provide expanded course descriptions for their courses. Departments can also provide information on recent changes to course content. Department addresses are listed in Section 5.

HOURS AND DAYS

This schedule lists both a starting time and an ending time for all classes, using a 24-hour clock. Refer to the table below for help in interpreting these times. To convert any time between 1:00 p.m. and 12:00 midnight from standard time to the 24-hour clock, add 1200 (for example, 3:45 p.m. + 1200 = 1545). To convert from the 24-hour clock to standard time, subtract 1200 (for example, 1615 - 1200 = 4:15 p.m.).

24-hour clock	0800	0900	1000	1100	1200	1300
Standard Time	8:00 a.m.	9:00 a.m.	10:00 a.m.	11:00 a.m.	12:00 noon	1:00 p.m.
24-hour clock	1400	1500	1600	1700	1800	1900
Standard Time	2:00 p.m.	3:00 p.m.	4:00 p.m.	5:00 p.m.	6:00 p.m.	7:00 p.m.

In both Minneapolis and St. Paul, classes continue for 50 minutes after the start time. Because there is a 15-minute break between classes, start times for classes are staggered throughout the day. For example, the first class of the day in Minneapolis starts at 8:00 a.m. and ends at 8:50; the second class starts at 9:05 and ends at 9:55; the third class starts at 10:10 and ends at 11:00. In St. Paul, the first class begins at 8:30 and ends at 9:20, the second class runs from 9:35 to 10:25, the third from 10:40 to 11:30, and so on throughout the day. The class periods for Minneapolis and St. Paul are listed below.

Minneapolis	St. Paul	Minneapolis	St. Paul
0800-0850	0830-0920	1325-1415	1355-1445
0905-0955	0935-1025	1430-1520	1500-1550
1010-1100	1040-1130	1535-1625	1605-1655
1115-1205	1145-1235	1640-1730	1710-1800
1220-1310	1250-1340		

The University Senate approved the above 50-minute class periods with the understanding that classes may continue for 55 minutes after the starting time whenever students' schedules permit.

There are also standard approved 75-minute periods usually meeting on Tuesday and Thursday. In Minneapolis, times for these classes are 0815-0930; 0945-1100; 1115-1230; 1245-1400; 1430-1545; and 1600-1715. Corresponding St. Paul times are 0845-1000; 1015-1130; 1145-1300; 1315-1430; 1500-1615; and 1630-1745.

Days of the week are abbreviated M, T, W, Th, F, and S.

No Time or Place—When hours and days or the place of meeting are missing, consult the instructor or department offering the course.

schedule of classes

ACCOUNTING (Acct) Management

Non-SMgt students should refer to page 9, Carlson School of Management Courses, before attempting to register for 3000- and 5000-level Acct courses.

- r1050 Introduction to Financial Reporting** (§8050; prereq 40 or more credits) (A-F only)
 ★LECT 1300-1415 MW, AndH 270, Hughes
 328319 -1 LAB 0800-0850 TF, BlegH 155, Lee, 5 cr
 926243 -2 LAB 0905-0955 TF, HHCtr 20, Lee, 5 cr
 030221 -3 LAB 1010-1100 TF, BlegH 125, Anctil, 5 cr
 728320 -4 LAB 1115-1205 TF, BlegH 155, Anctil, 5 cr
 ★LECT 1430-1545 MW, AndH 270, Hughes
 924539 -5 LAB 1115-1205 TF, BlegH 250, Xu, 5 cr
 233075 -6 LAB 1220-1310 TF, BlegH 155, Xu, 5 cr
 231164 -7 LAB 1325-1415 TF, BlegH 155, Thevaranjan, 5 cr
 929272 -8 LAB 1430-1520 TF, BlegH 155, Thevaranjan, 5 cr
- r3001 Introduction to Management Accounting** (prereq 1050) (A-F only)
 ★LECT 0915-1015 MW, BlegH 250, Saly
 827384 -1 LAB 0915-1015 F, BlegH 435, Chang, 4 cr
 526245 -2 LAB 1030-1130 F, BlegH 435, Chang, 4 cr
 ★LECT 1030-1130 MW, BlegH 250, Saly
 627385 -3 LAB 1030-1130 F, BlegH 425, Ramstad, 4 cr
 326246 -4 LAB 1145-1245 F, BlegH 425, Chang, 4 cr
- r3101 Intermediate Financial Reporting** (prereq grade of A or B in 1024/1025 or 1050) (A-F only)
 142075 1300-1400 MWF, BlegH 220, Rayburn, 4 cr
- r3199 Internship in Public Accounting** (prereq 5125; for accounting majors only) (S-N only)
 731332 Berryman, 3 cr
- r3201 Intermediate Management Accounting** (prereq 3001, acct maj or gen mgmt maj with finance emphasis) (A-F only)
 624468 -1 0945-1115 TTh, BlegH 440, Kanodia, 4 cr
 527590 -2 1315-1445 TTh, BlegH 440, Kanodia, 4 cr
- r3299 Internship in Management Accounting** (prereq 3102; for accounting majors only) (S-N only)
 229429 Berryman, 3 cr
- r5102 Advanced Financial Reporting I** (prereq 3101 or 5101, mgmt or grad mgmt student) (A-F only)
 633154 -1 1300-1445 TTh, BlegH 230, Portz, 4 cr
 831239 -2 1300-1445 TTh, BlegH 230, Portz, 4 cr (MBA stu only)
 434192 -3 1500-1645 TTh, BlegH 230, Portz, 4 cr
 332290 -4 1500-1645 TTh, BlegH 230, Portz, 4 cr (MBA stu only)
- r5125 Auditing Principles and Procedures** (prereq 5102) (A-F only)
 325288 -1 0945-1115 MW, BlegH 145, Duke, 4 cr
 626561 -2 0945-1115 MW, BlegH 145, Duke, 4 cr (MBA stu only)
 042076 -3 1315-1445 MW, BlegH 145, Duke, 4 cr
 842077 -4 1315-1445 MW, BlegH 145, Duke, 4 cr (MBA stu only)
- r5135 Income Tax Accounting** (prereq 1025 or 1050) (A-F only)
 033457 -1 1300-1400 MWF, BlegH 230, Carter, 4 cr
 428490 -2 1300-1400 MWF, BlegH 230, Carter, 4 cr (MBA stu only)
 826560 -3 1415-1515 MWF, BlegH 230, Carter, 4 cr
 842080 -4 1415-1515 MWF, BlegH 230, Carter, 4 cr (MBA stu only)
 642081 -5 1730-2100 M, BlegH 110, Carter, 4 cr (MBA stu only)

- r5180 Advanced Financial Reporting II** (prereq 5102, mgmt or MBA student) (A-F only)
 233237 1810-1940 MW, BlegH 220, Biondich, 4 cr (MBA stu only)
- r5201 Advanced Management Accounting** (prereq 3201 or MBA 8035, acct maj or MBA student) (A-F only)
 234145 -1 0945-1115 TTh, BlegH 145, Amershi, 4 cr
 931331 -2 0945-1115 TTh, BlegH 145, Amershi, 4 cr (MBA stu only)
 442082 -3 1730-2100 T, BlegH 230, Amershi, 4 cr (MBA stu only)
- r5236 Taxation II** (prereq 5135; for accounting majors only) (A-F only)
 328840 -1 1130-1300 TTh, BlegH 110, Berryman, 4 cr (acct maj only)
 142084 -2 1130-1300 TTh, BlegH 110, Berryman, 4 cr (MBA stu only)
- r5271 Accounting Systems** (prereq 5102, 3201 or 5201, for accounting majors only) (A-F only)
 232122 -1 0800-0930 MW, HHCtr 35, Duke, 4 cr
 830222 -2 0800-0930 MW, HHCtr 35, Duke, 4 cr (MBA stu only)
- r8820 Seminar III** (prereq PhD student or grad SMgt approval) (A-F only)
 330717 1500-1700 MW, HHCtr 20, Dickhaut, 4 cr
- r8990 Readings in Accounting** (prereq #, grad SMgt approval) (A-F only)
 125499 1500-1700 TTh, BlegH 335, Joyce, ar cr

ADULT AND TEACHER EDUCATION (AdEd) Curriculum And Instruction Education

- 5103 Adult Education Workshop** (max 12 cr; prereq practicing adult educator or #) (A-F only)
 927487 -1 1630-1900 T, PeikH 33, Rohde, 3 cr (The Media in Adult Education)
 142769 -2 1630-1900 Th, PeikH 31, Williams, 3 cr
- 5203 Adult Literacy: Methods and Materials** (prereq 5202 or Elem 5331 or #) (A-F only)
 034138 1535-1800 M, PeikH 315, Park, 3 cr
- 5205 Field Experience in Adult Education** (§Educ 5205; max 8 cr; prereq #) (A-F only)
 230337 -1 Bruning, 4-8 cr
 834139 -2 Park, 4-8 cr
 732240 -3 Rohde, 4-8 cr
 130338 -4 Williams, 4-8 cr
- 5301 Designing the Adult Education Program** (§Educ 5301) (A-F only)
 724638 1535-1800 Th, PeikH 40, Wallace, 3 cr
- 5401 Adult Learning and Development through the Life Span** (§Educ 5401) (A-F only)
 433186 1630-1900 Th, PeikH 28, Williams, 3 cr
- 5607 Applied International Development Education** (§Educ 5607) (A-F only)
 431275 1630-1900 W, JonesH 2, Paige, 3 cr
- 8302 Problems: Adult Education** (§Educ 8302; prereq #)
 429378 -1 Bruning, 1-9 cr
 727488 -2 Park, 1-9 cr
 326456 -3 Williams, 1-9 cr
- 8605 Problems: International Education Research** (§Educ 8605; prereq 5605)
 532241 1615-1900 Th, PeikH 33, Paige, Cogan, 6 cr

ADULT PSYCHIATRY (AdPy) Medical School

- 5107 Human Behavior** (prereq 1st yr med stu)
 424293 1325-1415 MWF, 1115-1205 Th, PWB
 2470, Garfinkel, 3 cr (Mar 30-June 6)

- r5109 Externship in Clinical Psychiatry: Duluth Hospital** (prereq regis med)
 732769 Olson, 9 cr
- r5110 Contemporary Hospital Psychiatry: St. Luke's Hospital, Duluth** (prereq regis med)
 232587 Cowan, 9 cr
- r5500 Psychiatry Externship** (prereq regis med)
 925965 Eckert, 9 cr
- 5501 Elective Rotation in Alcohol Problems Clinics** (prereq 3rd or 4th yr med stu)
 246053 Willenbring, 4.5-9 cr
- 5502 Elective Rotation in Addiction Medicine** (prereq 5500, regis med)
 146054 Willenbring, 9 cr
- 5503 Elective Experience in Research Addiction Medicine** (prereq course director permission, regis med stu)
 946055 Willenbring, 4.5-9 cr
- r5511 Psychiatry in Medicine: Consultation-Liaison: University Hospitals** (prereq regis med)
 631484 Popkin, 9 cr
- 5514 Substance Abuse and Associated Psychiatric Disorders** (prereq regis med)
 646471 Halikas, 9 cr
- 5515 Neuropsychology: University Hospitals** (prereq regis med)
 431728 Meier, 9 cr
- r5516 St. Mary's Extended Care Center, Alcoholic Treatment Unit** (prereq regis med)
 530697 Hiers, 4.5-9 cr
- r5518 Community Psychiatry: Braham, MN** (prereq regis med)
 330569 Walton, 9 cr
- 5530 Independent Study** (prereq Δ)
 630111 Mackenzie, ar cr
- 5602 Clinical Psychopharmacology Seminar** (prereq regis med)
 229933 Abuzzahab, ar cr
- 5800 Case Conference: Psychiatry in Medicine** (prereq MD or #)
 830916 Popkin, 1 cr
- 5801 Consultation-Liaison Psychiatry** (prereq MD)
 128203 Popkin, ar cr
- 5910 Internship: Hennepin County Medical Center Psychiatry** (prereq PGY-1 psychiatry resident) (S-N only)
 746056 Daily, 12-48 cr
- 5911 Psychiatry PGY-1 Internship at VA Medical Center** (prereq PGY-1 psychiatry resident) (S-N only)
 546057 Dean, 12-48 cr
- 5912 Psychiatry PGY-1 Internship at St. Paul Ramsey Medical Center** (prereq PGY-1 psychiatric resident) (S-N only)
 346058 Zander, 12-48 cr
- 5926 Psychoanalytic Psychotherapy** (prereq #) (S-N only)
 546074 1300-1430 Th, 3 cr
- 5927 Biological Psychiatry II** (prereq 5925, #) (S-N only)
 346075 1400-1530 Th, Faris, 3 cr
- 5936 Advanced Psychoanalytic and Personality Theory** (prereq 5926, #) (S-N only)
 146076 1300-1430 T, Serpos, Meller, 3 cr
- r5937 Substance Abuse and Associated Psychiatric Disorders** (prereq #) (S-N only)
 844458 1300-1430 W, Carroll-Santi, 3 cr
- 5946 Human Sexuality: Therapy and Counseling** (prereq #) (S-N only)
 046077 Coleman, 6 cr
- 5951 Inpatient Psychiatry** (prereq psychiatric resident) (S-N only)
 146059 Meller, 6 cr

- 5952 **VA Medical Center Inpatient Psychiatry** (prereq psychiatry resident) (S-N only)
546060 Dean, 6 cr
- 5953 **Clinical Chemical Dependency** (prereq psychiatric resident) (S-N only)
346061 Halikas, 3-6 cr
- 5954 **Clinical Eating Disorder Treatment** (prereq psychiatric resident) (S-N only)
146062 Mitchell, 3-6 cr
- 5955 **Emergency Psychiatric Management and ECT** (prereq psychiatric resident) (S-N only)
046063 Meller, 3-6 cr
- 5961 **Clinical Child Psychiatry** (prereq psychiatry resident) (S-N only)
846064 Garfinkel, 6 cr
- 5962 **Clinical Consultation Liaison Psychiatry** (prereq psychiatric resident) (S-N only)
646065 Popkin, 6 cr
- 5963 **Clinical Outpatient Psychiatry** (prereq psychiatric resident) (S-N only)
446066 Mackenzie, 6 cr
- 5971 **Consultation Liaison Psychiatric Fellowship** (prereq C-L fellow/psychiatric resident) (S-N only)
246067 Popkin, 6-24 cr
- 5972 **Psychiatric Child Fellowship: Year I** (prereq psychiatric resident/fellow) (S-N only)
146068 Garfinkel, 6-24 cr
- 5973 **Chemical Dependency Fellowship** (prereq psychiatric resident/fellow) (S-N only)
246070 Halikas, 6-24 cr
- 5974 **Eating Disorder Fellowship** (prereq psychiatric resident/fellow) (S-N only)
146071 Mitchell, 6-24 cr
- 5975 **Advanced Clinical Psychiatry** (prereq psychiatry resident/fellow) (S-N only)
946072 Meller, 6-24 cr
- 5981 **Psychiatric Child Fellowship: Year II** (prereq psychiatric resident/fellow) (S-N only)
746073 Garfinkel, 6-24 cr
- 8201 **Clinical Psychiatry** (prereq MD)
427887 Meller, ar cr
- 8203 **Advanced Clinical Psychiatry** (prereq MD, 8201)
833833 Meller, ar cr
- 8205 **Special Assignments** (prereq MD, 8201, 8203)
930860 Meller, 1 cr
- 8206 **Research** (prereq #)
528089 Meller, ar cr
- 8209 **Clinical Psychopathology** (prereq #)
229575 Sines, 3-4 cr
- 8221 **Seminar: Current Literature** (prereq #)
731671 1 cr
- 8224 **Introduction to Group Therapy**
133501 Hausman, 1 cr
- 8227 **Biological Psychiatry** (prereq MD or #)
542087 Mitchell, 3 cr
- 8243 **Introduction to Clinical Theory of Psychoanalytic Psychotherapy** (prereq #)
128122 Moore, 3 cr
- 8264 **Presentations on Current, Appropriate Literature Pertaining to all Phases of Medical Health Care** (prereq #)
926971 Murtaugh, 1 cr
- 8265 **Readings in Psychosomatic Medicine, Consultation-Liaison Psychiatry** (max 3 cr; prereq MD, #)
225011 Popkin, ar cr
- 8777 **Thesis Credits: Masters**
123834 1-16 cr
- 8970 **Directed Studies** (max 9 cr)
525936 Meller, ar cr
- 824002 -3 REC 0905-0955 TTh, AkerH 313, 4 cr
723781 -4 REC 0905-0955 TTh, AkerH 309, 4 cr
927666 -5 REC 0905-0955 TTh, AkerH 209, 4 cr
- r3016 **Deformable Body Mechanics** (prereq IT stu, 1015, *Math 3321 or equiv) (A-F only)
*LECT 1220-1310 MWF, FordH 55
830690 -1 REC 1220-1310 TTh, AkerH 313, 4 cr
828891 -2 REC 1220-1310 TTh, AkerH 309, 4 cr
927621 -3 REC 1220-1310 TTh, AkerH 211, 4 cr
125809 -4 REC 1220-1310 TTh, AkerH 215, 4 cr
926100 -5 REC 1220-1310 TTh, AmundH 162, 4 cr
828941 -6 REC 1220-1310 TTh, FordH 155, 4 cr
032910 -7 REC 1220-1310 TTh, AkerH 209, 4 cr
- r3036 **Dynamics** (prereq IT stu, 1015, *Math 3321 or equiv) (A-F only)
*LECT 1115-1205 MWF, AmundH B75
826963 -1 REC 1115-1205 TTh, AkerH 317, 4 cr
127673 -2 REC 1115-1205 TTh, AkerH 313, 4 cr
132459 -3 REC 1115-1205 TTh, AkerH 215, 4 cr
133960 -4 REC 1115-1205 TTh, Arch 50, 4 cr
124992 -5 REC 1115-1205 TTh, AkerH 309, 4 cr
431390 -6 REC 1115-1205 TTh, FordH 150, 4 cr
131103 -7 REC 1115-1205 TTh, Arch 35, 4 cr
- r5201 **Shock Waves and Compressible Fluid Flow** (prereq 5200, upper div IT stu)
925853 1115-1205 MTWF, AkerH 209, 4 cr
- r5250 **Computational Fluid Mechanics** (prereq FORTRAN, 5200 or IT or grad IT stu)
531798 0905-1100 TTh, AkerH 215, Tezduyar, 4 cr
- r5300 **Flight Mechanics** (prereq 1005 or 5206, IT or grad IT stu) (A-F only)
142098 1430-1625 MW, AkerH 209, Enns, 4 cr
- r5331 **Design of Aerospace Elements and Systems** (prereq AEM sr or Δ)
029991 1220-1415 MW, AkerH 209, Vano, 4 cr
- r5370 **Aerodynamics of V/Stol Flight** (prereq 5206)
125230 1430-1625 TTh, AkerH 209, Zhao, 4 cr
- r5435 **Introduction to Random Vibrations** (prereq 3401 or ME 3201)
132341 1115-1205 MTWF, AkerH 225, Warner, 4 cr
- r5516 **Aerospace Structures II** (prereq IT stu, 5515 or Δ)
046130 0905-1100 MW, AkerH 211, Shield, 4 cr
- r5647 **Aeromechanics Laboratory III** (prereq upper div IT stu, 5646) (A-F only)
*LECT 0800-0850 MW, AkerH 225
033488 -1 LAB 0800-1205 T, AkerH 30, 4 cr
224439 -2 LAB 1325-1730 T, AkerH 30, 4 cr
523894 -3 LAB 0800-1205 Th, AkerH 30, 4 cr
825554 -4 LAB 1325-1730 Th, AkerH 30, 4 cr
127603 -5 LAB 0800-1205 F, AkerH 30, 4 cr
- r5650 **Aeroelasticity I** (prereq 5206)
024032 1220-1415 TTh, AkerH 225, Posbergh, 4 cr
- 5802 **Problems in Mechanics and Materials** (prereq Δ)
932365 1-4 cr
- 5812 **Problems in Fluid Mechanics** (prereq Δ)
026962 1-4 cr
- 5840 **Industrial Assignment** (prereq regis in engineering intern program, Δ)
832441 2 cr
- 5841 **Industrial Assignment** (prereq regis in engineering intern program, Δ)
127794 2 cr
- 5842 **Industrial Assignment** (prereq regis in engineering intern program, Δ)
424486 2 cr
- 5843 **Industrial Assignment** (prereq regis in engineering intern program, Δ)
124479 2 cr
- 8003 **Seminar: Aerospace Engineering and Mechanics** (prereq consent of director of graduate studies) (S-N only)
425010 1430-1520 F, AkerH 209, 1 cr
- r8203 **Fluid Mechanics III** (prereq 8202)
229592 1010-1115 MWF, AkerH 227, 1010-1115 Th, AkerH 211, Lundgren, 4 cr
- 8412 **Nonlinear Systems** (prereq 8411 or #)
630223 0905-1100 TTh, AkerH 227, Posbergh, 4 cr
- 8421 **Modern Control Theory for Aerospace Systems** (prereq 5321, 8410 or #)
747644 1430-1625 MW, AkerH 215, Balas, 4 cr

AEROSPACE ENGINEERING AND MECHANICS (AEM) Institute of Technology

- r1015 **Statics** (prereq IT stu, Phys 1271 or equiv, Math 1241) (A-F only)
*LECT 0905-0955 MWF, AkerH 209
333360 -1 REC 0905-0955 TTh, AkerH 211, 4 cr
129738 -2 REC 0905-0955 TTh, AkerH 225, 4 cr

- 8503 **Research Seminar in the Mechanics of Materials** (A-F only)
130839 1325-1520 T, AkerH 227, Fosdick, Truskinovsky, 2-4 cr
- r8512 **Continuum Mechanics III** (prereq 8510 or #)
442101 1535-1730 MW, AkerH 227, Fosdick, 4 cr
- 8777 **Thesis Credits: Masters**
333777 1-16 cr
- 8802 **Selected Topics in Mechanics and Materials** (prereq Δ)
133076 Leo, Truskinovsky, 1-4 cr
- 8812 **Selected Topics in Fluid Mechanics** (prereq Δ)
133885 -1 0905-0955 MWF, AkerH 227, Joseph, 4 cr
142103 -2 1220-1310 MTWF, AkerH 227, Longmire, 4 cr
847327 -3 1-4 cr
- 8880 **Plan B Project** (max 4 cr; prereq grad aerospace engineering or mechanics maj, Δ)
430529 1-4 cr
- 8888 **Thesis Credits: Doctoral** (max 18 cr per qtr)
127942 1-36 cr

AEROSPACE STUDIES (Air)

- 1106 **U.S. Support Forces**
128922 -1 0905-0955 W, Armory 105, Patterson, 1 cr
728530 -2 1325-1415 W, Armory 105, Patterson, 1 cr
- 1206 **Modern Employment of Airpower** (§Hist 1959)
228264 -1 1115-1205 T, Armory 12, Bradley, 1 cr
226840 -2 1325-1415 T, Armory 12, Bradley, 1 cr
- r3303 **Contemporary Problems: Air Force Management** (prereq 1104, 1105, 1106)
425055 -1 0815-0930 MW, Armory 12, Cornwell, 3 cr
232881 -2 1430-1545 MW, Armory 12, Cornwell, 3 cr
- r3403 **Military Law and Service Orientation** (§3413; prereq 3401-3402†) (A-F only)
127357 -1 0815-0930 TTh, Armory 105, Devereaux, 3 cr
231956 -2 1115-1230 TTh, Armory 105, Devereaux, 3 cr

AFRO-AMERICAN STUDIES (Afro)

Afro-American & African Studies Liberal Arts

- r1025 **Black Americans: Socialization, Personality, and Behavior**
642114 0945-1100 TTh, BlegH 150, Taborn, 4 cr
- r1301 **The Music of Black Americans**
047455 0905-0955 MWF, FergH 90, 4 cr
- r3013 **Cities in Africa: African, Islamic, European Traditions**
427324 1010-1100 MWF, BlegH 215, Coifman, 4 cr
- r3105 **Afro-American Music Through the 1920's** (§Mus 3708)
126984 1015-1130 TTh, AndH 350, Southall, 4 cr
- r3227 **Intermediate Swahili** (prereq 3226 or #)
030591 1245-1400 TTh, BlegH 135, Pike, 4 cr
- 3970 **Directed Studies** (prereq #, Δ, □)
430921 1-15 cr
- 3991 **Senior Project in Afro-American and African Studies** (3991-3992-3993†; prereq completed CLA advanced composition requirement, permission of undergrad adviser) (A-F only)
142111 2 cr
- 3992 **Senior Project in Afro-American and African Studies** (3991-3992-3993†; prereq 3991) (A-F only)
042112 2 cr
- 3993 **Senior Project in Afro-American and African Studies** (3991-3992-3993†; prereq 3992) (A-F only)
842113 2 cr

- 85145 Development in Africa** (§Geog 5145, IntR 5145; prereq #)
128323 0905-0955 MWF, BlegH 415, Scott, 4 cr
- 85181 Contemporary Black Theatre, 1960-Present** (§Th 5181)
631825 1325-1520 TTh, RarigC 275, Bellamy, 4 cr
- 85341 Seminar in Contemporary Kenyan Literature** (prereq at least one course in African studies or #)
442115 1415-1600 Th, BlegH 115, Pike, 4 cr
- 85876 Seminar: Approaches to African Development** (prereq 1021 or #)
127066 1325-1415 MWF, BlegH 255, Coifman, 4 cr
- 5970 Directed Studies** (prereq #, Δ, CLA approval)
729967 1-6 cr

AGRICULTURAL AND APPLIED ECONOMICS (AgEc)

Agriculture

- 81102 Principles of Macroeconomics** (§Econ 1102)
933046 -1 0935-1025 MTWThF, ClaOff B35, Lotterman, 4 cr
232069 -2 1250-1340 MTWThF, ClaOff B45, Lotterman, 4 cr
- 3003 Applied Microeconomics: Markets and Prices** (prereq 3002 or #)
325789 0935-1025 MTWTh, ClaOff B25, Hammond, 4 cr
- 3007 Applied Macroeconomics: Policy, Trade and Development** (§3005; prereq 1101, 1102 or Econ 1101, Econ 1102)
043874 0830-0920 MTWTh, ClaOff B25, von Witzki, 4 cr
- 3260 Agribusiness Operations Management** (prereq 3240 or #)
427386 1315-1430 TTh, ClaOff B42, King, 4 cr
- 3410 Economic Organization of the Hospitality Industry** (prereq Mktg 3000 or #)
833492 4 cr (for information go to ClaOff 231)
- 3440 Livestock Marketing Economics** (prereq 1101 or Econ 1101)
931751 1250-1340 MWF, ClaOff B30, Crewdson, 3 cr
- 83860 Farm Operations Management** (prereq 3240 or #)
★LECT 1315-1430 TTh, ClaOff B35, Olson
131165 -1 LAB 1250-1450 M, ClaOff 135, Olson, 4 cr
- 83920 Agricultural Law** (prereq 1101 or Econ 1101)
832987 1145-1235 MTWTh, ClaOff B25, Dahl D., Thomas, 4 cr
- 3990 Independent Study in Agricultural and Applied Economics** (prereq #)
125561 ar cr
- 5020 Applied Linear Programming** (prereq 1101 or Econ 1101, Math 1111 or Math 1131)
733856 1355-1510 TTh, ClaOff B36, Fuller, 4 cr
- 5030 Methods of Economic Data Analysis** (prereq 5021 or equiv...familiarity with matrix algebra rec)
729449 0935-1100 MW, BioSci 6, Tsur, 4 cr
- 5440 Cooperatives and Agribusiness Organization** (prereq 1101, 1102 or Econ 1101, Econ 1102 or #)
125485 1040-1130 MTWTh, ClaOff B25, Dahl R., 4 cr
- 5640 Financing State and Local Governments** (prereq 3001 or Econ 3101 or #)
144358 1630-1810 TTh, ClaOff B36, 4 cr
- 5650 Economics of Natural Resource Policy** (prereq 3002 or Econ 3101 or # or 3610)
031823 0945-1100 TTh, HHHCtr 30, Archibald, 4 cr
- 5720 Economics of World Agriculture** (prereq 3001, 3006 or Econ 3101, Econ 3102 or #)
026010 1355-1510 WF, ClaOff B36, Ruttan, 3 cr
- 5890 Independent Study: Advanced Topics in Farm Management** (prereq #)
624793 1-6 cr
- 5990 Special Topics and Independent Study in Agricultural and Applied Economics** (prereq #)
724848 ar cr

- 8100 Graduate Seminar** (prereq 2 qtrs registration in AgEc MS program, examining committee selected, #) (S-N only)
947528 1530-1730 W, ClaOff 35, Levins, 2 cr
- 8200 Advanced Topics in Agricultural and Applied Economics**
724199 1-9 cr
- 8210 Applied Econometrics** (prereq Econ 8201 or Econ 5261, Econ 8202 or Econ 5262)
128329 1315-1445 TTh, ClaOff 35, Tsur, 3 cr
- 8220 Applied Mathematical Programming** (prereq Math 1142, Econ 5151 or #)
533566 1355-1510 MW, ClaOff B30, Aplan, 3 cr
- 8264 Resource Economics** (prereq Econ 5162 or # or #)
147768 Livingston, 3 cr
- 8345 Seminar: Agricultural Marketing**
327008 1500-1730 T, ClaOff B42, Hammond, Roe, 3 cr
- 8366 Seminar: Applied Regional Economics**
427100 1605-1735 TTh, ClaOff 35, Maki, 3 cr
- 8370 Agricultural and Trade Policy in Developed Countries** (prereq 8270 or #)
430580 1040-1205 MW, ClaOff 35, Von Witzke, 3 cr
- 8378 Seminar: Agricultural Development**
533082 1030-1200 F, ClaOff 230, Roe, Ruttan, 1-3 cr
- 8590 Economics of Food and Consumer Policy** (prereq 8270 or equiv, Econ 5113 or Econ 5151 or equiv)
733615 0830-0945 MW, ClaOff B36, Kinsey, 3 cr
- 8777 Thesis Credits: Masters**
628763 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
830589 1-36 cr

AGRICULTURAL EDUCATION (AgEd)

Vocational And Technical Education Education

- 1003 Personal Agriculture Career Planning** (prereq 1002) (A-F only)
445595 1250-1340 W, VoTech R385, Peterson, 1 cr
- 3029 Directed Experience in Agricultural Education** (prereq Δ) (A-F only)
730892 1250-1340 T, VoTech R385, Bear, 1-3 cr
- 3041 Practicum: Agricultural Education Technology** (max 5 cr; prereq Δ) (A-F only)
131612 1250-1340 W, VoTech R375, Bear, 1-3 cr
- 5010 Rural Education: Philosophy and Leadership** (§1010) (A-F only)
226028 0830-0920 MWF, VoTech R385, Peterson, 3 cr
- 5021 Education Through Extension Methods** (§HEEd 5021; prereq grad or #) (A-F only)
424083 1500-1745 Th, VoTech R385, Norenberg, 3 cr
- 5025 Extension Program Development** (§HEEd 5025) (A-F only)
525029 1500-1745 T, VoTech R385, Krueger, 3 cr
- 5027 Practicum: Placement for Extension Experiences** (max 9 cr; §HEEd 5027) (S-N optional)
330765 Norenberg, 2-9 cr
- 5061 Program Planning and Evaluation** (prereq sr) (A-F only)
832679 1355-1445 MWF, VoTech R385, Wardlow, 3 cr
- 5071 Supervised Occupational Experiences in Agriculture** (A-F only)
529808 1250-1340 MWF, VoTech R385, Leske, 3 cr
- 5090 Independent Study** (prereq sr) (A-F only)
029814 1-3 cr
- 5095 Integrating Paper: Master of Education** (prereq MEd student in agricultural education) (A-F only)
123803 3 cr

- 8001 Research in Agricultural Education** (prereq 15 cr educ)
831421 ar cr
- 8020 Seminar: Agricultural Education**
328742 1145-1340 F, VoTech R375, Peterson, ar cr
- 8091 Field Problems**
127771 3 cr
- 8777 Thesis Credits: Masters**
929241 1-16 cr

AGRICULTURAL ENGINEERING (AgEn)

Institute of Technology

- 1060 Agricultural Engineering Orientation** (S-N only)
142828 1500-1655 T, VinH 313, Chaplin, 1 cr (Mpls)
- 3031 Computations in Agricultural Engineering** (prereq IT stu, computer prog, Math 3321 or #Math 3321)
★LECT 0800-0915 TTh, AgEng 16B, Morey
042840 -1 REC 1500-1740 W, AgEng 307, Morey, 4 cr
- 3970 Directed Studies in Agricultural Engineering** (prereq #)
627970 2-5 cr
- 5050 Intern Reports** (prereq IT stu, #)
133661 Chaplin, 2 cr
- 85070 Automatic Control and Instrumentation** (prereq CE 3400 or equiv, IT upper div or ForF maj or grad stu)
★LECT 1355-1445 MWF, AgEng 307, Chaplin
732786 -1 LAB 1500-1655 M, AgEng 103, Chaplin, 4 cr
527850 -2 LAB 1500-1655 W, AgEng 103, Chaplin, 4 cr
- 85072 Finite Element Method: Fundamentals and Applications** (prereq differential equations, IT upper division or grad or #)
028629 1250-1445 TTh, AgEng 108, Bhattacharya, 4 cr
- 5150 Biological Process Engineering** (prereq BioC 3031 or Biol 5001 or #)
842841 1040-1235 TTh, AgEng 16B, Park, 4 cr
- 5191 Special Problems** (prereq #)
133627 2-5 cr
- 5192 Special Problems** (prereq 5191, #)
724252 2-5 cr
- 85910 Agricultural Waste Management Engineering** (prereq 3052, Chem 1005, CE 3400, IT upper div or grad IT)
★LECT 0845-1000 TTh, AgEng 303E, Clanton
145185 -1 LAB 0830-1130 W, AgEng 303E, 4 cr
- 8100 Seminar** (prereq #, grad IT maj)
629685 Schertz, 1 cr
- 8190 Advanced Problems and Research** (prereq 5191, 5192, Δ)
533759 2-6 cr
- 8191 Advanced Problems and Research** (prereq 5191, 5192, Δ)
927988 2-6 cr
- 8192 Advanced Problems and Research** (prereq 5191, 5192, Δ)
529534 2-6 cr
- 8777 Thesis Credits: Masters**
531882 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
825506 1-36 cr

AGRICULTURAL ENGINEERING TECHNOLOGY (AgET)

Agriculture

- 1090 Directed Studies** (prereq #)
129942 ar cr

- r3025 Engineering Principles and Applications** (prereq Math 1111 or Math 1142 or equiv, 5 cr in phys or chem)
729371 1040-1130 MTThF, AgEng 307, Janni, 4 cr
- 3091 Special Problems in Agricultural Engineering** (prereq #)
729211 2-5 cr
- 5030 Problems and Field Studies in Advanced Agriculture: Agricultural Tractor and Engine Power** (prereq 5020 or #)
242830 Bear, 1-3 cr
- 5091 Special Problems in Agricultural Engineering** (prereq #)
132629 2-5 cr
- 5092 Special Problems in Agricultural Engineering** (prereq 5091)
628021 2-5 cr
- 5400 Drainage and Irrigation** (prereq Soil 3210)
★LECT 1355-1445 MWF, AgEng 16B, Zur
531025 -1 LAB 1500-1800 W, AgEng 16B, Zur, 4 cr

AGRICULTURE (Agri) Agriculture

- r1000H Honors Colloquium: You Are What You Eat** (prereq honors program registration, □) (A-F only)
426447 1500-1640 W, CofH 120, Kinsey, 2 cr
- r1200 Computer Applications in Your Profession** (prereq Coll of Agric undergrad stu) (A-F only)
627340 0900-1030 TTh, AlderH 310, Jom, 3 cr
- 3100H Honors Experience** (prereq approved proposal by Coll of Agri Honors Prog Comm) (A-F only)
142117 3-4 cr

AGRONOMY AND PLANT GENETICS (Agro) Agriculture

- 1020 Special Problems** (prereq 5 cr agronomy, #)
128816 Smith, 1-3 cr
- r3020 Growth, Development, and Culture of Field Crops** (prereq Biol 1009, Chem 1005)
★LECT 1040-1130 MTWF, BorH 365, Cardwell
125843 -1 LAB 0830-1025 W, BorH 210, 213, Cardwell, 5 cr
929157 -2 LAB 1145-1340 W, BorH 210, 213, Cardwell, 5 cr
529873 -3 LAB 0935-1130 Th, BorH 210, 213, Cardwell, 5 cr
- r3060 Field Plot Design in Agronomy** (prereq jr, △)
★LECT 0830-0920 MWF, Agr A202, Hicks, 4 cr
131058 -1 REC 1355-1550 M, Agr A408, Hicks
829829 -2 REC 1040-1235 T, Agr A408, Hicks
- r3200 Seminar** (prereq jr or sr)
725403 1530-1700 Th, Agr A408, Smith, Cardwell, 1 cr
- 5001 Problems in Agronomy for Advanced Students** (prereq 20 cr agronomy, #)
426075 Smith, 1-5 cr
- r5120 Growth, Development, and Culture of Field Crops** (§3020; prereq Biol 1009, Chem 1005)
★LECT 1040-1130 MTWF, BorH 365, Cardwell, 5 cr
★REC 0935-1025 F, Agr A408, Cardwell
925321 -1 LAB 0830-1025 W, BorH 210, 213, Cardwell
128998 -2 LAB 1145-1340 W, BorH 210, 213, Cardwell
427940 -3 LAB 0935-1130 Th, BorH 210, 213, Cardwell
- r8000 Supervised Teaching Experience** (§Hort 8000, Soil 8000; prereq #) (S-N only)
027917 Simmons, 2 cr
- 8010 Research in Agronomy** (prereq #)
824890 ar cr
- 8210 Plant Breeding Principles and Methods II** (prereq 8200, GCB 5042, Stat 5301)
233531 0935-1025 MWF, Agr A202, 3 cr
- r8250 Advanced Plant Genetics** (prereq 8240 or GCB 8131)
131957 0935-1130 T, BorH 210, Gengenbach, Somers, 2 cr

- 8260 Statistical Topics in Plant Sciences** (prereq Stat 5301 or equiv or #)
034141 0830-0920 MWF, Agr A408, Stucker, 3 cr
- 8280 Current Topics in Plant Breeding** (prereq 8210 or #)
632683 1000-1200 Th, Agr A408, Stucker, 2 cr
- 8330 Research in Plant Genetics**
032891 ar cr
- 8777 Thesis Credits: Masters**
326859 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
323962 1-36 cr

AMERICAN INDIAN STUDIES (Amin) Liberal Arts

- 1023 Beginning Ojibwe** (prereq 1022)
826722 0905-0955 MTWThF, WullH 130, Oakgrove, 5 cr
- 1033 Beginning Dakota** (prereq 1032)
130789 1220-1310 MTWThF, WullH 130, Schommer, 5 cr
- 3026 Ojibwe Culture and History**
542123 1010-1100 MWF, ScottH 4, 4 cr
- 3028 Intermediate Ojibwe** (prereq 3025)
733078 1115-1205 MTWThF, WullH 130, Oakgrove, 5 cr
- 3038 Intermediate Dakota** (prereq 3035)
931166 1325-1415 MTWThF, WullH 130, Schommer, 5 cr
- r3112 American Indian History: 1850 to the Present** (§Hist 3872)
126121 -1 0945-1100 TTh, AndH 270, O'Brien, 4 cr
444138 -2 1115-1230 TTh, AndH 270, Townsend, 4 cr
- 3116 American Indian Literature**
742122 1325-1440 MW, ScottH 4, King, 4 cr
- r3211 American Indian Philosophies**
342124 1010-1125 MW, Arch 55, Kilpatrick, 4 cr
- 3810 Field Practice: Indian Studies** (prereq soph or jr or sr, #)
129027 3-9 cr
- 3970 Directed Studies** (prereq #, △)
331012 1-15 cr
- 3980 Directed Instruction** (prereq #, △, □)
326635 5 cr
- 5990 Directed Research** (prereq by petition only, #, △, CLA approval)
732061 -1 1-15 cr
129173 -2 Libertus, 1-15 cr

AMERICAN STUDIES (AmSt) Liberal Arts

- r1002 American Cultures**
★LECT 0905-0955 MWF, ScottH 4, Dietzel
542171 -1 REC 0905-0955 T, NichH 201, 4 cr
446312 -2 REC 0905-0955 Th, ChDev 216, 4 cr
★LECT 1220-1310 MWF, NichH 209, Loviglio
146314 -3 REC 1325-1415 T, BuH 123, 4 cr
946315 -4 REC 1325-1415 Th, EIH N119, 4 cr
- r1003 American Cultures**
★LECT 0945-1100 TTh, SciCB 175, May L., Tsuchida
642159 -1 REC 0800-0850 M, BuH 123, 4 cr
142165 -2 REC 1325-1415 M, BuH 123, 4 cr
642162 -3 REC 1115-1205 T, BuH 123, 4 cr
542168 -4 REC 1325-1415 T, ScottH 4, 4 cr
342169 -5 REC 0800-0850 W, BuH 123, 4 cr
042160 -6 REC 1325-1415 W, ChDev 216, 4 cr
942166 -7 REC 1325-1415 Th, ScottH 4, 4 cr
442163 -8 REC 1325-1415 F, ScottH 4, 4 cr
- r1003H American Cultures** (prereq honors stu or #)
★LECT 0945-1100 TTh, SciCB 175, May L., Tsuchida
742153 -80 REC 1325-1415 Th, BuH 123, Richter, 4 cr
- r3105 Introduction to Chicano Studies** (§Chic 3105)
242150 -1 0800-0850 MWF, ScottH 4, Green, 4 cr
747840 -2 0800-0850 MWF, EIH N119, 4 cr

- r3111 Creative Americans and Their Worlds**
230340 1115-1205 MWF, ScottH 4, Munro-Bjorklund, 4 cr
- r3113 American Cultural Diversity** (§Clit 3979)
542154 1115-1230 TTh, ScottH 4, Smith A., 4 cr
- r3303 Proseminar: American Studies** (prereq 3302)
330720 1325-1525 T, ScottH 2, Montana, 4 cr
- r3920 Topics in American Studies** (max 12 cr; prereq jr or sr) (A-F only)
242147 -1 0905-0955 MWF, JonesH 207B, Marling, 4 cr (Arts in America: Colonial Period)
142151 -2 0945-1100 TTh, ScottH 4, Montana, 4 cr (Urban Folkways)
142156 -3 1430-1545 TTh, FordH 155, Norberg, 4 cr (Technology in American Society)
- 3970 Directed Studies** (prereq #, △, □)
727975 1-15 cr
- r5920 Topics in American Studies** (max 12 cr) (A-F only)
031143 -1 1400-1600 M, JonesH 207B, Marling, 4 cr (Popular Culture: Methods and Materials)
626463 -2 1325-1520 F, BlegH 135, O'Brien, 4 cr (American Indian Social History)
847439 -3 1325-1415 MWF, JonesH 207A, Kilpatrick, 4 cr (Art of Meso-America) (§ArH 5911)
- r8203 Introduction to American Studies: Field Learning** (prereq admission to AmSt grad program) (A-F only)
730956 1325-1525 M, ScottH 2, Wright, 4 cr
- r8240 Gender, Race, Class and/or Ethnicity in America** (max 12 cr; prereq 8239 or # or △) (A-F only)
132574 1325-1525 W, ScottH 2, May E., 4 cr
- r8260 Literature, History and Culture** (max 12 cr; prereq 8259 or # or △) (A-F only)
532126 -1 1000-1200 M, ScottH 2, Rabinowitz, 4 cr
442146 -2 1000-1200 T, ScottH 2, King, 4 cr
- r8270 Politics, Economics and/or the Law** (max 12 cr; prereq 8269 or # or △) (A-F only)
142148 1535-1725 W, ScottH 2, Valdes, 4 cr
- 8777 Thesis Credits: Masters**
027352 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
930051 1-36 cr
- 8970 Readings in American Civilization**
728592 ar cr

ANCIENT NEAR EASTERN (ANE) Classical & Near Eastern Studies Liberal Arts

- 1003 The Bible: Wisdom, Poetry and Apocalyptic**
128449 0945-1100 TTh, NichH 211, Zahavy, 4 cr
- 3003 The Bible: Wisdom, Poetry and Apocalyptic** (§1003)
526472 0945-1100 TTh, NichH 211, Zahavy, 4 cr
- 3101 Ancient Near Eastern Texts in English**
844346 0905-0955 MWF, FolH 246, Reisman, 4 cr
- 3251 Modern Study of the Old Testament** (§RelS 3251)
842175 0800-0850 MWF, NichH 211, Reisman, 4 cr

ANCIENT STUDIES (AnSt) Liberal Arts

- 5100 Topics in Ancient Studies** (prereq enrollment in AnSt or #)
732738 1015-1200 TTh, FolH 142, Cooper, Clouse, 4 cr
- 8003 Basic Seminar: Understanding the Past: Natural Scientific Approaches** (prereq grad maj or #)
932950 1325-1620 W, FolH 224, Rapp, 4 cr
- r8100 Interdisciplinary Seminar** (prereq grad maj or #)
844377 1500-1700 Th, BlegH 220, Martin, 4 cr
- r8120 Interdisciplinary Seminar: Literary Sources for Byzantine Art** (§ArH 8190, Clas 8190; prereq grad maj or #) (A-F only)
347064 1630-1930 T, FolH 218, Alchermes, 4 cr

- 8200 Directed Readings** (prereq Δ)
230144 1-3 cr
- 8300 Directed Research** (prereq Δ)
733520 1-3 cr
- 8777 Thesis Credits: Masters**
627872 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
130590 1-36 cr

ANESTHESIOLOGY (Anes) Medical School

- r3106 Advanced Respiratory Care Topics** (prereq #)
830527 1325-1415 MTWThF, Mayo C559, Larsen, 5 cr
- r3107 Individual Study in Respiratory Therapy** (prereq #)
225185 1430-1520 W, Mayo C559, Larsen, ar cr
- 5015 Directed Study, Anesthesia Topics/Project Course Development** (prereq CRNA, regis B.S. in nurs anes, #)
828566 Bell, ar cr
- 5181 Externship in Clinical Practice of Anesthesiology** (prereq regis med)
428084 Anderson, 4.5-9 cr
- 5182 Independent Study, Anesthesiology** (prereq regis med)
332872 Palahniuk, ar cr
- 5186 Clinical Practice in Anesthesia** (prereq CRNA, regis B.S. in nurs anes, 5086, #)
124734 Palahniuk, 15 cr
- 5268 Seminar in Anesthesia** (prereq CRNA, regis B.S. in anes)
124295 1500-1700 F, Mayo B580, Palahniuk, 2 cr
- 5286 Directed Study, Anesthesia Topics/Project: Clinical** (prereq CRNA, regis B.S. in nurs anes, #)
224327 Beil, ar cr
- 5386 Education in Nurse Anesthesia** (prereq CRNA, regis B.S. in nurs anes, #)
333567 Bell, 1 cr
- 8265 General Anesthesia**
529212 Palahniuk, 12 cr
- 8266 Regional Anesthesia**
631985 Palahniuk, 4 cr
- 8267 Pre-Postanesthetic Evaluation**
025875 1530-1800 MTWTh, Mayo B580, Palahniuk, 2 cr
- 8268 Seminar: Anesthesia**
128726 1500-1700 F, Mayo B580, Palahniuk, 2 cr
- 8269 Research in Anesthesia**
224084 Palahniuk, ar cr
- 8777 Thesis Credits: Masters**
929921 1-16 cr

ANIMAL AND PLANT SYSTEMS (AnPl)

Agriculture

- r5060 Integrated Management of Cropping Systems** (prereq Agro 3020 or Hort 1100, Soil 3125 or #) (A-F only)
229656 1355-1530 MWF, BorH 306, Davis D., Simmons, others, 4 cr

ANIMAL PHYSIOLOGY (AnPh)

- 8777 Thesis Credits: Masters**
032499 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
228006 1-36 cr

ANIMAL SCIENCE (AnSc) Agriculture

- 1301 Management Techniques: Swine** (prereq #) (S-N only)
329826 Hawton, 1 cr
- 1303 Management Techniques: Beef** (prereq #) (S-N only)
925187 1300-1630 T, BCB, Meiske, 1 cr

- 1304 Management Techniques: Dairy** (prereq #) (S-N only)
723778 Otterby, 1 cr
- 1305 Management Techniques: Poultry** (prereq #) (S-N only)
524737 Hamre, 1 cr
- 1510 Consumer Meat Science**
633834 0830-0920 TTh, ABLMS 125, Epley, 2 cr
- 3111 Introduction to Animal Behavior** (§EEB 3111; prereq Biol 1008 or Biol 1009 or #)
★LECT 1010-1205 TTh, Zoology 102, Pusey, (Mpls)
928168 -1 REC 1535-1625 T, Zoology 102, Pusey, 4 cr (Mpls)
931121 -2 REC 1535-1625 Th, Zoology 102, Pusey, 4 cr (Mpls)
- 3131 Live Animal Performance and Selection**
★LECT 1500-1550 TTh, PetH 108, Christians
930857 -1 LAB 1615-1800 TTh, AnAren 115, Christians, 3 cr
- 3141 Advanced Dairy Judging** (prereq 1110)
033815 1500-1745 W, HckrH 111, Hansen, 1 cr
- r3305 Reproductive Physiology, Artificial Insemination, and Lactation** (prereq 3301)
★LECT 0935-1025 MTWTh, HckrH 100, Hunter
533700 -1 LAB 1605-1800 W, AnScVM 169, 173, Hunter, 5 cr
132419 -2 LAB 0935-1130 F, AnScVM 169, 173, Hunter, 5 cr
- 3510 Growth and Development of Animal Tissues** (prereq BioC 1301, 1302 or 5001...AnSc 1120, 3301 rec)
227244 0830-0920 MWF, HckrH 111, Hathaway, 3 cr
- 5330 Current Topics in Endocrinology** (prereq 3301, Biol 3021 or BioC 5001)
832519 1605-1655 W, AnScVM 495, Wheaton, 1 cr
- 5404 Applied Animal Nutrition** (prereq VB 5210, 5212, 5306)
229916 1100-1150 TWThF, AnScVM 125, Otterby, Olson, others, 2 cr (2nd 5 weeks)
- 5405 Poultry Nutrition** (prereq 1401 or 3401)
245596 1355-1520 TTh, ClaOff B30, Waibel, 3 cr
- 5601 Swine Production** (prereq 1401 or 3401...3220 rec)
★LECT 1250-1340 MWF, PetH 108, Shurson, 4 cr
246294 -1 LAB 1250-1445 Th, PetH 108, Shurson
- 5603 Beef Cattle Production** (§5613; prereq 1401 or 3401...3220, 5403 rec)
925447 1040-1130 TWThF, AgEng 105, Meiske, 4 cr
- 5604 Dairy Farm Management** (prereq 1520, 5403...3220 rec)
★LECT 1145-1235 MWF, HckrH 210, Young, 4 cr
628228 -1 LAB 1355-1550 M, HckrH 210, Young, Otterby
- r5703 Literature and Seminar** (prereq jr)
727796 1500-1550 MW, HckrH 100, Hathaway, 2-3 cr
- 5710 Special Problems** (prereq #)
832469 ar cr
- 5715 Tutorial** (prereq #)
432829 ar cr
- 8230 Linear Model Methods** (prereq Stat 5022...Math 3142, GCB 5033 rec)
432880 0935-1025 MTWTh, ClaOff B42, Hansen, 2-4 cr
- r8326 Immunoreproduction** (prereq 5322 or #) (A-F only)
326392 1250-1340 MTWThF, HckrH 209, Hunter, 4 cr
- 8335 Molecular Biology Techniques in Animal Science** (prereq Biol 5001, 5003 or equiv or #)
530067 1000-1130 TTh, ClaOff 35, Foster, 3 cr
- 8750 Concepts and Developments in Meat Science and Technology** (prereq #)
130162 Dayton, 1 cr
- 8777 Thesis Credits: Masters**
926047 1-16 cr
- 8810 Research in Animal Science** (prereq #)
232315 ar cr

- 8820 Research in Animal Genetics** (prereq #)
727121 ar cr
- 8830 Research in Animal Physiology** (prereq #)
329555 ar cr
- 8840 Research in Animal Nutrition** (prereq #)
530070 ar cr
- 8850 Research in Muscle Chemistry and Physiology** (prereq #)
629170 ar cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
033779 1-36 cr

ANTHROPOLOGY (Anth) Liberal Arts

- r1101 Human Origins**
★LECT 1010-1100 MWF, SciCB 175, Walker
029148 -1 REC 0800-0850 T, FordH 20, 5 cr
630030 -2 REC 0905-0955 T, FordH 20, 5 cr
231570 -3 REC 1010-1100 T, FordH 20, 5 cr
229026 -4 REC 1115-1205 T, FordH 20, 5 cr
333536 -5 REC 1220-1310 T, FordH 20, 5 cr
133702 -6 REC 0800-0850 Th, FordH 20, 5 cr
630027 -7 REC 0905-0955 Th, FordH 20, 5 cr
124305 -8 REC 1010-1100 Th, FordH 20, 5 cr
623921 -9 REC 1115-1205 Th, FordH 20, 5 cr
829619 -10 REC 1220-1310 Th, FordH 20, 5 cr
- r1101H Honors Course: Human Origins** (prereq B avg or #)
★LECT 1010-1100 MWF, SciCB 175, Walker
329132 -80 REC 1325-1415 T, FordH 20, Walker, 5 cr
- r1102 Introduction to Social and Cultural Anthropology** (§1115, 5102)
★LECT 1115-1205 MWF, SmithH 100, Gerlach
425606 -1 REC 0800-0850 T, FordH 15, 5 cr
331771 -2 REC 0905-0955 T, Arch 55, 5 cr
829894 -3 REC 0905-0955 T, VinH 206, 5 cr
325145 -4 REC 1010-1100 T, EE/CSci 3210, 5 cr
829555 -5 REC 1010-1100 T, PillsH 110, 5 cr
930714 -6 REC 1115-1205 T, FordH 15, 5 cr
423824 -7 REC 1220-1310 T, FordH 15, 5 cr
630917 -8 REC 0800-0850 Th, FordH 15, 5 cr
830886 -9 REC 0905-0955 Th, FordH 150, 5 cr
430840 -10 REC 0905-0955 Th, FordH 15, 5 cr
329129 -11 REC 1010-1100 Th, FordH 15, 5 cr
433334 -12 REC 1010-1100 Th, EE/CSci 3230, 5 cr
132677 -13 REC 1115-1205 Th, FordH 15, 5 cr
226983 -14 REC 1220-1310 Th, FordH 15, 5 cr
- r1102H Introduction to Social and Cultural Anthropology** (prereq GPA 3.0 or #)
★LECT 1115-1205 MWF, SmithH 100, Gerlach
132395 -80 REC 0905-0955 T, FordH 15, Gerlach, 5 cr
- r3201 Approaches in Cultural Anthropology** (prereq 1102 or #)
342186 1415-1530 TTh, FordH 285, Goodwin-Tomar, 4 cr
- r3212 Indians of the Greater Southwest**
534135 0905-0955 MWF, FordH 155, Dunnigan, 4 cr
- r3511 Archaeology of Native Americans**
142187 0800-0850 MWF, FordH 285, Gibbon, 4 cr
- 3960 Anthropology Proseminar: Student Differences and University Cultures**
746316 1115-1230 TTh, FordH 290E, Doherty, 4 cr
- 3970 Directed Studies** (prereq #, Δ, □)
227096 ar cr
- 3992H Honors Tutorial** (can not be applied toward any CLA degree) (S-N only)
328806 1 cr
- r5117 Anthropology of Resource Management**
024743 1820-2050 T, FordH 130, Gerlach, 4 cr
- r5131 Anthropology of Religion** (prereq 1102 or 5102 or #)
826249 1245-1400 TTh, FordH 349, Prell, 4 cr
- r5141 Culture and Personality** (prereq 1102 or 5102 or #, waived for public hith, nurs, psy, soc, social work majs)
843956 1115-1205 MWF, FordH 115, Ingham, 4 cr

- r5258 Anthropological Analysis of American Culture** (prereq 1102 or 5102 or #)
933922 1220-1310 MW, 1220-1415 F, FordH 130, Rowe, 4 cr
- r5325 Gender and Power in South Asia** (prereq 1102, 3261, or 5102 or #)
842189 0945-1100 TTh, FordH 290E, Goodwin-Tomar, 4 cr
- r5524 Archaeological Research Design** (prereq jr or sr anth maj, 12 cr upper div archaeology coursework or #) (A-F only)
447217 1415-1530 MW, FordH 285, Walker, 4 cr
- r5592 Hist of Archaeology** (prereq 12 cr in XXXX or 5XXX Anth courses)
233285 1010-1100 MWF, FordH 160, Gibbon, 4 cr
- r5960 Senior Seminar: Ritual** (prereq sr maj)
230225 1325-1520 T, FordH 290E, Lipset, 4 cr
- 5961 Senior Research Project** (prereq sr maj, #) (A-F only)
028775 4 cr
- 5970 Directed Readings** (prereq #, Δ, CLA approval)
133523 2-4 cr
- 8202 Research Methods in Social and Cultural Anthropology** (prereq grad stu in anth or #)
546317 1415-1630 T, FordH 235, Miller, 3 cr
- 8390 Seminar: Philosophical Anthropology**
842192 1415-1630 Th, FordH 235, Penn, 3 cr
- 8777 Thesis Credits: Masters**
127608 1-16 cr
- 8810 Seminar: Special Topics: Latin America: Anthropology's Perspective**
129424 1430-1700 W, FordH 290E, Gudeman, 3 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
329177 1-36 cr
- 8950 Directed Studies** (prereq #)
733789 ar cr

ARABIC (Arab) Afro-American & African Studies Liberal Arts

- r1103 Beginning Arabic** (prereq 1102)
226871 1115-1205 MTWThF, BlegH 245, AshShareef, 5 cr
- r3103 Intermediate Arabic** (prereq 1103 or #)
931491 1325-1520 MWF, BlegH 260, AshShareef, 4 cr
- r5970 Directed Readings** (prereq #, Δ, CLA approval)
126412 ar cr

ARCHITECTURE (Arch) Arch & Landscape Arch

- r1022 History of Landscape Architecture** (§LA 1022)
429820 -1 1115-1310 TTh, SmithH 100, Martin, 4 cr
133201 -2 1730-1920 TTh, SmithH 100, 4 cr
- r1043 Architectural Graphics** (prereq 1042)
525421 1600-1730 TTh, Arch 10, Piotrowski, 2 cr
- r3061 Building Systems** (prereq 3081 or # or #, arch maj or adult special)
★LECT 1320-1520 TTh, Arch 25, Weeks, 4 cr
846128 -1 LAB 1010-1205 F, Arch 55
646129 -2 LAB 1010-1205 F, Arch 40
- r3062 Building Systems** (prereq 3061)
★LECT 1010-1205 WF, Arch 35, Rauma, 4 cr
346125 -1 LAB 1010-1205 M, Arch 40
146126 -2 LAB 1010-1205 M, Arch 25
- r3083 Architectural Design** (prereq 3082) (A-F only)
★LECT 1325-1730 MWF, Arch 45, Piotrowski, 6 cr
124465 -1 LAB 1325-1730 MWF, Arch 230
- r3093 Architectural Design** (prereq 3092) (A-F only)
★LECT 1325-1730 MWF, Arch 50, Mullfing, 6 cr
830656 -1 LAB 1325-1730 MWF, Arch 220

- r3970 Directed Study** (prereq 3081 or Δ)
723909 ar cr
- r5061 Contemporary Architecture** (prereq arch maj, 1022, 3083 or #) (A-F only)
632232 1010-1205 TTh, Arch 25, James, 4 cr
- r5067 History of Architectural Theory** (prereq 1021 or #)
047942 1010-1205 WF, Arch 25, Satkowski, James, 4 cr
- r5111 Architectural Design** (prereq 3093, 3064-3065 or #, CE 3600-3601-3602 or #, arch maj)
★LECT 1325-1730 MWF, Arch 25, 6 cr
933869 -1 LAB 1325-1730 MWF, Arch 240
- r5112 Architectural Design** (prereq 5111, arch maj)
★LECT 1325-1730 MWF, Arch 25, 6 cr
733744 -1 LAB 1325-1730 MWF, Arch 240
- r5113 Architectural Design** (prereq 5112, arch maj)
★LECT 1325-1730 MWF, Arch 25, 6 cr
330989 -1 LAB 1325-1730 MWF, Arch 240
- r5121 Architectural Design** (prereq 5113, CE 3602, arch maj) (A-F only)
★LECT 1325-1730 MWF, Arch 35, 6 cr
127639 -1 LAB 1325-1730 MWF, Arch 240
- r5122 Architectural Design** (prereq 5121, arch maj)
★LECT 1325-1730 MWF, Arch 35, Stageberg, 6 cr
132445 -1 LAB 1325-1730 MWF, Arch 240
- 5123 Architectural Thesis** (prereq 5122, submit thesis plan qtr prior to writing, 800 hrs practical exp, 36 lab hrs, Δ)
130475 1315-1700 MTWThF, Arch 125, 240, Lockhart, 12 cr
- r5127 Law for Architects** (prereq 3093 or Δ)
127950 0905-1100 MW, Arch 5, Scherer, 4 cr
- r5850 Topics in Theory** (prereq arch maj or adult special)
928266 -1 1535-1730 T, Arch 30, 2 cr
827773 -2 1535-1730 Th, Arch 30, Mullfing, 2 cr
- r5853 Architecture: Form and Meaning** (prereq 3093 or #, arch maj or adult special) (A-F only)
742203 1535-1730 Th, Arch 20, Dittmar, 3 cr
- r5950 Topics in Architecture** (prereq 3093, #)
224540 1010-1205 TTh, Arch 30, 4 cr
- r5956 The Meanings and Messages of Place: City, Town and Countryside** (prereq upper div undergrad or grad arch or landscape arch maj or #)
142206 1400-1700 T, Law 3, Clemence, 4 cr
- 5959 Lighting and Architectural Design** (prereq 3083, 3065 or #, arch maj)
342205 1010-1205 TTh, Arch 55, Pfacke, 4 cr
- r5963 Advanced Computer Aided Architectural Design** (prereq 5962 or #, arch and landscape arch maj)
★LECT 1325-1520 Th, Arch 55, Anderson, 4 cr
247462 -1 LAB 1325-1520 T, Arch 148, Anderson
- r5970 Directed Study** (prereq #)
933614 ar cr
- r8251 Architectural Design** (prereq grad status in architecture) (A-F only)
★LECT 1325-1730 MWF, Arch 30, 6 cr
827840 -1 LAB 1325-1730 MWF, Arch 210
- r8252 Architectural Design** (prereq grad status in architecture) (A-F only)
★LECT 1325-1730 MWF, Arch 30, 6 cr
733047 -1 LAB 1325-1730 MWF, Arch 210
- r8253 Architectural Design** (prereq grad status in architecture) (A-F only)
★LECT 1325-1730 MWF, Arch 30, 6 cr
429543 -1 LAB 1325-1730 MWF, Arch 210
- r8254 Architectural Design** (prereq grad status in architecture) (A-F only)
★LECT 1325-1730 MWF, Arch 30, Stageberg, 6 cr
727703 -1 LAB 1325-1730 MWF, Arch 210
- r8255 Architectural Design** (prereq grad status in architecture) (A-F only)
★LECT 1325-1730 MWF, Arch 30, Stageberg, 6 cr
431809 -1 LAB 1325-1730 MWF, Arch 210
- r8256 Architectural Design** (prereq grad status in architecture) (A-F only)
★LECT 1325-1730 MWF, Arch 30, 6 cr
731475 -1 LAB 1325-1730 MWF, Arch 230, Stageberg

- r8261 Selected Problems in Architecture** (prereq grad status in architecture)
★LECT 1325-1730 MWF, Arch 60, 6 cr
626978 -1 LAB 1325-1730 MWF, Arch 210
- r8262 Selected Problems in Architecture** (prereq grad status in architecture)
★LECT 1325-1730 MWF, Arch 60, 6 cr
829099 -1 LAB 1325-1730 MWF, Arch 210
- r8263 Selected Problems in Architecture** (prereq grad status in architecture)
★LECT 1325-1730 MWF, Arch 60, 6 cr
932494 -1 LAB 1325-1730 MWF, Arch 210
- r8273 Problems in City and Community Design** (prereq grad Arch stu)
932317 1325-1730 MWF, Arch 210, 9 cr
- 8777 Thesis Credits: Masters**
529985 1-16 cr

ART EDUCATION (ArEd) Curriculum And Instruction Education

- r3000 Art of Children** (A-F only)
726177 1430-1625 TTh, WullH 240, DiBlasio, 3 cr
- r3001 Survey of Art Activities** (prereq non art education maj) (A-F only)
124434 -1 0905-1100 MWF, WullH 220, 4 cr
831046 -2 0905-1205 TTh, WullH 220, 4 cr
- r3020 Contemporary Crafts** (A-F only)
432751 0905-1205 TTh, WullH 110, 120, James, 4 cr
- r3120 Newer Media in Art Curriculum** (prereq 3110) (A-F only)
947268 1115-1315 TTh, Peikh 355, Freedman-Norberg, 3 cr
- 3130 Community and School Resources in Art Curriculum** (prereq 3110) (A-F only)
828874 1430-1625 MW, WullH 240, 3 cr
- 3309 Independent Study** (max 4 cr; prereq #) (A-F only)
924007 DiBlasio, 1-4 cr
- 3600 Student Teaching and Supervision of Art** (prereq 3120, 3130, sr in art educ, SeEd 3150, Elem 3101, 13610) (S-N only)
030817 DiBlasio, others, 3-12 cr
- r5020 Advanced Contemporary Crafts** (prereq 3020 or #) (A-F only)
232993 0905-1205 TTh, WullH 110, 120, James, 4 cr
- 5310 History of American Art Education** (A-F only)
542770 1640-1920 T, WullH 240, Freedman-Norberg, 3 cr
- 5600 Internship** (prereq #) (A-F only)
930020 DiBlasio, 3-9 cr
- 5605 Practicum** (prereq #) (A-F only)
226918 -1 Freedman-Norberg, 3-9 cr
133778 -2 3-9 cr
- 5900 Professional Problems** (prereq MEd student, #) (A-F only)
129934 -1 DiBlasio, 3 cr
932687 -2 Freedman-Norberg, 3 cr
- 8900 Problems: Art Education** (prereq #)
330524 -1 DiBlasio, ar cr
828812 -2 Freedman-Norberg, ar cr

ART HISTORY (Arth) Liberal Arts

- r1002 Introduction to the History of Art**
★LECT 0815-0930 TTh, WilleyH 125, Asher F., Cooper
647409 -1 REC 1115-1205 M, JonesH 207A, 4 cr
047410 -2 REC 1325-1415 M, JonesH 207B, 4 cr
847411 -3 REC 1115-1205 T, JonesH 207B, 4 cr
647412 -4 REC 1325-1415 T, JonesH 207B, 4 cr
447413 -5 REC 1115-1205 W, JonesH 207A, 4 cr
247414 -6 REC 1325-1415 W, JonesH 207B, 4 cr
147415 -7 REC 1115-1205 Th, JonesH 207B, 4 cr
947416 -8 REC 1325-1415 Th, JonesH 207B, 4 cr
747417 -9 REC 1115-1205 F, JonesH 207A, 4 cr
547418 -10 REC 1325-1415 F, JonesH 207B, 4 cr

- r3009 History of Medieval Art**
★LECT 0800-0850 MWF, AndH 310, Steyaert
347419 -1 REC 1220-1325 M, JonesH 207A, 4 cr
747420 -2 REC 1220-1325 T, JonesH 207B, 4 cr
547421 -3 REC 1220-1325 W, JonesH 207A, 4 cr
347422 -4 REC 1220-1325 Th, JonesH 207B, 4 cr
147423 -5 REC 1220-1325 F, JonesH 207A, 4 cr
- r3011 History of Renaissance and Baroque Art**
★LECT 1010-1100 MWF, AndH 310, Stoughton
047424 -1 REC 0905-0955 M, JonesH 207B, 4 cr
847425 -2 REC 0905-0955 T, JonesH 207A, 4 cr
647426 -3 REC 0905-0955 W, JonesH 207B, 4 cr
447427 -4 REC 0905-0955 Th, JonesH 207A, 4 cr
247428 -5 REC 0905-0955 F, JonesH 207B, 4 cr
- r3012 History of 19th, 20th Century Art**
★LECT 0945-1100 TTh, AndH 310, Haxthausen
147429 -1 REC 1010-1100 M, JonesH 207B, 4 cr
447430 -2 REC 0840-0930 T, JonesH 207B, 4 cr
247431 -3 REC 1010-1100 W, JonesH 207B, 4 cr
147432 -4 REC 0840-0930 Th, JonesH 207B, 4 cr
947433 -5 REC 1010-1100 F, JonesH 207B, 4 cr
- r3577 The Arts in America: Colonial Era Through Civil War**
★LECT 0905-0955 MWF, AndH 310, Marling
747434 -1 REC 1115-1205 M, JonesH 207B, 4 cr
547435 -2 REC 1115-1205 W, JonesH 207B, 4 cr
- r3922 Art of the Film (prereq 3921)**
★LECT 1325-1415 MW, 1325-1600 F, AndH 310, Silberman
347436 -1 REC 1430-1530 M, JonesH 207A, 4 cr
147437 -2 REC 1430-1530 W, JonesH 207A, 4 cr
- 3970 Directed Studies (prereq #, Δ, □)**
728978 1-5 cr
- 3971 Major Project (prereq art history maj, #)**
333407 1 cr
- 3975 Directed Museum Experience (prereq #, Director of Undergrad Studies) (S-N only)**
227857 1-3 cr
- r5052 Early Medieval Architecture (§Arch 5052; prereq Arch 1021 or #)**
442227 0815-0930 TTh, JonesH 207A, Alchermes, 4 cr
- r5061 Contemporary Architecture (§Arch 5061; prereq arch maj, Arch 1022, Arch 3083 or #)**
132291 1010-1205 TTh, Arch 25, James, 4 cr
- r5104 Roman Architecture (§Cias 5104; prereq jr or sr or #)**
744369 1115-1205 MWF, JonesH 202, Cooper, 5 cr
- r5315 Drawings and Graphics of the Renaissance (prereq 5307 or 5313 or grad student or #)**
142229 1010-1100 MWF, JonesH 207A, Canedy, 5 cr
- r5358 18th-Century Art in Italy, Germany, Austria (prereq 3011 or grad student or #)**
442230 1220-1310 MWF, JonesH 207A, Stoughton, 4 cr
- r5645 Folk Arts of Scandinavia (§Scan 5645)**
242231 0945-1100 TTh, JonesH 207A, Nelson, 4 cr
- r5783 Art of Islamic India**
146295 0945-1100 TTh, JonesH 207B, Asher C., 4 cr
- r5911 Art of Meso-America (§AmSt 5920, sec 3; prereq jr or sr or #)**
047438 1325-1415 MWF, JonesH 207A, Kilpatrick, 4 cr
- r5950 Topics in Art History (prereq jr or sr or grad or #)**
142232 -1 1400-1630 M, JonesH 207B, Marling, 4 cr (Popular Culture, Methods, and Materials)
942233 -2 1115-1230 TTh, JonesH 207A, Poor, 4 cr (Temples and Gardens)
- r5960 Topics in Art History (prereq jr or sr or grad or #)**
742234 -1 1245-1400 TTh, JonesH 207A, Nelson, 4 cr (Scandinavian Art, 1880-1915)
542235 -2 1010-1205 WF, Arch 25, James, Satkowski, 4 cr (Architectural Theory from Vitruvius to Venturi) (§Arch 5850)

- 5970 Directed Readings (prereq sr, #, Δ, CLA approval)**
124183 1-5 cr
- 5990 Directed Research (prereq sr, #, Δ, CLA approval)**
627922 1-5 cr
- r8190 Seminar: Problems in Ancient Art: Literary Sources and Byzantine Art (§AnSt 8120, Clas 8190; prereq #) (A-F only)**
533194 1630-1930 T, FolH 218, Alchermes, 4 cr
- r8200 Seminar: Problems in Medieval Sculpture: Gothic Sculpture in the Netherlands and France (prereq #)**
043180 1215-1415 M, JonesH 202, Steyaert, 4 cr
- r8400 Seminar: Problems in 19th Century Art: Realism/Naturalism (prereq #)**
342236 1415-1615 MF, JonesH 202, Weisberg, 4 cr (alt weeks bgn Mar 30)
- 8888 Thesis Credits: Doctoral (max 18 cr per qtr)**
625247 1-36 cr
- 8970 Directed Studies (prereq #)**
133336 1-5 cr
- 8975 Directed Museum Studies (prereq #) (A-F only)**
631890 1-3 cr

ART, STUDIO (Arts) Liberal Arts

Materials fees are assessed at the time of registration for many Studio Arts courses. See Section 2, Course Fees, for course numbers and fee amounts.

Written permission from the instructor is required for all students to register for a Studio Arts course after the first class meeting.

Open labs are scheduled for two hours each week for all 1000- and 3000-level Studio Arts courses. Labs are staffed by teaching assistants who can answer both aesthetic and technical questions and help with course work. You may attend the lab scheduled for your course or any lab scheduled in the same media (drawing/painting, ceramics, glass, photography, printmaking, or sculpture). Attendance at more than one lab is also possible. A listing of the days and times of labs will be on the fact sheet given to you the first day of class. Attendance at labs is strongly encouraged to achieve a passing grade.

- r1101 Drawing I**
123860 -1 1010-1205 MW, ArtB 160, 4 cr (ArtS, premaj ArtS, ArEd, or MLK stu only)
625779 -2 1010-1205 MW, ArtB 160, 4 cr (Pre-Arch, Arch or Landscape Arch maj only)
832701 -3 1010-1205 MW, ArtB 160, 4 cr
829538 -4 1010-1205 MW, ArtB 140, 4 cr (ArtS, premaj ArtS, ArEd, or MLK stu only)
627709 -5 1010-1205 MW, ArtB 140, 4 cr (Pre-Arch, Arch or Landscape Arch maj only)
632666 -6 1010-1205 MW, ArtB 140, 4 cr
925500 -7 1325-1520 MW, ArtB 141, 4 cr (ArtS, premaj ArtS, ArEd, or MLK stu only)
430790 -8 1325-1520 MW, ArtB 141, 4 cr (Pre-Arch, Arch or Landscape Arch maj only)
632750 -9 1325-1520 MW, ArtB 141, 4 cr
133876 -10 1010-1205 TTh, ArtB 160, 4 cr (ArtS, premaj ArtS, ArEd, or MLK stu only)
030171 -11 1010-1205 TTh, ArtB 160, 4 cr (Pre-Arch, Arch or Landscape Arch maj only)
325730 -12 1010-1205 TTh, ArtB 160, 4 cr
131755 -13 1010-1205 TTh, ArtB 160, 4 cr (ArtS, premaj ArtS, ArEd, or MLK stu only)
428764 -14 1010-1205 TTh, ArtB 160, 4 cr (Pre-Arch, Arch or Landscape Arch maj only)
328689 -15 1010-1205 TTh, ArtB 160, 4 cr
827353 -16 1325-1520 TTh, ArtB 150, 4 cr (ArtS, premaj ArtS, ArEd, or MLK stu only)
225915 -17 1325-1520 TTh, ArtB 150, 4 cr (Pre-Arch, Arch or Landscape Arch maj only)
531817 -18 1325-1520 TTh, ArtB 150, 4 cr
- r1102 Drawing II (prereq 1101)**
128564 -1 1010-1205 MW, ArtB 150, Gray, 4 cr (ArtS, premaj ArtS, or MLK stu only)
127844 -2 1010-1205 MW, ArtB 150, Gray, 4 cr (Pre-Arch, Arch or Landscape Arch maj only)
431664 -3 1010-1205 MW, ArtB 150, Gray, 4 cr
- 132422 -4 1010-1205 TTh, ArtB 150, 4 cr (Arts, premaj ArtS, or MLK stu only)
725630 -5 1010-1205 TTh, ArtB 150, 4 cr (Pre-Arch, Arch or Landscape Arch maj only)
433897 -6 1010-1205 TTh, ArtB 150, 4 cr
130685 -7 1325-1520 TTh, ArtB 141, 4 cr (ArtS, premaj ArtS, or MLK stu only)
326991 -8 1325-1520 TTh, ArtB 141, 4 cr (Pre-Arch, Arch or Landscape Arch maj only)
427873 -9 1325-1520 TTh, ArtB 141, 4 cr
- r1301 Sculpture**
125768 -1 1325-1520 MW, ArtB 65, Baldwin, 4 cr (ArtS, premaj ArtS/Arch, or MLK stu only)
430109 -2 1325-1520 MW, ArtB 65, Baldwin, 4 cr
631808 -3 1010-1205 TTh, ArtB 65, 4 cr (ArtS, premaj ArtS/Arch, or MLK stu only)
827322 -4 1010-1205 TTh, ArtB 65, 4 cr
- r1302 Sculpture**
927635 -1 1325-1520 TTh, ArtB 50, 4 cr (ArtS, premaj ArtS, ArEd, or MLK stu only)
827062 -2 1325-1520 TTh, ArtB 50, 4 cr
- r1404 Color (§1104; prereq 1101)**
126894 -1 1010-1205 MW, ArtB 140, Siebenschuh, 4 cr (ArtS, premaj ArtS, or MLK stu only)
625894 -2 1010-1205 MW, ArtB 140, Siebenschuh, 4 cr (Pre-Arch, Arch or Landscape Arch maj only)
429591 -3 1010-1205 MW, ArtB 140, Siebenschuh, 4 cr
728821 -4 1325-1520 TTh, ArtB 140, 4 cr (ArtS, premaj ArtS, or MLK stu only)
624020 -5 1325-1520 TTh, ArtB 140, 4 cr (Pre-Arch, Arch or Landscape Arch maj only)
133019 -6 1325-1520 TTh, ArtB 140, 4 cr
- r1510 Printmaking: Intaglio (max 8 cr)**
725028 -1 0800-0955 TTh, ArtB 170, Bethke, 4 cr (ArtS, premaj ArtS, or MLK stu only)
932897 -2 0800-0955 TTh, ArtB 170, Bethke, 4 cr
- r1540 Printmaking: Screen (max 8 cr)**
342253 -1 1325-1520 TTh, ArtB 170, Bethke, 4 cr (ArtS or MLK stu only)
142254 -2 1325-1520 TTh, ArtB 170, Bethke, 4 cr
- r1701 Photo Medium**
426920 -1 1535-1720 MW, ArtB 120, 4 cr (ArtS, premaj ArtS, or MLK stu only)
931099 -2 1535-1720 MW, ArtB 120, 4 cr (CLA students only)
132722 -3 1325-1520 TTh, ArtB 120, 4 cr (ArtS, premaj ArtS, or MLK stu only)
528609 -4 1325-1520 TTh, ArtB 120, 4 cr (CLA students only)
- r1811 Ceramics: Handbuilding**
825375 -1 1010-1205 MW, ArtB 10, Hoard, 4 cr (ArtS or MLK stu only)
526780 -2 1010-1205 MW, ArtB 10, Hoard, 4 cr
- r1812 Ceramics: Wheel Throwing**
042255 -1 1010-1205 TTh, ArtB 10, 4 cr (ArtS, premaj ArtS, or MLK stu only)
842256 -2 1010-1205 TTh, ArtB 10, 4 cr
- r3105 Introduction to Painting (prereq 1101, 1102, 1401, 1404)**
033880 -1 1325-1520 MW, ArtB 151, Brennan, 4 cr (ArtS, premaj ArtS, or MLK stu only)
924279 -2 1325-1520 MW, ArtB 151, Brennan, 4 cr (Pre-Arch, Arch, or Landscape Arch only)
127091 -3 1325-1520 MW, ArtB 151, Brennan, 4 cr
130525 -4 1010-1205 TTh, ArtB 151, Caglioti, 4 cr (ArtS, premaj ArtS, or MLK stu only)
926114 -5 1010-1205 TTh, ArtB 151, Caglioti, 4 cr (Pre-Arch, Arch, or Landscape Arch only)
033748 -6 1010-1205 TTh, ArtB 151, Caglioti, 4 cr
- r3110 Drawing (max 12 cr; prereq 1102, 1401)**
524964 -1 1010-1205 MW, ArtB 141, Katsiaticas, 4 cr (ArtS, premaj ArtS, or MLK stu only)
129939 -2 1010-1205 MW, ArtB 141, Katsiaticas, 4 cr (Pre-Arch, Arch or Landscape Arch maj only)
828745 -3 1010-1205 MW, ArtB 141, Katsiaticas, 4 cr
126774 -4 1325-1520 TTh, ArtB 160, Ostapchuk, 4 cr (ArtS, premaj ArtS, or MLK stu only)
131831 -5 1325-1520 TTh, ArtB 160, Ostapchuk, 4 cr (Pre-Arch, Arch or Landscape Arch maj only)
727605 -6 1325-1520 TTh, ArtB 160, Ostapchuk, 4 cr

- r3120 Painting** (max 12 cr; prereq 1101, 1102, 1401, 1404, 3105, 4 cr of 3110 or #3110)
624230 -1 1010-1205 MW, ArtB 151, Green, 4 cr (ArtS, premaj ArtS, or MLK stu only)
124345 -2 1010-1205 MW, ArtB 151, Green, 4 cr
632442 -3 1325-1520 TTh, ArtB 151, Rowan, 4 cr (ArtS, premaj ArtS, or MLK stu only)
529078 -4 1325-1520 TTh, ArtB 151, Rowan, 4 cr
- r3305 Sculpture: Kinetics** (prereq 1301, 1302, 1401)
447508 -1 1010-1205 MW, ArtB 150, Baldwin, 4 cr (ArtS, premaj ArtS, or MLK stu only)
247509 -2 1010-1205 MW, ArtB 150, Baldwin, 4 cr
- 3411H Honors: Tutorial** (prereq honors program candidate) (A-F only)
633641 2-4 cr
- 3412H Honors: Tutorial** (prereq honors program candidate) (A-F only)
227261 2-4 cr
- 3413H Honors: Cross-Media Project** (prereq honors program candidate) (A-F only)
030980 2-4 cr
- 3414H Honors: Cross-Media Project** (prereq honors program candidate) (A-F only)
131845 2-4 cr
- 3415H Honors: Thesis** (prereq honors program candidate) (A-F only)
624048 2 cr
- 3416H Honors: Thesis** (prereq honors program summa candidate) (A-F only)
028159 2 cr
- r3420 Studio Arts Workshop**
226529 -1 1010-1205 MW, ArtB 170, Krepps, 4 cr
647510 -2 1325-1520 TTh, ArtB 220, Morse, 4 cr
- 3444 Senior Project** (prereq sr art studio maj, #, Δ) (S-N only)
729161 -1 Baldwin, 2 cr
226725 -2 Bethke, 2 cr
124112 -3 Caglioti, 2 cr
127852 -4 Cowette, 2 cr
025441 -5 Feinberg, 2 cr
127391 -6 Gray, 2 cr
831774 -7 Hallman, 2 cr
925903 -8 Henkel, 2 cr
327588 -9 Hoard, 2 cr
642257 -10 Katsiaficas, 2 cr
029571 -11 Krepps, 2 cr
728754 -12 Lane, 2 cr
129567 -13 Lucey, 2 cr
930535 -15 Pharis, 2 cr
633686 -18 Rose, 2 cr
031790 -19 Rowan, 2 cr
- r3510 Printmaking: Intaglio** (max 12 cr; prereq 1401, 4 cr of 1510 or #)
131067 -1 1325-1520 MW, ArtB 170, Krepps, 4 cr (ArtS, premaj ArtS, or MLK stu only)
825053 -2 1325-1520 MW, ArtB 170, Krepps, 4 cr
- r3710 Photography** (max 12 cr; prereq 1401, 1701 or Jour 3301 or #)
029215 -1 1325-1520 MW, ArtB 120, Hallman, 4 cr (ArtS, premaj ArtS, or MLK stu only)
831855 -2 1325-1520 MW, ArtB 120, Hallman, 4 cr (CLA students only)
- r3810 Intermediate Ceramics** (max 12 cr; prereq 1401, 1811, 1812 or #)
127933 -1 1325-1520 MW, ArtB 10, Hoard, 4 cr (ArtS, premaj ArtS, or MLK stu only)
423905 -2 1325-1520 MW, ArtB 10, Hoard, 4 cr
- r3830 Glass: Introduction to Neon** (max 12 cr; prereq 1401)
825487 -1 1325-1625 MW, ArtB 185, 4 cr (ArtS, premaj ArtS, or MLK stu only)
224148 -2 1325-1625 MW, ArtB 185, 4 cr
- 3970 Directed Study** (max 8 cr; prereq 24 cr studio arts, #, Δ, □)
428179 -1 Baldwin, 1-5 cr
629119 -2 Bethke, 1-5 cr
933726 -3 Caglioti, 1-5 cr
828051 -4 Cowette, 1-5 cr
124482 -5 Feinberg, 1-5 cr
226255 -6 Gray, 1-5 cr
325159 -7 Hallman, 1-5 cr
325209 -8 Henkel, 1-5 cr
132405 -9 Hoard, 1-5 cr
442258 -10 Katsiaficas, 1-5 cr
527928 -11 Krepps, 1-5 cr
028274 -12 Lane, 1-5 cr
331608 -13 Lucey, 1-5 cr
932818 -15 Pharis, 1-5 cr
524222 -18 Rose, 1-5 cr
133403 -19 Rowan, 1-5 cr
232833 -20 1-5 cr
829913 -21 1-5 cr
- 3980 Directed Instruction** (max 8 cr; prereq #, Δ, □)
231097 -1 Baldwin, 1-5 cr
130587 -2 Bethke, 1-5 cr
331396 -3 Caglioti, 1-5 cr
924217 -4 Cowette, 1-5 cr
232489 -5 Feinberg, 1-5 cr
934018 -6 Gray, 1-5 cr
429221 -7 Hallman, 1-5 cr
127575 -8 Henkel, 1-5 cr
233626 -9 Hoard, 1-5 cr
242259 -10 Katsiaficas, 1-5 cr
633638 -11 Krepps, 1-5 cr
732965 -12 Lane, 1-5 cr
424360 -13 Lucey, 1-5 cr
128878 -15 Pharis, 1-5 cr
626690 -18 Rose, 1-5 cr
130632 -19 Rowan, 1-5 cr
324867 -20 1-5 cr
424262 -21 1-5 cr
- r5110 Drawing** (max 16 cr; prereq 12 cr of 3110 or #)
023978 1325-1520 MW, ArtB 150, Gray, 4 cr
- r5120 Painting** (max 16 cr; prereq 12 cr of 3120 or #)
830415 1325-1520 TTh, ArtB 161, Caglioti, 4 cr
- r5160 Watercolor** (max 16 cr; prereq 12 cr of 3160 or #)
447511 1010-1205 TTh, ArtB 141, Rowan, 4 cr
- 5190 Advanced Entry: Drawing and Painting** (max 16 cr; prereq #, Δ)
128161 -3 Caglioti, 4 cr
424066 -4 Cowette, 4 cr
833525 -5 Feinberg, 4 cr
032129 -6 Gray, 4 cr
442261 -10 Katsiaficas, 4 cr
329986 -19 Rowan, 4 cr
- r5350 Sculpture: Kinetics** (max 16 cr; prereq 3305)
942264 1010-1205 MW, ArtB 50, Baldwin, 4 cr
- 5390 Advanced Entry: Sculpture** (max 16 cr; prereq #, Δ)
224764 Baldwin, 4 cr
- r5400 Concepts in Contemporary Art** (prereq sr, studio art maj or #)
530831 0905-1310 F, BlegH 210, Feinberg, 4 cr
- r5420 Studio Arts Workshop**
247512 -1 1010-1205 MW, ArtB 170, Krepps, 4 cr
147513 -2 1325-1520 TTh, ArtB 220, Morse, 4 cr
- r5510 Printmaking: Intaglio** (max 16 cr; prereq 12 cr of 3510 or #)
324058 1010-1205 MW, ArtB 170, Krepps, 4 cr
- 5590 Advanced Entry: Printmaking** (max 16 cr; prereq #, Δ)
332936 -2 Bethke, 4 cr
627628 -11 Krepps, 4 cr
- r5710 Photography** (max 16 cr; prereq 12 cr of 3710 or #)
133479 1010-1205 MW, ArtB 120, Hallman, 4 cr
- 5790 Advanced Entry: Photography** (max 16 cr; prereq #, Δ)
525970 Hallman, 4 cr
- r5810 Advanced Ceramics** (max 16 cr; prereq 12 cr of 3810 or #)
924542 1325-1520 TTh, ArtB 10, Pharis, 4 cr
- 5890 Advanced Entry: Ceramics/Glass** (max 16 cr; prereq #, Δ)
427193 Hoard, 4 cr
- 5970 Directed Studies** (max 12 cr; prereq 24 cr studio arts, #, Δ, □, CLA approval)
628794 -1 Baldwin, 1-5 cr
025231 -2 Bethke, 1-5 cr
128645 -3 Caglioti, 1-5 cr
727152 -4 Cowette, 1-5 cr
131943 -5 Feinberg, 1-5 cr
730228 -6 Gray, 1-5 cr
432670 -7 Hallman, 1-5 cr
533034 -8 Henkel, 1-5 cr
728544 -9 Hoard, 1-5 cr
642260 -10 Katsiaficas, 1-5 cr
624471 -11 Krepps, 1-5 cr
724056 -12 Lane, 1-5 cr
924296 -13 Lucey, 1-5 cr
428036 -15 Pharis, 1-5 cr
530814 -18 Rose, 1-5 cr
533731 -19 Rowan, 1-5 cr
226099 -20 1-5 cr
- r6100 20th Century Art Theories in Painting**
129553 0905-1310 F, SocSci 101, Katsiaficas, 2 cr
- 8110 Drawing** (max 12 cr)
331026 -4 Cowette, 4 cr
829880 -5 Feinberg, 4 cr
428327 -6 Gray, 4 cr
242262 -10 Katsiaficas, 4 cr
431549 -17 Roode, 4 cr
729242 -19 Rowan, 4 cr
- 8120 Painting** (max 24 cr)
827883 -3 Caglioti, 4 cr
325341 -4 Cowette, 4 cr
932463 -5 Feinberg, 4 cr
142263 -10 Katsiaficas, 4 cr
033846 -17 Roode, 4 cr
133711 -19 Rowan, 4 cr
- r6300 20th Century Art Theories in Sculpture** (prereq MFA candidate in studio arts or #) (A-F only)
127995 1010-1205 F, ArtB 70, Rose, 2 cr
- r6402 Seminar: Presentation and Instruction** (prereq MFA candidate or #)
947514 1325-1625 F, ArtB 141, Feinberg, 4 cr
- 8510 Printmaking** (max 36 cr)
624406 -2 Bethke, 4 cr
129755 -11 Krepps, 4 cr
- 8710 Photography** (max 24 cr)
833024 1010-1205 TTh, ArtB 120, Henkel, 4 cr
- r8810 Ceramics** (max 24 cr)
124720 1325-1520 TTh, ArtB, Pharis, 4 cr
- 8820 Glassworking** (max 24 cr)
330846 Lane, 4 cr

ASTRONOMY (Ast) Institute of Technology

- r1011 Descriptive Astronomy** (§1021)
933273 -1 0905-0955 MTWTh, Phys 150, Davidson, 4 cr
230077 -2 1010-1100 MTWTh, Phys 166, Dickey, 4 cr
325825 -3 1830-2010 MW, Phys 150, Odewahn, 4 cr
- r1015 Descriptive Astronomy Laboratories** (§1025H; prereq high school algebra...high school trigonometry rec)
931068 Dickey, 1 cr (lab time assigned first 2 days of quarter in Phys 450) (min one night obs req)
- r1201 Topics in Modern Astrophysics** (prereq 1011 or 1021, #)
046161 1325-1415 MWF, Phys 133, Kuhl, 4 cr
- 3051 Introduction to Astrophysics** (prereq 1 yr calculus, Phys 1291 or 1341 or #)
831614 1325-1415 MWF, Phys 210, Gehr, 4 cr
- 3970 Directed Studies** (prereq #, Δ)
924993 1-5 cr
- 5161 Astrophysics of Diffuse Matter** (prereq 3051, Phys 5024 or #)
345170 1325-1440 TTh, VinH 314, Skillman, 4 cr
- 5201 Methods of Experimental Astrophysics** (prereq 3051, Phys 3513) (A-F only)
546155 1220-1310 MW, Phys 210, Jones T.J., 4 cr
- 5299H Senior Honors Astrophysics Research Seminar** (prereq IT or CLA upper div honors stu, #) (S-N only)
133604 1530-1630 Th, Phys 210, Humphreys, 1 cr
- 5970 Directed Studies** (prereq #, Δ)
427341 1-5 cr
- 5990 Directed Research** (prereq #, Δ)
127326 ar cr
- 8200 Seminar**
130775 1530-1630 Th, Phys 210, Humphreys, 1-3 cr
- 8483 Topics in Astrophysics: Structure and Dynamics of the Galaxy** (prereq #)
046158 1010-1205 TTh, Phys 210, Humphreys, 3 cr
- 8777 Thesis Credits: Masters**
528688 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
426187 1-36 cr

8990 Research in Astronomy and Astrophysics (prereq #)
929837 ar cr

BIOCHEMISTRY (BioC) Biological Sciences

3031 Survey of Biochemistry (prereq 2 qtrs organic chem or 3001)
431082 0935-1025 MTWF, BorH 365, Fuchs, 4 cr

3960 Research Topics in Biochemistry (S-N only)
725885 1605-1655 Th, GorL 342, Tsong, 1 cr

5002 Biochemistry Topics (prereq Biol 5001 or 3031 with grade of B or better)
227684 0830-0920 MWF, BioSci 6, Wackett, 3 cr

r5025 Laboratory in Biochemistry (prereq Biol 5001 or 11 or 3031 with grade of B or better)
★LECT 1145-1235 T, BioSci 6, Lovrien
732027 -1 LAB 0800-1140 T, BioSci 192, 198, 2 cr
424410 -2 LAB 1240-1620 T, BioSci 192, 198, 2 cr

5527 Physical Biochemistry: Spectroscopic Methods II (§MdBc 5527, Chem 5527; prereq 2 qtrs physical chemistry, 5526 or MdBc 5526)
132064 0900-1030 TTh, PWB 5224, Thomas, 4 cr

5529 Protein Structure and Folding (§MdBc 5529, Chem 5529; prereq Biol 5001 or equiv, 1 qtr phys chem or #)
426484 1300-1440 TTh, GorL 239, Woodward, Banaszak, others, 4 cr

5753 General Biochemistry (§MdBc 5753; prereq 5752)
527010 0815-0920 MWF, ClaOff B35, Towle, Schottel, 4 cr

5990 Directed Research (prereq #, Δ)
129030 ar cr

8094 Research and Literature Reports (S-N only)
028906 1200-1300 F, GorL 239, Das, 1 cr

8194 Graduate Seminar (S-N only)
329051 1600-1715 W, BorH 365, Conti-Tronconi, 1 cr

r8225 Tracer Techniques (prereq 5002 or 5751 or 5745 or MdBc 5750, #)
★LECT 1355-1550 M, BioSci 12, Anderson
624213 -1 LAB 1355-1655 WF, SnH 28, Anderson, 1-3 cr

8290 Current Research Techniques (prereq grad maj in biochem, #) (S-N only)
027061 1-3 cr

8777 Thesis Credit: Masters
126779 1-16 cr

8888 Thesis Credits: Doctoral (max 18 cr per qtr)
833976 1-36 cr

8990 Graduate Research (prereq #) (S-N only)
029604 1-7 cr

BIOCHEMISTRY, MEDICAL (MdBc)

Medical School

5053 Problems in Biochemistry (prereq 5100 or 5753; biochem grad stu must register S-N)
532594 1-10 cr

5444 Muscle Contraction (§NSc 5444, Phsl 5444, VB 5444; prereq undergrad courses in biochemistry or physiology, #)
028100 1515-1645 TTh, MoosT 2585, Thomas, Louis, others, 3 cr

5527 Physical Biochemistry: Spectroscopic Methods II (§BioC 5527, Chem 5527; prereq 2 qtrs physical chem, 5526 or BioC 5526 or #)
629220 0900-1030 TTh, PWB 5224, Barry, Thomas, 4 cr

5529 Protein Structure and Folding (§BioC 5529, Chem 5529; prereq 1 qtr phys chem or #)
031269 1300-1440 TTh, GorL 239, Woodward, Banaszak, others, 4 cr (StP)

5753 General Biochemistry (§BioC 5753; prereq 5752)
627581 0815-0920 MWF, ClaOff B35, Towle, Schottel, 4 cr (StP)

8150 Seminar: Biochemistry (S-N only)
130539 1220-1310 T, OwreH 4218, Siliciano, 1 cr

8290 Current Research Techniques (prereq grad maj in biochem, #) (S-N only)
224974 1-3 cr

8300 Research
127245 ar cr

BIOLOGY (Biol) Biological Sciences

r1008 Introductory Biology: An Evolutionary Approach

★LECT 1220-1310 MWF, MoosT 2650, Regal

025455 -1 REC 0800-0850 T, Kolth S135, 4 cr
525550 -2 REC 0905-0955 T, Phys 143, 4 cr
425766 -3 REC 1010-1100 T, MechE 221, 4 cr
629198 -4 REC 1115-1205 T, AmundH 124, 4 cr
129813 -5 REC 1220-1310 T, SmithH 111, 4 cr
523832 -6 REC 1325-1415 T, LindH 302, 4 cr
124076 -7 REC 0800-0850 W, FordH 70, 4 cr
231469 -8 REC 0905-0955 W, FordH 175, 4 cr
631646 -9 REC 1010-1100 W, FordH 175, 4 cr
430563 -10 REC 1115-1205 W, LindH 303, 4 cr

r1008H Introductory Biology: An Evolutionary Approach

★LECT 1220-1310 MWF, MoosT 2650, Regal

229009 -80 REC 1115-1205 W, Arch 40, 4 cr

r1009 General Biology (§1011)

★LECT 0800-0850 MWF, WilleyH 125
225218 -1 LAB 0800-0945 TTh, Kolth S160, 5 cr
324769 -2 LAB 0800-0945 TTh, Kolth S167, 5 cr
428246 -3 LAB 0800-0945 TTh, Kolth S170, 5 cr
626723 -4 LAB 0800-0945 TTh, Kolth S177, 5 cr
527685 -5 LAB 1010-1155 TTh, Kolth S160, 5 cr
426772 -6 LAB 1010-1155 TTh, Kolth S167, 5 cr
532563 -7 LAB 1010-1155 TTh, Kolth S170, 5 cr
625359 -8 LAB 1220-1405 TTh, Kolth S167, 5 cr
128881 -9 LAB 1430-1615 TTh, Kolth S160, 5 cr
726714 -10 LAB 1010-1155 WF, Kolth S160, 5 cr
924802 -11 LAB 1220-1405 WF, Kolth S160, 5 cr
★LECT 1220-1310 MWF, WilleyH 125, Goldstein

931989 -12 LAB 0800-0945 TTh, Kolth S179, 5 cr

530506 -13 LAB 0800-0945 TTh, Kolth S183, 5 cr

131666 -14 LAB 1010-1155 TTh, Kolth S177, 5 cr

930745 -15 LAB 1010-1155 TTh, Kolth S179, 5 cr

525239 -16 LAB 1010-1155 TTh, Kolth S183, 5 cr

727992 -17 LAB 1220-1405 TTh, Kolth S170, 5 cr

133594 -18 LAB 1220-1405 TTh, Kolth S177, 5 cr

732349 -19 LAB 1220-1405 TTh, Kolth S179, 5 cr

831841 -20 LAB 1220-1405 TTh, Kolth S183, 5 cr

029568 -21 LAB 0800-0945 WF, Kolth S160, 5 cr
429932 -22 LAB 1010-1155 WF, Kolth S167, 5 cr
526990 -23 LAB 1010-1155 WF, Kolth S170, 5 cr
826946 -24 LAB 1430-1615 WF, Kolth S160, 5 cr
★LECT 1800-1915 TTh, MoosT 2650

024970 -25 LAB 1930-2115 TTh, Kolth S160, 5 cr

r1009H General Biology (prereq honors division or 3-4 yrs high school math, high school chem or Δ)

★LECT 1220-1310 MWF, WilleyH 125, Goldstein

132338 -81 LAB 1220-1405 TTh, Kolth S160, 5 cr

r1101 Heredity and Human Society (§GCB 3002, no cr if taken after 5003 or GCB 3022)
027318 1220-1310 MTWTh, WilleyH 175, Woodward V., 4 cr

r1103 General Botany (§3012; prereq 1009)

★LECT 1250-1340 MWF, BorH 365, Markhart, (StP)
224943 -1 LAB 1040-1340 T, BioSci 182, 5 cr (StP)
329583 -2 LAB 1355-1655 W, BioSci 182, 5 cr (StP)
230421 -3 LAB 0830-1130 Th, BioSci 182, 5 cr (StP)

026069 -4 LAB 1250-1550 Th, BioSci 182, 5 cr (StP)

r1106 General Zoology (prereq 1009)

★LECT 0800-0850 MWF, Botany B6
226885 -1 LAB 0905-1205 T, Zoology 101D, 5 cr
225350 -2 LAB 1325-1625 T, Zoology 101D, 5 cr

528917 -3 LAB 0905-1205 W, Zoology 101D, 5 cr
130976 -4 LAB 1220-1520 W, Zoology 101D, 5 cr
533356 -5 LAB 0905-1205 Th, Zoology 101D, 5 cr

528545 -6 LAB 1315-1600 Th, Zoology 101D, 5 cr

r1953 Biology Colloquium (S-N only)

332399 -1 1430-1625 M, Phys 133, Parmelee, Underhill, others, 1-2 cr

123972 -2 1430-1625 T, SmithH 331, Underhill, Parmelee, others, 1-2 cr

947481 -3 1500-1655 W, BioSci 12, Rosenberg, Parmelee, others, 1-2 cr (StP)

r3009H General Biology: A Quantitative Approach (§1009H; prereq college level chem, 1 yr each calc and phys, CBS or CLA or IT honors office permission)

★LECT 1430-1625 MW, Phys 210, Bloomfield
242276 -81 LAB 1220-1405 F, Kolth S187, 5 cr
142277 -82 LAB 1430-1615 F, Kolth S187, 5 cr

r3011 Animal Biology (§1106; prereq 1009, Chem 1005)

★LECT 0935-1025 MWF, GrmH 110, Herman W., (StP)

332404 -1 LAB 0940-1120 TTh, BioSci 107, 5 cr (StP)

729032 -2 LAB 1250-1430 TTh, BioSci 107, 5 cr (StP)

132963 -3 LAB 1800-1940 TTh, BioSci 107, 5 cr (StP)

332600 -4 LAB 1040-1220 WF, BioSci 107, 5 cr (StP)

042272 -5 LAB 1230-1410 WF, BioSci 107, 5 cr (StP)

r3012 Plant Biology (§1103, 3812; prereq 1009, Chem 1005)

★LECT 1145-1300 TTh, ABLMS 125, Charvat, (StP)

831631 -1 LAB 0935-1130 TTh, BioSci 151, 5 cr (StP)

531803 -2 LAB 0935-1130 TTh, BioSci 163, 5 cr (StP)

132890 -3 LAB 1315-1510 TTh, BioSci 151, 5 cr (StP)

332905 -4 LAB 1315-1510 TTh, BioSci 163, 5 cr (StP)

828664 -5 LAB 1525-1720 TTh, BioSci 151, 5 cr (StP)

642274 -6 LAB 1525-1720 TTh, BioSci 163, 5 cr (StP)

3111 Animal Biology (§3011; prereq 1009, 1106, Chem 1005)

132033 0935-1025 MWF, GrmH 110, Herman W., 4 cr (StP) (addtl hr ar)

r3950H Undergraduate Seminar (S-N only)

824131 -81 1500-1630 M, BioSci 756, Biesboer, 2 cr (StP) (Medicinal Plants)

432748 -82 1355-1535 T, BioSci 260, Fan, 2 cr (StP) (Data Base Analysis of the Biological Literature)

225560 -83 1325-1435 W, Zoology 108, 2 cr
842273 -84 1355-1535 M, BioSci 260, 2 cr (StP)

747482 -85 1500-1700 Th, SnH 122, 2 cr (StP)

3960H Honors Seminar (prereq Δ) (S-N only)

425363 -81 1600-1700 M, BellMus 280, Barnwell, 1 cr
126958 -82 1600-1700 T, BellMus 280, Barnwell, 1 cr

3980 Directed Instruction (max 8 cr; prereq #) (S-N only)

230533 Parmelee, 1-3 cr

r5001 Biochemistry (§3021, BioC 5001; prereq 1009, 12 cr organic chem or #)

828163 1255-1400 MWF, BorH 335, Woodward, 4 cr (StP)

5003 Genetics (§GCB 3022, 5022; prereq 5001)
426626 1830-2010 MW, ClaOff B35, Herman R., 4 cr (StP)

5004 Cell Biology (prereq 5001)
332631 1040-1130 MWF, BorH 335, Blumenfeld, 3 cr (StP)

r5013 Microbiology (§MicB 3103, 5105, VPB 3103; prereq 5001)

★LECT 1245-1400 TTh, MoosT 2530, Hanson, 5 cr
728172 -1 LAB 0905-1100 TTh, MoosT 2252, Hanson

- r5041 Ecology** (§5841; prereq 1103 or 1106 or 3011 or 3012, Math 1142 or Math 1211) (A-F only)
★LECT 1010-1100 MWF, Zoology 313,
Cushing, Curtsinger
446441 -1 LAB 1115-1255 M, Zoology 101C, 108,
4 cr
246442 -2 LAB 0905-1045 T, Zoology 101C, 108,
4 cr
146443 -3 LAB 1325-1505 T, Zoology 101C, 102,
4 cr
946444 -4 LAB 1115-1255 W, Zoology 101C, 108,
4 cr
746445 -5 LAB 0905-1045 Th, Zoology 101C,
108, 4 cr
546446 -6 LAB 1325-1505 Th, Zoology 101C,
102, 4 cr
- r5951 Social Uses of Biology** (prereq 10 cr sciences)
(S-N only)
828728 1355-1535 TTh, BioSci 70, Hooper, 4 cr
(StP)

BIOMEDICAL ENGINEERING (BME)

Mechanical Engineering Institute of Technology

- 5003 Artificial Internal Organ Design** (§ChEn 5757;
prereq IT upper div or grad or med stu or #)
(A-F only)
142831 1535-1730 MW, AmundH 156, Berg, 4 cr
(AmundH B75)
- 8002 Internship in Biomedical Engineering** (prereq
biomed engineering grad stu or Δ) (S-N only)
927747 Blackshear, 3 cr
- 8100 Biomedical Engineering Seminar** (§ME 8485)
(S-N only)
429655 1535-1635 T, Mayo D230, Finkelstein,
Blackshear, 1 cr
- 8200 Biomedical Engineering Seminar** (§ME 8486)
(S-N only)
131416 1535-1635 T, Mayo D230, Finkelstein,
Blackshear, 1 cr
- 8300 Biomedical Engineering Seminar** (§ME 8487)
(S-N only)
324450 1535-1635 T, Mayo D230, Finkelstein,
Blackshear, 1 cr
- 8770 Plan B Project** (no cr toward PhD; prereq #)
(A-F only)
429512 4 cr
- 8777 Thesis Credit: Masters**
025374 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
125091 1-36 cr
- 8970 Independent Study** (prereq #) (A-F only)
832990 Blackshear, 1-4 cr
- 8990 Directed Research** (prereq #) (A-F only)
828082 Blackshear, 1-4 cr

BIOMEDICAL SCIENCE (BMSc)

- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
043907 1-36 cr

BIOPHYSICAL SCIENCES

(BPhy) Medical School

- 5138 Seminar: Biophysical Sciences**
429696 1535-1625 Th, MoosT 2116, O'Leary,
ar cr
- 5157 Biophysics** (prereq 28 cr between physics,
biology, #...physical chemistry, physiology rec)
825943 1325-1520 TTh, MusEd 2, Schmitt, 3 cr
- 5172 Radiation Biology** (§Rad 5172, TRad 5172;
prereq 5170, #)
129609 1600-1730 W, 1600-1700 F, MoosT 2107,
Song, Buchsbaum, others, 3 cr
- 8223 Research**
526813 ar cr
- 8298 Seminar**
632909 1430-1625 F, MusEd 2, Schmitt, ar cr
- 8777 Thesis Credits: Masters**
328076 1-16 cr

- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
424827 1-36 cr

BUSINESS ADMINISTRATION (BA) Management

- r3000 Orientation for Managers** (prereq Schl of
Mgmt honors stu or Schl of Mgmt Undergrad
Studies Office approval) (S-N only)
746431 1300-1445 W, HHHCtr 20, Rinehart, 2 cr
- r3998 Independent Study** (prereq SMgt approval)
130792 ar cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
033510 1-36 cr

BUSINESS AND MARKETING EDUCATION (BME) Vocational And Technical Education Education

- 3159 Word/Information Processing Concepts and
Management** (§5159, BDE 5159) (A-F only)
934133 1530-1815 W, VoTech 220, 3 cr
- 3300 Teaching Typewriting/Keyboarding** (§BDE
3300; prereq 1502 or BDE 1502 or ¶ or equiv,
SeEd 3155 or ¶) (A-F only)
625569 1530-1815 T, VoTech 240, McLean, 3 cr
- 5151 Research and Methods in Teaching
Typewriting/Keyboarding** (§BDE 5151) (A-F
only)
026637 1530-1815 T, VoTech 240, McLean, 3 cr
- 5252 Teaching Promotion** (§BDE 5252) (A-F only)
926260 1530-1815 Th, VoTech 220, Schwartz,
3 cr
- 5261 Sales Training** (A-F only)
025519 1830-2115 W, VoTech R285, Stone, 3 cr
- 5305 Methods in Business and Marketing
Education** (§BDE 3305) (A-F only)
932866 1605-1940 T, VoTech 220, Schwartz, 4 cr
- r5345 Data Base Microcomputer Applications**
(prereq 5310 or equiv) (A-F only)
329809 1530-1815 M, VoTech 230, 3 cr
- r5365 Integrated Microcomputer Applications in
Business and Marketing Education** (prereq
5310, 5160, 5330, 5335, 5345, or equiv) (A-F
only)
130329 1530-1815 Th, VoTech 230, 3 cr
- r5600 Field-Based Projects in Business and
Marketing Education** (max 12 cr) (A-F only)
624986 1-12 cr
- r5900 Directed Study in Business and Marketing
Education** (max 6 cr; prereq Δ) (S-N optional)
426108 1-6 cr
- 8300 Seminar: Research in Business, Marketing,
and Economic Education** (S-N only)
027190 Hopkins, 1 cr
- r8600 Internship: Business and Marketing
Education**
528531 1-12 cr
- 8777 Thesis Credits: Masters**
828146 1-16 cr
- r8900 Problems: Business and Marketing
Education** (max 9 cr)
030526 1-9 cr

BUSINESS LAW (BLaw) Management

Non-SMgt students should refer to page 9, Carlson
School of Management Courses, before attempting to
register for BLaw courses.

- r3058 Introduction to Law, the Law of Contracts
and Sales Contracts** (§8158; prereq Econ
1002) (A-F only)
232461 -1 0800-0930 TTh, BlegH 340, Andrews,
4 cr
227955 -2 0945-1115 TTh, BlegH 435, Andrews,
4 cr
- r3088 Law of Personal Property, Real Property,
Wills and Estates** (§8288; prereq 3058)
331818 1800-2100 M, BlegH 225, Eastlund, 4 cr

- r8158 Introduction to Law, the Law of Contracts
and Sales Contracts** (§3058; prereq Econ
1002, grad mgmt student or grad SMgt
approval) (A-F only)
029750 1730-2100 W, BlegH 110, Andrews, 4 cr

BUSINESS, GOVERNMENT AND SOCIETY (BGS) Management

Non-SMgt students should refer to page 9, Carlson
School of Management Courses, before attempting to
register for BGS courses.

- r3004 International Business**
830821 0800-0930 TTh, BlegH 435, Zaheer, 4 cr

CELL AND DEVELOPMENTAL BIOLOGY (CDB)

- 8777 Thesis Credits: Masters**
524172 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
231620 1-36 cr

CELL BIOLOGY AND NEUROANATOMY (CBN) Medical School

- 1027 Anatomy for Physical Education Students**
★LECT 1220-1415 TTh, Owreh 2210,
Serfass, 4 cr
524396 -1 LAB 1430-1520 TTh, Jach 5166, 5170
- r3001 Elementary Anatomy** (prereq one qtr college
biology, soph or jr or sr)
★LECT 0800-0955 TTh, Botany B6,
Magney
830933 -1 LAB 0800-0955 W, Jach 5165, 5169,
5173, 5 cr
833704 -2 LAB 1010-1205 W, Jach 5165, 5169,
5173, 5 cr
725207 -3 LAB 1325-1520 W, Jach 5165, 5169,
5173, 5 cr
527668 -4 LAB 1535-1730 W, Jach 5165, 5169,
5173, 5 cr
327610 -5 LAB 1 cr (for students who have
previously taken lecture without lab)
- 3970 Special Problems** (prereq #)
526097 2 cr
- 5110 Neuroscience for Dental Students** (prereq
¶PhsI 5100, registered dental freshman, #)
★LECT 1325-1415 TWTh, MoosT 2620,
Eide, 1.5 cr
531445 -1 LAB 1430-1730 W, MoosT 3110
- 5190 Advanced Anatomy** (prereq regis med, 5103,
#)
924492 1-10 cr
- 5500 General Gross Anatomy** (prereq Phase D
medical student or #)
428019 Robertson, ar cr
- 5501 The Extremities** (prereq Phase D medical
student or #)
123910 Robertson, ar cr
- 5502 Head and Neck** (prereq Phase D medical
student or #)
724414 Robertson, ar cr
- 5504 The Endocrine System** (prereq Phase D or #)
732609 Hamilton, ar cr
- 5508 The Thorax** (prereq Phase D or #)
930731 Robertson, ar cr
- 5509 The Abdomen** (prereq Phase D or #)
531932 Robertson, ar cr
- 5510 Perineum, Genital-Urinary System and
Pelvis** (prereq Phase D or #)
923889 Robertson, ar cr
- 8136 Biological Electron Microscopy: Technics**
(prereq #)
042286 Eriandson, 1-5 cr
- 8137 Biological Electron Microscopy:
Interpretation** (prereq ¶5103, 8135, 8136, #)
842287 Eriandson, 1-5 cr
- 8155 Advanced Anatomy** (prereq #)
533020 1-6 cr
- 8166 Seminar: Pancreatic Islet Biology** (prereq #)
247929 Bauer, 3 cr

- 8203 Research in Anatomy** (prereq #)
127648 1-10 cr
- 8207 Seminar: Cell Biology and Neuroanatomy**
(prereq #) (S-N only)
832844 Hamilton, 1 cr
- 8210 Developmental Neurobiology** (§NSc 8210;
prereq 5111, Phsl 5112, #)
333603 McLoon, 3 cr
- 8221 Neurobiology of Pain and Analgesia** (§NSc
8221; prereq #)
642288 Giesler, 3 cr
- 8777 Thesis Credits: Masters**
727278 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
925786 1-36 cr

CHEMICAL ENGINEERING (ChEn)

Chemical Engineering & Materials Science Institute of Technology

- R3092 Industrial Employment**
133305 1-2 cr
- R5001 Computational Methods in Chemical
Engineering and Material Science** (prereq
chem engr or mat sci maj)
★LECT 0800-0850 MWF, Phys 131,
Tranquillo
- 433298 -1 REC 0905-0955 T, AmundH 240,
0905-0955 Th, LindH 26, 4 cr
- 124501 -2 REC 1010-1100 T, AkerH 211,
1010-1100 Th, LindH 26, 4 cr
- 327770 -3 REC 1220-1310 T, AmundH 240,
1220-1310 Th, LindH 26, 4 cr
- 826011 -4 REC 1430-1520 T, AmundH 104,
1430-1520 Th, LindH 26, 4 cr
- 632702 -5 REC 1535-1625 T, AmundH 104,
1535-1625 Th, LindH 26, 4 cr
- R5103 Principles of Chemical Engineering III**
(prereq 5102, upper division chem engr or mat
sci maj)
★LECT 0905-0955 MWF, AmundH B75,
White
- 831113 -1 REC 0800-0850 TTh, AmundH 158,
4 cr
- 826168 -2 REC 0905-0955 TTh, AmundH 120,
4 cr
- 225686 -3 REC 1220-1310 TTh, AmundH 124,
4 cr
- 129142 -4 REC 1220-1310 TTh, AmundH 158,
4 cr
- 131111 -5 REC 1430-1520 TTh, AmundH 120,
4 cr
- 124278 -6 REC 1430-1520 TTh, AmundH 124,
4 cr
- R5105 Scientific Models for Chemical Engineering
Processes** (prereq sr chemical engr maj or
material sci maj or IT honors or grad or #)
926856 1430-1520 MWF, AmundH 124, Ranz,
4 cr
- R5202 Chemical Engineering Thermodynamics and
Kinetics** (prereq 5201, upper division chem
enr or mat sci maj)
★LECT 1010-1100 MWF, AmundH B75,
Dahler
- 824369 -1 REC 0800-0850 TTh, AmundH 158,
4 cr
- 830852 -2 REC 1115-1205 TTh, AmundH 158,
4 cr
- 228197 -3 REC 1220-1310 TTh, AmundH 158,
4 cr
- 632716 -4 REC 1220-1310 TTh, AmundH 104,
4 cr
- 328082 -5 REC 1430-1520 TTh, AmundH 158,
4 cr
- 126130 -6 REC 1535-1625 TTh, AmundH 158,
4 cr
- R5401 Chemical Engineering Laboratory** (prereq
5102 or fl, 5103 or fl, upper division chem engr
or mat sci maj)
★LECT 0800-0850 M, AmundH B75,
Geankoplis
- 928736 -1 LAB 1325-1730 M, AmundH 356, 4 cr
- 429607 -2 LAB 0800-1205 T, AmundH 356, 4 cr
- 730682 -3 LAB 1325-1730 T, AmundH 356, 4 cr
- 527833 -4 LAB 1325-1730 W, AmundH 356, 4 cr
- 024337 -5 LAB 0800-1205 Th, AmundH 356, 4 cr
- 133756 -6 LAB 1325-1730 Th, AmundH 356, 4 cr

- R5502 Process Evaluation and Design** (prereq 5501
or #, upper division chem engr or mat sci maj)
★LECT 0905-0955 MWF, FordH 55,
Johnson
- 526956 -1 REC 1430-1625 T, AmundH 116, 4 cr
- 227177 -2 REC 1430-1625 T, AmundH 156, 4 cr
- 527153 -3 REC 1430-1625 Th, AmundH 156,
4 cr
- 333519 -4 REC 1430-1625 Th, AmundH 116,
4 cr
- R5604 Process Control Laboratory** (prereq 5601)
525757 -1 LAB 1325-1730 M, AmundH 162,
McCormick, 2 cr
- 127169 -2 LAB 1325-1730 T, AmundH 162, 2 cr
- 524480 -3 LAB 1325-1730 W, AmundH 162, 2 cr
- 145597 -4 LAB 1325-1730 F, AmundH 162, 2 cr
- R5640 Polymerization Reactor Engineering** (prereq
chem engineering reactor design course or #)
746865 1115-1310 TTh, AmundH 120, Dotson,
4 cr
- R5752 Biochemical Engineering II** (prereq Biol 5001,
grad or sr in chemical engineering or #)
029277 1325-1520 MW, AmundH 240, Srienc,
3 cr
- R5756 Biochemical Engineering Laboratory** (prereq
5751 or 5752)
631131 1535-1730 ThF, AmundH 124, Hu, 2 cr
- R5757 Principles of Artificial Internal Organ Design**
(prereq #)
631940 1535-1730 MW, AmundH 156, Bergman,
3 cr
- R5771 Colloids and Dispersions** (prereq physical
chemistry)
827160 1220-1310 MWF, AmundH 158, Evans,
3 cr
- R5903 Special Topics**
547308 1640-1730 MWF, AmundH 120, 3 cr
- R5904 Special Topics**
324223 0905-1100 TTh, AmundH 158, Tirrell, 3 cr
- R5905 Special Topics**
125821 ar cr
- R8102 Problems in Fluid Mechanics** (prereq 8101)
945598 0800-0850 MWF, AmundH 158, Scriven,
3 cr
- R8105 Principles, Applications of Rheology** (prereq
8101 or AEM 8510 or #)
344407 1325-1415 MWF, AmundH 124, Macosko,
3 cr
- R8401 Chemical Reaction Kinetics-Kinetics of
Homogeneous Reactions** (prereq #)
032700 1115-1205 MWF, AmundH 158, Carr, 3 cr
- 8777 Thesis Credits: Masters**
524236 1-16 cr
- 8803 Seminar** (S-N only)
124756 1325-1625 TTh, AmundH B75, 1 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
132632 1-36 cr
- R8902 Research in Chemical Engineering**
533633 1430-1730 MWF, AmundH 116, ar cr
- R8903 Research in Chemical Engineering**
828017 1430-1730 F, AmundH 158, ar cr

CHEMICAL PHYSICS (ChPh)

- 8777 Thesis Credits: Masters**
226045 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
424309 1-36 cr

CHEMISTRY (Chem) Institute of Technology

Note:

Each student registering for a laboratory course must purchase a \$30 Chemistry Deposit Card from the bursar and present that card to the instructor in order to be admitted to a lab section. Students without cards will not be permitted to check into lab and will forfeit their desk assignments. A student with a deposit card used in a previous chemistry lab must have at least a \$10 balance remaining on that card to use it again; if the balance is less than \$10, the student must purchase a second card. See Section 2, Deposit Cards. *Every student who checks into a lab must check out of the lab before the end of the quarter, even if she or he drops the course, or be charged a \$20 check-out fee.*

- R1002 Chemical Principles and Covalent Systems**
(1001-1002†, §1005, 1014, 1032, no IT
students; prereq 1001)
★LECT 1430-1520 TWThF, SciCB 375,
Edgar, 5 cr
- 127124 -1 REC 1325-1415 M, SmithH 231
★LAB 1430-1715 M, SmithH 249
- 831354 -2 REC 0800-0850 T, KoltH S134
★LAB 0905-1150 T, SmithH 249
- R1003 Physical World, Chemistry** (§any other
college chem course; not for IT stu; prereq 1 yr
hs algebra...hs chem rec)
★LECT 1115-1205 MWThF, SmithH 231,
Woods, 5 cr
- 828972 -1 REC 1430-1520 M, SmithH 111
★LAB 1530-1715 M, SmithH 110
- 125115 -2 REC 1430-1520 T, SmithH 231
★LAB 1530-1715 T, SmithH 110
- 930129 -3 REC 1430-1520 W, SmithH 111
★LAB 1530-1715 W, SmithH 110
- 125518 -4 REC 1430-1520 Th, SmithH 231
★LAB 1530-1715 Th, SmithH 110
- R1005 General Principles of Chemistry**
(1004-1005†, §1002, 1014, 1032; prereq 1004)
★LECT 1010-1100 MTWTF, SmithH 100,
Leopold K., 5 cr
- 146403 -1 REC 1325-1415 M, SmithH 111
- 046404 -2 REC 1325-1415 M, SmithH 331
★LAB 1430-1715 M, SmithH 110
- 846405 -3 REC 1325-1415 T, LindH 303
- 646406 -4 REC 1325-1415 T, Arch 20
★LAB 1430-1715 T, SmithH 110
- 446407 -5 REC 1325-1415 W, SmithH 111
- 246408 -6 REC 1325-1415 W, SmithH 121
- 146409 -7 REC 1325-1415 W, FordH 50
★LAB 1430-1715 W, SmithH 110
- 446410 -8 REC 0800-0850 Th, SmithH 121
- 246411 -9 REC 0800-0850 Th, SmithH 331
- 146412 -10 REC 0800-0850 Th, SmithH 231
- 946413 -11 REC 0800-0850 Th, FordH 150
★LAB 0905-1150 Th, SmithH 110
- 746414 -12 REC 1325-1415 Th, SciCB 375
- 346416 -13 REC 1325-1415 Th, SmithH 100
★LAB 1430-1715 Th, SmithH 110
- 146417 -14 REC 1325-1415 F, SmithH 121
- 846419 -15 REC 1325-1415 F, SmithH 331
★LAB 1430-1715 F, SmithH 110
- ★LECT 1220-1310 MWF, SmithH 100,
1220-1310 Th, Phys 150, Leopold D., 5 cr
- 046421 -16 REC 1325-1415 M, SmithH 121
- 646423 -17 REC 1325-1415 M, Phys 157
★LAB 1430-1715 M, SmithH 110
- 446424 -18 REC 0800-0850 T, SmithH 331
- 246425 -19 REC 0800-0850 T, SmithH 121
- 146426 -20 REC 0800-0850 T, SmithH 231
- 746428 -21 REC 0800-0850 T, LindH 315
★LAB 0905-1150 T, SmithH 110
- 946430 -22 REC 1325-1415 T, Arch 5
- 147549 -23 REC 1325-1415 T, Phys 157
- 547550 -24 REC 1325-1415 T, LindH 315
★LAB 1430-1715 T, SmithH 110
- 347551 -25 REC 1325-1415 W, SmithH 331
- 147552 -26 REC 1325-1415 W, SmithH 231
★LAB 1430-1715 W, SmithH 110
- 047553 -27 REC 1325-1415 Th, Arch 5
- 847554 -28 REC 1325-1415 Th, PillsH 110
- 647555 -29 REC 1325-1415 Th, AmundH 162
★LAB 1430-1715 Th, SmithH 110
- 447556 -30 REC 1325-1415 F, SmithH 111
★LAB 1430-1715 F, SmithH 110
- R1006 Principles of Solution Chemistry** (prereq
1005 or 1032)
★LECT 0905-0955 MWF, SciCB 175,
Matachek, 4 cr
- 724512 -1 LAB 1325-1715 M, SmithH 249
- 030140 -2 LAB 0800-1150 T, SmithH 249
- 924072 -3 LAB 1325-1715 T, SmithH 249
- 224733 -4 LAB 1325-1715 W, SmithH 249
- 824307 -5 LAB 1325-1715 Th, SmithH 249
- R1008 Physical World, Chemistry** (§any other
college chem course; prereq 1 yr high school
algebra...high school chem rec)
229723 1115-1205 MWThF, SmithH 231, Woods,
4 cr
- R1042 Honors Chemistry II** (1041-1042†, §1002,
1005, 1014, 1032; prereq 1041) (A-F only)
★LECT 0905-0955 MTWTF, SciCB 325,
Swofford, 5 cr
- 429669 -1 REC 1010-1100 T, AkerH 209
★LAB 1430-1715 T, SmithH 249A
- 727197 -2 REC 1115-1205 T, KoltH S135
★LAB 1430-1715 W, SmithH 249A
- 526133 -3 REC 0905-0955 Th, SmithH 331
★LAB 1430-1715 Th, SmithH 249A
- 528786 -4 REC 1010-1100 Th, SmithH 231
★LAB 1430-1715 F, SmithH 249A

- r1133 Elementary Quantitative Analysis** (prereq chem or chem eng or biochem maj, 1005 with B or higher or 1032) (A-F only)
★LECT 1220-1310 MWF, SmithH 331, Swofford
725725 -1 LAB 1325-1715 MW, SmithH 310, 5 cr
431602 -2 LAB 1325-1715 TTh, SmithH 310, 5 cr
- r3302 Elementary Organic Chemistry II** (prereq 3301, 3305 or f)
926906 1010-1100 TWThF, SciCB 325, Tolman, 4 cr
- r3303 Elementary Organic Chemistry III** (prereq 3302, 3306 or f)
527024 0800-0850 TWThF, SmithH 100, Noland, 4 cr
- r3304 Elementary Bioorganic Chemistry** (prereq 3302 or 3332 or equiv)
725398 1010-1100 MTWTF, SmithH 231, Gray, 4 cr
- r3305 Elementary Organic Chemistry Laboratory I** (prereq 3301 or f3301)
★LECT 0905-0955 M, SciCB 375, Gray
426769 -1 LAB 1325-1715 M, SmithH 349, 2 cr
325582 -2 LAB 1325-1715 W, SmithH 349, 2 cr
- r3306 Elementary Organic Chemistry Laboratory II** (prereq 3305, 3302 or f3302)
★LECT 1010-1100 M, SciCB 325, Leete
733940 -1 LAB 1325-1715 M, SmithH 349, 2 cr
833752 -2 LAB 1325-1715 T, SmithH 349, 2 cr
825604 -3 LAB 1325-1715 W, SmithH 349, 2 cr
824923 -4 LAB 1325-1715 Th, SmithH 349, 2 cr
- r3333 Introductory Organic Chemistry III** (prereq 3332, chem or chem eng or biochem maj) (A-F only)
327719 0800-0850 MWF, SmithH 231, Leete, 3 cr
- r3336 Introductory Organic Chemistry III Laboratory** (prereq 3333 or f3333...f3333 rec) (A-F only)
★LECT 1220-1310 T, Kolth S135, Kariv-Miller
731542 -1 LAB 1325-1715 MW, Kolth 398, 3 cr
426836 -2 LAB 1325-1715 Th, Kolth 398, 3 cr
- 3970 Directed Study** (prereq #)
731380 ar cr
- 3993 Special Topics in Chemistry** (prereq #) (S-N only)
823951 1220-1310 Th, SciCB 325, Pignolet, 1 cr
- r5126 Modern Analytical Chemistry** (prereq 3332, 3335, chem engr maj or Δ)
★LECT 0800-0930 TTh, SciCB 175, Stankovich, 4 cr
932740 -1 LAB 1325-1615 M, Kolth 297, Stankovich
830706 -2 LAB 1325-1615 T, Kolth 297, Stankovich
925478 -3 LAB 1325-1615 W, Kolth 297, Stankovich
626110 -4 LAB 1325-1615 Th, Kolth 297, Stankovich
529484 -5 LAB 1325-1615 F, Kolth 297, Stankovich
- r5139 Chromatography and Separation Science** (prereq 5133, 5140 or equiv or #, chem maj or grad) (A-F only)
642310 0800-0850 MWF, SmithH 331, Carr, 3 cr
- 5527 Physical Biochemistry: Spectroscopic Methods II** (§BioC 5527, MdBc 5527; prereq 2 qtrs physical chemistry, BioC/MdBc/Chem 5526 or #)
132588 0900-1030 TTh, GorL 239, PWB 5224, 4 cr (GorL 239, 1st 4 weeks, PWB 5224, last 6 weeks)
- 5529 Protein Structure and Folding** (§BioC 5529, MdBc 5529; prereq Biol 5001 or equiv, 1 qtr phys chem or #)
431289 1300-1440 TTh, GorL 239, 4 cr
- r5533 Quantum Chemistry** (prereq 1 yr college chemistry, Phys 1291 or f1291, or 1106 with #, Math 3321 or Math 3331 or f1Math 3321 or f1Math 3331)
027254 1115-1205 MTWTF, SciCB 325, Lipsky, 4 cr
- 5538 Physical Chemistry Laboratory** (prereq 5535 or f, non chemistry maj)
346349 -1 LAB 1325-1625 T, Kolth 284, Barbara, 1 cr
746350 -2 LAB 1325-1625 W, Kolth 284, Barbara, 1 cr
546351 -3 LAB 1325-1625 Th, Kolth 284, Barbara, 1 cr

- r5740 Inorganic Chemistry Laboratory** (prereq chem maj, 5731, 5732 or 5731, f5732 or f5731, 5732) (A-F only)
★LECT 1010-1100 T, SmithH 331, Pignolet
032633 -1 LAB 1325-1715 MW, Kolth 250, 3 cr
727734 -2 LAB 1325-1715 MF, Kolth 250, 3 cr
132372 -3 LAB 1325-1715 TTh, Kolth 250, 3 cr
724445 -4 LAB 1325-1715 WF, Kolth 250, 3 cr
- 5803 Chemistry of Industry** (prereq chem sr or grad student or #)
925870 0800-0850 MWF, Kolth S135, Heilman, Rasmussen, Krepski, 4 cr
- 5970 Directed Study in Chemistry** (prereq any 5xxx chem course, #)
747563 ar cr
- r5992 Selected Topics** (prereq Δ, sr)
346352 1325-1525 Th, SmithH 111, Miller L., ar cr
- 6134 Bioanalytical Chemistry** (prereq 5133 or equiv, BioC 5001 or equiv) (A-F only)
146353 1220-1310 MWF, SmithH 121, Stankovich, 3 cr
- 6136 Surface and Thin Film Analysis** (prereq #) (A-F only)
442311 0900-1030 TTh, Kolth 168, Roberts, 3 cr
- 6190 Seminar: Modern Problems in Chemical Instrumentation and Analysis** (prereq #)
127083 1515-1630 F, SmithH 331, 1 cr
- 6290 Seminar: Materials Chemistry** (prereq chem grad stu) (S-N only)
029361 1 cr
- 6304 Advanced Organic Chemistry II** (prereq 8301 or #)
946377 0905-0955 MWF, Kolth S136, Kass, 4 cr
- 6390 Seminar: Organic Chemistry**
130629 1615-1730 F, SmithH 231, 1 cr
- r8403 Bioorganic Chemistry III** (prereq 3303 or 3333 or equiv)
247560 1010-1100 MWF, SmithH 331, Liu, 4 cr
- 6533 Introductory Quantum Mechanics and Spectroscopy** (prereq 8532)
147558 1115-1205 MWThF, Kolth S135, Almlof, 4 cr
- 6548 Advanced Statistical Mechanics** (prereq 8547) (A-F only)
628116 0800-0850 MTWTF, Kolth S136, Mead, 4 cr
- 8560 Seminar: Biological Systems**
630187 1530-1645 Th, SmithH 331, 1 cr
- 8590 Seminar: Physical Chemistry** (prereq #) (S-N only)
033300 1615-1800 M, SmithH 331, 1 cr
- 8756 X-Ray Crystallography** (prereq chem grad stu or #) (A-F only)
046354 0800-0850 MWF, Kolth S134, Britton, 4 cr
- 8762 Chemistry of the Elements** (prereq chem grad stu or #)
846355 1220-1310 MWF, Kolth S135, Ellis, 4 cr
- 8777 Thesis Credits: Masters**
824100 1-16 cr
- 8790 Seminar: Modern Problems in Inorganic Chemistry** (prereq Δ)
231603 1700-1900 Th, SmithH 231, 1 cr
- 8881 M.S. Plan B Project I** (prereq grad chem or grad chem phys maj, Δ) (A-F only)
124619 4 cr
- 8882 M.S. Plan B Project II** (prereq grad chem or grad chem phys maj, Δ) (A-F only)
533163 1-4 cr
- 8883 M.S. Plan B Project III** (prereq grad chem or grad chem phys, Δ) (A-F only)
626415 4 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
730052 1-36 cr
- 8990 Research in Chemistry** (prereq Δ)
524267 ar cr
- r8992 Special Topics in Chemistry** (prereq Δ)
947562 1115-1205 MWF, Kolth S134, Hoye, 3 cr
- 8994 Special Topics in Chemistry** (prereq Δ)
646356 1325-1525 T, SmithH 111, Miller L., 2 cr

CHICANO STUDIES (Chic) Liberal Arts

- r3105 Introduction to Chicano Studies: The Beginnings** (§AmSt 3105)
527458 -1 0800-0850 MWF, ScottH 4, Green, 4 cr
244139 -2 0800-0850 MWF, EITH N119, 4 cr
- r3212 La Chicana** (§LAS 3212)
925125 0825-0955 MW, NichH 209A, Torres, 4 cr
- 3213 Chicano Music and Art** (prereq 1106 or GC 1275, 1107 or GC 1276)
743948 1640-1730 MWF, ScottH 4, Martinez, 4 cr
- r3508 Introduction to Chicano Literature: Text, Context**
142313 0945-1100 TTh, Arch 60, Rojas, 4 cr
- 3970 Directed Studies** (prereq #, Δ, □)
729581 ar cr
- 5970 Directed Studies** (prereq #, Δ, CLA approval)
526732 ar cr

CHILD AND ADOLESCENT PSYCHIATRY (CAPy) Medical School

- r5203 Child and Adolescent Psychiatry for Psychology Interns** (prereq #)
631386 Jensen, 1-5 cr
- r5204 Diagnostic Methods in Child and Adolescent Psychiatry** (prereq med student, #)
926808 Garfinkel, others, 1 cr
- r5520 Outpatient Clinical Child and Adolescent Psychiatry for Primary Care Physicians** (prereq regis med student) (A-F only)
330586 Realmuto, 4.5-9 cr
- r5603 Inpatient Clinical Child Psychiatry for Primary Care Physicians** (prereq med student, #)
924301 Jensen, ar cr
- r8100 Readings in Child, Adolescent, and Family Psychiatry** (prereq MD, #)
132770 Garfinkel, 1 cr
- r8200 Outpatient Clinical Child and Adolescent Psychiatry** (prereq MD, #)
529128 Jensen, 3 cr
- r8212 Clinical Inpatient Child Psychiatry** (prereq MD, #)
828762 Borchardt, 3 cr
- r8214 Inpatient Clinical Adolescent Psychiatry** (prereq MD, #)
323900 Borchardt, 3 cr
- r8216 Pediatric Psychiatry Liaison** (prereq MD, #)
931698 Jensen, 3 cr
- r8228 Research in Child and Adolescent Psychiatry** (prereq MD, #)
133392 August, 1 cr
- r8233 Mental Health Administration and Training Seminar** (prereq MD, #)
929613 Jensen, 1 cr
- r8248 Residential Child and Adolescent Treatment** (prereq MD, #)
025861 Jensen, 3 cr
- r8301 Seminar in Child, Adolescent, and Family Psychiatry** (prereq MD, #)
131495 Garfinkel, 1 cr

CHILD PSYCHOLOGY (CPsy) Education

- r1301 Introductory Child Psychology** (§3309, 5301; prereq 5 cr introductory psychology)
◆227907 -1 LECT 1010-1100 MWF, Botany B6, Dow, 4 cr (addtl hr ar)
◆333827 -2 LECT 0915-1030 TTh, SciCB 375, Sroufe, 4 cr (addtl hr ar)
◆526665 -3 LECT 1820-2050 Th, Botany B6, Mooney-McLoone, 4 cr
Registration in recitation section is required for students registering for lecture 1 or 2.
546866 -1 REC 0800-0850 M, ChDev 216
346867 -2 REC 1220-1310 M, ChDev 216
146868 -3 REC 1045-1135 T, ChDev 105
046869 -4 REC 0800-0850 W, ChDev 216
346870 -5 REC 1220-1310 Th, ChDev 216
146871 -6 REC 0800-0850 Th, ChDev 216

- 046872 -7 REC 1045-1135 Th, ChDev 105
 846873 -8 REC 0800-0850 F, ChDev 216
 846874 -9 REC 1115-1205 F, ChDev 218
 446875 -10 REC 1220-1310 F, ChDev 216
- r1970 Directed Study** (prereq #)
 129898 ar cr
- 3303 Adolescent Psychology** (§5303; prereq 5 cr introductory psychology)
 330748 -1 1245-1400 MW, Botany B6, Leffert, 4 cr
 933287 -2 1645-1915 W, NichH 211, Hoberman, 4 cr
- r3308 Research Methods in Child Psychology** (prereq 1301, Psy 1004) (S-N optional)
 129777 -1 1325-1440 TTh, ChDev 218, Yonas, 4 cr
 647281 -2 1325-1440 TTh, FolH 138, Sargent, 4 cr
- r3309 Introductory Child Psychology for the Social Sciences** (§1301, 5301; prereq Psy 1001)
 ♦727782 -1 LECT 1010-1100 MWF, Botany B6, Dow, 4 cr (addtl hr ar)
 ♦327820 -2 LECT 0915-1030 TTh, SciCB 375, Sroufe, 4 cr (addtl hr ar)
 ♦130131 -3 LECT 1820-2050 Th, Botany B6, Mooney-McLoone, 4 cr
Registration in recitation section is required for students registering for lecture 1 or 2.
 746892 -1 REC 0800-0850 M, ChDev 216
 546883 -2 REC 1220-1310 M, ChDev 216
 346884 -3 REC 1045-1135 T, ChDev 105
 146885 -4 REC 0800-0850 W, ChDev 216
 046886 -5 REC 1220-1310 W, ChDev 216
 846887 -6 REC 0800-0850 Th, ChDev 216
 846888 -7 REC 1045-1135 Th, ChDev 105
 446889 -8 REC 0800-0850 F, ChDev 216
 846890 -9 REC 1115-1205 F, ChDev 218
 646891 -10 REC 1220-1310 F, ChDev 216
- r3330 Directed Experiences** (prereq 1301 or equiv) (S-N optional)
 024984 1445-1715 W, JonesH 10, Kolb, 1-4 cr (addtl 4 day hrs per week required)
- 3331 Introduction to Social Development** (§5331; prereq 1301 or equiv)
 527671 1045-1200 TTh, SciCB 375, Collins, 4 cr (addtl hr ar)
- 3343 Introduction to Cognitive Development** (§5343; prereq 1301)
 929644 1820-2050 T, ChDev 218, Heinrichs, 4 cr
- 3960 Senior Project in Child Psychology** (3960†; max 4 cr; prereq 1301, sr, #) (A-F only)
 233402 -1 1325-1415 T, ChDev 105, Englund, 1-4 cr (2nd qtr only)
 126457 -2 1820-1910 Th, ChDev 105, Englund, 1-4 cr (2nd qtr only)
- r3980 Directed Instruction** (max 4 cr; prereq #) (A-F only)
 633395 1-4 cr
- 5303 Adolescent Psychology** (§3303; prereq 5 cr introductory psychology)
 730102 -1 1245-1400 MW, Botany B6, Leffert, 4 cr
 228989 -2 1645-1915 W, NichH 211, Hoberman, 4 cr
- 5310 Topics in Child Psychology** (prereq 1301)
 146264 0800-1100 T, FordH 175, Brookins, 3 cr
- 5311 Introduction to Developmental Psychopathology** (§3311; prereq 1301 or equiv, 3308 or Psy 1005)
 924220 -1 1325-1440 TTh, PeikH 155, Egeland, 4 cr
 633820 -2 1820-2050 T, WullH 230, Neemann, 4 cr
- 5319 Introduction to Clinical Child Psychology** (prereq 12 cr psychology or educational psychology or sociology or child psychology)
 946265 0915-1030 TTh, ChDev 105, Phipps-Yonas, 4 cr
- 5336 Development and Interpersonal Relations** (§5339; prereq 1301 or equiv, 3308 or Psy 1005, 3331 or 5331)
 142318 0905-0955 MWF, ChDev 216, Hartup, 4 cr
- 5345 Language Development** (prereq 1301 or #, 3308 or Psy 1005)
 930230 1325-1415 MWF, ChDev 218, Maratsos, 4 cr
- r5970 Directed Study** (prereq #)
 430966 ar cr

- r5990 Directed Research** (prereq #)
 028243 ar cr
- 8320 Seminar: Current Issues in Teaching Developmental Psychology**
 732626 1220-1310 F, ChDev 102, 1 cr
- 8327 Ethology of Child Behavior**
 042319 1315-1430 TTh, ChDev 216, Charlesworth, 3 cr
- 8343 Advanced Cognitive Development I** (prereq 12 cr in child psy or psychology)
 342320 1315-1430 MW, ChDev 105, Sera, 3 cr
- 8360 Seminar: Developmental Psychology**
 429560 -1 Bauer, 3 cr
 524639 -2 Pick H., ar cr
- 8777 Thesis Credit: Masters**
 630190 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
 628147 1-36 cr
- 8970 Independent Study**
 129223 ar cr
- 8990 Research Problems**
 724140 ar cr

CHINESE (Chn) East Asian Languages & Literatures Liberal Arts

- r1013 Beginning Modern Chinese** (prereq 1012)
 ★LECT 1115-1205 TTh, KoltH S133
 624017 -1 REC 1010-1100 MTWThF, KoltH S133, 5 cr
 025567 -2 REC 1220-1310 MTWThF, KoltH S133, 5 cr
- r3023 Intermediate Modern Chinese** (prereq 3022)
 ★LECT 0905-0955 TTh, FolH 234, Decker
 625863 -1 REC 0905-0955 MWF, FolH 50, 5 cr
- 3033 Introductory Classical Chinese** (prereq 3032 or #)
 129956 1325-1415 MWF, FolH 138, Wang, 4 cr
- 3043 Third Year Modern Chinese** (prereq 3042)
 825831 1115-1205 MWF, FolH 334, Liu, 4 cr
- 3090H Honors Tutorial** (prereq Δ)
 530893 1-4 cr
- r3163 20th Century Literature in English**
 624728 1430-1545 TTh, FolH 50, Decker, 4 cr
- 3970 Directed Studies** (prereq #, Δ, □)
 825294 1-15 cr
- 5043 Third Year Modern Chinese** (prereq 3042)
 927232 1115-1205 MWF, FolH 334, Liu, 4 cr
- 5105 Readings in Chinese Vernacular Fiction** (prereq 3041)
 244142 1430-1545 TTh, FolH 344, Besio, 4 cr
- 5970 Directed Studies** (prereq #, Δ, CLA approval)
 029036 1-4 cr
- 8660 Seminar: Vernacular Chinese Literature** (prereq 5472, 5990 or #)
 642324 1325-1520 M, FolH 218, Liu, 4 cr
- 8777 Thesis Credits: Masters**
 831547 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
 023835 1-36 cr

CIVIL ENGINEERING (CE) Civil And Mineral Engineering Institute of Technology

- 3020 Computer Applications in Civil Engineering I** (prereq civil engineering, geo-engineering or mining engineering maj, Math 1231) (A-F only)
 242343 0800-0955 MW, CivMinE 205, Voller, 4 cr
- 3050 Engineering Intern Work Assignment** (prereq regis in intern prog, IT stu) (S-N only)
 132758 4 cr
- r3100 Introduction to Surveying and Mapping** (prereq Math 1211, IT stu) (A-F only)
 ★LECT 1010-1100 MWF, CivMinE 210, Johnson
 128590 -1 LAB 0905-1205 T, CivMinE 194, Johnson, 4 cr
 227776 -2 LAB 1325-1625 T, CivMinE 194, Johnson, 4 cr
 829166 -3 LAB 0905-1205 Th, CivMinE 194, Johnson, 4 cr

- 226093 -4 LAB 1325-1625 Th, CivMinE 194, Johnson, 4 cr
- r3301 Soil Mechanics Laboratory** (prereq 3300, IT stu) (A-F only)
 924055 -1 LAB 0905-1205 T, CivMinE 350, Labuz, 1 cr
 126029 -2 LAB 1325-1625 T, CivMinE 350, Labuz, 1 cr
 525158 -3 LAB 0905-1205 Th, CivMinE 350, Labuz, 1 cr
 931779 -4 LAB 1325-1625 Th, CivMinE 350, Labuz, 1 cr
- r3400 Fluid Mechanics** (§AEM 5200; prereq Math 3221, AEM 1015 or 3016, IT stu or forest products maj) (A-F only)
 ★LECT 1325-1415 MWF, CivMinE 210, Farrell
 231049 -1 LAB 1430-1730 M, CivMinE 277, Farrell, 4 cr
 229589 -2 LAB 1430-1730 T, CivMinE 277, Farrell, 4 cr
 131750 -3 LAB 1430-1730 W, CivMinE 277, Farrell, 4 cr
 631971 -4 LAB 1430-1730 Th, CivMinE 277, Farrell, 4 cr
- 3602 Structural Design for Architects** (prereq architecture maj or adult special, AEM 3092, 3093, CE 3600, 3601) (A-F only)
 ★LECT 0800-0955 TTh, CivMinE 212, Assadi
 826459 -1 REC 0905-0955 M, CivMinE 212, Assadi, 4 cr
- r5002 Engineering Economics** (prereq jr or sr IT stu or adult special or grad) (A-F only)
 730441 1220-1310 WF, CivMinE 210, Johnson, 2 cr
- 5099 Advanced Design, Analysis, Research or Tutorial in Civil Engineering** (prereq approval by faculty adviser) (A-F only)
 930034 -1 0800-0955 TTh, CivMinE 205, Strack, ar cr
 731170 -2 1640-1830 TTh, CivMinE 213, Davis, ar cr
 646387 -3 4 cr
- r5401 Water Resources Engineering** (prereq 3400 or #, IT or grad stu) (A-F only)
 ★LECT 1325-1415 MWF, CivMinE 205, Parker
 742346 -1 REC 1430-1730 M, CivMinE 205, Parker, 4 cr
 542347 -2 REC 1430-1730 W, CivMinE 205, Parker, 4 cr
 045995 -3 REC 1430-1730 F, CivMinE 205, Parker, 4 cr
- r5403 Hydraulic Structures** (prereq 5401 or #, IT or grad stu) (A-F only)
 ★LECT 1220-1310 MWF, CivMinE 202, Stefan
 142349 -1 REC 1325-1625 F, CivMinE 202, Stefan, 4 cr
- r5405 Hydrology and Hydrologic Design** (prereq 5401 or #, IT stu or grad) (A-F only)
 ★LECT 1325-1415 MWF, CivMinE 212, Foutoula
 229091 -1 LAB 1430-1730 M, CivMinE 202, Foutoula, 4 cr
 027299 -2 LAB 1430-1730 W, CivMinE 202, Foutoula, 4 cr
- 5426 Computer Modeling of Groundwater Flow** (prereq 5425 or #, IT upper div stu or grad) (A-F only)
 845996 1640-1835 MW, CivMinE 213, Strack, 4 cr
- r5501 Analysis and Design of Wastewater Systems** (prereq Chem 1005, 3400 or #, IT stu or grad) (A-F only)
 ★LECT 0800-0850 MWF, CivMinE 210, Maier
 324545 -1 REC 1220-1310 T, CivMinE 202, Maier, 4 cr
 133084 -2 REC 1220-1310 Th, CivMinE 202, Maier, 4 cr
- r5505 Water Quality Engineering** (prereq Chem 1005 or #, IT upper div) (A-F only)
 331890 1220-1310 MTWF, CivMinE 205, Brezonik, 4 cr
- r5610 Design of Metal Structures: Introduction** (prereq 5600, 5603, upper division IT stu or grad) (A-F only)
 ★LECT 1535-1730 TTh, CivMinE 205, Connors
 342351 -1 REC 0905-1010 M, CivMinE 210, Connors, 4 cr
 142352 -2 REC 0905-1010 W, CivMinE 210, Connors, 4 cr

- n5611 Design of Reinforced Concrete Structures** (prereq 5600, 5603, upper division IT stu or grad) (A-F only)
★LECT 1535-1730 MW, CivMinE 210, Krauthammer
233805 -1 REC 1115-1205 M, CivMinE 210, Krauthammer, 4 cr
024371 -2 REC 1115-1205 W, CivMinE 210, Krauthammer, 4 cr
- 5615 Prestressed Concrete** (prereq 5611, IT or grad stu...5613 rec) (A-F only)
231276 1640-1835 TTh, CivMinE 205, French, 4 cr
- 5617 Design of Masonry Structures** (prereq 5600 or #, IT stu or grad) (A-F only)
142344 1640-1835 MW, CivMinE 212, Cemy, 4 cr
- 8099 Civil Engineering Research** (prereq #)
225946 -1 1115-1310 MW, CivMinE 213, Davis, 4 cr
526262 -2 1640-1835 TTh, CivMinE 212, Newcomb, 4 cr
531235 -3 1-5 cr
- 8201 Urban Traffic Operations** (prereq #)
042353 1535-1730 MW, CivMinE 214, Michalopoulos, 4 cr
- 8211 Travel Demand Forecasting** (prereq 5210 or 8210 or #)
225817 1430-1625 TTh, CivMinE 213, Stephanedes, 4 cr
- 8402 Intermediate Fluid Mechanics III** (prereq 8401 or #)
133750 1010-1205 MW, CivMinE 202, Farrell, 4 cr
- 8419 Computational Hydrodynamics II** (prereq 8418 or #)
842354 1010-1205 TTh, CivMinE 202, Song, 4 cr
- 8540 Interfacial Mass Transfer with Environmental Applications** (A-F only)
645997 0905-1100 MF, CivMinE 213, Gulliver, 4 cr
- 8610 Shell Structures** (prereq #)
442356 1010-1205 TTh, CivMinE 205, Stolarski, 4 cr
- 8616 Non-Linear Structural Systems** (prereq 5610 or #)
242357 1325-1520 MW, CivMinE 213, Galambos, 4 cr
- 8621 Structural Dynamics II** (prereq 8620 or #)
923956 1010-1205 MW, CivMinE 205, Leon, 4 cr
- 8699 Seminar: Structures** (S-N only)
424164 1325-1415 F, CivMinE 205, Leon, 1 cr
- 8777 Thesis Credits: Masters**
625913 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
825649 1-36 cr

CLASSICAL CIVILIZATION (CIV)

Liberal Arts

- 3201 The Olympic Games** (§Cias 1201, Clas 3201)
242360 1325-1415 MWF, AndH 350, Cooper, 4 cr
- 3970 Directed Studies** (prereq #, Δ, □)
527718 1-15 cr
- 3980 Directed Instruction** (prereq #)
130002 ar cr
- 3990 Directed Research** (prereq #, Δ, □)
133697 1-15 cr

CLASSICS (Clas) Classical & Near Eastern Studies Liberal Arts

- 1001 Age of Homer**
642372 0800-0850 MWF, FolH 306, Hershbell, 4 cr
- 1005 Age of Augustus**
442373 1325-1415 MWF, FolH 148, Krevans, 4 cr
- r1042 Greek and Roman Mythology**
644347 1820-2050 M, NichH 211, Erickson, 4 cr
- 1045 Basic Program in Technical Terminology and Word Study**
128587 1535-1700 TW, FolH 306, 3 cr

- 1048 Greek and Latin Terminology in the Medical and Biological Sciences** (§1141; prereq 1045 or 1)
731721 1535-1700 TW, FolH 306, 2 cr
- 1141 Greek and Latin Terminology for Nursing** (§1048)
633302 1535-1700 TW, FolH 306, 3 cr
- 1201 The Olympic Games** (§Civ 3201)
242374 1325-1415 MWF, AndH 350, Cooper, 4 cr
- 3007 The Pastoral Tradition** (§5007; prereq two lit courses or #)
745599 1220-1310 MWF, FolH 104, Krevans, 4 cr
- 3046 Advanced Etymology: Vocabulary of the Sciences and Humanities** (prereq 1045 or 1)
725059 1535-1700 TW, FolH 306, 2 cr
- r3073 Roman Religion and Early Christianity** (§5073)
942376 1115-1205 MWF, NichH 45, Sellow, 4 cr
- 3201 The Olympic Games** (§Civ 3201)
142375 1325-1415 MWF, AndH 350, Cooper, 4 cr
- 3970 Directed Studies** (prereq #, Δ, □)
832813 1-5 cr
- 5007 The Pastoral Tradition** (§3007; prereq two lit courses)
445600 1220-1310 MWF, FolH 104, Krevans, 4 cr
- 5073 Greek and Hellenistic Religions: Roman Religion and Early Christianity** (§3073; prereq #)
742377 1115-1205 MWF, NichH 45, 1220-1310 F, NichH 109, Sellow, 4 cr
- r5104 Roman Architecture** (§ArH 5104; prereq jr or #)
347503 1115-1205 MWF, JonesH 202, Cooper, 5 cr
- 5960 Topics in the Literature of Classical Antiquity** (prereq #, Δ) (A-F only)
328143 4 cr
- 5970 Directed Studies** (prereq #, Δ, CLA approval)
824761 1-5 cr
- 5980 Directed Instruction** (prereq #, Δ, CLA approval)
827241 4 cr
- 5990 Directed Research** (prereq #, Δ, CLA approval)
131769 4 cr
- 8190 Seminar: Problems in Ancient Art: Literary Sources for Byzantine Art** (§AnSt 8120, ArH 8190; prereq #) (A-F only)
546298 1630-1930 T, FolH 218, Alchermes, 4 cr
- 8777 Thesis Credits: Masters**
732707 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
629718 1-36 cr

CLINICAL AND POPULATION SCIENCES (CAPS) Veterinary Medicine

- 5001 Clinical Large Animal Medicine** (prereq #) (S-N only)
832293 1-12 cr
- 5003 Clinical Large Animal Surgery** (prereq #) (S-N only)
730388 1-12 cr
- 5005 Clinical Theriogenology** (prereq #) (S-N only)
728494 1-12 cr
- 5007 Clinical Herd Medicine** (prereq #) (S-N only)
526567 1-12 cr
- 5010 Veterinary Medicine Externship** (prereq #) (S-N only)
124692 8-12 cr
- 5153 Diagnostic and Therapeutic Techniques II** (prereq #)
233240 -1 LAB 1300-1550 Th, VetTchHos, Larson V., Ames, others, 1 cr
131335 -2 LAB 1300-1550 T, VetTchHos, Larson V., Ames, others, 1 cr
- 5160 Large Animal Medicine** (prereq 5151 or #)
024693 0800-0850 MWTh, 1000-1050 MWTh, VetTchHos A325, Ames, Geor, 6 cr

- 5165 Introduction to Animal Nutrition** (prereq VB 5210, 5212, 5306 or #) (A-F only)
133241 1100-1150 TWThF, AnScVM 125, Jorgensen, Olson W., 2 cr (1st 5 weeks)
- 5180 Introduction to Herd Health and Dairy Herd Health Management** (prereq regis 3rd or 4th yr vet med or grad student or #)
031336 1300-1550 M VetS 145 (1st 5 weeks), 1300-1450 M VetS 145 (2nd 5 weeks)
Anderson J., Farnsworth, others, 2.5 cr
- 5191 Analytical Techniques in Veterinary Medicine II** (prereq 5190, regis 3rd or 4th yr vet med or grad or #) (A-F only)
229432 1300-1450 TTh, VetS 436, Marsh, 4 cr
- 5270 Economics and Practice Management** (prereq regis vet med or #) (A-F only)
727538 0800-0950 Th, VetS 145, Marsh, Beery, 2 cr
- 5271 Law and Ethics in Veterinary Medicine** (prereq regis vet med or #) (A-F only)
326568 1000-1150 W, AnScVM 135, 2 cr
- 5273 Decision Analysis in Veterinary Medicine** (prereq vet med maj or grad or #) (A-F only)
734196 1300-1450 M, VetS 436, Marsh, 2 cr
- 5276 Advanced Zoo Animal Medicine** (prereq regis 3rd or 4th yr vet med, LACS 5275 or #) (S-N only)
632294 1500-1550 M, VetTchHos A325, Farnsworth, 1 cr
- 5352 Large Animal Surgery** (prereq #) (A-F only)
★LECT 0800-0850 MTWTF, AnScVM 135, Kobluk, Trent, others, 5 cr
930390 -1 LAB 1300-1550 T, Kobluk, Trent, others
328496 -2 LAB 1300-1550 Th, Kobluk, Trent, others
- 5356 Equine Colic Team** (5356+; prereq vet med stu, 5355) (S-N only)
528495 Trent, Geor, 1 cr
- 5357 Advanced Colic Team** (5357+; prereq vet med stu, 5356) (S-N only)
742380 Trent, Geor, 1 cr
- 5550 Diagnostics and Obstetrics in Theriogenology** (prereq regis vet med or grad or #)
432295 1100-1150 M, 1300-1350 M, AnScVM 135, Fahning, Momont, 2 cr
- 5551 Theriogenology Diagnostics Laboratory** (prereq regis vet med or grad or #)
126569 -1 LAB 1400-1650 M, Fahning, Momont, 1 cr (Animal Holding Facility)
824694 -2 LAB 0900-1150 F, Fahning, Momont, 1 cr (Animal Holding Facility)
- 5573 Advanced Dairy Cattle Reproduction** (prereq 5570, regis 3rd or 4th yr vet med or grad or #) (A-F only)
933242 1500-1650 M, AnScVM 335K, 385J, Fahning, 1 cr (2nd 5 weeks)
- 5650 Veterinary Epidemiology and Statistics** (prereq 10 cr biology, 12 cr chem or #) (A-F only)
★LECT 1000-1050 MWF, AnScVM 125, Robinson R., Diesch, 4 cr
129433 -1 LAB 0800-1050 T, AnScVM 125
527539 -2 LAB 0800-1050 Th, AnScVM 125
- 5651 Veterinary Community Medicine** (prereq VPB 5503, 5703 or equiv or #)
526570 0900-0950 MWF, AnScVM 135, Diesch, Pullen, 3 cr
- 5663 International Animal Disease Problems** (prereq #) (A-F only)
929434 1000-1150 F, AnScVM 135, Diesch, Shope, 1 cr (1st 5 weeks)
- 5672 Perspectives: Animal-Human Relationships and Community Health** (prereq #)
927540 1600-1740 T, AnScVM 135, Robinson R., 3 cr
- 5673 Problems in Disease Control and Eradication** (prereq PubH 5330 or #)
326571 Morrison, Robinson R., ar cr
- 5680 Problems in Veterinary Epidemiology and Public Health** (prereq 5650 or equiv or #)
534197 Diesch, Pullen, others, ar cr
- r5811 Large Animal Internal Medicine II** (prereq DVM, enrolled in SACS or LACS Clinical Residency) (A-F only)
232296 1300-1450 M, VetTchHsp 225K, Geor, 3 cr

- 5951 **Directed Studies** (prereq #, Δ)
730391 1-5 cr
- 8193 **Advances in Clinical Immunobiology** (prereq grad or #)
128497 Molitor, ar cr
- 8194 **Problems in Diagnostic Virology, Serology and Immunology** (prereq grad or #)
126572 Ames, Molitor, others, ar cr
- 8195 **Preventive Veterinary Medicine**
624695 Diesch, Robinson R., others, ar cr
- 8199 **Problems in Economics of Animal Health**
733243 1-3 cr
- 8290 **Advanced Veterinary Medicine** (prereq 5162, SACS 5172, #)
026573 Larson V., Hardy, others, ar cr
- 8291 **Advanced Diagnosis and Therapeutics of Animal Diseases** (prereq 5162, SACS 5172, #)
424696 Larson V., Ames, others, ar cr
- 8292 **Seminar: Veterinary Medicine** (prereq #)
533244 Larson V., Osborne, ar cr
- 8293 **Medical Conference** (prereq 5162, SACS 5172, #)
631338 Larson V., Osborne, others, ar cr
- 8299 **Research in Veterinary Medicine**
729435 Larson V., others, ar cr
- 8390 **Seminar: Veterinary Surgery** (prereq DVM degree or equiv)
727541 1500-1650 M, HckrH 209, Wallace, ar cr
- 8392 **Advanced Large Animal Surgery** (prereq DVM degree or equiv, #)
826574 Kobluk, Trent, others, ar cr
- 8393 **Problems in Large Animal Orthopedics** (prereq 5365, #)
132297 Kobluk, Trent, others, 3 cr
- 8397 **Large Animal Anesthesia** (prereq SACS 5380, #)
530392 Raffie, Robinson E., ar cr
- 8590 **Advanced Diagnostic Methods in Reproductive Diseases** (prereq 5570 or #)
134199 Johnston S., ar cr
- 8593 **Advanced Endocrinology of Reproduction** (prereq grad student) (A-F only)
932298 Fahning, others, 2 cr
- 8594 **Special Problems in Animal Reproduction** (prereq 5570, #)
330393 ar cr
- 8595 **Seminar: Veterinary Obstetrics** (prereq #)
028498 Seguin, 1 cr
- 8790 **Problems in Veterinary Clinical Pharmacology and Therapeutics** (prereq grad or #)
626575 3 cr

CLINICAL LABORATORY SCIENCE (CLS)

Laboratory Medicine And Pathology Medical School

- 5110 **Hospital Infections Control** (\$LMed 5110; prereq #)
227017 1700-1745 TTh, MoosT 2676, 2680, Rhame, 2 cr
- 5113 **Principles of Clinical Chemistry** (\$MedT 5113; prereq 5112, Δ)
★LECT 1010-1100 MTTh, MoosT 2580, Tsai
746218 -1 LAB 1220-1625 M, 0800-1205 WF, HSUnitF 3150, Brunzel, 4 cr
- 5120 **Seminar: Clinical Laboratory Science** (\$MedT 5120) (S-N only)
025620 1200-1300 W, Jach 3145, 1 cr
- 5125 **Practicum Teaching** (\$MedT 5125)
233528 1-3 cr
- 5130 **Practicum in Laboratory Administration** (\$MedT 5130)
330619 3 cr
- 5135 **Advanced Clinical Microbiology** (\$MedT 5135; prereq #)
424245 Wells, 1-5 cr
- 5138 **Clinical Microbiology Seminar** (\$MedT 5138)
533793 1115-1205 F, PWB 15194, Wells, Ferrieri, 1 cr

- 5145 **Development of Medical Technology** (\$MedT 5145)
932723 3 cr
- 5155 **Advanced Clinical Hematology** (\$MedT 5155; prereq #)
025553 5 cr
- 5165 **Advanced Clinical Immunohematology** (\$MedT 5165; prereq #)
129200 5 cr
- 5175 **Advanced Clinical Chemistry** (\$MedT 5175; prereq #)
228667 5 cr
- 5179 **Chemistry Seminar** (\$MedT 5179; prereq #)
131996 Steffes, 1 cr
- 5180 **Advanced Chemistry** (prereq #)
223954 Yasmineh, 1-5 cr
- 5765 **Hematology** (prereq #)
★LECT 1325-1415 WF, MoosT 2520, Lofness
730665 -1 LAB 1430-1625 WF, MoosT 3317, 4 cr
- 5768 **Advanced Hematology** (prereq #)
228619 Brunning, ar cr
- 5864 **Research Seminar** (prereq #)
124801 1200-1300 M, Mayo C231, 1 cr (Todd Amph)
- 5865 **Departmental Seminar** (prereq #)
925822 0800-0900 W, Mayo D230, 1 cr (Eustis Amph)
- 8777 **Thesis Credits: Masters**
833511 1-16 cr

COGNITIVE SCIENCE (CgSc) Liberal Arts

- 8001 **Proseminar in Cognitive Science** (prereq CgSc minor) (S-N only)
527735 1900-2100 T, EltH 225, Pick, 1 cr

COMMUNICATION DISORDERS (CDIS) Liberal Arts

- 83100 **Clinical and Research Observation** (prereq Δ) (S-N only)
933838 -1 0800-1200 W, MoosT 6274, Moller, Starr, 2 cr
127911 -2 1700-1900 W, 0900-1000 F, ShevH 125, Haroldson, 2 cr (or ar)
031370 -3 1230-1600 Th, MoosT 6274, Moller, Starr, 2 cr
830687 -4 Hinderscheit, 2 cr (off-campus)
924251 -5 Carlstrom, 2 cr
231438 -6 van Deusen, 2 cr
- 3101 **Introduction to Communication Disorders**
529971 0905-1100 TTh, FolH 340, Haroldson, 4 cr
- 5306 **Hearing Science** (prereq 5301, 5302 or #)
126748 0905-1100 WF, BuH 123, Ward, 4 cr
- 5502 **Stuttering**
432734 1430-1625 TTh, FolH 340, Haroldson, 4 cr
- 5607 **Language Assessment, Intervention: Later Stages** (prereq 5305 or #)
426951 1325-1520 MW, FolH 340, Windsor, 4 cr
- 5608 **Language Assessment, Intervention: Adults** (prereq 5302 or #)
627032 1700-1845 TTh, FolH 340, Brookshire, 4 cr
- 5707 **Audiology in Educational Settings** (prereq 5703 or #)
142383 1430-1625 T, 1535-1625 Th, BuH 120, Carlstrom, 3 cr
- 85900 **Topics in Communication Disorders: Augmentative Communication Technology**
347274 1630-1930 W, BuH 125, Locke, 4 cr (addtl hr per week ar)
- 5970 **Directed Studies** (prereq #, Δ, CLA approval)
929580 ar cr
- 8305 **Laboratory Instrumentation** (prereq 5301 or #)
★LECT 1325-1520 WF, ShevH 125, Speaks, Schlauch
842385 -1 LAB 1325-1520 M, ShevH 125, Speaks, Schlauch, 4 cr

- 8507 **Seminar: Cleft Palate** (prereq 5507 or #)
531977 0905-1100 F, MoosT 6274, Moller, Starr, 3 cr (addtl hr lab per week ar)
- 8508 **Seminar: Voice** (prereq 5508 or #)
932086 0800-0955 T, ShevH 205A, Starr, 3 cr (addtl hr lab per week ar)
- 8520 **Clinical Education in Speech-Language Pathology** (prereq communication disorders grad stu)
225154 1-6 cr
- 8521 **Clinical Education in Speech-Language Pathology** (prereq communication disorders grad stu)
131724 1-6 cr
- 8590 **Seminar: Current Issues in Speech-Language Pathology**
124546 -1 1535-1835 W, FolH 340, Liss, 3 cr
527492 -2 1115-1415 Th, ShevH 125, Siegel, 3 cr
- 8606 **Seminar: Language Disorders** (prereq 5305 or #)
028064 1615-1900 M, ShevH 125, Reichle, 3 cr
- 8718 **Seminar: Hearing**
428148 0905-1205 M, ShevH 125, Schlauch, 3 cr
- 8720 **Clinical Education in Audiology** (prereq CDIS grad stu)
125051 1-6 cr
- 8721 **Clinical Education in Audiology** (prereq CDIS grad maj)
628827 1-6 cr
- 8777 **Thesis Credits: Masters**
933435 1-16 cr
- 8888 **Thesis Credits: Doctoral** (max 18 cr per qtr)
232086 1-36 cr
- 8990 **Research**
731458 ar cr

COMPARATIVE LITERATURE (CLit) Liberal Arts

- 83910 **Issues in the Study of Literature** (prereq jr or sr or #)
442387 -1 1010-1100 MWF, FolH 214, Jha, 4 cr (Emergent Literature) (A-F only)
146300 -2 1010-1140 TTh, FolH 214, Oksiloff, 4 cr (Mass Culture and the Modern Text)
- 5165 **Perspectives in Human Behavior**
346299 1220-1440 TTh, FolH 214, Sarles, 4 cr
- 85221 **Basic Concepts of Cinema**
142389 1325-1625 T, FolH 240, Chow, 4 cr
- 5970 **Directed Readings** (prereq #, Δ, CLA approval)
125003 1-4 cr
- 88003 **Seminar in Comparative Literature**
(8001-8002-8003-8004†; prereq 8002)
128662 1325-1625 W, FolH 350, Sousa, 4 cr
- 8888 **Thesis Credits: Doctoral** (max 18 cr per qtr)
625507 1-36 cr
- 88910 **Advanced Comparative Literature Seminar: Heidegger and Modern French Thought** (prereq 8001-8002-8003 or #)
426867 1325-1625 F, FolH 246, Canning, 4 cr
- 8920 **Advanced Comparative Literature Seminar: The Body and Intellection** (prereq 8910)
527394 1325-1625 M, FolH 246, Sarles, 4 cr
- 8970 **Directed Reading** (prereq grad student in comparative lit, Δ)
132686 1-4 cr

COMPARATIVE STUDIES IN DISCOURSE AND SOCIETY (CSDS)

Humanities Liberal Arts

- 85301 **Society, Ideology and the Production of Art** (\$Hum 5301; prereq jr or sr or grad)
942393 1245-1400 TTh, FordH 130, Crawford, 4 cr

- r5910 Topics in Comparative Studies in Discourse and Society** (prereq jr or sr or grad stu) (A-F only)
 930616 -1 1300-1600 W, FolH 50, 4 cr (The Self Made Man) (§Fren 5900, sec 1)
 747269 -2 1445-1730 Th, FordH 175, Przybylowicz, 4 cr (Women in Film and Media) (§Hum 5910, sec 2)
- 5970 Directed Studies** (prereq grad student, #)
 125947 ar cr
- r8003 Basic Research Seminar in Comparative Studies in Discourse and Society** (prereq Δ) (A-F only)
 532952 1325-1625 M, FolH 142, Vidal, 4 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
 332371 1-36 cr
- 8970 Directed Studies** (prereq grad student or #)
 426853 ar cr

COMPOSITION AND COMMUNICATION (Comp) Liberal Arts

- r1011 Writing Practice I** (prereq assignment to category 2 or 3)
 323945 -1 0800-0850 MTWF, LindH 303, 5 cr
 430756 -2 0800-0850 MF, 0800-0955 Th, LindH 315, 5 cr
 123851 -3 0905-0955 MTWF, LindH 320, 5 cr (non-native English speakers only) (go to KiaCt 175 for override)
 329535 -4 0905-0955 MTWF, LindH 315, 5 cr
 730066 -5 0905-0955 MF, 0905-1100 W, LindH 303, 5 cr
 128175 -6 1010-1100 MTWF, LindH 320, 5 cr
 833623 -7 1010-1100 MTWF, AmundH 104, 5 cr
 231990 -8 1010-1100 MF, 1010-1205 W, LindH 315, 5 cr
 525368 -9 1115-1205 MWThF, LindH 320, 5 cr (non-native English speakers only) (go to KiaCt 175 for override)
 231472 -10 1115-1205 MWThF, FordH 50, 5 cr
 731525 -11 1115-1205 MF, 1115-1310 Th, LindH 303, 5 cr
 726678 -12 1220-1310 MWThF, LindH 315, 5 cr
 532532 -13 1220-1310 MF, 1220-1415 W, VinH 1, 5 cr
 228779 -14 1220-1310 MF, 1220-1415 Th, LindH 320, 5 cr
 933953 -15 1325-1415 MF, 1325-1520 Th, LindH 303, 5 cr
 827305 -16 1325-1415 MF, 1325-1520 Th, LindH 315, 5 cr
- 1013 Writing Practice II** (prereq grade of X in 1011 or 1012, Δ)
 731914 4 cr
- r1027 Intermediate Expository Writing** (prereq fulfillment of Writing Practice req)
 225767 -1 0905-0955 MWF, LindH 325, 4 cr
 928607 -2 1010-1100 MWF, LindH 340, 4 cr
 130579 -3 1115-1205 MWF, AkerH 319, 4 cr
 023981 -4 0815-0930 TTh, VinH 1, 4 cr
 126006 -5 0945-1100 TTh, JonesH 10, 4 cr
 528643 -6 1115-1230 TTh, FordH 40, 4 cr
 724655 -7 1245-1400 TTh, MurH 308, 4 cr
- r3011 Writing about Literature** (prereq fulfillment of Writing Practice req, jr)
 124328 -1 0905-0955 MWF, LindH 340, 4 cr
 627029 -2 1010-1100 MWF, LindH 325, 4 cr
 225235 -3 1115-1205 MWF, KohlH S137, 4 cr
 132428 -4 1325-1415 MWF, LindH 340, 4 cr
 332077 -5 0815-0930 TTh, JonesH 10, 4 cr
 630769 -6 1115-1230 TTh, FordH 60, 4 cr
 831290 -7 1245-1400 TTh, FordH 60, 4 cr
- r3012 Writing in the Humanities** (prereq fulfillment of Writing Practice req, jr)
 532692 -1 0800-0850 MWF, LindH 320, 4 cr
 531736 -2 0905-0955 MWF, AmundH 158, 4 cr
 830978 -3 1115-1205 MWF, FordH 160, 4 cr
 127849 -4 1115-1230 TTh, VinH 1, 4 cr (concurrent registration in Phi 3308, sec 2 is required)
 329390 -5 1245-1400 TTh, VinH 1, 4 cr
- r3013 Writing for the Arts** (prereq fulfillment of Writing Practice req, jr)
 726826 -1 0800-0850 MWF, LindH 340, 4 cr
 229947 -2 0905-0955 MWF, VinH 20, 4 cr
 727720 -3 1115-1205 MWF, LindH 340, 4 cr
 026167 -4 0815-0930 TTh, JonesH 2, 4 cr
 027500 -5 0945-1100 TTh, FordH 349, 4 cr
 247526 -6 1245-1400 TTh, FolH 246, 4 cr

- r3014 Writing in the Social Sciences** (prereq fulfillment of Writing Practice req, jr)
 032468 -1 0800-0850 MWF, LindH 203, 4 cr
 326876 -2 0905-0955 MWF, JonesH 10, 4 cr
 931801 -3 1010-1100 MWF, FordH 50, 4 cr
 432037 -4 1010-1100 MWF, JonesH 2, 4 cr
 630755 -5 1115-1205 MWF, LindH 203, 4 cr
 725689 -6 1115-1205 MWF, FordH 349, 4 cr
 826641 -7 1220-1310 MWF, LindH 340, 4 cr
 826767 -8 1325-1415 MWF, LindH 320, 4 cr
 632974 -9 1325-1415 MWF, FordH 160, 4 cr
 031997 -10 0815-0930 TTh, LindH 203, 4 cr
 428571 -11 0815-0930 TTh, FordH 50, 4 cr
 725126 -12 0945-1100 TTh, FordH 40, 4 cr
 127219 -13 0945-1100 TTh, LindH 340, 4 cr
 526486 -14 1115-1230 TTh, FordH 285, 4 cr
 034155 -15 1115-1230 TTh, JonesH 10, 4 cr
 733257 -16 1245-1400 TTh, MurH 311, 4 cr
 147527 -17 1245-1400 TTh, JonesH 10, 4 cr
- r3015 Writing about Science** (prereq fulfillment of writing practice req, jr)
 831788 -1 0800-0850 MWF, LindH 325, 4 cr
 423807 -2 1010-1100 MWF, JonesH 10, 4 cr
 328059 -3 1115-1205 MWF, LindH 302, 4 cr (prereq department approval and concurrent registration in Phys 5123, section 2)
 332533 -4 1115-1205 MWF, VinH 1, 4 cr
 333326 -5 0815-0930 TTh, LindH 325, 4 cr
 732254 -6 1115-1230 TTh, JonesH 2, 4 cr
 042398 -7 1245-1400 TTh, FolH 116, 4 cr
- r3022 Critical Reading and Writing for Management** (prereq 1011 or equiv, Mgmt or Pre-Mgmt stu with more than 60 credits)
 733985 -1 0905-0955 MWF, BlegH 350, 4 cr
 630061 -2 1115-1205 MWF, BlegH 350, 4 cr
 325663 -3 1220-1310 MWF, RangC 610, 4 cr
 325386 -4 1325-1415 MWF, RangC 616, 4 cr
 026797 -5 0945-1100 TTh, BlegH 350, 4 cr
 232380 -6 1115-1230 TTh, BlegH 350, 4 cr
 830351 -7 1245-1400 TTh, BlegH 350, 4 cr
- r3027 Advanced Expository Writing** (prereq fulfillment of Writing Practice req, jr)
 433690 -1 0800-0850 MWF, LindH 215, 4 cr
 833718 -2 0905-0955 MWF, FordH 50, 4 cr
 528190 -3 0905-0955 MWF, AkerH 309, 4 cr
 926646 -4 1010-1100 MWF, LindH 203, 4 cr
 233898 -5 1115-1205 MWF, JonesH 10, 4 cr
 828227 -6 1220-1310 MWF, LindH 303, 4 cr
 732822 -7 1325-1415 MWF, LindH 325, 4 cr
 724901 -8 0815-0930 TTh, FordH 70, 4 cr
 831435 -9 0945-1100 TTh, FordH 50, 4 cr
 230676 -10 0945-1100 TTh, JonesH 2, 4 cr
 928512 -11 1115-1230 TTh, LindH 340, 4 cr
 625491 -12 1245-1400 TTh, JonesH 2, 4 cr
 131352 -13 1245-1400 TTh, LindH 325, 4 cr
- r3031 Technical Writing for Engineers** (prereq fulfillment of Writing Practice req, jr, IT stu)
 328630 -1 0800-0850 MWF, LindH 217, 4 cr
 133358 -2 0905-0955 MWF, JonesH 2, 4 cr
 133398 -3 1010-1100 MWF, LindH 302, 4 cr (non-native English speakers only) (go to KiaCt 175 for override)
 427579 -4 1115-1205 MWF, JonesH 2, 4 cr
 127060 -5 1220-1310 MWF, LindH 325, 4 cr
 728849 -6 1325-1415 MWF, LindH 302, 4 cr
 427243 -7 0945-1100 TTh, VinH 1, 4 cr
 427176 -8 1115-1230 TTh, LindH 229, 4 cr
 625717 -9 1245-1400 TTh, LindH 340, 4 cr
- r3032 Preprofessional Writing for Business** (prereq fulfillment of Writing Practice req, School of Mgmt or BIS stu, jr)
 833685 -1 0905-0955 MWF, RangC 616, 4 cr
 132820 -2 1010-1100 MWF, RangC 616, 4 cr
 832035 -3 1115-1205 MWF, RangC 616, 4 cr
 131442 -4 1220-1310 MWF, RangC 616, 4 cr
 127978 -5 0945-1100 TTh, RangC 616, 4 cr
 628844 -6 1115-1230 TTh, RangC 616, 4 cr
 826915 -7 1245-1400 TTh, RangC 616, 4 cr
- r3033 Writing for the Health Sciences** (prereq fulfillment of Writing Practice req, more than 60 credits)
 527279 -1 0905-0955 MWF, LindH 203, 4 cr
 324108 -2 1010-1100 MWF, LindH 215, 4 cr
 327395 -3 1115-1205 MWF, LindH 215, 4 cr
 228457 -4 0815-0930 TTh, LindH 340, 4 cr
 326487 -5 0945-1100 TTh, LindH 325, 4 cr
 129450 -6 1115-1230 TTh, LindH 325, 4 cr
- r3050 Topics in Advanced Composition** (prereq completion of writing practice req, #)
 524852 4 cr (YMCA internship students or comp dept approval required)

- r3051 Feminist Expository Writing** (§WoSt 3104; prereq fulfillment of writing practice requirement, jr)
 142397 1015-1130 MW, FordH 120, 4 cr
- 3085 Conference Course in Advanced Composition** (prereq fulfillment of Writing Practice req, jr, written permission of major advisor, Δ)
 729743 4 cr

COMPUTER SCIENCE (CSci) Institute of Technology

- r3101 A FORTRAN Introduction to Computer Programming** (prereq Math 1111 or equiv or #)
 827224 -1 0800-0850 MWF, EE/CSci 3111, 4 cr
 833931 -2 0905-0955 MWF, EE/CSci 3111, 4 cr
 532661 -3 1010-1100 MWF, EE/CSci 3111, 4 cr
 424701 -4 1115-1205 MWF, EE/CSci 3111, 4 cr
- r3102 Introduction to Pascal Programming** (prereq non-computer science maj, Math 1111 or 1201 or equiv or #)
 130573 -1 0800-0850 MWF, EE/CSci 3115, 4 cr
 523944 -2 0905-0955 MWF, EE/CSci 3115, 4 cr
- r3113 Introduction to Programming in C** (prereq 3101 or 3102 or any programming exp, precalc or #)
 543921 -1 1010-1100 MWF, EE/CSci 3115, 4 cr
 343922 -2 1115-1205 MWF, EE/CSci 3115, 4 cr
- r3121 Survey of Data Structures and Algorithms** (§3105, 3321; prereq 3102 or 3113 or #)
 143923 0945-1100 TTh, EE/CSci 3111, Du, 4 cr
- r3205H Introduction to Programming and Problem Solving in Science and Engineering, Part II** (prereq 3204H and honors calc 2)
 131277 1220-1310 TTh, Arch 40, Fox, 2 cr
- r3311 Discrete Structures of Computer Science** (§3400; prereq 1 qtr calc or #)
 ★LECT 1220-1310 MWF, EE/CSci 3115, Shragowitz
 843925 -1 REC 1220-1310 T, EE/CSci 3115, 5 cr
 643926 -2 REC 1220-1310 Th, EE/CSci 3115, 5 cr
- r3316 The Structure of Computer Programming I** (§3106; prereq 1 qtr calc or #)
 ★LECT 1325-1415 MWF, EE/CSci 3115, Carlis
 246201 -1 REC 1325-1415 T, EE/CSci 3115, 4 cr
 146202 -2 REC 1325-1415 Th, EE/CSci 3115, 4 cr
- r3321 Algorithms and Data Structures I** (§3105, 3113; prereq 3311 or 3400 or 3106 or #)
 ★LECT 1325-1415 MW, EE/CSci 3111, Chronopoulos
 243928 -1 REC 1325-1415 TTh, EE/CSci 3111, 5 cr
 143929 -2 REC 1325-1415 TTh, AmundH 124, 5 cr
- r3322 Algorithms and Data Structures II** (§5121; prereq 3321)
 ★LECT 1220-1310 MWF, EE/CSci 3111, Sturtivant
 243931 -1 REC 1220-1310 T, EE/CSci 3111, 5 cr
 143932 -2 REC 1220-1310 Th, EE/CSci 3111, 5 cr
- r3327 Introduction to the Organization of Computer Systems** (§3107, 5101; prereq 3316 or 3121 or #)
 ★LECT 1535-1625 MWF, EE/CSci 3111, Choi
 143937 -1 REC 1535-1625 T, EE/CSci 3111, 5 cr
 043938 -2 REC 1535-1625 Th, EE/CSci 3111, 5 cr
- r5001 Theory and Application of Linear Programming Algorithms** (prereq 5301 or #)
 228961 -1 0945-1100 MW, EE/CSci 3125, Rosen, 4 cr
- r5102 Structure and Programming of Software Systems II** (prereq 3327, 5101 or #)
 725496 -1 1115-1230 MW, MechE 212, 4 cr
- r5106 Structure of High Level Languages** (prereq 3322, 5102 or #)
 123924 -1 0945-1100 TTh, EE/CSci 3125, Tsai, 4 cr
- r5122 Advanced Data Structures** (prereq 3322 or 5121 or #)
 942409 -1 1245-1400 TTh, MechE 212, Janardan, 4 cr

- R5152 Introduction to Parallel Computing II** (prereq 5151)
144151 -1 1430-1545 TTh, EE/CSci 3125, Kumar, 4 cr
- R5199 Problems in Languages and Systems** (prereq #)
629380 0815-0930 TTh, EE/CSci 3115, Barry, 1-4 cr
- R5201 Computer Architecture** (prereq 3311, 3327)
242410 -1 1245-1400 TTh, EE/CSci 3125, Choi, 4 cr
- R5211 Data Communications and Computer Networks** (prereq 5102 or #)
142411 -1 1115-1230 TTh, MechE 102, Tripathi, 4 cr
- R5301 Numerical Analysis** (prereq Math 3321 or #...knowledge of Pascal or FORTRAN is assumed)
429154 1115-1230 TTh, FordH 115, Chronopoulos, 4 cr
- R5302 Numerical Analysis** (prereq 5301 or #)
330412 -1 0945-1100 TTh, MechE 212, Petzold, 4 cr
- R5306 Numerical Methods for Partial Differential Equations** (prereq 5302, differential equations or advanced calculus)
633249 0945-1100 TTh, EE/CSci 3115, Chronopoulos, 4 cr
- R5502 Introduction to Operating Systems** (prereq 3322, 5102 or #)
942412 -1 1115-1230 MW, MechE 108, Tripathi, 4 cr
- R5521 Pattern Recognition** (prereq 5301, Stat 3091 or #)
742413 1430-1545 TTh, FordH 160, 4 cr
- R5531 Artificial Intelligence Programming Techniques** (prereq 5511 or #)
542414 1430-1545 WF, EE/CSci 3115, Gini, 4 cr
- R5702 The Principles of Database Systems** (prereq 5122 or #)
325520 1430-1545 TTh, EE/CSci 3115, Srivastava, 4 cr
- R5703 Database System Design** (prereq 5702 or #)
731962 -1 0815-0930 MW, EE/CSci 3125, Shekhar, 4 cr
- R8103 Distributed and Parallel Programming** (prereq 5502, 8101)
342415 -1 1245-1400 MW, EE/CSci 3125, Shekhar, 3 cr
- R8199 Seminar: Languages and Systems** (prereq #)
927490 0945-1100 MW, EE/CSci 2260, Riedl, 1-3 cr
- R8299 Seminar: Machine Design** (prereq #)
026461 Du, 1-3 cr
- R8320 Numerical Solution of Linear Least Squares Problems** (prereq 5304 or #)
144280 1245-1400 MW, EE/CSci 2260, Park, 3 cr
- R8399 Seminar: Numerical Analysis** (prereq #)
826462 Boley, 1-3 cr
- R8505 Optimization in Compilers** (prereq 5504 or #)
344147 -1 1245-1400 MW, MechE 102, Li, 3 cr
- R8551 Artificial Intelligence Techniques in Robotics** (prereq 5512 or #)
230192 1245-1400 WF, AmundH 116, Gini, 3 cr
- 8777 Thesis Credits: Masters**
230371 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
528478 1-36 cr
- R8899 Computer Science Colloquium** (prereq grad) (S-N only)
031644 -1 1430-1530 M, MechE 108, Janardan, 1 cr

CONSERVATION BIOLOGY (CBio)

- 8777 Thesis Credits: Masters**
643909 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
043910 1-36 cr

CONTROL SCIENCE AND DYNAMICAL SYSTEMS (CSDy) Institute of Technology

- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
229642 1-36 cr

CURRICULUM AND INSTRUCTIONAL SYSTEMS (CISy)

Curriculum And Instruction Education

- R5003 Introduction to Computers and Their Uses** (S-N only)
427968 1535-1615 T, PeikH 355, Tsai, 1 cr
- 5004 Introduction to Interactive Video Instruction** (A-F only)
930146 1915-2005 W, PeikH 335, Tsai, 1 cr
- 5100 Curriculum and Instructional Systems Workshop** (max 9 cr) (A-F only)
142772 1615-1900 W, PeikH 46, Hooper, 3 cr
- 5201 Systems Approach to Design of Instruction** (§SeEd 5201; prereq SeEd 5000 or CISy 5000 or #) (A-F only)
042773 1615-1900 M, PeikH 335, Sales, 3 cr
- R5205 Computer-Based Instruction: Introduction to Design** (prereq 5006 or #) (A-F only)
128976 1615-1900 T, EdHAn 64, Johnston, 3 cr
- 5207 Interactive Video Instruction** (prereq 5004, 5201 or 5205 or 5209 or #) (A-F only)
724803 1630-1950 T, PeikH 335, Sales, 4 cr
- 5208 Computer-Based Tools for Teachers** (prereq 5003 or 5206 or #) (S-N optional)
023964 1615-1900 W, PeikH 335, Johnston, 3 cr
- 5509 Directed Individual Study** (max 6 cr; prereq #) (A-F only)
031871 -1 Anderson E., 1-6 cr
329194 -2 Hooper, 1-6 cr
230080 -3 Kimpston, 1-6 cr
842774 -4 Sales, 1-6 cr
- 5600 Introduction to Curriculum Systems** (A-F only)
642775 1630-1915 W, PeikH 40, Carlson, 3 cr
- 5700 Curriculum Planning Processes** (prereq 5600 or 5605 or Elem 5100) (A-F only)
329163 1615-1950 W, PeikH 325, Kimpston, 4 cr
- R8102 Curriculum and Instruction Core: Teaching** (prereq PhD student or #) (A-F only)
730021 1630-1915 W, PeikH 165, Lange, 3 cr
- 8307 Designing Instructional Materials: Research and Theory** (prereq 5209)
531171 1630-1915 M, PeikH 325, Hooper, 3 cr
- 8501 Problems: Curriculum and Instructional Systems** (prereq #)
332774 -1 Hooper, ar cr
025729 -2 Kimpston, ar cr
127956 -3 Sales, ar cr
- 8620 The Domain of Curriculum Theory and Research: Alternative Paradigms and Research Methods** (max 6 cr; prereq #) (A-F only)
442776 1630-1915 M, PeikH 27, Kimpston, Harris, 3 cr
- 8700 Curriculum and Instructional Systems Field Experience** (max 6 cr; prereq #)
823898 -1 Anderson E., 3-6 cr
142778 -2 Hooper, 3-6 cr
242777 -3 Kimpston, 3-6 cr
942779 -4 Sales, 3-6 cr
- 8800 Problems: Secondary School Supervision** (prereq Δ)
131926 Anderson E., ar cr

DANCE (Dnce) Theatre Arts Liberal Arts

- R1001 Fundamentals of Modern Dance I** (§1012)
926193 0825-0955 MW, NorrisH M153, 1 cr

- R1003 Fundamentals of Modern Dance III** (§1014; prereq 1002 or #)
329793 0905-1035 TTh, NorrisH M153, Maddux, 1 cr
- R1006 Fundamentals of Ballet III** (§1017; prereq 1005 or equiv)
926789 1325-1500 TTh, PeikG G65, Stanchfield, 1 cr
- R1030 Beginning Modern Technique III** (6 cr max; prereq 1020 or #)
829510 0825-0955 MTThF, NorrisH 67, Cheng, 2 cr
- R1032 Ballroom Dance II** (prereq 1031)
926999 -1 1115-1205 MW, NorrisH M151, Lampe, 1 cr (men only)
126863 -2 1115-1205 MW, NorrisH M151, Lampe, 1 cr (women only)
- R1033 Ballroom Dance III** (prereq 1032 or equiv)
131554 -1 1010-1100 MW, NorrisH M151, Lampe, 1 cr (men only)
629248 -2 1010-1100 MW, NorrisH M151, Lampe, 1 cr (women only)
- R1035 International Folk Dance II** (prereq 1034 or equiv)
542428 1115-1205 TTh, NorrisH M153, Maddux, 1 cr
- R1060 Beginning Ballet Technique III** (3 cr max; prereq 1050, #)
027612 1145-1315 TTh, NorrisH 67, Stanchfield, 1 cr
- R1090 Beginning Jazz III** (max 6 cr; prereq 1080 or equiv)
530232 1010-1140 MW, NorrisH 67, Sealy, 1 cr
- R1110 Topics in Dance Theory** (max 3 cr; prereq 1003 or 1006)
927912 0825-0955 W, NorrisH 3, 67, 1 cr
- R3030 Intermediate Modern Technique III** (6 cr max; §3130; prereq 3020, #)
029179 1325-1500 MTThF, NorrisH 67, Richard, 2 cr
- R3079 Intermediate Tap III** (prereq 3078 or equiv, #)
832214 0900-0955 MF, PeikG G65, Sealy, 1 cr
- R3090 Intermediate Jazz III** (max 3 cr; prereq 3080 or equiv)
024547 1010-1140 TTh, NorrisH 67, Sealy, 1 cr
- R3313 Dance Composition III** (prereq 3312 or equiv)
★LECT 1010-1140 MF, NorrisH M153, Maddux
147270 -1 LAB 1010-1140 W, NorrisH M153, 2 cr
- R3330 Topics in Dance Theory** (max 3 cr; prereq 1030, #)
826770 -1 1325-1500 W, NorrisH 3, 67, Richard, 1 cr
342432 -2 1700-2100 W, NorrisH 3, 1 cr
- R3486 Ethnic Dance Tradition in American Society** (§5486)
727457 0800-0955 MW, NorrisH 201, Maddux, 4 cr
- R3511 Music for Dance** (prereq 1003 or 1006)
332466 1010-1140 TTh, NorrisH 3, 4 cr
- R3700 Dance Repertory Theatre and Reconstruction** (prereq audition) (A-F only)
331172 1500-1700 MTWThF, NorrisH 67, Cheng, 1 cr
- R3901 Theatre Arts/Dance Senior Seminar** (prereq sr, theatre or dance maj) (A-F only)
042434 1010-1205 MW, BlegH 260, 4 cr
- R5030 Advanced Modern Technique III** (9 cr max; §5130; prereq 5020, #)
130596 1325-1500 MTWThF, NorrisH M153, 3 cr
- R5100 Dance Practicum**
525595 2 cr
- R5700 Workshop: Dance Performance** (max 12 cr; prereq 1101, #, concurrent registration in a technique class, audition)
228796 1500-1700 MTWThF, NorrisH M153, Sealy, 1-2 cr
- R5910 Topics in Dance** (max 12 cr; prereq #, Δ)
132646 1 cr
- R5970 Directed Studies** (prereq 9 cr in dance, #, Δ, CLA approval)
525225 1 cr

DANISH (Dan)
Scandinavian Studies
Liberal Arts

- R1103 Beginning Danish** (prereq 1102)
 131044 0905-0955 MTWThF, PeikH 155, Gram,
 5 cr
- R1106 Intermediate Danish** (prereq 1105)
 925013 1535-1705 MWF, FolH 344, Staur, 5 cr
- R3670 Readings in Danish Literary Texts** (max 28 cr;
 prereq 1106 or equiv)
 124300 1245-1400 TTh, FolH 114, Houe, 4 cr

DENTAL HYGIENE (DH)

Dentistry

- 1093 Cariology** (prereq 1091, 1092) (A-F only)
 026699 1300-1415 WF, MoosT 5125, Sander, 3 cr
- 1094 Periodontology** (prereq 1091, 1092) (A-F only)
 ★LECT 1010-1150 T, MoosT 5125, Osborn,
 3 cr
 531140 -1 CLN 1330-1600 T, MoosT 5125,
 Osborn
- 1192 The Dental Hygiene Care Process: Clinical
 Application II** (prereq 1191) (S-N only)
 ★LECT 0800-0850 M, MoosT 5125,
 Stoltenberg, 3 cr
 428165 -1 CLN 0930-1200 MWThF, 1315-1600
 MTh, Stoltenberg, others
- 3050 Research Methods in Dental Hygiene** (A-F
 only)
 146272 0800-0915 MW, MoosT 6410, Newell, 3 cr
- 3095 Adjunct Clinical Procedures** (prereq 1202)
 (A-F only)
 046273 0930-1205 Th, 1315-1600 Th, MoosT
 4160, Dittmar, 2 cr
- 3176 General and Oral Pathology** (A-F only)
 127964 0800-0940 T, 0800-0850 Th, MoosT 2580,
 Vickers, 3 cr
- 3195 The Dental Hygiene Care Process: Clinical
 Application V** (prereq 3194) (A-F only)
 ★LECT 0800-0850 Th, MoosT 5125,
 Stoltenberg, 4 cr
 229995 -1 CLN 0930-1200 T, 1300-1600 TWF,
 Stoltenberg, others
- 3204 Dental Hygiene Care for the Individual with
 Handicapping Conditions** (prereq 3194) (A-F
 only)
 846274 0745-0925 T, MoosT 5125, 2 cr
- 3275 Oral Radiology I** (A-F only)
 431857 0740-0935 F, MoosT 2520, Kuba, 2 cr

DENTISTRY (Dent)

Dentistry

- 5000 Fixed Prosthodontics Technique Lectures**
 (A-F only)
 942443 1325-1415 W, MoosT 2690, 1 cr
- 5003 Fixed Prosthodontics Laboratories** (A-F
 only)
 742444 1430-1700 MW, MoosT 4170A, 4170, 2 cr
- 5007 Fixed Prosthodontics II** (A-F only)
 331043 0745-0835 Th, MoosT 2530, 1 cr
- 5009 Fixed Prosthodontics: Independent Study**
 131635 ar cr
- 5012 Fixed Prosthodontics Clinic** (prereq 5011)
 (A-F only)
 142439 0930-1215 MTWThF, 1315-1615
 MTWThF, MoosT 9139, 9160, 9227,
 9327, 9346, 3 cr
- 5017 Fixed Prosthodontics Clinic** (prereq 5016)
 (A-F only)
 242441 0845-1200 MTWThF, 1300-1600
 MTWThF, MoosT 9139, 9160, 9227,
 9327, 9346, 3 cr
- 5030 Health Ecology: Update**
 323797 0745-0930 T, MoosT 2530, 2 cr
- 5050 Dental Ergonomics and Auxiliary Utilization**
 (S-N only)
 729080 1 cr
- 5053 Dental Auxiliary Utilization Clinic (DAU I, II)**
 (prereq 5052) (S-N only)
 126927 0930-1215 MTWThF, 1315-1615
 MTWThF, MoosT 8127, 8327, 9139,
 9327, 0 cr

- 5055 Health Ecology: Independent Study**
 029828 ar cr
- 5070 Health Ecology Elective**
 030073 ar cr
- 5094 Professional Problem Solving** (A-F only)
 129701 1 cr
- 5096 Professional Problem Solving** (prereq 5095)
 (A-F only)
 226482 0 cr
- 5099 Professional Problem Solving** (prereq 5098)
 (A-F only)
 644459 1 cr
- 5102 Human and Oral Genetics: Independent
 Study**
 832553 ar cr
- 5150 Operative Dentistry I** (A-F only)
 933810 0745-0830 TTh, MoosT 2620, 2 cr
 (0745-0925 TTh, Mar 31-Apr 14)
- 5153 Operative Dentistry Laboratory** (A-F only)
 527962 0840-1230 TTh, MoosT 4170A, 4170, 2 cr
- 5157 Patient Management II** (§5809) (A-F only)
 746509 0840-0925 T, 0745-0835 F, MoosT 2690,
 2 cr
- 5158 Operative Dentistry: Independent Study**
 232945 ar cr
- 5163 Operative Dentistry Clinic** (prereq 5162) (A-F
 only)
 830592 0930-1215 MTWThF, 1315-1615
 MTWThF, MoosT 8127, 8150, 8327,
 8348, 3 cr
- 5167 Clinical Operative Dentistry**
 (§5165-5166-5167; prereq 5166) (A-F only)
 130467 0845-1200 MTWThF, 1300-1600
 MTWThF, MoosT 8127, 8150, 8327,
 8348, 3 cr
- 5170 Seminar: Operative Dentistry**
 332001 1 cr
- 5172 Esthetic Direct Anterior Restoratives** (prereq
 5160)
 132672 1 cr
- 5173 Clerkship in Operative Dentistry** (prereq
 5160, 5165)
 932060 2 cr
- 5175 Esthetic Dentistry Clinic** (prereq 5172)
 331883 1 cr
- 5182 Patient Management III** (prereq 5181) (S-N
 only)
 245601 1 cr
- 5186 Patient Management IV** (prereq 5185) (S-N
 only)
 145602 1 cr
- 5200 Current Literature Seminars** (S-N only)
 031174 0745-0830 MW, MoosT 2620, 2 cr
- 5201 Current Literature Seminars** (S-N only)
 530327 0930-1200 MWF, 2 cr
- 5202 Current Literature Seminars** (S-N only)
 229284 1325-1415 F, MoosT 2690, 2 cr
- 5211 Introduction to Clinics** (S-N only)
 632229 0930-1200 MWF, 1 cr
- 5212 Introduction to Clinical Operative Dentistry**
 (A-F only)
 146510 1 cr
- 5250 Oral Pathology: Independent Study**
 025052 ar cr
- 5252 Oral Pathology** (prereq 5251) (A-F only)
 630609 0840-0930 WF, MoosT 2530, 3 cr (2 hr lab
 ar)
- 5315 Oral Surgery III** (A-F only)
 831709 0840-0930 Th, MoosT 2530, 1 cr
- 5319 Oral Surgery Clinic Rotation** (A-F only)
 533910 0845-1200 MTWThF, 1300-1600
 MTWThF, MoosT 7407, 7411, 7412,
 7413, 7415, 7416, 7417, 7430, 7434,
 7438, 7442, 7446, 7448, 1 cr
- 5320 Oral Surgery: Independent Study**
 529906 ar cr
- 5335 Oral Surgery Clinic Elective Rotation** (prereq
 5310, 5311, 5315) (S-N only)
 844363 ar cr
- 5372 Orthodontics II** (prereq 5371) (A-F only)
 033393 0745-0835 WF, MoosT 2530, 2 cr

- 5376 Orthodontic Laboratory**
 633512 0745-0930 M, MoosT 4210, ar cr
- 5380 Orthodontics**
 726695 2 cr
- 5381 Head and Neck Anatomy Review**
 129973 1 cr
- 5385 Orthodontics: Independent Study**
 530649 ar cr
- 5401 Pediatric Dentistry I** (A-F only)
 829183 1325-1415 F, MoosT 2620, 1 cr
- 5411 Clinical Pediatric Dentistry** (prereq 5410)
 (A-F only)
 124174 0930-1215 MTWThF, MoosT 6125, 6168,
 0 cr
- 5414 Clinical Pediatric Dentistry** (prereq 5413)
 (A-F only)
 542445 0845-1200 MTWThF, 1300-1600
 MTWThF, MoosT 6125, 6168, 3 cr
- 5420 Pediatric Dentistry: Independent Study**
 933693 ar cr
- 5452 Periodontology II Seminar** (S-N only)
 726096 1325-1415 M, MoosT 2690, 1 cr
- 5460 Periodontology: Independent Study**
 125681 ar cr
- 5467 Periodontology Clinic** (prereq 5466) (A-F
 only)
 844332 0930-1215 MTWThF, 1315-1615
 MTWThF, MoosT 8127, 8327, 9139,
 9227, 1 cr
- 5470 Periodontology Clinic** (prereq 5469) (A-F
 only)
 644333 0845-1200 MTWThF, 1300-1600
 MTWThF, MoosT 8127, 8327, 9139,
 9227, 1 cr
- 5551 Removable Prosthodontics II Lecture** (A-F
 only)
 533664 1325-1415 TTh, MoosT 2690, 2 cr
 (1220-1415 T, Mar 31)
- 5553 Removable Prosthodontics: Independent
 Study**
 528819 ar cr
- 5555 Removable Prosthodontics II Laboratory**
 (A-F only)
 326781 1430-1700 TTh, MoosT 4210A, 4210,
 4222E, 4222, 2 cr
- 5560 Removable Prosthodontics III** (A-F only)
 946511 0745-0835 T, MoosT 2690, 1 cr
- 5564 Removable Prosthodontics Clinic** (prereq 5563)
 (A-F only)
 824517 0930-1215 MTWThF, 1315-1615
 MTWThF, MoosT 8223, 9327, 3 cr
- 5567 Removable Prosthodontics** (A-F only)
 532918 0845-1200 MTWThF, 1300-1600
 MTWThF, MoosT 8223, 9327, 2 cr
- 5568 Review: Partial Removable Prosthodontics**
 832777 1 cr
- 5569 Removable Prosthodontics**
 431910 ar cr
- 5601 Introduction to Biomaterials II** (A-F only)
 ★LECT (0840-0925 MW, MoosT 2620, Mar
 30, Apr 1, May 4-Jun 3) (0840-0925 W,
 MoosT 2620, Apr 8, 15, 22, 29)
 131778 -1 LAB 1430-1700 Th, MoosT 4160,
 4170, 4170A
- 5602 Biomaterials: Independent Study**
 224876 ar cr
- 5625 Endodontics** (A-F only)
 444334 0745-0835 MW, MoosT 2690, 2 cr
- 5628 Endodontics Clinic** (prereq 5627) (S-N only)
 433575 0845-1200 MTWThF, 1300-1600
 MTWThF, MoosT 8127, 8150, 8327,
 8348, 1 cr
- 5630 Endodontics: Independent Study**
 727667 ar cr
- 5644 Hospital Dentistry** (prereq 5643) (S-N only)
 325095 1 cr
- 5654 Oral Anatomy: Independent Study**
 126880 ar cr
- 5675 Oral Biology: Fundamental and Applied** (A-F
 only)
 425735 2 cr

5680 Oral Biology: Independent Study
128919 ar cr

5751 Occlusion (A-F only)
★LECT 0840-0925 M, MoosT 2690, 3 cr
★LAB 1010-1200 Th, MoosT 4210, 4210A, 4222, 4222E
530781 -1 CLN 0745-0955 Th, MoosT 9227, 9327

5755 Occlusion: Independent Study
625765 2 cr

5775 Oral Radiology I (A-F only)
★LECT 0745-0835 F, MoosT 2620, 2 cr
746512 -1 LAB

5780 Oral Radiology Clinic (A-F only)
228572 0930-1215 MTWThF, 1315-1615
MTWThF, MoosT 7221, 7223, 7225,
7226, 7227, 7234, 7235, 7238, 7240,
7241, 7245, ar cr

5781 Advanced Clinical Roentgenology
230418 ar cr

5802 Initial Examination Clinic I (prereq 5801) (S-N only)
927280 0930-1215 MTWThF, 1315-1615
MTWThF, MoosT 7555, 1 cr

5806 Emergency Clinic (prereq 5805) (S-N only)
129987 0845-1200 MTWThF, 1300-1600
MTWThF, MoosT 7336, 2 cr

5807 Treatment Planning: Independent Study
331723 ar cr

5809 Patient Management II (\$5157) (A-F only)
130072 0840-0925 T, 0745-0835 F, MoosT 2690,
1 cr

5810 Physical Evaluation I (A-F only)
947464 1 cr

5900 Dental Clinic
032924 ar cr

5930 Hennepin County Medical Center Clinical Oral and Maxillofacial Surgery (S-N only)
332709 10 cr

5935 Hennepin County Medical Center Clinical Hospital Dentistry I (S-N only)
726048 10 cr

5936 Hennepin County Medical Center Clinical Hospital Dentistry II (S-N only)
128077 10 cr

5937 Hennepin County Medical Center Clinical Hospital Dentistry III (S-N only)
130802 10 cr

5945 Geriatric Hospital Dentistry
134106 ar cr

5953 Advanced General Dentistry Seminar IV (S-N only)
132954 ar cr

5958 Advanced General Dentistry Clinical Administration IV (S-N only)
931622 ar cr

5963 Advanced General Dentistry Clinic IV (S-N only)
533437 ar cr

5967 Advanced General Dentistry Clinic VIII (S-N only)
128287 ar cr

5973 General Practice Seminar IV
527864 ar cr

5977 General Practice Clinical Administration IV
531008 ar cr

5983 General Practice Clinic IV
430871 ar cr

5987 General Practice Clinic VIII
531686 ar cr

5989 Advanced Clinical Geriatric Dentistry
126782 ar cr

5990 Field Experience: Administration In a Multidisciplinary Health Center
531851 ar cr

5994 Oral Health Services for Older Adults III
227566 ar cr

5995 Advanced Clinical Restorative Dentistry
328966 ar cr

5997 Operative Dentistry: Philosophy, Principles, Rationale and Techniques (prereq #) (A-F only)
528559 ar cr

8127 Teaching and Evaluation: Dentistry II (prereq 8126)
429686 3 cr

8129 Topics and Problems in Dental Education (prereq #)
132798 ar cr

8140 Topics: Restorative Dentistry
028548 ar cr

8150 Research: Restorative Dentistry
732464 ar cr

8400 Craniofacial Disorders: Selected Topics (prereq 8440) (A-F only)
732044 3 cr

8440 TMJ and Craniofacial Pain; Advanced Theory and Principles (prereq #) (A-F only)
432300 3 cr

8441 Seminars in TMJ and Craniofacial Pain (prereq #) (A-F only)
924878 1 cr

8442 Advanced Clinical TMJ and Craniofacial Pain (prereq #) (A-F only)
125096 1-4 cr

8443 Current Literature in TMJ and Craniofacial Pain (prereq #) (A-F only)
625023 1 cr

8777 Thesis Credits: Masters
825246 1-16 cr

DERMATOLOGY (Derm) Medical School

5182 Preceptorship in Dermatology (prereq regis med)
126720 1300-1400 W, 1400-1500 W, 1500-1645
W, DiehlH 220, PWB 4274, Lynch, Kalish,
others, ar cr

5183 Advanced Dermatology (prereq 5181 or 5182)
532420 Lynch, ar cr

5184 Special Course in Dermatology
325839 Gentry, ar cr

5185 Research in Dermatology (prereq 5182)
829068 Dahl, Hordinsky, others, ar cr

8225 Clinical Dermatology
629461 Lynch, Dahl, others, ar cr

8226 Clinical Seminar
028565 1300-1700 WF, PWB 4272, Lynch, Dahl,
others, ar cr

8227 Histology of the Skin
125874 1500-1600 WF, PWB 4272, Kaye, Orkin,
others, ar cr

8228 Research: Dermatology and Related Basic Sciences
633459 Dahl, Hordinsky, others, ar cr

8229 Electron Microscopy in Dermatology
029134 Zelickson, ar cr

8230 Functional Biology of the Skin
732691 Dahl, Lynch, ar cr

8231 Clinics in Dermatology for Non-Dermatologists
232864 Lynch, Gentry, ar cr

8232 Seminar: Dermatologic Histopathology and Mycology
328238 Lynch, Lindholm, ar cr

8777 Thesis Credits: Masters
826185 1-16 cr

DESIGN (Dsgn) Design, Housing, And Apparel Human Ecology

r1523 Design Process: Drawing I (prereq design, pre-design, housing, retail merch, pre-retail merch, or text maj or Δ)
227910 1355-1550 MWF, McNH 258, 4 cr

r1525 Design Process: Two Dimensional Design (prereq design, pre-design, housing, retail merch, pre-retail merch, or text maj or Δ)
128001 0830-1025 MWF, McNH 333, Eckersley,
4 cr

r1528 Design Process: Color (prereq 1501, 1523 or 1525, dsgn, pre-dsgn, hsg, ret merch, pre-ret merch, or text maj or Δ)
423810 0830-1130 TTh, McNH 262, Krueger, 4 cr

r1531 Surface Fabric Design I (prereq 1521 or 1528, 1523, 1525, des, pre-des, hsg, ret mer, pre-ret mer, or text maj or Δ)
324156 0935-1235 MW, McNH B9, Abell, 4 cr

r1544 Costume Design: Special Techniques (prereq 1531, 1541, dsgn, pre-dsgn, hsg, retail merch, pre-retail merch, or text maj or Δ)
232329 0935-1235 TTh, McNH 205, 212,
Amir-Fazli, 4 cr

r1555 Interior Design II: Interior Design Problems (prereq 1550, 1554, dsgn, pre-dsgn, hsg, retail merch, pre-retail merch, or text maj or Δ)
130565 0935-1130 MWF, McNH 480, 4 cr

r3523 Design Process: Drawing II (prereq 1523, pass portfolio review, app des, cost des, hsg, int des, ret merch or text maj)
142450 0830-1025 MWF, McNH 258, Abell, 4 cr

r3525 Design Process: Two Dimensional Design II (prereq 1525 or equiv, appl dsgn, costume dsgn, hsg, int dsgn, ret merch, or text maj, or Δ, pass portfolio review)
328918 1250-1445 MWF, McNH 333, Eckersley,
4 cr

r3528 Design Process: Color II (prereq 1523, 1528, appl dsgn, cost dsgn, hsg, int dsgn, ret merch, or text maj, or Δ, pass portfolio review)
027528 1040-1235 MWF, McNH 262, 4 cr

r3548 Lighting Design for Environmental Spaces (prereq Phys 1001)
726745 1530-1715 TTh, McNH 33, Ginthner, 3 cr

3583 Field Experience in Costume Design (prereq completion of at least one-half of professional sequence, dsgn, pre-dsgn, hsg, retail merch, pre-retail merch or text maj, or Δ) (S-N only)
730889 1145-1245 M, McNH 205, Amir-Fazli, 4 cr

3584 Field Experience in Design (max 8 cr; prereq 3571 or 3571, #, plan submitted and approved in advance by adviser and employer) (S-N only)
227678 -1 Abell, ar cr
027996 -2 Bagley, ar cr
725370 -3 Blade, ar cr
333228 -4 ar cr

3586 Design Problems
133840 1-3 cr

r5509 History of Decorative Arts: Metal, Ceramics, Wood, and Glass (prereq ARth 1002 or equiv)
724364 1145-1235 MWF, McNH 33, Blade, 4 cr

r5515 20th Century Interiors and Furnishings (prereq 5514 or #)
333598 1040-1130 MWF, McNH 33, Erickson, 4 cr

r5518 History of Costume: 19th and 20th Century (prereq 3517 or #)
133367 1355-1550 MWF, McNH 180, DeLong,
4 cr

r5528 Color and Design (prereq 1528, #)
529422 1250-1550 TTh, McNH 262, Bagley, 4 cr

r5544 Costume Design Problems (prereq 5541 or #, Δ)
632814 0935-1130 MWF, McNH 205, 212,
Amir-Fazli, 4 cr

r5554 Interior Design VI: Non-Residential Design (prereq 3553, 3557, TextC 3621 or #...3554, TextC 3622 rec)
124930 0935-1235 TTh, McNH 475, Ginthner, 4 cr

5555 Interior Design Thesis (prereq 5552, 5554, 5575)
247218 0830-1025 MWF, McNH 475, Erickson,
Ginthner, others, 6 cr

r5575 Interior Design Research (prereq pass portfolio review, 3553 or #, Δ)
832407 1250-1340 MWF, McNH 233, 180, Guerin,
2 cr (addtl hrs ar)

5584 Readings in Design (no srs; prereq #)
629671 1-3 cr

5585 Problems in Design: Visual Communication (max 12 cr; prereq #, Δ)
424407 -1 Bagley, 2-4 cr
229494 -2 Blade, 2-4 cr
125303 -3 2-4 cr
327204 -4 2-4 cr

5586 Problems in Design: Interiors (max 12 cr; prereq #, Δ)
528884 -1 Erickson, 2-4 cr
223856 -2 Ginthner, 2-4 cr
631324 -3 Guerin, 2-4 cr

- 5588 Problems in Design: Textiles** (max 12 cr; prereq #, Δ, passed portfolio review)
724221 Abell, 3-4 cr
- 5589 Problems in Design: Costume** (max 12 cr; prereq appl dsgn, cost dsgn, hsg, int dsgn, ret merch, or text maj, or #)
128046 1250-1340 W, McNH 205, Amir-Fazli, 3-4 cr
- 8576 Seminar: Design Instruction** (max 6 cr)
325081 -1 1145-1235 W, McNH 316, Bagley, 1 cr
147219 -2 Delong, 1 cr
- 8584 Readings in Design** (prereq #)
533860 1-3 cr
- 8585 Problems in Design** (prereq #)
829474 1-5 cr
- 8586 Problems in Interior Design** (prereq #)
429851 1-5 cr
- 8587 Problems in Design** (prereq #)
230791 1-5 cr
- 8588 Directed Study in Design** (prereq #) (A-F only)
126913 -1 1145-1235 T, McNH 262, Bagley, 1-5 cr
330863 -2 Erickson, Blade, others, 1-5 cr

DESIGN, HOUSING, AND APPAREL (DHA) Human Ecology

- 8777 Thesis Credits: Masters**
030946 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
423841 1-36 cr

DUTCH (DtcH) German Liberal Arts

- n1103 Beginning Dutch** (§1110; prereq 1102)
532451 1600-1730 MWTh, FolH 234, VanderSanden, 5 cr
- n1106 Intermediate Dutch** (prereq 1105)
030901 1750-2000 MW, FolH 234, VanderSanden, 5 cr
- n3310 Studies in Dutch Authors** (prereq 1103 or 15 cr or 1110 or #)
525497 1535-1730 T, FolH 234, Sanders, 4 cr
- n3610 Dutch Authors in Translation** (no knowledge of Dutch req)
427307 1535-1730 T, FolH 234, Sanders, 4 cr
- 3970 Directed Studies** (prereq 1105, #, Δ, □)
128614 1-5 cr

EAST ASIAN STUDIES (EAS) East Asian Studies Liberal Arts

- n1461 Introduction to East Asia: Early Civilization** (§Hist 1461, 3461)
★LECT 1325-1415 MWF, AndH 230, Taylor
742461 -1 REC 1220-1310 M, BlegH 225, 4 cr
542462 -2 REC 1430-1520 M, BlegH 205, 4 cr
342463 -3 REC 1220-1310 W, BlegH 150, 4 cr
142464 -4 REC 1430-1520 W, RarigC 616, 4 cr
042465 -5 REC 1220-1310 F, BlegH 205, 4 cr
842466 -6 REC 1430-1520 F, BlegH 205, 4 cr
- 3302 Senior Project** (†3301-3302; prereq 3301) (A-F only)
346609 1415-1530 T, BlegH 105, Kagan, 2 cr
- n3464 Early Modern China, 1350-1750** (§Hist 3464)
746610 0945-1100 TTh, BlegH 115, Downs, 4 cr
- 3468 People's Republic of China: The Communist Revolution, 1900 to Present** (§Hist 3468, Hist 5468)
133506 0945-1100 TTh, AndH 210, McDonald, 4 cr
- n3471 20th-Century Japan** (§Hist 3471, Hist 5471)
546611 1115-1205 MWF, BlegH 135, Marshall, 4 cr
- 3970 Directed Studies** (prereq #, Δ, □)
730584 1-15 cr

- 8777 Thesis Credits: Masters**
233433 1-16 cr

ECOLOGY, EVOLUTION AND BEHAVIOR (EEB) Biological Sciences

- n3001 Introduction to Ecology** (open to jrs and above but not to biol majs)
445872 1220-1310 MWThF, Zoology 313, 1220-1310 T, MoosT 2650, Corbin, 4 cr
- n3101 Ecology for Engineers and Physical Scientists** (§3001, not open to biology majs; prereq Math 1231)
323976 1115-1205 MWF, BellMus 175, Bright, 4 cr
- n3111 Introduction to Animal Behavior** (§AnSc 3111; prereq Biol 1008 or 1009 or #)
★LECT 1010-1205 TTh, Zoology 102
028419 -1 REC 1535-1625 T, Zoology 102, 4 cr
026413 -2 REC 1535-1625 Th, Zoology 102, 4 cr
- n5134 Introduction to Ornithology** (prereq Biol 1106 or Biol 3011) (course fee)
★LECT 0800-0900 TWTh, BellMus 311, Parmelee, (field trips W or Th plus 1 F-Sun ar)
330135 -1 LAB 0900-1300 W, BellMus 311, 5 cr
825800 -2 LAB 0900-1300 Th, BellMus 311, 5 cr
- n5156 Comparative Animal Physiology** (prereq Biol 1106 or Biol 3011, Chem 3302 or #)
★LECT 0800-0850 MWF, Zoology 108, Schmid, 5 cr
728706 -1 REC 0800-0850 T, Zoology 108
★LAB 1325-1625 T, Zoology 11, 18
130064 -2 REC 0800-0850 Th, Zoology 108
★LAB 1325-1625 Th, Zoology 11, 18
- n5606 Ecology of Fishes** (prereq 5136, Biol 1106 or Biol 3011, 10 cr in biological sciences)
026802 0905-1100 TTh, BellMus 280, Underhill, 3 cr
- n5621 Limnology Laboratory** (§Geo 5621; prereq 5601 or Geo 5601 or #)
832097 1325-1730 T, Zoology 101A, Megard, 2 cr
- 5970 Directed Studies** (prereq #, Δ)
728155 ar cr
- 5990 Directed Research** (prereq #, Δ)
625667 ar cr
- n8014 Paleoeological Methods** (prereq #)
428344 Bright, 5 cr
- 8390 Graduate Seminar** (prereq #)
732643 ar cr
- 8391 Advanced Work in Ecology and Behavioral Biology** (prereq #)
325128 ar cr
- 8777 Thesis Credits: Masters**
233318 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
128220 1-36 cr
- 8990 Graduate Research** (prereq #)
324318 ar cr

ECONOMICS (Econ) Liberal Arts

- n1101 Principles of Microeconomics** (§1002, 1005, 1104; prereq plane geometry and interm algebra at GC 0623 and GC 0631 level)
★LECT 0905-0955 MWF, WilleyH 125, Rebelain
826154 -1 REC 0800-0850 M, BlegH 440, 4 cr
530540 -2 REC 1010-1100 M, BlegH 155, 4 cr
732741 -3 REC 1115-1205 M, AndH 310, 4 cr
324111 -4 REC 1220-1310 M, BlegH 155, 4 cr
926081 -5 REC 1325-1415 M, BlegH 130, 4 cr
825134 -6 REC 0800-0850 F, BlegH 440, 4 cr
833900 -7 REC 1010-1100 F, BlegH 110, 4 cr
★LECT 0945-1100 TTh, WilleyH 175, Moe
133031 -8 REC 0800-0850 M, BlegH 120, 4 cr
030512 -9 REC 0905-0955 M, AndH 330, 4 cr
930793 -10 REC 1220-1310 M, BlegH 150, 4 cr
932902 -11 REC 1325-1415 M, BlegH 235, 4 cr
131383 -12 REC 0800-0850 W, BlegH 440, 4 cr
233089 -13 REC 0905-0955 W, AndH 330, 4 cr
129285 -14 REC 1010-1100 W, BlegH 150, 4 cr
- n1102 Principles of Macroeconomics** (§1001, 1004, 1105; prereq 1101 or equiv, plane geom, interm alg at GC 0623, GC 0631 level)
★LECT 0905-0955 MWF, AndH 270, Cortes
533812 -1 REC 1010-1100 M, BlegH 150, 4 cr
528223 -2 REC 1115-1205 M, AndH 350, 4 cr
225333 -3 REC 0800-0850 F, BlegH 220, 4 cr
431583 -4 REC 1010-1100 F, BlegH 150, 4 cr
133045 -5 REC 1115-1205 F, HHHCtr 25, 4 cr
★LECT 1115-1205 MWF, WilleyH 175, Debuque
728141 -6 REC 0800-0850 W, BlegH 120, 4 cr
433558 -7 REC 1010-1100 W, HHHCtr 25, 4 cr
633526 -8 REC 1220-1310 W, HHHCtr 25, 4 cr
625068 -9 REC 1325-1415 W, BlegH 120, 4 cr
025021 -10 REC 0800-0850 F, BlegH 110, 4 cr
328871 -11 REC 0905-0955 F, BlegH 110, 4 cr
033295 -12 REC 1010-1100 F, BlegH 240, 4 cr
930695 -13 REC 1220-1310 F, BlegH 110, 4 cr
042482 -3 LECT 1220-1310 MWF, BlegH 115, Dore, 4 cr (MLK students only)
- n1102H Honors Course: Principles of Macroeconomics** (§1001, 1004, 1105; prereq 1101 or equiv, plane geometry and interm algebra at GC 0623 and GC 0631 level...B avg rec)
★LECT 1115-1205 MWF, BlegH 330, Huang
726101 -80 REC 1115-1205 Th, BlegH 250, 5 cr
- n1104 Principles of Microeconomics** (§1002, 1005, 1101; prereq 1 qtr calc)
528335 1115-1205 MWF, BlegH 440, Chiang, 4 cr
- n1105 Principles of Macroeconomics** (§1001, 1004, 1102; prereq 1104 or equiv, 1 qtr calc)
330913 1325-1415 MWF, BlegH 440, Renero, 4 cr
- n3101 Microeconomic Theory** (§3105; prereq 1101, 1102 or equiv, 1 qtr calc)
128511 -1 0800-0850 MWF, BlegH 230, 4 cr
125060 -2 0905-0955 MWF, BlegH 230, 4 cr
825666 -3 1010-1100 MWF, BlegH 230, 4 cr
831694 -4 1115-1205 MWF, BlegH 230, 4 cr
- n3101H Honors Course: Microeconomic Theory** (prereq 1101, 1102, or equiv, 1 qtr calc...B avg rec)
033944 0905-0955 MWF, BlegH 225, Aslakson, 5 cr
- n3102 Macroeconomic Theory** (prereq 3101 or equiv)
426741 -1 1010-1100 MWF, BlegH 440, Kim C., 4 cr
431535 -2 1115-1205 MWF, BlegH 420, Veracierto, 4 cr
- n3103 Welfare Economics** (prereq 3101 or equiv)
625197 -1 0905-0955 MWF, BlegH 220, 4 cr
429798 -2 0945-1100 TTh, BlegH 250, Diaz, 5 cr
- n3103H Honors Course: Welfare Economics** (prereq 3101 or equiv, 1 qtr calc...B avg rec)
231388 1220-1310 MWF, BlegH 255, Diaz, 5 cr
- n3105 Managerial Economics** (§3101, BGS 3001; not open to Econ maj; prereq 1101, 1102 or equiv, 1 qtr calc)
★LECT 1115-1230 TTh, BlegH 105, Choe
633347 -1 REC 0905-0955 F, BlegH 425, Imai, 4 cr
025472 -2 REC 1010-1100 F, BlegH 255, Imai, 4 cr
- n3231 Principles of Econometrics** (§5231; prereq 1101, 1102 or equiv, 1 qtr calc, Stat 3011-3012 or equiv, familiarity with computers, MIS 1070 or equiv, ACSS short courses)
★LECT 1010-1100 MWF, BlegH 135, Kim B.D.
327803 -1 REC 1010-1100 Th, BlegH 125, Imai, 4 cr
- n3315 The Japanese Economy** (§5315, EAS 3315; not open to Econ maj; prereq 1101, 1102, or equiv)
329423 1115-1230 TTh, AndH 230, Ito, 4 cr
- n3701 Money and Banking** (§5701, 5721; not open to Econ maj; prereq 1101, 1102 or equiv)
★LECT 1115-1230 TTh, AndH 370, Tobin
731878 -1 REC 0905-0955 M, BlegH 215, 4 cr
824498 -2 REC 1220-1310 M, BlegH 420, 4 cr
230984 -3 REC 0905-0955 W, BlegH 215, 4 cr
831922 -4 REC 1010-1100 W, BlegH 240, 4 cr
627788 -5 REC 1115-1205 W, HHHCtr 25, 4 cr
- n3752 Financial Economics II** (§5752H; prereq 3751)
927571 1220-1310 MWF, BlegH 440, Kwok, 4 cr
- n3801 Elements of Public Finance** (§5821; not open to Econ maj; prereq 1101, 1102 or equiv)
929000 1010-1100 MWF, BlegH 225, Anderson, 4 cr

- 3951 Major Project Seminar** (prereq 3101, 3102, 3103 or equiv)
225543 Banerjee, 2 cr
- R3960 Topics in Economics: Applications of Microeconomic Principles** (prereq 1101H or 1104 in fall 1991 or winter 1992 or #)
★LECT 1115-1205 MWF, BlegH 225, Wallace
027495 -1 REC 1115-1205 Th, BlegH 155, Teselle, 5 cr
- 3970 Directed Studies** (prereq #, Δ, □)
932589 ar cr
- R5107H Honors Course: Game Theory and Its Applications** (prereq 3101, 3102, 3103, or equiv, Math 1211-1221-1241 or equiv)
642484 -80 0905-0955 MWF, BlegH 205, Gjerstad, 5 cr (undergrads only)
442485 -81 0905-0955 MWF, BlegH 205, Gjerstad, 4 cr (grad stu only)
- R5113 Introduction to Mathematical Economics** (prereq 3101, 3102, 3103, or equiv, Math 1211-1221-1241-3311 or equiv)
546642 1115-1230 TTh, BlegH 115, Gata, 4 cr
- 5163 Microeconomic Theory** (prereq 5162)
★LECT 0945-1100 TTh, BlegH 135, Marimon, 5 cr
125902 -1 REC 1545-1700 Th, BlegH 135
★LECT 1115-1230 TTh, BlegH 420, Werner, 5 cr
228085 -2 REC 1545-1700 Th, BlegH 420
- 5166 Macroeconomic Theory** (prereq 5165)
★LECT 1415-1530 TTh, BlegH 420, Prescott, 5 cr
531378 -1 REC 1545-1700 T, BlegH 420, Mira
- R5171 History of Economic Thought** (prereq 3101, 3102, 3103, or equiv)
531283 1220-1310 MWF, BlegH 125, Aziz, 4 cr
- R5232 Introduction to Econometrics** (prereq 5231)
★LECT 1115-1230 MW, BlegH 105, Ichimura, 4 cr
727751 -1 REC 0800-0850 F, BlegH 125, Tsionas
- 5263 Applied Econometrics** (no grad cr; prereq 5262)
★LECT 1445-1600 MW, BlegH 255, Ichimura, 5 cr
723974 -1 REC 1445-1600 F, BlegH 255, Ham
- R5301 Economic Development** (§5331; not open to Econ maj; prereq 1101, 1102 or equiv)
532014 0815-0930 TTh, AndH 370, Olson, 4 cr
- R5307 Comparative Economic Systems** (§5337; not open to Econ maj; prereq 1101, 1102 or equiv)
346643 1115-1205 MWF, BlegH 215, Bandyopadhyay, 4 cr
- R5315 The Japanese Economy** (§3315; prereq 3101 or equiv)
926470 1115-1230 TTh, AndH 230, Ito, 4 cr
- R5401 International Economics** (§5429, 5431, 5432; not open to Econ maj; prereq 1101, 1102 or equiv)
531946 -1 0905-0955 MWF, BlegH 125, Brantley, 4 cr
547483 -2 0945-1100 TTh, BlegH 155, Sahi, 4 cr
- R5431 International Trade** (§5401, 5429; prereq 3101, 3102, 3103 or equiv)
133059 0815-0930 TTh, BlegH 440, Ihrig, 4 cr
- R5432 International Finance** (prereq 3101, 3102, 3103 or equiv; 5431 or equiv recommended)
229074 0905-0955 MWF, BlegH 120, Dore, 4 cr
- R5531 Labor Economics** (§3501; prereq 3101, 3102 or equiv)
429557 1245-1400 TTh, BlegH 415, Zarazaga, 4 cr
- R5721 Money and Banking** (§3701, 5701; prereq 3101, 3102 or equiv)
333570 1115-1205 MWF, BlegH 125, Li, 4 cr
- R5721H Honors Course: Money and Banking** (prereq 3101, 3102 or equiv, 1 qtr calculus...B avg rec)
426545 -80 0815-0930 TTh, BlegH 105, Rolnick, Weber, 5 cr (undergrads only)
534183 -81 0815-0930 TTh, BlegH 105, Rolnick, Weber, 4 cr (grad stu only)
- R5731 Macroeconomic Policy** (prereq 3101, 3102 or equiv)
127396 1220-1310 MWF, BlegH 240, Wang Y., 4 cr
- R5733 Intertemporal Economics and Money** (prereq 3101, 3103, Math 1211-1221-1241 or equiv)
231973 1010-1100 MWF, BlegH 330, Le, 4 cr
- R5741H Honors Course: Business Cycles** (prereq 3101, 3102, Stat 3011 or equiv, 1 qtr calculus...B avg rec)
024645 -80 1245-1400 TTh, BlegH 115, Altug, 5 cr (undergrads only)
733193 -81 1245-1400 TTh, BlegH 115, Altug, 4 cr (grad stu only)
- R5752H Honors Course: Financial Economics II** (§3752; prereq 3751...B avg rec)
633090 -80 1325-1415 MWF, BlegH 415, Kwok, 5 cr (undergrads only)
631176 -81 1325-1415 MWF, BlegH 415, Kwok, 4 cr (grad stu only)
- R5821 Elements of Public Finance** (§3801; prereq 3101, 3103 or equiv)
725174 0800-0850 MWF, BlegH 420, Boswell, 4 cr
- R5831 Cost-Benefit Analysis** (prereq 3101, 3103 or equiv)
532790 0945-1100 TTh, BlegH 120, Breton, 4 cr
- 5970 Directed Studies** (prereq #, Δ, CLA approval)
123994 ar cr
- 8103 Microeconomic Theory** (prereq 8102)
★LECT 0945-1100 TTh, BlegH 135, Marimon, 4 cr
225753 -1 REC 1545-1700 Th, BlegH 135
★LECT 1115-1230 TTh, BlegH 420, Werner, 4 cr
828714 -2 REC 1545-1700 Th, BlegH 420
- 8106 Macroeconomics Theory** (prereq 8105)
★LECT 1415-1530 TTh, BlegH 420, Prescott, 4 cr
224263 -1 REC 1545-1700 T, BlegH 420, Mira
- 8113 Introduction to Mathematical Economics** (prereq 8112)
725482 1245-1400 TTh, BlegH 260, Green, 3 cr
- 8118 Non-Cooperative Game Theory** (prereq 8117)
227468 1115-1230 TTh, SocSci 101, McLennan, 3 cr
- 8183 Advanced Topics in Microeconomics** (prereq 8182)
328191 1415-1530 TTh, BlegH 350, Green, 3 cr
- 8193 Workshop in Mathematical Economics** (prereq 8192)
431762 1535-1730 M, BlegH 115, ar cr
- 8203 Applied Econometrics** (prereq 8202)
★LECT 1445-1600 MW, BlegH 255, Ichimura, 4 cr
132381 -1 REC 1445-1600 F, BlegH 255, Ham
- 8213 Econometrics** (prereq 8212)
730505 1245-1400 TTh, BlegH 225, Geweke, 3 cr
- 8402 International Trade and Payments Theory** (prereq 8401)
947531 0945-1100 TTh, BlegH 105, Chipman, 3 cr
- 8403 International Trade and Payments Theory** (prereq 8402)
226269 1130-1245 MW, BlegH 145, Cole, 3 cr
- 8483 Advanced Topics in International Trade Theory** (prereq 8482)
024550 1415-1530 TTh, BlegH 135, Ito, 3 cr
- 8493 Workshop in Trade and Development** (prereq 8492)
533518 1530-1700 T, BlegH 220, ar cr
- 8583 Advanced Topics in Labor Economics**
231536 1500-1645 MW, HHCtr 15, Keane, 3 cr
- 8683 Advanced Topics in Industrial Organization**
526469 0905-0955 MWF, Mayo D330, Feldman, 3 cr
- 8693 Workshop in Applied Microeconomics** (prereq 8692)
124028 1530-1700 W, BlegH 415, ar cr
- 8706 Financial Economics** (prereq 8102, 8105)
146644 0945-1100 TTh, Law 1, Werner, 3 cr
- 8777 Thesis Credits: Masters**
827871 1-16 cr
- 8793 Workshop in Macroeconomics** (prereq 8792)
125583 1530-1700 Th, BlegH 415, ar cr
- 8802 Public Finance** (prereq 8801)
046645 1530-1645 TTh, BlegH 255, Chari, 3 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
326778 1-36 cr
- 8990 Individual Research**
831659 ar cr

EDUCATION (Educ) Education

- 8777 Thesis Credits: Masters**
643912 1-16 cr (Vocational Education)
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
324514 -1 1-36 cr (Higher Education)
730293 -2 1-36 cr (Curriculum and Instruction)
930292 -3 1-36 cr (Vocational Education)
334086 -4 1-36 cr (Recreation, Park, and Leisure Studies)
732187 -5 1-36 cr (Social and Philosophical Foundations of Education)

EDUCATIONAL ADMINISTRATION (EdAd) Educational Policy And Administration Education

- 8777 Thesis Credits: Masters**
924444 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
426996 1-36 cr

EDUCATIONAL POLICY AND ADMINISTRATION (EdPa) Educational Policy And Administration Education

- R5090 School and Society** (§SPFE 3090, SPFE 5090; prereq sr or post BA in education or CLA music ed maj or □) (A-F only)
433091 -1 1535-1650 MW, Peikh 28, Lum, 3 cr
233187 -2 1220-1335 TTh, Peikh 28, Harkins, 3 cr
- 5099 Directed Study** (max 9 cr; §SPFE 5099; prereq #) (S-N optional)
431177 ar cr
- 5120 History of Childhood Education** (§SPFE 5120) (S-N optional)
642517 1630-1830 M, Peikh 155, Bagley, 3 cr
- 5128 Workshop: Educational Administration** (§EdAd 5128)
729287 1630-1830 W, Peikh 27, Hendrix, Anderson M., 3 cr
- R5140 Administration of Early Education Programs** (§EdAd 5140) (S-N optional)
146899 1630-1900 W, Peikh 225, Weatherman, 3 cr
- 5141 Critical Issues in Contemporary Education** (§SPFE 5141) (S-N optional)
446276 1900-2130 M, Peikh 33, Lum, 3 cr
- 5155 History of Western Educational Thought** (§SPFE 5155) (S-N optional)
442518 1630-1830 T, NichH 201, Bagley, 3 cr
- 5174 Field Method for the Study of Education** (§SPFE 5174; prereq 5171 or SPFE 5171 or Anth 1502 or Anth 5144 or Anth 5145) (S-N optional)
626270 1430-1700 M, BuH 120, Dobbert, 4 cr (addtl hrs ar)
- 5176 Ethnographic Research Skills Laboratory** (§SPFE 5176; prereq 5174 or §SPFE 5174) (S-N optional)
734022 -1 LAB 1300-1430 W, Peikh 27, Dobbert, 2 cr
632134 -2 LAB 1030-1200 F, Peikh 27, Dobbert, 2 cr
- 5181 Seminar: Administration of Special Education** (§EdAd 5180, EdAd 5181, EPsy 8760, EPsy 8761; prereq 5103 or EdAd 5103 or EPsy 5660 or #) (S-N optional)
030235 1630-1830 M, NichH 201, Weatherman, 3 cr (1 hr ar)
- 5190 Sociology of Education** (§SPFE 5190, Soc 5953) (S-N optional)
242519 1535-1805 T, JonesH 10, Louis, 4 cr

- 5201 Formal Organizations in Education** (§EdAd 5201, EdAd 8201) (S-N optional)
730651 1630-1900 W, NichH 209A, Turner, 3 cr
- 5204 Financing Elementary and Secondary Schools** (§EdAd 5210, EdAd 8210) (S-N optional)
328336 1630-1830 M, Peikh 33, Mueller, 3 cr
- 5211 Social Design and Educational Futures** (§SPFE 5211) (S-N optional)
426271 1630-1830 M, Peikh 25, Harkins, 3 cr
- 5214 School Management Information Systems** (§EdAd 5214, EdAd 8214)
830236 1900-2130 W, Peikh 33, Sederberg, 3 cr
- 5223 Law and the Handicapped: Implications for Education** (§PsyS 5105, EPsy 5605) (A-F only)
642520 1630-1900 M, 2-4 cr (addtl hrs ar)
- 5226 Educational Facilities Planning** (§EdAd 5226, EdAd 8226) (S-N optional)
226272 1630-1830 W, Peikh 33, Alkire, 3 cr
- 5227 Public School Personnel Programs** (§EdAd 5227, EdAd 8227) (S-N optional)
442521 1630-1830 Th, Peikh 48, Alkire, 3 cr
- 5264 The Secondary School Principalship** (§EdAd 5264, EdAd 8264)
142523 0800-1030 S, Peikh 225, Nickerson, 3 cr
- 5266 Principal-Constituent Decision Making** (§EdAd 5125)
233092 1900-2130 Th, Peikh 155, Nickerson, 3 cr
- 5540 Seminar: The College Student** (§EPsy 5451, PsyS 5540, HiEd 5540; prereq 6 cr psy or educ psy) (S-N optional)
026458 1630-1915 Th, EIH N647, Rest, 3 cr
- r8223 Quantitative Techniques for Decision Making** (§EdAd 8223; prereq 8220 or EdAd 8220 or #)
924640 1630-1830 M, EdHan 64, Hendrix, 3 cr
- 8228 Problems: Higher Education** (§HiEd 8228, EdAd 8228; prereq #)
126273 ar cr
- 8229 Seminar: Higher Education** (§EdAd 8229, HiEd 8229; prereq #)
831323 -1 1630-1900 Th, BuH 240, 3 cr
942524 -2 1-4 cr
- 8230 Seminar: Dissertation Research in Higher Education** (§HiEd 8230) (S-N only)
926274 1630-1830 M, BuH 240, Ammentorp, 1 cr (all M bgn 2nd week of qtr)
- 8234 Seminar: Educational Finance** (§EdAd 8234; prereq 5204 or EdAd 5210, EdAd 8210 or #)
534023 1630-1830 T, Peikh 25, Mueller, 3 cr
- 8238 Seminar: Theory and Research** (§EdAd 8238; prereq educ admin maj or #)
630237 1900-2130 T, Peikh 25, Ammentorp, 3 cr
- 8240 Seminar: Clinical Experiences in Educational Administration** (§EdAd 8240) (S-N only)
028338 1630-1845 Th, NichH 207, Sederberg, 1-9 cr
- 8241 Seminar: Internship in Educational Administration** (§EdAd 8241) (S-N only)
726275 1630-1845 Th, NichH 207, Sederberg, 0-9 cr
- 8248 Seminar: Metropolitan School Governance** (§EdAd 8248; prereq 5202 or EdAd 5202 or SPFE 5202)
133093 1900-2130 M, 3 cr (off-campus)
- 8257 Financing Higher Education** (§EdAd 8290, HiEd 8290)
131179 1630-1830 Th, Peikh 46, Ammentorp, 3 cr
- 8261 Problems: History and Philosophy of Education** (§SPFE 8241; prereq #)
624552 ar cr
- 8268 Seminar: Social and Educational Futures** (max 6 cr; §SPFE 8220; prereq 5209 or 5210 or 5211 or SPFE 5209 or 5210 or 5211 or #)
431180 1845-2045 M, Peikh 25, Harkins, 1-6 cr (addtl hrs ar)
- 8270 Problems: Elementary School Administration** (§EdAd 8270; prereq #)
529288 ar cr
- 8271 Problems: Secondary School Administration** (§EdAd 8271; prereq #)
827398 ar cr

- 8272 Problems: Educational Administration** (§EdAd 8272)
526276 1-3 cr
- 8273 Field Study** (§EdAd 8273; prereq #)
334024 0-10 cr
- ## EDUCATIONAL PSYCHOLOGY (EPsy)
- ### Education
- r1602 American Sign Language II** (prereq 1601 or #)
531350 -1 0800-1005 TTh, ChDev 218, 5 cr
227552 -2 1220-1425 TTh, BuH 125, 5 cr
- r1603 American Sign Language III** (prereq 1602 or #)
634210 -1 0905-1030 MWF, ChDev 105, 5 cr
726597 -2 1220-1345 MWF, Peikh 155, 5 cr
- 1604 Workshop: Developing Educational and Human Service Programs** (§PsyS 1304) (S-N only)
624034 Abery, ar cr
- 3606 Exceptional Students in Regular Classes** (§5606, PsyS 3106, PsyS 5106) (A-F only)
325677 1640-1830 W, NichH 213, McKee, 2 cr
- 5112 Knowing, Learning, and Thinking** (§PsyF 5152) (A-F only)
224392 1730-2000 W, BuH 123, Samuels, 4 cr
- r5114 Psychology of Student Learning** (§PsyF 5182) (A-F only)
333679 1630-1830 W, BuH 120, van den Broek, 3 cr
- 5115 Psychology of Adult Learning** (§PsyF 5183) (A-F only)
033927 1615-1915 T, NichH 109, Tennyson R., 4 cr
- 5116 Behavior Analysis in Education** (§PsyF 5149) (A-F only)
143963 1640-2030 W, Arch 5, 4 cr
- r5119 Learning and Cognitive Foundations of Education** (prereq educ stu or CLA music ed maj or □...one prior course in psy rec) (A-F only)
★LECT 1500-1650 T, 1500-1550 Th, Arch 45, Bart
644482 -1 LAB 1600-1650 Th, Arch 45, 4 cr
844461 -2 LAB 1600-1650 Th, Arch 60, 4 cr
444463 -3 LAB 1600-1650 Th, Arch 35, 4 cr
- 5130 Personality and Social Development** (§PsyF 5162; prereq 5 cr introductory psychology) (A-F only)
229480 1630-1900 W, EIH N119, Erickson V.L., 3 cr
- 5135 Workshop in Human Relations** (§PsyF 5305) (S-N only)
525161 1640-2140 Th, BuH 120, LeCount, 6 cr
- r5139 Interpersonal and Personality Effects on Learning** (prereq sr or Post BA in Educ or CLA music ed maj or □, one psy course) (A-F only)
543613 1500-1700 MW, Phys 166, Rest, 4 cr
- 5221 Basic Principles of Measurement** (§PsyF 5121; prereq 5260 or 8260 or PsyF 5110 or 8110) (S-N optional)
832939 1615-1730 TTh, ChDev 218, Davenport, 3 cr
- r5229 Classroom Assessment Methods** (prereq concurrent participation in practice tchg or similar field exp) (A-F only)
343614 -1 1220-1415 T, BuH 120, Terwilliger, 2 cr
743951 -2 1600-1800 T, MurH 105, Marston, 2 cr
- r5240 Principles and Methods of Evaluation** (§PsyF 5125) (S-N optional)
327591 1010-1125 TTh, ChDev 218, Hole, 3 cr
- r5260 Introductory Statistical Methods** (§PsyF 5110) (S-N optional)
327980 -1 1010-1205 MW, BuH 120, Garfield, 4 cr
931832 -2 1615-1800 MW, WullH 130, Giese, 4 cr
- 5262 Statistical Computing Using Minitab** (§PsyF 5112; prereq 5260 or equiv) (S-N only)
546303 1010-1215 T, EIH N647, Davenport, 2 cr
- 5281 Introduction to Computer Operations: U of M Systems, SPSS** (§PsyF 5333) (S-N only)
727815 1500-1555 MTWThF, EIH N647, Li, 1 cr (Apr 6-17)

- r5401 Counseling Procedures** (§PsyS 5110) (A-F only)
624289 -1 1615-1845 M, BuH 123, Wood G., 3 cr
130931 -2 1325-1600 Th, ChDev 105, Coleman, 3 cr
- 5422 Group Counseling: Principles and Procedures** (§PsyS 5320; prereq course in counseling theory) (A-F only)
230726 1430-1730 Th, BuH 123, Romano, 3 cr
- r5432 Career Development Programs and Organizational Change** (§PsyS 5332; prereq 5430 or 5431 or PsyS 5210 or PsyS 5331 or equiv or #) (A-F only)
333049 1615-1830 T, BuH 125, Hansen L., 3 cr
- r5451 Seminar: The College Student** (§PsyS 5540, HiEd 5540; prereq 6 cr in psychology or educational psychology) (A-F only)
924752 1630-1915 Th, EIH N647, Rest, 3 cr
- r5542 Practicum in Group Counseling** (max 6 cr; prereq 5422 or PsyS 5320 or equiv, #) (A-F only)
346853 Eggers, 1-6 cr
- 5600 Childhood Language Development: Classroom Implications** (§PsyS 5100) (A-F only)
825022 1640-1930 Th, WullH 130, Turnure, 3 cr
- 5601 Education of Exceptional Children** (§PsyS 5101) (A-F only)
730634 1640-2030 W, NichH 207, McEvoy, Rynders, 4 cr
- 5602 Computer Technology in Special Education**
142652 1640-1930 M, ChDev 216, Rose, 3 cr
- 5604 Transition From School to Work and Community Living for Persons With Special Needs** (§PsyS 5104) (A-F only)
925206 1640-2030 W, Peikh 215, Johnson D.R., 4 cr
- 5605 Law and the Handicapped: Implications for Education** (§PsyS 5105, EdPA 5223) (A-F only)
042546 1630-1900 M, 3 cr (addtl hr ar)
- 5606 Exceptional Students in Regular Classes** (§3606, PsyS 3106, 5106) (A-F only)
125057 1640-1830 W, NichH 213, McKee, 2 cr
- 5608 Parent and Professional Planning for Handicapped Students** (§PsyS 5108) (A-F only)
024189 1640-1930 Th, Peikh 225, 3 cr
- r5615 Educational Interventions for Learning Disabilities** (prereq 5612) (A-F only)
728897 1640-1930 T, BuH 120, Espin, 3 cr
- r5624 Biomedical Aspects of Physical Impairments** (§PsyS 5124) (A-F only)
124314 1640-1930 T, BuH 123, York, 3 cr
- 5641 Models of Service Delivery to Students with Hearing Impairments** (§PsyS 5141) (A-F only)
930177 1640-1930 T, Arch 20, Killo, 3 cr
- 5647 Aural and Speech Programming for Children with Hearing Impairments** (§PsyS 5147) (A-F only)
342544 1640-2030 W, Peikh 155, Rose, 4 cr
- r5657 Educational Interventions for Students with Emotional Disturbances or Behavioral Disorders** (prereq 5656) (A-F only)
125258 1640-1930 T, Peikh 215, Wood, 3 cr
- 5672 Advanced Braille** (§PsyS 5172; prereq 5671 or PsyS 5171) (A-F only)
425945 1640-1930 Th, BuH 239, Knowlton, 3 cr
- 5681 Methods and Materials for Handicapped Infants and Preschool Children** (§PsyS 5181; prereq 12 cr in education or #) (A-F only)
628987 1640-1930 M, Peikh 215, Rynders, McEvoy, 3 cr
- 5701 Practicum: Special Education** (prereq #) (S-N only)
128167 -1 ar cr
024077 -2 Espin, ar cr
633803 -3 Knowlton, ar cr
033281 -4 Rose, ar cr
330636 -5 Turnure, ar cr
133621 -6 Wilderson, ar cr
- 5703 Practicum Experience: Special Education** (prereq #) (A-F only)
423970 -1 Hupp, ar cr
324643 -2 Rynders, ar cr

- 5704 Workshop: Interventions and Practices in Educational and Human Service Programs** (S-N only)
432510 Aberly, ar cr
- 5849 Assessment of the Preschool Child** (§PsyS 5549; prereq statistics or measurement or grad course in assessment) (S-N optional)
430000 1640-1930 Th, NichH 109, Cumming, 3 cr
- 5900 Independent Study** (max 12 cr; prereq #) (A-F only)
630562 -1 ar cr (special ed maj only)
924136 -2 ar cr (counseling maj only)
027125 -3 ar cr (school psych maj only)
031479 -4 ar cr (psych foundations)
324349 -5 1130-1230 TTh, EddyH 102, Weinsheimer, ar cr
- 8115 Psychology of Instruction** (§PsyF 8554; prereq course in learning and/or instructional psychology)
228751 1615-1815 Th, NichH 209A, Tennyson R., 3 cr
- 8129 Research Problems: Learning and Cognition** (prereq #)
130646 van den Broek, Samuels, others, ar cr
- 8130 Personality Development and Socialization** (§5130, PsyF 8562; prereq one grad course in personality or child psychology)
642548 1430-1545 TF, BuH 123, Rest, 4 cr
- 8149 Research Problem: Personality** (max 9 cr; prereq #)
625474 Rest, ar cr
- 8169 Research Problems: Social Psychology** (prereq #)
727345 Johnson D., ar cr
- 8210 Methods in Educational Research** (§PsyF 8120; prereq spring qtr PhD students only)
624762 0905-1205 T, BuH 125, Hummel, 3 cr
- 8221 Theory of Psychological Scaling** (§PsyF 8523; prereq 5221, 8261 or PsyF 5121, 8111 or #)
746302 1325-1520 TTh, Pth 204, Davison, 3 cr
- 8239 Problems: Measurement** (max 9 cr)
129195 Davison, Terwilliger, 3 cr
- 8247 Internship: Evaluation** (max 12 cr; prereq #)
326750 3 cr
- 8259 Problems: Evaluation** (prereq 5243 or 8245 or PsyF 5621 or 8525)
330653 ar cr
- 8261 Statistical Methods** (§PsyF 8111; prereq 8260)
732772 0800-0900 MWF, BuH 120, MacEachern, 3 cr
- r8262 Statistical Methods** (§PsyF 8112; prereq 8261)
533681 -1 1615-1730 MW, NichH 109, Edwards, 3 cr
233867 -2 0905-0955 MWF, BuH 120, MacEachern, 3 cr
- 8265 Factor Analysis** (§PsyF 8117; prereq 5261, 8261 or 15261 or PsyF 5111, 8111 or #)
325632 1015-1200 MW, EitH N647, Terwilliger, 3 cr
- 8279 Problems: Statistics for Students in Education and Psychology**
825005 -1 MacEachern, Stecklein, 3 cr
131280 -12 1300-1530 M, BuH 329, Edwards, 3 cr
- r8404 Group Counseling: Theory and Procedures** (§PsyS 8304; prereq CSPP MA or PhD stu or #) (A-F only)
228054 1430-1730 Th, BuH 123, Romano, 3 cr
- r8412 Seminar: Advanced Counseling Theory** (§PsyS 8512; prereq CSPP PhD stu or #) (A-F only)
630898 1010-1205 MW, BuH 329, McCarthy, 4 cr
- r8431 Masters Seminar: CSPP** (max 6 cr; prereq MA student, #)
134025 0905-1100 T, BuH 125, 1115-1205 Th, BuH 123, Hummel, 2 cr
- 8450 Psychological Aspects of Counseling Supervision** (§PsyS 8150; prereq 8410, 8504 or PsyS 8604, #)
433284 0905-1150 Th, BuH 329, McCarthy, 3 cr
- 8510 Internship: CSPP** (max 9 cr for MA and spec students, 18 cr for PhD students)
627676 -1 Skovholt, 0-6 cr
330796 -2 Skovholt, 0-6 cr
- 8515 Counseling Practicum: University Counseling Services** (8513-8514-8515†, max 9 cr, §PsyS 8615; prereq 8514) (S-N only)
330880 1430-1625 Th, EddyH 202, Loeffler, Loper, 3 cr
- r8520 Counseling Practicum: Advanced** (max 9 cr; prereq #)
232136 -1 1430-1625 W, ChDev 216, Skovholt, 3 cr
842547 -2 1430-1625 Th, BuH 329, Skovholt, 3 cr
347534 -3 Loeffler, 3 cr
- 8524 Clinical Practice in Diagnosis and Treatment of College Learning Difficulties** (§PsyS 8641; prereq 8424 or PsyS 8341)
124443 1430-1625 W, EddyH 202, Baldwin, 3 cr
- 8620 Psychological Theory and Research in Mental Retardation** (§PsyS 8120)
142545 1640-2030 M, FolH 142, Turnure, 4 cr
- r8677 Seminar: Issues and Research in Visual Impairment** (max 9 cr; prereq 5675, Psy 5031 or NSc 5301 or equiv) (A-F only)
946301 1640-1940 M, ChDev 218, Knowlton, 3 cr
- 8702 Seminar: Special Education** (prereq #)
233190 1325-1615 Th, FolH 240, Deno, 3 cr
- r8761 Seminar: Administration of Special Education** (§PsyS 8561, EdAd 5181; prereq 5660 or PsyS 5160, EdAd 5103 or #)
730195 1630-1830 M, NichH 201, Weatherman, 3 cr (addtl hr ar)
- 8777 Thesis Credits: Masters**
532983 1-16 cr
- r8811 Assessment in School Psychology II** (§PsyS 8311; prereq 8810 or PsyS 8310 or #)
442549 1315-1600 T, 1315-1415 Th, EitH N508, Ysseldyke, 5 cr
- r8815 Theories and Methods of Instructional Intervention** (§PsyS 8515; prereq 8810, 8811 or PsyS 8310, 8311)
842550 1525-1825 W, EitH N508, Allen D., 3 cr
- r8820 Seminar: Research in School Psychology** (max 6 cr, §PsyS 8520)
226661 1325-1520 F, EitH N508, Egeland, 2 cr
- 8831 Practicum: School Psychological Services** (prereq #)
132808 Casey, 1-5 cr
- 8832 Clinical Practice in School Psychology** (prereq 8810 or PsyS 8310)
125017 Casey, 1-5 cr
- 8840 Internship: School Psychological Services** (prereq 8831 or PsyS 8310, #) (S-N only)
025889 -1 5-15 cr (school psych PhD stu only)
147535 -2 5-15 cr (school psych specialist stu only)
- 8841 Internship: Instruction and Supervision in School Psychology** (prereq 8840 or PsyS 8700, doctoral candidate in school psychology) (S-N only)
131117 Ysseldyke, 1-9 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
025505 1-36 cr
- 8900 Research Problems**
628035 -1 ar cr (special ed maj only) (prereq #)
825845 -2 ar cr (counseling maj only) (prereq #)
230497 -3 Ysseldyke, ar cr (school psych maj only)
733551 -4 ar cr (psych foundations) (prereq #)
- 8905 Landmark Issues and Great Controversies in Educational Psychology** (prereq first yr student admitted to doctoral program in education psychology or #)
931734 1330-1600 W, BuH 123, Samuels, 3 cr
- r8910 Directed Study** (prereq #)
527346 -1 ar cr (special ed maj only)
627645 -2 ar cr (counseling maj only)
124488 -3 Ysseldyke, ar cr (school psych maj only)
832049 -4 ar cr (psych foundations)
930115 -5 0905-1035 W, BuH 125, Romano, 1 cr
126278 -6 0905-1205 F, BuH 125, Skovholt, 3 cr
- ELECTRICAL ENGINEERING (EE)**
Institute of Technology
- r1400 Circuits Laboratory** (prereq 3009 or I†, IT maj)
233951 -1 LAB 1535-1730 M, EE/CSci 3160, 1 cr
428778 -2 LAB 0800-0955 T, EE/CSci 3160, 1 cr
831970 -3 LAB 1325-1520 W, EE/CSci 3160, 1 cr
127696 -4 LAB 1535-1730 W, EE/CSci 3160, 1 cr
727913 -5 LAB 0800-0955 Th, EE/CSci 3160, 1 cr
625886 -6 LAB 1010-1205 Th, EE/CSci 3160, 1 cr
429882 -7 LAB 1535-1730 Th, EE/CSci 3160, 1 cr
- r3003 Circuits and Electronics** (prereq non-EE IT stu, Phys 1291, Math 3321 or I†Math 3321)
128709 1220-1310 MTWTF, EE/CSci 3230, 4 cr
- r3004 Circuits and Electronics Laboratory** (non EE majs; prereq IT student, 3003 or I†)
332659 -1 LAB 1325-1520 M, EE/CSci 3160, 1 cr
832651 -2 LAB 1010-1205 T, EE/CSci 3160, 1 cr
225221 -3 LAB 1325-1520 T, EE/CSci 3160, 1 cr
729614 -4 LAB 1535-1730 T, EE/CSci 3160, 1 cr
332869 -5 LAB 1325-1520 Th, EE/CSci 3160, 1 cr
226109 -6 LAB 1430-1625 F, EE/CSci 3160, 1 cr
- r3009 Linear Circuits I** (prereq IT stu, Math 3321 or I†Math 3321, Phys 1281 or I†Phys 1281) (A-F only)
★LECT 1115-1205 MTWTF, EE/CSci 3230, 4 cr
727863 -1 REC 1325-1415 W, AkerH 313, (elec engr maj only)
228670 -2 REC 1430-1520 W, Arch 10
328854 -3 REC 1430-1520 W, EE/CSci 3111, (elec engr maj only)
423855 -4 REC 1535-1625 W, EE/CSci 3230
730178 -5 REC 1535-1625 W, EE/CSci 3210, (elec engr maj only)
824050 -6 REC 1325-1415 Th, AmundH 240, (elec engr maj only)
826669 -7 REC 1325-1415 Th, AmundH 158
- r3010 Linear Circuits II** (prereq IT stu, at least C grades in 3009, Math 3321, Phys 1291 or I†Phys 1291) (A-F only)
★LECT 1220-1310 MWThF, EE/CSci 3210, 4 cr
624874 -1 REC 1325-1415 M, AmundH 120
131481 -2 REC 1430-1520 M, EE/CSci 3230
930082 -3 REC 1535-1625 M, EE/CSci 3115
927196 -4 REC 1640-1730 M, EE/CSci 2260
032356 -5 REC 1325-1415 T, Arch 45, (IT Honors stu)
123817 -6 REC 1430-1520 T, Arch 5
- r3011 Signal Analysis** (prereq 3010, upper division elec engr maj)
★LECT 0905-0955 MTWTF, EE/CSci 3230, 4 cr
828552 -1 REC 1430-1520 M, EE/CSci 3111
031031 -2 REC 1535-1625 M, EE/CSci 3210
832570 -3 REC 1430-1520 T, LindH 325
- r3012 System Design** (prereq upper div EE maj, 3011, Math 3321) (A-F only)
★LECT 0905-0955 MTWTF, EE/CSci 3210, 4 cr
132137 -1 REC 1325-1415 M, AmundH 116
230239 -2 REC 1430-1520 M, EE/CSci 2260
828339 -3 REC 1535-1620 M, AmundH 124
- r3061 Analog Electronics** (prereq upper div EE or CSci or ME maj, 3010, 3060, 3400 or I†3400) (A-F only)
★LECT 1325-1415 MTWTF, EE/CSci 3210, 4 cr
625953 -1 REC 1430-1520 M, EE/CSci 3115
524771 -2 REC 1535-1625 M, EE/CSci 2260
927716 -3 REC 1640-1730 M, EE/CSci 3115
224831 -4 REC 1430-1520 T, Arch 10
- r3062 Analog and Digital Electronics** (prereq upper div EE or CSci or ME maj, 3061, 3351, 3401 or I†3401) (A-F only)
★LECT 1115-1205 MWThF, EE/CSci 3210, 4 cr
932138 -1 REC 1325-1415 T, EE/CSci 3230
630240 -2 REC 1430-1520 T, EE/CSci 3111
128340 -3 REC 1535-1625 T, FordH 115
326280 -4 REC 1640-1730 T, EE/CSci 3210

- R3110 Electric and Magnetic Fields** (prereq upper div EE or ME maj, at least C grades in Phys 1291, Math 3331 or Math 3331) (A-F only)
★LECT 1010-1100 M/W/F, EE/CSci 3230, 4 cr
429610 -1 REC 1430-1520 T, EE/CSci 3210
530764 -2 REC 1535-1625 T, EE/CSci 3210
428912 -3 REC 1640-1730 T, EE/CSci 3111
629556 -4 REC 1430-1520 W, Arch 40
- R3111 Electromagnetic Waves** (prereq 3110, upper division elec engr maj)
★LECT 1010-1100 M/W/T/F, EE/CSci 3210, 4 cr
930955 -1 REC 1325-1415 W, LindH 303
930096 -2 REC 1430-1520 W, EE/CSci 3230
023785 -3 REC 1535-1625 W, LindH 203
027951 -4 REC 1640-1730 W, LindH 203
830091 -5 REC 1325-1415 Th, EE/CSci 3210, (EE honors stu)
130783 -6 REC 1430-1520 Th, LindH 203
- R3352 Introduction to Microprocessors** (prereq IT soph, CSci 3104) (A-F only)
★LECT 0800-0850 M/W/F, EE/CSci 3210, 4 cr
631498 -1 LAB 1535-1730 M, EE/CSci 3130
729662 -2 LAB 1815-2000 M, EE/CSci 3130
125079 -3 LAB 0800-0955 T, EE/CSci 3130
031868 -4 LAB 1010-1205 T, EE/CSci 3130
224344 -5 LAB 1325-1520 T, EE/CSci 3130
131019 -6 LAB 1535-1730 T, EE/CSci 3130
927845 -7 LAB 1325-1520 W, EE/CSci 3130
031515 -8 LAB 1535-1730 W, EE/CSci 3130
124474 -9 LAB 0800-0955 Th, EE/CSci 3130
332368 -10 LAB 1010-1205 Th, EE/CSci 3130
129892 -11 LAB 1220-1415 Th, EE/CSci 3130
526620 -12 LAB 1535-1730 Th, EE/CSci 3130
525354 -13 LAB 1535-1730 F, EE/CSci 3130
Registration in one of the REC sections is also required.
826073 -1 REC 1325-1415 W, AmundH 120
524947 -2 REC 1430-1520 W, EE/CSci 2260
324092 -3 REC 1535-1625 W, EE/CSci 2260
233884 -4 REC 1640-1730 W, EE/CSci 2260
031577 -5 REC 1325-1415 Th, AmundH 156
127231 -6 REC 1430-1520 Th, EE/CSci 3111
- R3401 Junior Electrical Engineering Laboratory** (prereq 3400, 3061 or 13061) (A-F only)
★LECT 1220-1310 W, MoosT 2690
031465 -1 LAB 1800-2045 M, EE/CSci 3136, 2 cr
130856 -2 LAB 1430-1730 W, EE/CSci 3136, 2 cr
825327 -3 LAB 0800-1100 Th, EE/CSci 3136, 2 cr
624485 -4 LAB 0800-1100 Th, EE/CSci 3146, 2 cr
929787 -5 LAB 1115-1415 Th, EE/CSci 3136, 2 cr
429672 -6 LAB 1115-1415 Th, EE/CSci 3146, 2 cr
528237 -7 LAB 1430-1730 Th, EE/CSci 3136, 2 cr
731993 -8 LAB 1430-1730 Th, EE/CSci 3146, 2 cr
525466 -9 LAB 1430-1730 F, EE/CSci 3136, 2 cr
- R3402 Junior Electrical Engineering Laboratory** (prereq 3401, 3062 or 13062) (A-F only)
★LECT 1220-1310 M, MoosT 2530
424861 -1 LAB 1430-1730 M, EE/CSci 3146, 2 cr
425072 -2 LAB 1430-1730 M, EE/CSci 3136, 2 cr (EE honors stu)
728656 -3 LAB 1715-2000 M, EE/CSci 3146, 2 cr
631467 -4 LAB 0800-1100 T, EE/CSci 3136, 2 cr
831984 -5 LAB 0800-1100 T, EE/CSci 3146, 2 cr
123946 -6 LAB 1115-1415 T, EE/CSci 3136, 2 cr
331446 -7 LAB 1115-1415 T, EE/CSci 3146, 2 cr
129150 -8 LAB 1430-1730 T, EE/CSci 3146, 2 cr
326103 -9 LAB 1430-1730 T, EE/CSci 3146, 2 cr
333911 -10 LAB 1715-2000 T, EE/CSci 3146, 2 cr
725787 -11 LAB 1430-1730 W, EE/CSci 3146, 2 cr
533311 -12 LAB 1430-1730 F, EE/CSci 3146, 2 cr
- R3476 Industrial Assignment I** (prereq regis in co-op program)
124409 2 cr
- R3477 Industrial Assignment II** (prereq 3476)
924282 2 cr
- R5002 Digital Signal Processing** (prereq upper division elec engr maj or grad IT maj, 3012 or #)
642565 1325-1415 M/W/F, EE/CSci 3230, 3 cr
- R5003 Digital Signal Processing Laboratory** (prereq upper division EE maj, 3402 or 13402, 5002, or #) (A-F only)
028128 -1 LAB 1010-1205 T, EE/CSci 2170, 1 cr
633929 -2 LAB 0800-0955 W, EE/CSci 2170, 1 cr
- 527198 -3 LAB 0800-0955 Th, EE/CSci 2170, 1 cr
729144 -4 LAB 1430-1625 F, EE/CSci 2170, 1 cr
- R5053 Design of Digital Circuits** (prereq upper division elec engr maj or grad IT maj, 3062 or #) (A-F only)
328255 0800-0850 M/W/F, EE/CSci 3230, 3 cr
- R5090 Digital Circuit Design Laboratory** (prereq 3402 or 13402, 5053) (A-F only)
129634 1 cr (EE/CSci 3144)
- R5162 Solid-State Transducers** (prereq 3060, 3111, Phys 3501 or #, IT stu or grad IT maj)
931720 1010-1100 M/W/F, AmundH 158, 3 cr
- R5255 Digital Control Systems** (§5252; prereq upper div EE maj or grad IT maj, 3351, 3352 or equiv, 5002 or 15002 or #)
143615 1430-1520 M/W/F, EE/CSci 3210, 3 cr
- R5290 Digital Control Systems Laboratory** (prereq 3402 or 13402, 15255) (A-F only)
530991 1 cr (EE/CSci 2188)
- R5315 Electromechanics in Robotics** (prereq 3012, 5300 or #, upper division elec engr maj)
033555 0905-0955 M/W/F, FordH 150, 3 cr
- R5322 Electromechanical Processes and Devices** (prereq IT stu or grad IT maj, 3402 or 13402, 5300 or #) (A-F only)
442566 4 cr
- R5450 Senior Design Project** (prereq elec engr sr, 3012, 3062, 3110, 3351, 3352, 3402)
129391 1430-1730 T, EE/CSci 3230, 2 cr
- 5470 Directed Study** (prereq Δ)
227101 ar cr
- R5478 Industrial Assignment III** (prereq 3477, regis in co-op program) (A-F only)
532479 2 cr
- R5479 Industrial Assignment IV** (prereq 5478)
127107 2 cr
- R5492H Honors Project** (prereq 5491H)
525824 1325-1625 Th, EE/CSci 3230, 3 cr
- R5573 VLSI Design III** (prereq 5572 or #)
746901 1325-1440 T/Th, MechE 108, 3 cr
- R5606 Antenna Theory and Design** (prereq 3111 or #)
231181 -1 1115-1205 M/W/F, EE/CSci 3125, 3 cr
- R5620 Engineering Acoustics** (prereq senior standing in IT or #)
625099 1430-1545 M/W/F, LindH 217, 4 cr
- R5631 Photonic Devices** (prereq EE sr or grad IT maj, 5630 or 5661) (A-F only)
129657 0945-1100 T/Th, AmundH 124, 3 cr
- R5635 Optical System Design** (prereq IT sr or grad IT maj)
431292 -1 1430-1545 M/W, EE/CSci 3125, Nussbaum, 3 cr
- R5652 Physical Methods in Solid State Materials III** (prereq 5651 or #, EE sr or grad stu or adult special)
731623 1430-1545 T/Th, EE/CSci 2260, 3 cr
- R5662 Semiconductor Properties and Devices II** (prereq EE sr or grad stu or adult special, 5661)
724820 -1 0905-0955 M/W/F, MechE 212, 3 cr
- R5669 Magnetic Recording** (prereq #)
329552 0945-1100 T/Th, AmundH 162, 3 cr
- 5671 Advanced Microelectronics** (prereq IT sr or grad IT stu, 5670 or 15672 or #)
727474 2 cr
- R5672 Advanced Microelectronics Laboratory** (prereq IT sr or IT grad stu, 5670 or 15671 or #)
146605 1 cr
- R5680 Principles of Thin Film Technology** (prereq IT sr or grad IT maj)
333553 1245-1400 T/Th, FordH 40, 4 cr
- R5752 Computer Aided Design of Control Systems** (prereq 5751 or #, grad IT maj)
530179 1220-1310 M/W/F, AmundH 104, 3 cr
- R5760 Biological System Modelling and Analysis** (prereq #)
125759 -1 0815-0930 T/Th, EE/CSci 3125, 4 cr
- R5804 Power Generation, Operation and Control** (prereq grad IT maj, 5803) (A-F only)
946606 0815-0930 M/W, EE/CSci 2260, 3 cr
- R5853 Digital Computer Systems** (prereq 5852)
529758 -1 1325-1415 M/W/F, MechE 212, 3 cr
- R5860 Microcomputer Architecture** (prereq IT grad, 5355 or #)
024340 0815-0930 T/Th, EE/CSci 3111, 4 cr (lab ar)
- R5952 Special Topics in Electrical Engineering** (prereq IT grad or adult special or #)
324724 Leger, 3 cr
- 8090 Electronics Seminar** (prereq #) (S-N only)
830995 1535-1625 F, EE/CSci 2260, ar cr
- R8170 Fluctuation Phenomena** (prereq #)
942569 1245-1400 T/Th, Arch 60, 3 cr
- R8192 Seminar: Magnetism** (prereq #) (S-N only)
929191 -1 1325-1415 F, MechE 102, Judy, ar cr
- R8205 Image Processing and Applications** (prereq 5002, 5700, grad standing or #)
026279 1245-1400 T/Th, EE/CSci 2260, 3 cr
- R8211 Coding Theory** (§5701; prereq 5700 or #)
242570 -1 1325-1415 M/W/F, MechE 108, 3 cr
- R8220 Topics in Statistical Theory of Communication** (prereq 5700, 5702 or #)
827868 0945-1100 T/Th, EE/CSci 2260, 3 cr
- R8290 Seminar: Control Theory** (prereq #) (S-N only)
828907 -1 1430-1520 F, MechE 108, Lee E.B., ar cr
- R8353 Sequential Circuit Theory** (prereq #)
746607 3 cr
- R8356 Computer Architecture II** (prereq 8355)
024774 1325-1415 M/W/F, AmundH 156, 3 cr
- R8451 Advanced Topics in Electrical Engineering** (prereq #)
433365 -1 1245-1400 T/Th, MechE 102, O'Keefe, ar cr
227762 -2 Cherkassky, ar cr
124121 -3 Harjani, ar cr
- 8460 Plan B Project** (prereq #) (A-F only)
428196 4 cr
- R8492 Graduate Seminar** (prereq 8491) (S-N only)
127267 -1 1535-1705 Th, MechE 108, 1 cr
- 8777 Thesis Credits: Masters**
333052 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
829104 1-36 cr

ELEMENTARY EDUCATION (Elem) Curriculum And Instruction Degree

- R3300 Children's Literature** (A-F only)
530554 0905-0955 M/W/F, PeikH 40, Phinney, 3 cr
- R3316 Teaching English in the Elementary School** (prereq 3100, 3101, Engl 3851) (A-F only)
523829 1010-1100 M/W/F, PeikH 40, Dykstra, 3 cr (1sec 1, 3331)
- R3331 Teaching Reading in the Elementary School** (prereq 3100, 3101) (A-F only)
524477 1115-1205 M/W/F, PeikH 40, Watts, 3 cr (1sec 1, 3316)
- R3346 Teaching Science in the Elementary School** (prereq 3100, 3101, 10 cr in natural science) (A-F only)
528514 -1 1010-1205 M/W/F, PeikH 375, Johnson, 3 cr (1sec 1, 3361, sec 1, 3391)
725448 -2 1010-1205 M/W/F, PeikH 385, Heller, 3 cr (1sec 2, 3361, sec 2, 3391)
- R3361 Teaching Social Studies in the Elementary School** (prereq 3100, 3101) (A-F only)
425282 -1 0905-0955 M/W/F, PeikH 375, Avery, 3 cr (1sec 1, 3346, sec 1, 3391)
129741 -2 0905-0955 M/W/F, PeikH 385, Cogan, 3 cr (1sec 2, 3346, sec 2, 3391)
- R3377 Nursery School-Kindergarten Curriculum II** (prereq 3376) (A-F only)
131411 1325-1520 T/Th, PeikH 225, Hansen, 3 cr
- R3378 Social Learning in Early Childhood Education** (prereq CPsy 1301 or 5301) (A-F only)
731640 1515-1645 T/Th, NichH 209, Carlson, 3 cr
- 3379 Cognitive and Creative Learning in Early Childhood Education** (prereq CPsy 1301 or 5301) (A-F only)
629816 1645-1815 T/Th, JonesH 11, Murphy, 3 cr

- r3391 Teaching Mathematics in the Elementary School** (prereq 3100, 3101, Math 1005, 1006) (A-F only)
925528 -1 0800-0850 MWF, PeikH 375, 3 cr (1sec 1, 3346, sec 1, 3361)
028176 -2 0800-0850 MWF, PeikH 385, Bang, 3 cr (1sec 2, 3346, sec 2, 3361)
- 3600 Student Teaching in the Elementary School, Half Days** (prereq 12 cr methods, Δ) (S-N only)
527699 6 cr
- 3603 Student Teaching in the Kindergarten** (prereq 6 cr elem student tchg, Δ) (S-N only)
831645 6 cr
- 3604 Student Teaching in the Nursery School** (prereq approval of major adviser, director student teaching) (S-N only)
523880 1630-1815 W, ChDev 105, Galle, 3-6 cr (addtl hr ar)
- 3605 Student Teaching in Elementary School: Half Days, Full Days** (prereq 15 cr methods, Δ) (S-N only)
331575 9 cr
- 3607 Student Teaching in Elementary School: Full Days** (prereq 18 cr methods, Δ) (S-N only)
424889 12 cr
- 3621 Junior Practicum in Elementary Education** (max 6 cr; prereq elementary education maj) (S-N only)
231696 1-2 cr
- 3634 Student Teaching in Elementary School Science** (prereq 10 cr in elem student tchg, Δ) (S-N only)
325419 3 cr
- 3636 Student Teaching in Elementary School Social Studies** (prereq 10 cr in elem student tchg, Δ) (S-N only)
824162 3 cr
- 3900 Directed Study** (max 6 cr; prereq elementary maj, Δ) (A-F only)
229706 1-3 cr
- r5100 Elementary School Curriculum** (prereq 3101) (A-F only)
947447 1630-1915 T, PeikH 40, Buggy, 3 cr
- r5300 Literature for the Elementary School** (A-F only)
127057 1630-1900 T, PeikH 315, Rapport, 3 cr
- r5315 Teaching Composition in the Elementary School** (prereq postbac, MED or grad student) (A-F only)
233576 1630-1900 M, PeikH 48, Phinney, 3 cr
- r5316 Teaching and Supervision of English in the Elementary Schools** (prereq 3316 or elementary school teaching experience) (A-F only)
242780 1630-1900 M, PeikH 40, Dykstra, 3 cr
- 5320 Practicum: Teaching Second Languages and Cultures in Elementary Schools** (prereq 5319 or 1, #) (S-N only)
232475 Jorstad, 3 cr
- r5334 Reading Difficulties** (prereq 5331 or SeEd 5344) (A-F only)
729421 1630-1900 W, PeikH 315, Taylor, 3 cr
- r5337 Beginning Reading Instruction** (prereq 3331 or elem teacher or #) (A-F only)
729516 1630-1900 M, PeikH 225, Manning, 3 cr
- r5338 Teaching Reading in the Intermediate Grades** (prereq 3331 or elem teaching experience or #) (A-F only)
142781 -1 1630-1900 W, PeikH 48, Watts, 3 cr
942782 -2 Ballou, 3 cr (Morris)
- r5350 Elementary School Science: Materials and Resources** (A-F only)
631680 1630-1915 T, PeikH 385, Johnson, 3 cr
- r5361 Teaching Social Studies in the Elementary School** (prereq 3101 or equiv) (A-F only)
224361 1630-1915 W, PeikH 165, Cogan, 3 cr
- 5377 Early Childhood Education: Materials and Resources** (prereq 3377 or 5376, teaching experience) (A-F only)
832942 1630-1900 T, PeikH 28, Hansen, 3 cr
- 5602 Practicum: Improvement of Teaching** (prereq MEd student in elementary education) (S-N only)
828048 -1 Avery, 3 cr
430241 -2 Cogan, 3 cr
634028 -3 Dykstra, 3 cr

- 732139 -4 Finley, 3 cr
230242 -5 Hansen, 3 cr
028341 -6 Heller, 3 cr
126281 -7 Jackson, 3 cr
124555 -8 Johnson, 3 cr
733095 -9 Manning, 3 cr
931183 -10 Phinney, 3 cr
729290 -11 Post, 3 cr
127401 -12 Stochl, 3 cr
731184 -13 Taylor, 3 cr
529291 -14 Watts, 3 cr
- 8333 Seminar: Reading Research and Instruction** (max 9 cr; prereq #)
144143 1630-1900 T, PeikH 27, Graves, 1-3 cr
- r8916 Problems: Teaching English** (prereq #)
326151 -1 Phinney, ar cr
026282 -2 Dykstra, ar cr
- r8931 Problems: Teaching Reading** (prereq 5331 or SeEd 5344, #)
932673 -1 Manning, ar cr
434029 -2 Taylor, ar cr
647393 -3 Watts, ar cr
- r8961 Problems: Teaching Social Studies** (prereq 5361 or SeEd 5155 or 8104, #)
531090 -1 Avery, ar cr
132140 -2 Cogan, ar cr
- r8976 Problems: Teaching Kindergarten** (prereq #)
628990 Hansen, 3 cr
- 8991 Problems: Improvement of Instruction** (prereq #)
024161 -1 Avery, ar cr
130243 -2 Cogan, ar cr
828342 -3 Dykstra, ar cr
826283 -4 Finley, ar cr
924556 -5 Hansen, ar cr
628343 -6 Heller, ar cr
626284 -7 Jackson, ar cr
724557 -8 Johnson, ar cr
533096 -9 Manning, ar cr
531185 -10 Phinney, ar cr
329292 -11 Post, ar cr
027402 -12 Stochl, ar cr
426285 -13 Taylor, ar cr
834030 -14 Watts, ar cr

ENDODONTICS (Endo) Dentistry

- 5302 Advanced Clinical Endodontics** (A-F only)
125205 ar cr
- 5306 Advanced Clinical Endodontics** (A-F only)
732416 ar cr
- 5312 Advanced Endodontic Emergency** (S-N only)
228846 1 cr
- 5316 Advanced Endodontic Emergency** (S-N only)
432328 1 cr
- 5332 Review of Cases** (S-N only)
831726 1 cr
- 5336 Review of Cases** (S-N only)
325775 1 cr
- 5400 Advanced Endodontics for Postgraduate Dental Fellows** (S-N only)
031272 1 cr
- 8003 Research In Endodontics**
326165 ar cr
- 8312 Seminar: Endodontics** (A-F only)
331978 2 cr
- 8316 Seminar: Endodontics** (prereq 8315, #) (A-F only)
829488 2 cr
- 8335 Endodontic-Periodontics Seminar**
729175 1 cr

ENGLISH AS A SECOND LANGUAGE (ESL) Linguistics Liberal Arts

- 0100 English as a Second Language** (prereq Δ)
- 0110 English as a Second Language** (prereq Δ)
- 0120 English as a Second Language** (prereq Δ)
- 0130 English as a Second Language** (prereq Δ)
- 8777 Thesis Credits: Masters**
925089 1-16 cr

ENGLISH LANGUAGE AND LITERATURE (Engl) Liberal Arts

- r1005 Introduction to Literature**
425119 -1 0800-0850 MWF, LindH 302, Edwards, 4 cr
446326 -2 0945-1100 TTh, Arch 5, Chen, 4 cr
246327 -3 1430-1545 TTh, LindH 217, 4 cr
- r1005H Honors Course: Introduction to the Study of Literature**
942622 0905-0955 MWF, LindH 229, 4 cr
- r1016 Introduction to American Literature**
146328 1010-1100 MWF, LindH 217, 4 cr
- r1018 Introduction to Modern Fiction**
946329 1245-1400 TTh, LindH 229, 4 cr
- r1019 Introduction to Modern Drama**
246330 1325-1415 MWF, LindH 215, 4 cr
- r1241 Introduction to Shakespeare**
330345 0815-0930 TTh, NichH 211, Clayton, 4 cr
- r1591 Literature of American Minorities**
130346 -1 0905-0955 MWF, LindH 215, Reini-Grandell, 4 cr
328451 -2 1220-1310 MWF, LindH 203, 4 cr
742623 -3 0815-0930 TTh, LindH 229, 4 cr
146331 -4 1115-1230 TTh, LindH 203, Viragos, 4 cr
946332 -5 1430-1545 TTh, MurH 308, 4 cr
- r1595 Introduction to "Third World" Literatures in English**
★LECT 1245-1400 TTh, VinH 16, Sugnet
146840 -1 REC 1010-1100 F, FordH 285, Sugnet, 4 cr
747515 -2 REC 1010-1100 F, FordH 115, Eldridge, 4 cr
547516 -3 REC 1010-1100 F, FordH 175, Joseph, 4 cr
347517 -4 REC 1010-1100 F, FordH 170, Okafor, 4 cr
147518 -5 REC 1010-1100 F, FordH 120, Athey, 4 cr
- r3008 Techniques of Literary Study** (prereq pre-Engl or Engl maj or min only)
928574 0815-0930 TTh, LindH 302, 4 cr
- r3009H Honors Course: Modern Literary Theory** (prereq English maj or minor, 3008 or 16 cr lit or Δ)
142626 0945-1100 TTh, FordH 60, Messer-Davidow, 4 cr
- r3115 The Middle Ages**
542624 -1 0945-1100 TTh, FolH 134, Copeland, 4 cr
342625 -2 0945-1100 TTh, FolH 134, Copeland, 4 cr (Engl maj/premaj only)
- r3116 The Renaissance**
226286 -1 0945-1100 TTh, PeikH 315, Clayton, 4 cr
324559 -2 0945-1100 TTh, PeikH 315, Clayton, 4 cr (Engl maj/premaj only)
- r3241 Shakespeare** (§3243)
029294 -1 0905-0955 MWF, LindH 217, Hirsch, 4 cr
627404 -2 0905-0955 MWF, LindH 217, Hirsch, 4 cr (Engl maj/premaj only)
126474 -3 0815-0930 TTh, LindH 215, Gordon, 4 cr
634031 -4 0815-0930 TTh, LindH 215, Gordon, 4 cr (Engl maj/premaj only)
542638 -5 0945-1100 TTh, LindH 215, Luke, 4 cr
342639 -6 0945-1100 TTh, LindH 215, Luke, 4 cr (Engl maj/premaj only)
- r3241H Honors Course: Shakespeare**
746333 0945-1100 TTh, VinH 20, von Koppelfels, 4 cr
- r3242 Shakespeare** (§3243)
129156 -1 1115-1230 TTh, MurH 308, Geffen, 4 cr
825408 -2 1115-1230 TTh, MurH 308, Geffen, 4 cr (Engl maj/premaj only)
- r3242H Honors Course: Shakespeare**
346321 0945-1100 TTh, LindH 203, Eifenbein, 4 cr
- r3413 Survey of American Literature, 1900-1945**
625037 1115-1205 MWF, SciCB 375, Wright J., 4 cr
- r3455 American Short Story**
131187 0905-0955 MWF, Phys 133, Solotaroff, 4 cr

r3481 **American Folklore**
642629 1245-1400 TTh, LindH 305, Stekert, 4 cr

r3592 **Introduction to Afro-American Literature: Black Women Writers** (§AfrO 3592)
546334 1325-1415 MWF, BlegH 115, Reyes, 4 cr

r3851 **The English Language** (§5851)
926016 1010-1100 MWF, FordH 155, Anon, 4 cr

r3852 **Aspects of the English Language**
042630 -1 1010-1100 MWF, LindH 229, MacLeish, 4 cr
842631 -2 1010-1100 MWF, LindH 229, MacLeish, 4 cr (Engl maj/premaj only)

r3920 **Topics in Anglophone Literature**
344567 -1 1115-1205 MWF, LindH 229, Reyes, 4 cr (Caribbean Narratives)
346335 -2 0945-1100 Th, AkerH 317, Carr, 4 cr (Pacific Anglophone Literature)

r3960 **Junior-Senior Seminar** (prereq Engl maj jr or sr, Comp 3011 or Comp 3012 or Comp 3013, Δ)
828809 -1 0800-0850 MWF, LindH 229, Griffin, 4 cr (American Literature in Interdisciplinary Perspective)
932849 -2 1115-1230 TTh, LindH 215, Damon, 4 cr (Weird Books by Women)

3961 **Senior Paper** (prereq Engl maj, sr, 3960 or f or 3960H or f or 3931-3932 or f or EngW 3960 or f, Δ) (S-N only)
927005 1 cr

3963H **Honors Thesis** (prereq honors candidacy in Engl, consent of Engl honors adviser)
431924 4 cr

3970 **Directed Studies** (prereq #, Δ, □)
124040 1-15 cr

3980 **Directed Instruction** (prereq #, Δ, □)
128239 ar cr

r5133 **19th-Century British Poetry** (prereq grad stu or Engl maj or Δ)
642632 1245-1400 TTh, LindH 217, Luke, 4 cr

r5213 **Beowulf** (prereq 5211, grad stu or Engl maj or Δ)
046323 1115-1230 TTh, LindH 305, Kendall, 4 cr

r5364 **James Joyce** (prereq grad stu or Engl maj or Δ)
524558 0945-1100 TTh, LindH 302, Anderson, 4 cr

r5431 **American Poetry: Beginnings to 1890** (prereq grad stu or Engl maj or Δ)
128346 1010-1100 MWF, LindH 305, Griffin, 4 cr

r5483 **Folklore** (prereq 5481 or 5482 or #, grad stu or Engl maj or Δ)
142635 0945-1100 TTh, LindH 305, Stekert, 4 cr

r5620 **British and American Women Writers: Adrienne Rich** (max 16 cr; prereq grad stu or Engl maj or Δ)
942636 0815-0930 TTh, LindH 217, McNaron, 4 cr

r5714 **Modern and Contemporary Critical Theory** (prereq grad stu or Engl maj or Δ)
642615 1325-1415 MWF, LindH 217, Mowitz, 4 cr

r5843 **American Social Dialects** (prereq grad stu or Engl maj or Δ)
128967 0815-0930 TTh, LindH 305, Escure, 4 cr

r5851 **Structure of Modern English** (§3851; prereq grad stu or Engl maj or Δ)
047519 1220-1310 MWF, LindH 217, MacLeish, 4 cr

r5910 **Topics in English and North American Literature** (prereq grad stu or Engl maj or Δ)
130761 -1 1115-1205 MWF, LindH 217, Solotaroff, 4 cr (Contemporary American Fiction)
629721 -2 0945-1100 TTh, LindH 229, Ross, 4 cr (Academic Writing)
146336 -3 1115-1230 TTh, LindH 217, Przybylowicz, 4 cr (Women Writers and the Modernist Movement)
046337 -4 1430-1645 TTh, MurH 311, Viragos, 4 cr (Myth in 20th-Century American Literature)

r5920 **Topics in Anglophone Literature** (prereq grad stu or Engl maj or Δ)
629296 -1 0945-1100 TTh, LindH 217, Sunget, 4 cr (Literature of South Africa and Zimbabwe)
242617 -2 1115-1230 TTh, LindH 302, Roth, 4 cr (Narratives of Imperialism and Anti-Colonialism)

r5940 **Figures in English and North American Literature: Toni Morrison** (prereq grad stu or Engl undergrad maj or Δ)
942619 0905-0955 MWF, LindH 302, Reyes, 4 cr

5970 **Directed Studies** (prereq #, Δ, CLA approval)
347520 1-4 cr

r8011 **Introduction to Advanced Literary Study**
242620 1430-1645 Th, LindH 229, Brown, 4 cr

r8012 **Problems in Literary History**
142621 1220-1435 W, LindH 229, Rabinowitz, 4 cr

r8050 **Studies in Special Subjects**
530084 -1 1325-1525 M, LindH 229, Wright J., 4 cr (Practicum: American Multiethnic Autobiographies)
727264 -2 1245-1500 T, LindH 215, Kendall, 4 cr (Literary and Artistic Culture of the Romanesque Period)
846324 -3 1430-1645 T, LindH 203, Przybylowicz, 4 cr (Cultural Studies and "Cultural Critique")
646325 -4 1430-1645 T, LindH 305, Roth, 4 cr (Chaplin and Hitchcock)

r8111 **Proseminar in Medieval Studies**
842614 1245-1500 Th, NichH 209, Copeland, 4 cr

r8115 **Proseminar in the English Romantic Movement**
146322 1245-1500 T, LindH 320, Eifenbein, 4 cr

r8240 **Shakespeare: The Revolution in Shakespeare Studies, 1980-1990**
030347 1325-1540 W, LindH 216, Sprengnether, 4 cr

r8610 **Studies in 20th-Century British and American Literature**
531137 1430-1645 Th, LindH 216, Damon, 4 cr

r8670 **Studies in Prose Fiction**
742640 -1 1430-1645 T, VinH 301, von Koppelfels, 4 cr (British Popular Fiction)
846338 -2 1245-1500 Th, LindH 302, Anderson, 4 cr (Joyce and Feminism)

r8810 **Studies in the English Language: Contact Languages**
027304 1245-1500 T, LindH 216, Escure, 4 cr

8888 **Thesis Credits: Doctoral** (max 18 cr per qtr)
125373 1-36 cr

8970 **Independent Reading** (prereq #, Δ)
828096 1-15 cr

ENGLISH: CREATIVE & PROFESSIONAL WRITING (EngW) English Language and Literature Liberal Arts

r1101 **Introduction to Creative Writing**
★LECT 1430-1545 Th, Arch 5
427632 -1 REC 1430-1625 T, LindH 340, LaChapelle, 4 cr
631002 -2 REC 1430-1625 T, LindH 315, Hermes, 4 cr
528268 -3 REC 1430-1625 T, LindH 303, Labiner, 4 cr
524978 -4 REC 1430-1625 T, LindH 302, Temkin, 4 cr
029649 -5 REC 1430-1625 T, LindH 229, Rabinowitz, 4 cr (MLK stu only)

r3960 **Writing Workshop for Majors** (prereq Comp 3xxx, Engl maj, jr or sr, Δ)
728348 1315-1530 W, FordH 40, O'Connor, 4 cr

r5103 **Advanced Fiction Writing** (§Engl 5103; prereq Δ)
129536 1615-1845 T, LindH 217, Alden, 4 cr

r5107 **Advanced Poetry Writing** (§Engl 5106; prereq Δ)
633476 1820-2050 Th, LindH 229, Engman, 4 cr

r5205 **Advanced Playwriting** (prereq 5204, Th 3115 or Th 5115, Δ)
027738 0915-1200 F, RarigC 210, Nolte, 4 cr

r5210 **Topics in Advanced Nonfiction Writing: Writing from Life** (prereq Δ)
342642 1615-1845 M, LindH 320, Sprengnether, 4 cr

5970 **Directed Study in Writing** (prereq #)
632005 1-4 cr

r8110 **Writing of Fiction** (§8420, Engl 8420; prereq Δ)
246151 1615-1845 Th, LindH 325, Iossel, 4 cr

r8120 **Writing of Poetry** (§8430, Engl 8430; prereq Δ)
126488 1615-1845 T, LindH 325, Browne, 4 cr

ENTOMOLOGY (Ent) Agriculture

1001 **Insects and Society** (A-F only)
628083 1500-1550 MWF, HodsonH 490, Ragsdale, Moon, others, 3 cr

r1005 **Economic Entomology** (prereq Biol 1011 or #)
★LECT 1040-1130 MWF, HodsonH 495, Ragsdale
127270 -1 LAB 1355-1550 M, HodsonH 485, 4 cr
926761 -2 LAB 1015-1215 T, HodsonH 485, 4 cr
124398 -3 LAB 1605-1800 W, HodsonH 485, 4 cr
432717 -4 LAB 0800-1000 Th, HodsonH 485, 4 cr

r5250 **Forest Entomology** (prereq any two courses courses among the forestry, zoological, botanical, biological, and/or agricultural sciences)
★LECT 1145-1235 MWF, HodsonH 490, Kulman
324772 -1 LAB 1500-1655 F, HodsonH 485, 4 cr
225073 -2 LAB 1500-1655 F, HodsonH 485, 4 cr

5360 **Aquatic Entomology** (prereq 3005 or equiv or #) (A-F only)
★LECT 0935-1025 W, HodsonH 480, Holzenthal
946279 -1 LAB 1250-1445 WF, HodsonH 480, 3 cr

5370 **Principles of Systematics** (prereq 3005 or equiv, 5020)
246280 1315-1430 TTh, HodsonH 219A, Holzenthal, 3 cr

5900 **Basic Entomology** (prereq #)
031787 ar cr

5910 **Special Problems in Entomology** (prereq #)
932771 ar cr

5920 **Special Lectures in Entomology**
127026 ar cr

8240 **Colloquium in Insect Ecology** (prereq 5040 or #) (S-N only)
647460 Andow, 1-2 cr

8300 **Graduate Seminar** (prereq #) (S-N only)
332063 1500-1600 Th, HodsonH 490, Ragsdale, 1 cr

8500 **Research in Entomology** (prereq #) (S-N only)
328174 ar cr

8777 **Thesis Credits: Masters**
824825 1-16 cr

8888 **Thesis Credits: Doctoral** (max 18 cr per qtr)
829040 1-36 cr

FAMILY PRACTICE AND COMMUNITY HEALTH (FCH) Medical School

5500 **Preceptorship in Clinical Practice** (prereq regis med)
225056 Seim, 9 cr

5501 **Rural Physician Associate Program** (†5501; prereq completion of 8 academic quarters of medical school)
829930 Verby, 0-18 cr

5502 **Physician as Counselor in Marriage and Family Problems** (prereq regis 5501)
126068 Verby, 1 cr

5503 **RPAP Research Paper** (†5503; prereq †5501 or Med 5592) (S-N only)
233738 Verby, 1 cr

5505 **Problem - Focused Interactive Learning** (prereq medicine, pediatrics, surgery and neurology)
126807 Seim, 4.5 cr

5514 **Introduction to Family Practice** (prereq previous clinical rotations)
333035 O'Neil, 4.5 cr

5515 **Preceptorship in Gerontology Community Health** (prereq regis med)
929174 O'Neil, 9 cr

5516 **Research in Human Sexuality** (prereq #)
233741 Coleman, 9 cr

- 5520 Rural Rotation in Family Practice** (prereq regis med)
430613 Jacobson, McConnell, 9 cr
- 5525 Management of Patients with Cardiovascular Problems by the Family Physician** (prereq regis med)
829748 Nesvacil, Sharkey, 9 cr
- 5530 Clinical Problems in Family Practice** (prereq regis med)
731749 Daly, 9 cr
- 5535 Community Health in Family Practice** (prereq minimum of two 6-week rotations from the following: Med, Ped, Obst or Surg)
525211 Setness, 4.5-9 cr
- 5545 Family Practice in a Community Clinic** (prereq minimum of two 6-week rotations from the following: Med, Ped, Obst or Surg)
631369 Richardson, Raines, 9 cr
- 5550 Ambulatory Care Rotation/Family Practice** (prereq minimum of two 6-week rotations from the following: med, peds, OB/Gyn or surgery)
733470 Seim, 9 cr
- 5555 Sexual Counseling for Family Physicians** (prereq completion of medical school)
729550 Coleman, 2 cr
- 5560 Alcohol and Drug Addiction Treatment Center** (prereq regis med)
031434 Nesvacil, Briggs, 4.5 cr
- 5562 Medical Interviewing: Dealing with Problem Patients in a Holistic Approach** (†5562; prereq regis med)
731637 Verby, others, 2 cr
- 5564 Family Practice Seminar** (prereq med stu) (A-F only)
144174 1-3 cr
- 5580 Community Emergency Medicine**
530702 Seim, 9 cr
- 5585 Sexual Problems in Clinical Practice** (prereq med student, #)
524902 Coleman, ar cr
- 5595 Research in Family Practice: Independent Study**
128752 Seim, 4 cr
- 5597 Clinical Decision Making** (prereq # or 2nd or 3rd yr resident)
130758 -1 Daly, 2 cr
727135 -2 Daly, 2 cr
- 5599 Undergraduate Independent Study**
125189 Ciriacy, ar cr
- 5903 Community Health Rotation** (prereq #)
030641 Ciriacy, ar cr
- 5955 Directed Study** (prereq #)
124126 Coleman, 1-15 cr
- 5956 Human Sexuality Throughout the Life Cycle for the Primary Care Physician** (prereq #, college level introductory course in human sexuality)
924363 Coleman, 3 cr
- 5966 Computers in Theory and Practice**
923780 Gepner, 2 cr
- 5970 Psychological Crisis Intervention Workshop** (prereq 1st yr resident in family practice)
826137 0800-1630 F, PWB 3167, 2 cr (clinic conf rm)
- 8201 Clinical Family Medicine**
931653 Ciriacy, ar cr
- 8210 Family Medicine Grand Rounds**
828065 1220-1310 W, MoosT 2620, Ciriacy, others, 0-1 cr (3rd W per month) (Apr 15, May 20)
- 8215 Seminar: Psychosomatic Medicine** (prereq 2nd yr resident or #)
926758 1300-1630 TTh, 0800-1630 F, PWB 6240, Kelly, 2 cr (Huff I, II)

FAMILY SOCIAL SCIENCE (FSoS)

Human Ecology

- r1001 Dynamics of Family Relationships** (§1002)
730701 1040-1205 TTh, McNH 198, Hagemeister, 4 cr

- R1025 Parenthood**
129917 1600-1800 TTh, McNH 198, Dix, 4 cr
- 3260 Family Resource Management** (prereq AgEc 1101, Psy 1001, Soc 1001...Anth 1002, Pol 1001 rec)
342656 1605-1930 T, ClaOff B25, Rettig, 4 cr
- 5202 Social Psychology of Close Relationships** (prereq Psy 1001, introductory sociology or #)
146305 1010-1100 MWF, EitH N119, Berscheid, 4 cr
- r5210 Family in World Perspective** (prereq 5200, Arith 1102 or #)
425797 1010-1150 TTh, McNH 33, Rosenblatt, 4 cr
- 5230 Independent Study in Family Social Science** (max 16 cr)
225140 1-5 cr
- 5231 Planning for Fieldwork**
231326 0900-1040 M, McNH 375, Goodman, 2 cr
- 5240H Family Economic Wellbeing and Family Structure** (prereq CLA or CHE honors stu) (A-F only)
147406 1330-1510 W, McNH 375, Gage, 2 cr
- 5249 Fieldwork: Directed Community Work Experience** (max 15 cr; prereq 5231, human relationships maj) (S-N only)
130453 1315-1500 M, McNH 197, Goodman, 5 cr
- 5256 Family Policy: An International Perspective** (prereq 5255 or #)
142657 0900-1040 MW, McNH 198, Zimmerman, 4 cr
- 5500 Racial and Ethnic Minority Families** (prereq 5200)
042658 1800-2115 T, ClaOff 35, 4 cr
- 8203 Family Stress, Coping and Adaptation** (§SW 8203) (A-F only)
026783 1250-1520 T, McNH 197, Boss, 3 cr
- r8215 Clinical Issues in Marital and Family Therapy** (prereq 8214) (A-F only)
123793 1250-1610 Th, McNH 197, Doherty, 4 cr
- 8222 Internship in Teaching College Level Family Courses II** (prereq 8221)
046306 Maddock, 2-6 cr
- 8223 Internship in Teaching College Level Family Courses III** (prereq 8222)
846307 Maddock, 2-6 cr
- 8230 Directed Study** (prereq #)
924766 1-7 cr
- 8251 Problems: Family Social Science**
332242 -1 0900-1220 T, McNH 375, Olson, 3 cr (Family Theory Development) (prereq 8255)
142660 -2 0900-1220 Th, McNH 375, Maddock, 4 cr (General Systems Theory and Family Systems) (prereq 5200, 8255)
- 8553 Internship in Marital and Family Therapy III** (prereq 8214, 8215, family therapy interns only) (A-F only)
927957 Boss, 7 cr (BerryHse)
- 8777 Thesis Credits: Masters**
827210 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
633574 1-36 cr

FINANCE (BFin) Management

Non-SMgt students should refer to page 9, Carlson School of Management Courses, before attempting to register for BFin courses.

- r3000 Finance Fundamentals** (§MBA 8040; prereq Acct 1025) (A-F only)
128377 1315-1445 MW, BlegH 110, Rosko, 4 cr
- r3100 Financial Management** (prereq 3000) (A-F only)
933905 1115-1245 MW, BlegH 220, Chang, 4 cr
- r3300 Investment Management and Financial Markets** (§8300; prereq 3000)
024886 -1 0800-0930 TTh, HHHctr 25, LeRoy, 4 cr
828454 -2 1130-1300 TTh, BlegH 335, LeRoy, 4 cr
- r3603 Selected Problems in Bank Management** (prereq 3000 or #) (A-F only)
044250 1730-2100 T, AndH 350, Carroll, 4 cr
- r8100 Cases in Financial Management** (prereq MBA 8040 or #, grad mgmt student or grad SMgt approval) (A-F only)
046659 1500-1645 MW, BlegH 110, Rosko, 4 cr
- r8150 Theory of Finance** (prereq MBA 8040 or #, grad mgmt/IR student or grad SMgt approval) (A-F only)
128640 1000-1145 TTh, BlegH 425, Dothan, 4 cr
- r8200 Financial Markets and Interest Rates** (prereq MBA 8040 or #, grad mgmt student or grad SMgt approval)
729001 1000-1145 MW, BlegH 435, Hess, 4 cr
- r8601 Corporate Investment and Financial Strategy** (prereq 8150, 8200 or #, grad mgmt student or grad SMgt approval) (A-F only)
142666 -1 1730-2100 T, BlegH 125, Gahlon, 4 cr
742668 -2 1300-1445 TTh, BlegH 425, Gahlon, 4 cr
- r8604 Options Markets** (§8704; prereq 8150, 8200 or #, grad mgmt student or grad SMgt approval) (A-F only)
942670 1730-2100 M, HHHctr 60, Alexander, 4 cr
- r8605 Investment Banking** (§8705; prereq 8150, 8200 or #, grad mgmt student or grad SMgt approval) (A-F only)
833167 1500-1645 TTh, BlegH 145, Harris, 4 cr
- r8802 Mathematical Methods in the Theory of Capital Markets** (prereq 8801, Econ 8101 or equiv, Math 3211 or equiv, Math 3221 or equiv, Stat 5121 or equiv, or #, PhD stu) (A-F only)
542672 1115-1230 MW, Mgmt/Econ 731, Lee, 4 cr
- 8850 Independent Study in Finance** (prereq #, grad mgmt student or grad SMgt approval)
346660 1-4 cr

FINNISH (Fin) Scandinavian Studies Liberal Arts

- r1103 Beginning Finnish** (prereq 1102)
227034 0905-0955 MTWThF, KoitH S133, Markkanen, 5 cr
- r1106 Intermediate Finnish** (prereq 1105 or equiv)
333374 1115-1205 MTWThF, KoitH S136, Sinks, 5 cr
- r3670 Readings: Finnish Texts** (max 28 cr; prereq 1106 or equiv)
330538 0945-1100 TTh, FolH 240, Palomaki, 4 cr

FISHERIES AND WILDLIFE (FW)

Natural Resources

- r1002 Wildlife: Ecology, Values and Human Impact**
927067 1115-1230 TTh, Arch 60, Kitts, 3 cr (Mpls)
- r1101 Ethics and Values in Resource Management**
924816 0845-1000 TTh, KauIL 302, Kitts, 3 cr
- 5393 Special Problems in Fisheries Biology** (prereq #)
427825 ar cr
- 5398 Special Problems in Wildlife Biology** (prereq #)
929126 ar cr
- r5455 Aquaculture** (prereq Biol 1009, 1103, 1106 or equiv, Chem 1001-1002 or 1004-1005 or equiv or #)
543952 1315-1430 TTh, HodsonH 490, Kapuscinski, 3 cr
- r5459 Physiology and Behavior of Fish** (prereq EEB 5135 or EEB 5156 or #)
★LECT 1040-1130 MWF, HodsonH 490
143954 -1 REC 1145-1235 W, HodsonH 485, Sorensen, 4 cr
- 8200 Seminar**
031126 ar cr
- 8364 Research in Fisheries Biology** (prereq fisheries grad)
125737 ar cr
- 8377 Research in Wildlife Biology** (prereq wildlife grad)
224442 ar cr

- 8448 Fishery Science** (prereq # or fisheries grad stu)
842676 1145-1300 TTh, HodsonH 490, Spangler, 4 cr
- 8777 Thesis Credits: Masters**
931409 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
225784 1-36 cr

FLUID MECHANICS (FIME)

- 8777 Thesis Credits: Masters**
133434 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
333309 1-36 cr

FOOD SCIENCE AND NUTRITION (FScN)

Agriculture & Human Ecology

- r3400 Food Communication Techniques** (prereq 3102)
★LECT 1040-1130 W, McNH 144, Asp
133384 -1 LAB 1040-1235 MF, McNH 126, Asp, 3 cr
- 3610 Community Nutrition** (prereq 1612 or equiv, 5 credits in anthropology or psychology or sociology)
529002 1605-1655 MW, ABLMS 125, Darling, 2 cr
- 5000 Professional Experience Program** (prereq 15 cr in food science, nutrition, #) (A-F only)
742685 Smith, 4 cr
- r5100 General Seminar** (prereq sr or #) (A-F only)
431843 -1 1250-1340 T, McNH 144, Vickers, 1 cr
532739 -2 1250-1340 W, McNH 144, Vickers, 1 cr
- 5110 Food Chemistry** (prereq 3102, BioC 3031 or Biol 5001)
534068 1500-1550 MTWF, ABLMS 125, Csallany, 4 cr
- 5111 Independent Study in Food Science and Nutrition** (prereq Δ)
731590 1-5 cr
- 5122 Control Systems in Food Microbiology** (prereq 5120)
529937 0935-1025 TTh, FScN 15, Zottola, 2 cr
- r5123 Food Fermentations and Biotechnology** (prereq 5120, 5122)
★LECT 1355-1445 MWF, FScN 15, McKay, Harlander
225462 -1 LAB 1145-1340 W, FScN 218, McKay, Harlander, 4 cr
- r5522 Technology of Fluid and Concentrated Milk Products** (prereq 3136, 5110)
★LECT 0830-0920 MWF, FScN 15, Smith
342687 -1 LAB 1250-1550 Th, FScN 150, 4 cr
- 5612 Experimental Nutrition** (prereq 3612, Biol 5001)
★LECT 1250-1340 T, ABLMS 135, Gallaher
126418 -1 LAB 1250-1655 Th, ABLMS 135, Gallaher, 2 cr
- 5623 Vitamin and Mineral Biochemistry** (prereq 3612, Biol 5001, PhsI 3051)
746283 1630-1810 MW, FScN 23, Gallaher, 4 cr
- r5642 Field Experience in Community Nutrition** (prereq course in human nutrition, #)
★LECT 1250-1445 M, ABLMS 222, Olson, Hanson, (CUP students only)
529243 -1 LAB 0800-1200 MWF, Olson, Hanson, 3 cr (CUP students only)
- 5664 Field Experience in Clinical Nutrition** (prereq course in human nutrition, #)
★LECT 1800-2000 Th, FScN 153, Olson, Hanson, (CUP students only)
427212 -1 LAB 0800-1650 MTWThF, Olson, Hanson, 9 cr (CUP students only)
- 5667 Applied Clinical Nutrition III** (prereq 5666)
228877 1600-1830 Th, FScN 15, Hanson, 3 cr
- 5750 Principles of Foodservice Management** (prereq 3730 or 3732, Mgmt 3001)
723991 1250-1430 MW, DinC 152, Mullan, 4 cr
- 8101 Research Seminar** (prereq #) (S-N only)
729497 1 cr
- 8205 General Seminar** (prereq #) (S-N only)
129786 1605-1655 M, FScN 15, McKay, 1 cr

- 8315 Food Proteins** (prereq 5110, 5312, or #)
142688 1605-1800 W, 1605-1655 F, FScN 15, Davis, 3 cr
- r8401 Independent Study: Food Science** (prereq Δ)
524155 1-5 cr
- r8621 Independent Study: Nutrition** (prereq #)
225865 Savaiano, 1-9 cr
- 8777 Thesis Credits: Masters**
626186 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
031546 1-36 cr

FOREIGN STUDIES MANAGEMENT (FSMg)

Management

- 3460 Institute of European Studies Program in Vienna, Austria** (prereq □)
726132 1-54 cr
- 3490 Institute of European Studies Program at the University of Singapore** (prereq □)
425976 1-45 cr
- 3590 Institute of European Studies International Business Management Program in Dijon** (prereq □)
645952 1-24 cr
- 3620 Council on International Educational Exchange Japanese Business and Society Program** (prereq □)
732223 1-24 cr
- 3680 Council on International Educational Exchange Business and Society Program in Seville, Spain** (prereq □)
230323 1-26 cr
- 3820 Denmark's International Business Studies Program in Copenhagen** (prereq □)
126846 1-36 cr

FOREIGN STUDY (FoSt)

Liberal Arts

- 3110 HECUA Scandinavian Urban Studies Term** (prereq Δ)
028639 1-24 cr
- 3130 HECUA Literature, Ideology, and Society in Latin America** (prereq Δ)
325338 1-24 cr
- 3210 Kansas Program in Costa Rica** (prereq Δ)
824095 1-54 cr
- 3400 IAS Program at Nanzan University, Japan** (prereq Δ)
133482 1-45 cr
- 3410 IES Program in Durham, England** (prereq Δ)
128539 1-45 cr
- 3420 IES Program in London** (prereq Δ)
225879 1-54 cr
- 3430 IES Program in Nantes, France** (prereq Δ)
029151 1-54 cr
- 3440 IES Program in Paris** (prereq Δ)
128105 1-54 cr
- 3450 IES Program in Madrid** (prereq Δ)
727619 1-54 cr
- 3460 IES Program in Vienna** (prereq Δ)
333732 1-54 cr
- 3470 IES Program in Freiburg, Germany** (prereq Δ)
425069 1-54 cr
- 3480 IES European Community Program in Germany** (prereq Δ)
331477 1-27 cr
- 3490 IAS Program at the University of Singapore** (prereq Δ)
632554 1-45 cr
- 3500 IES Program in Milan, Italy** (prereq Δ)
023849 1-54 cr
- 3510 IES London University and Fine Arts Program** (prereq Δ)
727071 1-54 cr
- 3520 IAS: Southeast Asia Program** (prereq Δ)
033149 1-24 cr
- 3560 IES Program in Australia** (prereq Δ)
145719 1-54 cr

- 3570 IES Program in Salamanca, Spain** (prereq Δ)
545720 1-54 cr
- 3580 IES Program in Berlin** (prereq Δ)
846842 1-54 cr
- 3590 IES International Business Management Program in Dijon** (prereq Δ)
646843 1-27 cr
- 3690 CIEE Dominican Republic Language/Caribbean Studies Program** (prereq Δ)
326411 1-27 cr
- 3700 CIEE Area Studies Program in Prague, Czechoslovakia** (prereq Δ)
147440 1-27 cr
- 3710 CIEE Area Studies Program in Budapest, Hungary** (prereq Δ)
047441 1-27 cr
- 3720 CIEE Area Studies Program in Warsaw, Poland** (prereq Δ)
847442 1-27 cr
- 3740 CIEE Program at Murdoch University, Perth, Australia** (prereq Δ)
647443 1-54 cr
- 3750 CIEE Interuniversity Study Program in Sao Paulo, Brazil** (prereq Δ)
447444 1-66 cr
- 3810 Bologna Cooperative Studies Program, Italy** (prereq Δ)
931443 1-54 cr
- 3820 Denmark's International Study Program** (prereq Δ)
130436 1-54 cr
- 3900 Exchange Study in British Universities** (prereq Δ)
332550 1-54 cr

FOREST PRODUCTS (ForP)

Natural Resources

- r3202 Leadership and Management Skills Development** (A-F only)
832567 0830-0920 TTh, NatResAd 100, Bell, 2 cr
- r3300 Wood Industry Tours** (prereq 1301, jr or sr or #) (course fee)
432457 Petersen, 2 cr (field trip Mar 23-27, travel arrangements must be made with dept before Feb 21)
- 3301 Industrial Internship** (prereq forest products student, registration in cooperative education program) (A-F only)
524088 Bowyer, Rouda, 2 cr
- 3325 Directed Study Experience** (prereq #)
231732 1-5 cr
- 5303 Wood Deterioration** (prereq 1301 or #)
★LECT 1455-1545 Th, KaufL 125, Schmidt
927926 -1 LAB 1555-1700 Th, KaufL 125, Kulman, 4 cr
- 5310 Pulp and Paper Process Laboratory** (prereq 5305 or #)
★LECT 1355-1445 Th, KaufL 125, Muvundamina
131707 -1 LAB 1500-1745 Th, KaufL 58, 60, Muvundamina, 3 cr
- 5315 Paper Engineering Laboratory** (prereq 5305, 5310 or current registration 5310, 5312; 5306 recommended; or #)
★LECT 1355-1445 T, KaufL 125, Rouda
633493 -1 LAB 1500-1745 T, KaufL 60, Rouda, 2 cr
- 5316 Coated Product Development** (prereq 5359)
830060 1250-1340 TTh, KaufL 125, Wells, 2 cr
- 5331 Undergraduate Seminar** (prereq ForP major; must be taken prior to senior year) (A-F only)
930891 1040-1235 F, KaufL 302, Stekienski, 2 cr
- 5353 Wood Chemistry II** (prereq 5302)
846078 0910-1025 TTh, KaufL 125, Sarkanen, 3 cr
- 5355 Mechanics and Structural Design with Wood Products** (prereq 5301)
124751 1145-1340 TTh, KaufL 125, Nyandwi, 4 cr
- 5401 Senior Topics** (prereq sr, #)
531705 ar cr
- 8300 Research Problems**
231679 ar cr

- 8301 **Research Problems**
724302 ar cr
- 8302 **Research Problems**
628777 ar cr
- 8303 **Advanced Topics: Panel Products Technology**
233335 Gertjeansen, 2 cr
- 8306 **Seminar: Forest Products**
125155 1500-1645 M, KaufL 125, Schmidt, 2 cr

FOREST RESOURCES (FR) Natural Resources

- r1201 **Conservation of Natural Resources**
042837 0935-1050 TTh, GrnH 110, Spliet, 3 cr
- 1203 **Introduction to Minnesota's Natural Resources** (§1201, for non forestry students)
129083 1515-1800 Th, JonesH 10, Vogt, 3 cr (Mpls)
- r3202 **Leadership and Management Skills Development (A-F only)**
124880 0830-0920 TTh, NatResAd 100, Bell, 2 cr
- 3225 **Directed Study Experience** (prereq #)
628276 1-5 cr
- 3250 **Role of Renewable Natural Resources in Developing Countries** (§5250, LAS 3250) (A-F only)
227986 1500-1630 W, BorH 335, Gregersen, Rose, 2 cr
- r5130 **Geographic Information Systems in Natural Resource Analysis** (prereq sr or grad or #)
★LECT 1400-1450 TTh, GrnH 203, Queen 229253 -1 LAB 1300-1500 W, NatResAd 35, 3 cr
- 5153 **Advanced Forest Hydrology** (prereq 5114 or #)
★LECT 1015-1130 TTh, NatResAd 100, Brooks
728267 -1 LAB 4 cr (lab ar)
- 5212 **Natural Resources Inventory** (prereq Itasca session FR 3201, AgEt 3030 or equiv, computer programming course with FORTRAN or BASIC language, Math 1142 or Math 1211, Stat 3011 or Stat 5021)
★LECT 0935-1025 MWF, KaufL 302, Burk 929319 -1 LAB 1300-1500 Th, NatResAd 100, 4 cr
- 5215 **Forest Fire Management** (prereq 1100, Itasca session, 3103, 5100 or #)
325016 1145-1235 TTh, GrnH 203, 2 cr
- 5225 **Directed Study Experience** (prereq #)
142836 1-5 cr
- 5226 **Forest Economics and Planning** (prereq 5212, AgEc 1030 or #)
630559 1300-1430 MWF, GrnH 110, Rose, Gregersen, 5 cr
- 5231 **Range Management** (prereq Biol 1103 or #)
125728 0830-0920 MWF, NatResAd 100, Brooks, 3 cr
- 5232 **Management of Recreational Lands**
★LECT 1040-1130 MWF, GrnH 110, Anderson, 4 cr
147471 -1 REC 1100-1150 Th, GrnH 110
- r5241 **Natural Resource Management: Political and Administrative Processes** (prereq 5240 or #) (A-F only)
130985 1400-1630 T, GrnH 326, Ellefson, 3 cr
- 5250 **Role of Renewable Natural Resources in Developing Countries** (§3250, LAS 3250) (A-F only)
728737 1500-1630 W, BorH 335, Gregersen, Rose, 2 cr
- 5264 **Quantitative Techniques in Forest Management** (prereq 5212, 5226 or #)
531963 0900-1130 W, GrnH 19, Hoganson, 3 cr
- 5401 **Senior Topics** (prereq forestry sr or #)
733355 ar cr
- 5412 **Advanced Remote Sensing** (prereq 5262 or #)
526715 0845-1000 MWF, GrnH 203, Perry, 4 cr
- 5460 **Water Quality: The International Dimension** (prereq previous classwork in water resources at the college level or #)
646308 Perry, 3 cr

- 5500 **Urban Forest Management** (prereq 5100 or #)
333262 1015-1130 TTh, GrnH 19, French, 3 cr
- 5703 **Colloquium in Natural Resources: Current Literature in Forest Genetics** (prereq Biol 5003 or GCB 3022 or GCB 5022) (S-N only)
446309 Furnier, Howe, 2 cr
- 8100 **Research Problems: Silviculture**
533728 Alm, Scholten, ar cr
- 8101 **Research Problems: Forest-Tree Physiology**
328580 Reich, Sucoff, ar cr
- 8102 **Problems: Forest-Tree Genetics**
427694 Furnier, Mohn, ar cr
- 8103 **Research Problems: Forest Hydrology**
633669 Brooks, Perry, ar cr
- 8107 **Seminar: Forest Resources**
929143 1500-1550 MW, GrnH 203, Ek, Furnier, 1 cr
- 8200 **Research Problems: Forest Management**
025732 Blinn, Hoganson, others, ar cr
- 8201 **Research Problems: Forest Economics**
330474 Gregersen, Ellefson, others, ar cr
- 8202 **Research Problems: Forest Biometry**
127348 Burk, Ek, ar cr
- 8203 **Research Problems: Forest Recreation**
529100 Anderson, Lime, ar cr
- 8204 **Research Problems: Forest Policy**
825442 Baughman, Ellefson, ar cr
- 8205 **Research Problems: Remote Sensing**
528187 Bauer, Martin, Queen, ar cr
- 8207 **Economic Analysis of Forestry Projects** (prereq #)
830768 Gregersen, 3 cr

FORESTRY (Fors)

- 8777 **Thesis Credits: Masters**
931071 1-16 cr
- 8888 **Thesis Credits: Doctoral** (max 18 cr per qtr)
327137 1-36 cr

FRENCH (Fren) French And Italian Liberal Arts

- r1101 **Beginning French** (Degree credit granted only according to Entrance Standard)
328529 -1 0800-0850 MTWThF, Arch 15, 5 cr
628938 -2 0800-0850 MTWThF, CivMinE 213, 5 cr
631422 -3 1115-1205 MTWThF, MechE 221, 5 cr
- r1102 **Beginning French** (Degree credit granted only according to Entrance Standard; prereq 1101 or equiv)
833539 -1 0800-0850 MTWThF, AmundH 116, 5 cr
028002 -2 0800-0850 MTWThF, JonesH 4, 5 cr
524740 -3 0800-0850 MTWThF, VinH 213, 5 cr
430711 -4 1115-1205 MTWThF, SmithH 111, 5 cr
- r1103 **Beginning French** (prereq 1102 or Entrance Standard proficiency test)
731797 -1 0800-0850 MTWThF, VinH 314, 5 cr
630612 -2 0800-0850 MTWThF, VinH 209, 5 cr
130458 -3 0800-0850 MTWThF, NichH 109, 5 cr
729984 -4 1115-1205 MTWThF, SmithH 121, 5 cr
727104 -5 1220-1310 MTWThF, MechE 221, 5 cr
532529 -6 1220-1310 MTWThF, Kolth S139, 5 cr
- r1104 **Intermediate French** (prereq 1103 or three yrs high school Fren)
526892 -1 1010-1100 MTWThF, AmundH 156, 5 cr (department approval and concurrent registration in 1105, section 1 is required)
128094 -2 0815-0930 MWF, MurH 308, 5 cr
225820 -3 0945-1100 MWF, FordH 40, 5 cr
- r1105 **Intermediate French** (prereq 1104)
726891 -1 1115-1205 MTWThF, AmundH 156, 5 cr (department approval and concurrent registration in 1104, section 1 is required)
229978 -2 0815-0930 MWF, AkerH 317, 5 cr
028744 -3 0945-1100 MWF, FordH 60, 5 cr
629802 -4 0945-1100 MWF, JonesH 4, 5 cr
- r1106 **Intermediate French** (prereq 1105)
829684 -1 0815-0930 MWF, FordH 60, 5 cr
027593 -2 0815-0930 MWF, Arch 60, 5 cr
127309 -3 0815-0930 MWF, PeikH 315, 5 cr
733405 -4 0945-1100 MWF, Arch 60, 5 cr
033698 -5 0945-1100 MWF, PeikH 315, 5 cr
027111 -6 1115-1230 MWF, PeikH 315, 5 cr
047276 -7 1115-1230 MWF, Arch 60, 5 cr
- r3014 **French Phonetics** (prereq 1106)
229320 0905-1020 MW, JonesH 11, Wieland, 4 cr
- r3015 **French Composition and Conversation** (prereq 1106)
933662 -1 0905-1100 MW, AmundH 124, Estrem, 4 cr
425427 -2 1010-1205 MW, ChDev 216, 4 cr
027433 -3 0905-1100 TTh, JonesH 11, Barnes, 4 cr
- r3016 **Advanced French Composition and Conversation** (prereq 3015 or #)
026718 -1 1325-1440 MW, BuH 125, 4 cr
832892 -2 1220-1335 TTh, FolH 148, Barnes, 4 cr
- r3017 **Stylistics Through Translation** (prereq 3016 or superior achievement in 3015 or #)
230161 0905-1020 TTh, FolH 50, Waldauer, 4 cr
- r3101 **Introduction to French Literary Texts: Poetry** (prereq 3015 or equiv)
829121 -1 1115-1230 MW, FolH 134, Estrem, 4 cr
442695 -2 1010-1125 TTh, FolH 208, Robinson, 4 cr
- r3103 **French Literary Texts: Novel** (prereq 3101 or above)
128623 -1 1010-1125 MW, AkerH 317, Paganini, 4 cr
242696 -2 1220-1335 TTh, FolH 340, Waldauer, 4 cr
- r3269 **Topics in 19th-Century French Literature** (prereq 3101, 3103)
134065 1010-1125 MW, VinH 20, 4 cr
- r3289 **Topics in 20th-Century Literature** (prereq 3101, 3103)
142697 1220-1335 TTh, FolH 234, 4 cr
- r3513 **French Civilization and Culture** (prereq 3015)
847473 1345-1500 TTh, CivMinE 212, 4 cr
- r3603 **20th-Century French Theatre in Translation** (knowledge of Fren helpful but not necessary)
942698 1220-1335 MW, BuH 120, Brewer, 4 cr
- 3800 **CIEE Language/Culture Program in Brittany** (prereq 1105)
430160 1-54 cr
- 3970 **Directed Readings** (prereq undergrad student, #, Δ, □)
024905 1-5 cr
- 3980 **Directed Instruction** (prereq 3015, #, Δ, □)
131450 3-5 cr
- r5105 **Topics in Criticism** (prereq 3209 or above)
133439 1010-1125 MW, FolH 142, Preckshot, 4 cr
- 5800 **CIEE Contemporary Film Program in Paris** (prereq 1105 or #)
227082 1-45 cr
- r5900 **Topics in French Literature** (max 15 cr; prereq 3209 or above)
928378 1300-1600 W, FolH 50, 4 cr
- r6050 **Seminar in Fiction** (max 15 cr)
742699 1445-1600 TTh, FolH 426, Sivert, 4 cr
- r6120 **Seminar in Problems of the 16th Century Writing** (max 15 cr)
442700 1325-1440 MW, FolH 214, 4 cr
- 8190 **Seminar in Problems of 20th Century Writing** (max 15 cr)
647278 1535-1650 MW, FolH 116, Brewer, 4 cr
- r6701 **History of the French Language**
242701 1325-1440 MW, FolH 426, Akehurst, 4 cr
- 8777 **Thesis Credits: Masters**
733646 1-16 cr
- 8888 **Thesis Credits: Doctoral** (max 18 cr per qtr)
124031 1-36 cr
- 8970 **Directed Readings**
926629 1-5 cr
- 8980 **Directed Teaching** (prereq #, Δ)
927991 1-5 cr

GENERAL COLLEGE (GC)

General College restricts some sections to certain groups of students. Sections and courses marked BC (Base Curriculum) are reserved for GC students who are in their first two quarters of enrollment or have fewer than 24 credits (or credit-equivalents in courses such as developmental math). Credit equivalents for noncredit courses in GC are as follows: 0401, 0402, 0641, 0643—4-credit equivalent; 0611, 0615, 0616, 0617, 0618, 0621, 0623, 0625, 0631—5-credit equivalent. For further information, check at 25 Appleby Hall

- r0611 Mathematics Skills Review** (§0641, 0643, 1434; prereq GC math level B) (course fee)
746106 1010-1205 MTWTh, NichH 201, 0 cr
- r0617 Algebraic Problem Solving II** (§0625; prereq GC math level D or 0616) (course fee)
024175 -1 0800-0955 MWF, NichH 201, 0 cr
227809 -2 1010-1205 MWF, ApH 303, 0 cr
546107 -3 1220-1415 MWF, NichH 201, 0 cr
- r0621 Elementary Algebra** (§1435; prereq GC math level C or 0611 or 1434) (course fee)
626768 -1 0800-0955 MW, 0800-0850 F, FolH 148, 0 cr
332080 -2 1010-1205 MW, 1010-1100 F, FolH 148, 0 cr
425184 -3 1430-1625 MW, 1430-1520 F, FolH 148, 0 cr
233139 -4 0800-0955 TTh, 0905-0955 F, FolH 148, 0 cr
143428 -5 1010-1205 TTh, 1115-1205 F, FolH 148, 0 cr
- r0623 Plane Geometry** (§Math 0007; prereq GC math level D or 1435 or 0621 or Math 0006) (course fee)
147544 1010-1205 MW, NichH 207, Ganguli, 0 cr
- r0625 Intermediate Algebra, Part I** (§1445; prereq GC math level D or 0621 with grade of C or better or 0617) (course fee)
543417 -1 LECT 0800-0850 MTWThF, NichH 218, 0 cr
343418 -2 LECT 0905-0955 MTWThF, NichH 213, 0 cr
★LECT 1115-1205 MWF, NichH 213, 0 cr
526360 -3 REC 1010-1100 TTh, ApH 117, 0 cr
★LECT 1115-1205 MWF, NichH 213, 0 cr
943429 -4 REC 1115-1205 TTh, ApH 117, 0 cr
★LECT 1115-1205 MWF, NichH 213, 0 cr
834075 -5 REC 1220-1310 TTh, ApH 117, 0 cr
343421 -6 LECT 1220-1415 MTWThF, NichH 207, 0 cr
143422 -7 LECT 1325-1415 MTWThF, NichH 213, 0 cr
330281 -8 LECT 1430-1520 MTWThF, NichH 213, 0 cr
- r0631 Intermediate Algebra, Part II** (§1446; prereq GC math level E or 0625 or 1445) (course fee)
227213 -1 0800-0850 MTWThF, NichH 213, 0 cr
825652 -2 0905-0955 MTWThF, NichH 216, 0 cr
425377 -3 1115-1205 MTWThF, NichH 216, 0 cr
327736 -4 1220-1310 MTWThF, NichH 213, 0 cr
333312 -5 1220-1415 MTWThF, NichH 216, 0 cr
133577 -6 1430-1520 MTWThF, NichH 216, 0 cr
633848 -7 1535-1625 MTWThF, NichH 216, 0 cr
- r0641 Basic Mathematics I** (§1431; prereq #) (course fee)
827532 -1 1220-1310 MTWThF, ApH 303, 0 cr
326554 -2 1535-1625 MTWThF, ApH 303, 0 cr
- r0643 Basic Mathematics: Programmed Study** (prereq GC math level B or C or 0611 or 0641, #) (course fee)
434189 -1 1220-1310 MTWThF, ApH 303, 0 cr
132288 -2 1535-1625 MTWThF, ApH 303, 0 cr
- r1042 Reading in Content Areas** (max 9 cr; prereq Commanding English enrollment, □)
734134 -1 1010-1205 MW, NichH 209A, 3 cr (Commanding English students only)
830334 -2 1010-1205 TTh, NichH 209, 3 cr (Commanding English students only)
132235 -3 1010-1205 TTh, NichH 209A, 3 cr (Commanding English students only)
828440 -4 1220-1415 TTh, NichH 209A, 3 cr (Commanding English students only)
- r1043 Learning Strategies: Reading and Study Improvement** (prereq approval of adviser or #, concurrent reg in an approved GC subject-matter course) (S-N only)
529713 Healy, 2 cr (individual instruction ar, ApH 3)
- r1045 Developing College Writing** (§1411) (S-N only)
924153 Healy, 3 cr (individual instruction ar, ApH 3)
- r1051 Introduction to College Reading and Writing**
531689 0800-0955 MW, 0905-0955 F, ApH 223, 5 cr (requires referral from GC 1421 instructor)
- r1086 Higher Education Survival Seminar** (max 6 cr, §1702) (S-N only)
943432 1325-1520 M, NichH 109, 2 cr
- r1111 Science in Context: Weather and Climate**
826865 1325-1415 MTWThF, SciCB 175, Johnson A., 5 cr (lab time assigned first two days of class)
- r1131 Biological Science: Principles**
◆046080 -1 LECT 1010-1100 MTWThF, SciCB 125, 5 cr
◆246084 -2 LECT 1220-1310 MTWThF, SciCB 125, 5 cr
946086 -1 LAB 0800-0955 MW, ApH 309
746087 -2 LAB 0905-1100 MW, ApH 309
546088 -3 LAB 1010-1205 MW, ApH 309
346089 -4 LAB 1115-1310 MW, ApH 309
746090 -5 LAB 1220-1415 MW, ApH 309
546091 -6 LAB 1325-1520 MW, ApH 309
146093 -7 LAB 1430-1625 MW, ApH 309
846095 -8 LAB 1535-1730 MW, ApH 309
646096 -9 LAB 0800-0955 TTh, ApH 309
446097 -10 LAB 0905-1100 TTh, ApH 309
246098 -11 LAB 1010-1205 TTh, ApH 309
146099 -12 LAB 1115-1310 TTh, ApH 309
846100 -13 LAB 1220-1415 TTh, ApH 309
646101 -14 LAB 1325-1520 TTh, ApH 309
446102 -15 LAB 1430-1625 TTh, ApH 309
246103 -16 LAB 1535-1730 TTh, ApH 309
- r1132 Biological Science: The Human Body**
731377 -1 0800-0850 MTWThF, SciCB 125, 5 cr (BC)
346108 -2 1535-1625 MTWThF, SciCB 125, 5 cr
- r1134 Cardiovascular Anatomy and Physiology** (prereq 1132 or equiv)
743433 0905-0955 MTWThF, SciCB 125, 5 cr
- r1137 Biological Science Laboratory: The Human Body** (prereq 1132)
343435 -1 LAB 0800-0955 MW, ApH 311, 2 cr
043437 -2 LAB 1010-1205 MW, ApH 311, 2 cr
843438 -3 LAB 1220-1415 MW, ApH 311, 2 cr
547547 -4 LAB 0800-0955 TTh, ApH 311, 2 cr
347548 -5 LAB 1010-1205 TTh, ApH 311, 2 cr
- r1160 Investigations in Physical Science** (prereq 1 yr high school algebra or 0616 or 0621 or equiv)
643439 -1 0905-1100 MTThF, ApH 322, 5 cr
643442 -2 1325-1520 TWThF, ApH 322, 5 cr
- r1161 Physical Science: Solar System Astronomy**
030283 1010-1100 MTWThF, Phys 170, 5 cr
- r1163 Physical Science: Principles of Physics** (prereq elementary algebra or 0621 or GC math level D)
730679 1325-1415 MTWThF, Phys 131, 5 cr
- r1166 Physical Science: Principles of Chemistry**
532384 -1 1115-1205 MTWThF, SciCB 125, 5 cr
228393 -2 1430-1520 MTWThF, SciCB 175, 5 cr
- r1173 Geology of the National Parks** (§3173)
546110 1115-1205 MTWThF, ApH 321, 5 cr
- r1211 People and Problems**
133490 -1 1325-1520 MW, ApH 103, Thoen, 5 cr (add'l hr ar)
346111 -2 0800-0955 TTh, 0800-0850 F, ApH 103, Johnson F., 5 cr
146112 -3 0800-0955 TTh, 0800-0850 F, ApH 103, Johnson F., 5 cr (Commanding English students only)
246117 -4 1220-1415 TTh, 1220-1310 F, ApH 103, Johnson F., 5 cr
146118 -5 1220-1415 TTh, 1220-1310 F, ApH 103, Johnson F., 5 cr (Commanding English students only)
- r1233 United States: Government and Politics**
243444 -1 0800-0955 MW, 0905-0955 F, ApH 103, 5 cr
143445 -2 1010-1205 MW, 1010-1100 F, NichH 109, 5 cr
- r1235 United States: Law in Society**
732030 -1 1430-1625 MW, 1430-1520 F, NichH 207, 5 cr
630383 -2 0800-0955 TTh, 0905-0955 F, WullH 230, 5 cr (BC)
- r1281 Psychology in Modern Society**
025701 -1 0800-0930 MWF, ApH 122, 128, Brothen, 5 cr
225249 -2 1010-1140 MWF, ApH 122, 128, Brothen, 5 cr
325100 -3 1220-1350 MWF, ApH 122, 128, Brothen, 5 cr
431146 -4 1425-1555 MWF, ApH 122, 128, Brothen, 5 cr
- r1291 The World Today: Geography at Home and Abroad**
433141 1010-1100 MTWThF, NichH 213, Toure, 5 cr
- r1296 Economic Perspectives: Macro Principles and History** (prereq 3rd qtr freshman, GC math level D or 1435 or 0621 or 0625)
433270 0905-0955 MTWThF, SmithH 231, Ghere, 5 cr
- r1311 Art: General Arts** (§3311)
833766 -1 1430-1520 MTWTh, ApH 302, Gates, 4 cr (BC)
532336 -2 1430-1520 MTWTh, ApH 302, Gates, 4 cr (Commanding English students only)
529372 -3 1535-1625 MTWTh, ApH 302, 4 cr (BC)
743447 -4 1010-1205 MW, ApH 302, Houtz, 4 cr (BC)
446116 -5 1010-1205 TTh, ApH 302, Adamson, 4 cr (seminar format; multicultural emphasis) (BC)
- r1357 Philosophy: World Religious Beliefs**
826977 1220-1415 MW, 1220-1325 F, ApH 302, Adamson, 5 cr
- r1365 Literatures of the United States**
833363 -1 1010-1205 MW, ApH 223, Noble, 4 cr (seminar format; multicultural emphasis)
331687 -2 1010-1205 TTh, ApH 223, Noble, 4 cr (seminar format; multicultural emphasis)
543448 -3 1220-1415 TTh, ApH 226, Gidmark, 4 cr
343449 -4 1430-1625 TTh, ApH 226, Gidmark, 4 cr
- r1366 Images of Women in Literature**
629332 1220-1415 MW, 1220-1310 F, ApH 226, Albrecht, 5 cr
- r1371 Literature: Reading Short Stories**
329602 1220-1415 TTh, Arch 35, Collins, 4 cr (BC)
- r1421 Writing Laboratory: Basic Writing** (§1412 prior to Fall 1981) (BC)
127625 -1 0800-0955 MWF, ApH 204, Healy, 4 cr (microcomputer instruction, uses IBM PC)
824078 -2 1010-1205 MWF, ApH 227, 4 cr (microcomputer instruction, uses IBM PC)
528139 -3 1010-1205 MWF, AkerH 313, 4 cr
124510 -4 1010-1205 MWF, ApH 204, 4 cr (microcomputer instruction, uses IBM PC)
625183 -5 1010-1205 MWF, NichH 209, 4 cr
827949 -6 1220-1415 MWF, ApH 204, 4 cr (microcomputer instruction, uses IBM PC)
626639 -7 1220-1415 MWF, ApH 223, 4 cr
127990 -8 1220-1415 MWF, ApH 227, 4 cr (microcomputer instruction, uses IBM PC)
824436 -9 1430-1625 MWF, ApH 204, 4 cr (microcomputer instruction, uses IBM PC)
626365 -10 1430-1625 MWF, ApH 223, 4 cr
- r1422 Writing Laboratory: Communicating in Society** (prereq 1421)
126077 -1 0800-0955 MW, ApH 227, 4 cr (microcomputer instruction, uses IBM PC) (BC)
624325 -2 0800-0955 MW, ApH 219, 4 cr (microcomputer instruction, uses Macintosh PC) (BC)
224070 -3 1220-1415 MW, ApH 219, 4 cr (microcomputer instruction, uses Macintosh PC) (BC)
828955 -4 1430-1625 MW, ApH 219, 4 cr (microcomputer instruction, uses Macintosh PC) (BC)
125575 -5 1430-1625 MW, NichH 122, 4 cr
327350 -6 1010-1205 MWF, NichH 122, Nyhus, 4 cr (Commanding English students only)
032759 -7 1010-1205 MWF, Arch 30, 4 cr (Commanding English students only)
932334 -8 1220-1415 MWF, NichH 122, 4 cr (Commanding English students only)
824856 -9 0800-0955 TTh, ApH 223, 4 cr (BC)
125866 -10 0800-0955 TTh, ApH 204, 4 cr (microcomputer instruction, uses IBM PC)

326067 -11 0800-0955 TTh, NichH 209A, 4 cr
025309 -12 1010-1205 TTh, ApH 204, 4 cr
(microcomputer instruction, uses IBM PC)
(BC)

627239 -13 1010-1205 TTh, ApH 227, 4 cr
(microcomputer instruction, uses IBM PC)
(BC)

124885 -14 1010-1205 TTh, NichH 122,
1010-1205 F, ApH 102, 4 cr
(Commanding English students only)

226448 -15 1220-1415 TTh, ApH 227, 4 cr
(microcomputer instruction, uses IBM PC)
(BC)

424634 -16 1220-1415 TTh, ApH 223, 4 cr (BC)
033183 -17 1430-1625 TTh, ApH 204, 4 cr
(microcomputer instruction, uses IBM PC)
(BC)

443460 -18 1430-1625 TTh, ApH 227, 4 cr
(microcomputer instruction, uses IBM PC)

R1454 Statistics (prereq GC math level D or
elementary algebra)
128631 -1 0800-0955 MW, 0800-0850 F, ApH
303, 5 cr
129245 -2 0800-0955 TTh, 0905-0955 F, ApH
303, 5 cr
646115 -3 1325-1520 TTh, 1325-1415 F, ApH
303, 5 cr

R1456 Functions and Problems of Logic (§1442)
128086 -1 1010-1100 MTWTh, ApH 226, 4 cr
426710 -2 1115-1205 MTWTh, ApH 226, 4 cr
(BC)
625653 -3 1010-1205 MW, ApH 219, Benson,
4 cr (microcomputer instruction, uses
Macintosh PC)

**R1461 Oral Communication: Speaking and Creative
Thinking**
324710 -1 0800-0955 MW, ApH 102, 4 cr
831466 -2 1220-1415 MW, ApH 102, Benson,
4 cr

**R1462 Oral Communication: Speaking and Critical
Thinking** (prereq 1461)
027447 -1 1010-1205 TTh, ApH 102, 4 cr
426366 -2 1220-1415 TTh, ApH 102, Millis, 4 cr

**R1464 Oral Communication: Group Process and
Discussion** (prereq pre-nurs stu)
126449 1010-1205 MW, ApH 102, 4 cr (prereq
pre-nursing maj or permission of 30
Johnston Hall)

**R1481 Creativity: Art Laboratory: Experiences in
the Media** (max 9 cr)
523989 -1 1115-1310 MW, ApH 202, 3 cr
129889 -2 1325-1520 MW, ApH 202, 3 cr
531994 -3 0800-0955 TTh, ApH 219, 0800-0955
F, ApH 202, 3 cr (microcomputer
instruction, uses Macintosh PC)
230841 -4 1010-1205 TTh, ApH 219, 1010-1205
F, ApH 202, 3 cr (microcomputer
instruction, uses Macintosh PC)
431132 -5 1220-1415 TTh, ApH 219, 1220-1415
F, ApH 202, 3 cr (microcomputer
instruction, uses Macintosh PC)

**R1483 Creativity: Music Laboratory-How to Read
and Write Music** (max 6 cr)
525144 0800-0955 TTh, ApH 302, Houtz, 3 cr

R1511 Introduction to Business
724817 -1 0800-0955 MW, 0800-0850 F, WullH
230, 5 cr (BC)
830284 -2 1010-1205 MW, 1010-1100 F, WullH
230, 5 cr
846114 -3 0800-0955 TTh, 0905-0955 F, NichH
207, 5 cr

R1513 Small Business Operations
628746 1325-1520 MW, 1430-1520 F, ApH 303,
5 cr

**R1533 Financial Mathematics: Procedures and
Applications** (prereq GC math level C or 0611)
046113 1010-1205 TTh, NichH 207, 5 cr

R1534 Practical Law
925481 -1 1010-1100 MTWTh, NichH 216, 5 cr
743450 -2 1115-1310 TTh, 1220-1310 F, WullH
230, 5 cr

R1537 Professional Selling
126555 1010-1205 TTh, ApH 303, 4 cr

R1540 Accounting Fundamentals I
430384 -1 1700-1930 M, NichH 216, 4 cr
543451 -2 1220-1415 TTh, NichH 201, 4 cr

R1571 Introduction to Microcomputer Applications
(prereq elementary algebra)
527041 -1 0800-0955 MW, ApH 319, 5 cr (addtl
hr ar)
726034 -2 1220-1415 MW, ApH 319, 5 cr (addtl
hr ar)
131075 -3 1430-1625 MW, ApH 319, 5 cr (addtl
hr ar)

R1572 Introduction to Computer Programming
(\$3571; prereq 1571 or IBM microcomputer
experience)
143453 1220-1415 TTh, ApH 319, 5 cr (addtl hr
ar)

R1575 Introduction to Computers (prereq 1435 or
0621)
228488 0800-0955 TTh, ApH 319, 4 cr

R1701 Psychology of Personal Effectiveness
924475 -1 1220-1310 MTWTh, NichH 109,
Wambach, 4 cr (BC)
028078 -2 1010-1205 TTh, NichH 109, Wood,
4 cr (BC)
043454 -3 1010-1205 TTh, ApH 103, Latts, 4 cr
(BC)

R1721 Marriage, Family and Personal Fulfillment
443457 1010-1205 MW, ApH 103, Thoen, 5 cr
(addtl hr ar)

R1812 American Indian Literature
243458 -1 1010-1205 TTh, Arch 40, 4 cr
143459 -2 1220-1415 TTh, NichH 122, 4 cr
(seminar format)

R1814 The American Indian in American Law
026556 0800-0955 MW, NichH 207, Stanford, 4 cr

R1816 African-American Literature
625510 0800-0955 MW, ApH 226, Bellamy, 4 cr

GENETICS (Gene)

8777 Thesis Credits: Masters
529176 1-16 cr

8888 Thesis Credits: Doctoral (max 18 cr per qtr)
533776 1-36 cr

GENETICS AND CELL BIOLOGY (GCB)

Biological Sciences

3008 The Biology of Cancer (prereq Biol 1009)
225008 1315-1430 TTh, McNH 33, McKinnell, 3 cr

3960 Research Topics (prereq 15 cr biology) (S-N
only)
027609 1355-1445 M, BioSci 70, 1 cr

R5001 Scanning Electron Microscopy Lab (prereq
#) (S-N only)
143940 Kuehn, 4 cr (SnH 35)

R5015 Histology: Cell and Tissue Organization
(prereq Biol 5004 or #)
★REC 0830-0945 TTh, HodsonH 495,
Cunningham
843942 -1 LAB 1000-1140 TTh, SnH 13, 5 cr
643943 -2 LAB 1250-1430 TTh, SnH 13, 5 cr
443944 -3 LAB 1250-1430 WF, SnH 13, 5 cr

R5030 Laboratory: Genetics (prereq 3022 or 5022 or
Biol 5003)
032325 -1 LAB 1355-1625 MW, BioSci 245, 2 cr
227812 -2 LAB 1355-1625 TTh, BioSci 245, 2 cr

5033 Population and Quantitative Genetics
(prereq 3022 or Biol 5003, course in biometry or
statistics or #)
526987 1355-1535 TTh, BioSci 12, 4 cr

5061 Developmental Biology (§5011; prereq Biol
3011 or 3111, 5004)
532630 0920-1025 MWF, BioSci 70, Kerr, 4 cr

5073 Advanced Human Genetics (prereq 5034 or
#)
630660 0850-0955 MWF, Zoology 102, King, 4 cr
(Mpls)

5970 Directed Studies (prereq #, Δ)
225770 ar cr

5990 Directed Research (prereq #, Δ)
427128 ar cr

R8060 Current Topics
547578 0900-1100 M, JachH 4144, Boyd, 2 cr

8149 Advanced Cell Biology II (§5049, CBN 8149;
prereq Biol 5003, Biol 5004)
230743 0950-1130 TTh, BioSci 12, 4 cr

8900 Seminar (S-N only)
326134 -1 1200-1310 Th, Moost 2620, King, 1 cr
(Mpls)
528691 -2 1530-1700 Th, BorH 335, 1 cr

8910 Journal Clubs (S-N only)
531865 -1 1200-1250 T, BioSci 260, 1 cr
233125 -2 1145-1235 W, BioSci 260, 1 cr

8912 Genetic Counselling Seminar I (prereq
admission to genetic counseling emphasis
within genetics master's program or #)
224683 0930-1130 Th, Moost 16104, Leroy, 2 cr
(Mpls)

8950 Practicum: Teaching in Genetics (S-N only)
525760 1 cr

**8960 Practicum: Teaching in Cell and
Developmental Biology** (S-N only)
029893 1 cr

8970 Directed Studies (prereq #)
228720 ar cr

8990 Research (prereq #)
729970 ar cr

GEO-ENGINEERING (GeoE) Civil And Mineral Engineering Institute of Technology

5262 Geo-Engineering Analysis (prereq IT sr or
grad IT maj or #) (A-F only)
424018 1220-1415 MW, CivMinE 214, Fairhurst,
4 cr

5302 Applied Rock Mechanics (prereq 5300, IT stu
or grad IT maj) (A-F only)
142707 1010-1205 MW, CivMinE 214, Labuz, 4 cr

5662 Special Geo-Engineering Problems (prereq
IT sr or #) (A-F only)
831824 ar cr

8336 Boundary Element Methods I (prereq AEM
3016 or #) (A-F only)
042708 0800-0955 MW, CivMinE 214, Crouch,
4 cr

8603 Seminar: Geo-Engineering (prereq #) (S-N
only)
129075 1325-1415 F, CivMinE 205, ar cr

8614 Geo-Engineering Research Problems (prereq
#) (A-F only)
233223 1010-1205 TTh, CivMinE 213, Barnes,
4 cr

8777 Thesis Credits: Masters
025648 1-16 cr

8888 Thesis Credits: Doctoral (max 18 cr per qtr)
825912 1-36 cr

GEOGRAPHY (Geog) Liberal Arts

R1301 Human Geography
★LECT 1115-1230 TTh, AndH 210, Adams
J.
128525 -1 REC 0800-0850 TTh, BlegH 125, 5 cr
433625 -2 REC 0905-0955 TTh, BlegH 445, 5 cr
223937 -3 REC 1010-1100 TTh, BlegH 415, 5 cr
029957 -4 REC 1325-1415 TTh, BlegH 150, 5 cr
530568 -5 REC 0905-0955 WF, BlegH 445, 5 cr
632389 -6 REC 1010-1100 WF, BlegH 350, 5 cr
324920 -7 REC 1115-1205 WF, AndH 350, 5 cr
427291 -8 REC 1220-1310 WF, BlegH 340, 5 cr
125723 -9 REC 1430-1520 WF, BlegH 445, 5 cr

R1401 Physical Geography (§NSci 1501)
★LECT 0905-0955 MWF, AndH 350,
Squires
331947 -1 REC 0800-0850 MW, BlegH 445, 5 cr
531509 -2 REC 1010-1100 MW, BlegH 415, 5 cr
833475 -3 REC 1010-1100 MW, BlegH 445, 5 cr
233674 -4 REC 1115-1205 MW, BlegH 445, 5 cr
231035 -5 REC 1220-1310 MW, BlegH 445, 5 cr
228765 -6 REC 0800-0850 TTh, BlegH 115, 5 cr
631551 -7 REC 1010-1100 TTh, BlegH 445, 5 cr
126998 -8 REC 1115-1205 TTh, BlegH 445, 5 cr
942880 -9 REC 1220-1310 TTh, BlegH 445, 5 cr

R1425 Introduction to Meteorology (§Soil 1262)
★LECT 1010-1100 MWF, AndH 230, Klink,
Baker, Skaggs
125852 -1 LAB 0830-0920 TTh, BorH 335, 4 cr
(StP)
829491 -2 LAB 0935-1025 TTh, BorH 335, 4 cr
(StP)

- r1501 The Language of Maps (§3311)**
★LECT 1010-1100 MWF, WilleyH 175, Gersmehl
433530 -1 REC 0800-0850 MW, BlegH 430, 5 cr
224814 -2 REC 0905-0955 MW, BlegH 430, 5 cr
128984 -3 REC 0905-0955 MW, BlegH 115, 5 cr
523913 -4 REC 1115-1205 MW, BlegH 430, 5 cr
030185 -5 REC 1115-1205 MW, BlegH 155, 5 cr
228653 -6 REC 1220-1310 MW, BlegH 430, 5 cr
128855 -7 REC 0800-0850 TTh, BlegH 430, 5 cr
924489 -8 REC 0905-0955 TTh, BlegH 430, 5 cr
132968 -9 REC 1010-1100 TTh, BlegH 430, 5 cr
142884 -10 REC 1115-1205 TTh, BlegH 430, 5 cr
042885 -11 REC 1115-1205 TTh, BlegH 10, 5 cr
842886 -12 REC 1220-1310 TTh, BlegH 430, 5 cr
- r3101 Geography of United States and Canada**
642887 1115-1205 MWF, WilleyH 125, Gersmehl, 4 cr
- 3111 Minnesota**
232251 1820-2050 T, BlegH 5, Borchert, 4 cr
- r3131 Middle America (§LAS 3134)**
732559 0905-0955 MWF, BlegH 440, Barrett, 4 cr
- 3161 Europe**
224277 1010-1100 MWF, AndH 330, Rice, 4 cr
- 3215 China (§5215)**
442888 1115-1205 MWF, BlegH 415, Hsu, 4 cr
- 3321 Political Geography**
242889 1010-1100 MWF, AndH 350, Schwartzberg, 4 cr
- 3381 Population Geography**
229317 1115-1205 MWF, AndH 330, Leitner, 4 cr
- 3421 Climatology** (prereq 1401 or 1425 or Soil 1262 or Phys 1071 or #)
046662 1325-1415 MWF, BlegH 340, Klink, 4 cr
- r3511 Introduction to Cartography** (prereq 5 cr in geog or #)
★LECT 1115-1230 TTh, BlegH 415, McMaster
442891 -1 REC 1430-1625 T, BlegH 455, 5 cr
242892 -2 REC 1220-1415 W, BlegH 455, 5 cr
142893 -3 REC 1430-1625 Th, BlegH 455, 5 cr
- 3530 Cartography Internship** (max 10 cr; prereq #) (S-N only)
425637 2-5 cr
- 3940 Directed Field Study** (prereq #) (A-F only)
233545 2-4 cr
- 3970 Directed Readings** (prereq #, Δ, □)
033684 1-15 cr
- r5131 Colonial Mexico and the Caribbean (§LAS 5131)**
723943 1220-1310 MWF, BlegH 415, Barrett, 4 cr
- 5145 Development in Africa (§Afro 5145, IntR 5145)**
032986 0905-0955 MWF, BlegH 415, Scott, 4 cr
- 5178 Scandinavia in the Middle Ages (§Scan 5118)**
742895 1430-1545 WF, BlegH 440, Rice, Metcalf, 4 cr
- 5215 China (§3215; prereq one course in social science)**
542896 1115-1205 MWF, BlegH 415, Hsu, 4 cr
- 5312 Time-Geography II** (prereq #)
342897 1330-1600 Th, BlegH 430, Miller, 4 cr
- 5345 Land in America** (prereq 3343, 3344 or #) (A-F only)
830348 1245-1400 TTh, BlegH 105, Squires, 4 cr
- 5373 Metro Analysis II: Urban Economic Geography**
142898 0800-1000 TTh, BlegH 415, Adams J., 4 cr
- 5441 Quaternary Landscape Evolution** (prereq 1401 or #)
945603 1325-1445 TTh, BlegH 445, Brown, 4 cr
- r5512 Cartography: Topics: Advanced Map Design and Production II** (prereq 3511 or #)
334119 1300-1500 TTh, BlegH 455, Chu, 4 cr
- 5530 Cartography Internship** (max 10 cr; prereq #) (S-N only)
526178 2-5 cr

- r5701 Field Research** (prereq 12 cr in geography, #)
042899 1325-1600 W, BlegH 445, Leitner, 4 cr (Sat field trips ar)
- 5801 Development of Geographic Thought** (§3801; prereq 3 courses in geog)
830270 0815-0930 TTh, BlegH 335, Lukermann, 4 cr
- r5856 The Meanings of Place** (§AmSt 3920, AmSt 5920, Arch 5956) (A-F only)
643778 1400-1700 T, Law 3, Martin, 4 cr
- 5900 Topics in Geography** (prereq sr or grad, #)
024497 -1 1315-1515 TTh, BlegH 255, Korcelli, 4 cr (Central Europe)
133716 -2 1500-1700 TTh, BlegH 430, McMaster, 4 cr (Theories and Concepts in Geographic Information Systems)
- 8020 Seminar: Economic Geography** (prereq #)
646664 1300-1500 W, BlegH 210, Sheppard, 3 cr
- 8210 Seminar: South Asia** (prereq #)
233349 Schwartzberg, 1-3 cr
- 8320 Considering Space, Place and Human Activity** (prereq #)
943012 1500-1700 Th, BlegH 220, Martin, 3 cr
- 8330 Seminar: Rural Geography** (prereq #)
133269 1325-1520 F, BlegH 430, Hart, 3 cr
- 8350 Seminar: World Population Problems** (prereq #)
846663 1325-1500 M, BlegH 225, Rice, 3 cr
- 8777 Thesis Credits: Masters**
731685 1-16 cr
- 8800 Seminar: Development of Geographic Thought** (prereq #)
530053 1900-2100 W, BlegH 430, Lukermann, 3 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
629508 1-36 cr
- 8970 Directed Readings**
029084 1-5 cr
- 8980 Topics in Geography** (prereq #)
028484 1300-1600 W, BlegH 205, Korcelli, 3 cr
- 8990 Research Problems**
632652 ar cr

GEOLOGY AND GEOPHYSICS (Geo) Institute of Technology

- r1001 The Dynamic Earth: An Introduction to Geology**
130721 1325-1415 MTWF, SmithH 100, 4 cr
- r1002 Historical Geology**
★LECT 1220-1310 MWF, PillsH 110, Sloan, 4 cr
542915 -1 LAB 1325-1520 M, FordH 85
342916 -2 LAB 1010-1205 T, FordH 85
042918 -3 LAB 1430-1625 T, FordH 85
842919 -4 LAB 1115-1310 Th, FordH 85
- R1021 Introduction to Geology Lab: Geology of Minnesota** (prereq 1001 or 1 or #)
727636 -1 LAB 1010-1205 M, FordH 185, 1 cr
932429 -2 LAB 1430-1625 M, FordH 185, 1 cr
530683 -3 LAB 0800-0955 T, FordH 185, 1 cr
725529 -4 LAB 1010-1205 T, FordH 185, 1 cr
633655 -5 LAB 1430-1625 T, FordH 185, 1 cr
932799 -6 LAB 0800-0955 W, FordH 185, 1 cr
528562 -7 LAB 1010-1205 W, FordH 185, 1 cr
928784 -8 LAB 0905-1100 Th, FordH 185, 1 cr
827563 -9 LAB 1115-1310 Th, FordH 185, 1 cr
524303 -10 LAB 1325-1520 Th, FordH 185, 1 cr
- r1111 Introductory Physical Geology** (prereq high school or college chemistry or #)
★LECT 1325-1415 MWF, PillsH 110, Seyfried, 5 cr
★REC 1430-1520 F, PillsH 110
833508 -1 LAB 0905-1100 MW, PillsH 100
727653 -2 LAB 1325-1520 TTh, PillsH 100
833945 -3 LAB 1535-1730 TTh, PillsH 100
- r3102 Petrology** (prereq 3401, geology, geophysics, geo-engineering or mining engineering maj or #)
★LECT 1115-1205 MWF, PillsH 110, Weilben, 5 cr
125270 -1 LAB 1220-1415 MW, PillsH 125
027786 -2 LAB 1430-1625 MW, PillsH 125
025780 -3 LAB 1535-1730 TTh, PillsH 125
- r3211H Honors Earth Science** (§1001/1021, 1111; prereq selection for IT Honors curriculum or consent of IT honors office)
★LECT 0905-0955 MTWF, Arch 25, Kohlstedt D., Murthy, 5 cr
533504 -80 LAB 1325-1625 M, FordH 180
930163 -81 LAB 1325-1625 T, FordH 180
130081 -82 LAB 1430-1730 Th, FordH 180
Registration in REC section is also required.
032597 -80 REC 0905-0955 Th, PillsH 110
329518 -81 REC 1010-1100 Th, PillsH 110
- 3990 Problems in Geology and Geophysics** (prereq #, Δ)
732335 1-6 cr
- r5100 Advanced General Geology** (prereq 1001 or 1111) (S-N only)
624907 -1 1-2 cr (field camp stu only)
142920 -2 Stout, 1-2 cr
- r5155 Vertebrate Paleontology II** (prereq 5154 or EEB 5114)
031112 1430-1520 MWF, PillsH 105, Sloan, 5 cr
- r5201 Structural Geology** (prereq 3102, 3401, IT upper div geo, geophys, geo-engr or mining engr maj or CLA jr or sr geo maj or #)
★LECT 1010-1100 MWF, PillsH 110, Kirschner, 5 cr
028954 -1 LAB 1325-1520 MW, PillsH 100
125351 -2 LAB 1535-1730 MW, PillsH 100
- r5202 Tectonic Styles** (prereq 5201 or #)
042921 1325-1415 MWF, PillsH 121, Hudleston, 3 cr
- r5203 Geotectonics** (prereq 5201 or #)
347307 Stout, Umhoefer, 3 cr
- 5251 Geomorphology** (prereq 1001, Math 1111 or #)
932236 0905-1205 Th, PillsH 125, Hooke, 4-5 cr (field trips 0800-1800 T, weeks 2-7 of the qtr)
- 5252 Regional Geomorphology** (prereq 5201 or #)
445953 Hooke, 3 cr (full week field trip 6th or 7th week)
- r5313 Aqueous Geochemistry** (prereq 5311, Chem 5520 or #)
127679 1430-1520 MWF, PillsH 207C, Seyfried, 4 cr
- r5452 Igneous and Metamorphic Petrology** (prereq 3102, Chem 5520 or 5521, Math 3211 or #)
★LECT 1115-1205 MWF, PillsH 207C, Stout
047309 -1 LAB 1325-1520 TTh, PillsH 125, 5 cr
- 5507 Solid Earth Geophysics III** (prereq 1111, Phys 1291)
630335 1115-1205 MWF, PillsH 121, Kohlstedt D., 4 cr
- 5521 Data Processing Methods in Geophysics** (prereq 5515, 1 yr calculus)
726924 1330-1430 TTh, PillsH 207C, Yuen, 3 cr
- r5611 Groundwater Geology** (prereq 1001 or 1111, Math 1241, 1 qtr physics; chemistry or #)
★LECT 0800-0955 MW, PillsH 110, Pfannkuch, 5 cr
633770 -1 LAB 0800-0955 F, PillsH 110, Pfannkuch
- 5621 Limnology Laboratory** (§EEB 5621; prereq 5601 or EEB 5601 or #)
642923 Megard, 2 cr
- 5980 Seminar: Current Topics in Geology and Geophysics** (prereq #)
128127 Alexander, 1-6 cr
- 5990 Senior Thesis** (max 6 cr; prereq sr geology or geophysics maj, #)
928106 2 cr
- 8098 Seminar: Current Topics in Geology and Geophysics** (prereq #)
229124 1-6 cr
- 8099 Research in Geology and Geophysics** (prereq #)
231505 1-6 cr
- r8203 Geotectonics** (§5203; prereq 5201 or #)
347310 Stout, Umhoefer, 3 cr
- 8351 Advanced Mineral Deposits** (prereq 5313, 5351 or #)
233819 Berndt, 3 cr
- 8521 Data Processing Methods in Geophysics** (§5521; prereq 5515, 1 yr calculus)
927702 0800-0850 MWF, PillsH 207C, Yuen, 3 cr

- 8543 Principles of Rock Magnetism** (prereq 5541 or #)
934066 Banerjee, 3 cr (TTh)
- 8777 Thesis Credits: Masters**
429641 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
124515 1-36 cr

GERMAN (Ger)

German Liberal Arts

- r1101 Beginning German** (§1000; CLA degree credit granted only according to entrance standard)
429218 -1 0905-0955 MTWThF, Kolth S134, Sopcak, 5 cr
831550 -2 1010-1100 MTWThF, SmithH 111, 5 cr
924833 -3 1220-1310 MTWThF, Kolth S137, Jacobsen, 5 cr
- r1102 Beginning German** (§1110; prereq 1101 or 1000; CLA degree credit granted only according to entrance standard)
126600 -1 0800-0850 MTWThF, AmundH 104, Thorson, 5 cr
227583 -2 1220-1310 MTWThF, Arch 45, Kuss, 5 cr
828213 -3 1325-1415 MTWThF, AmundH 104, Barthelmy, 5 cr
- r1103 Beginning German** (§1110; prereq 1102 or 5 cr of 1110; degree or granted only according to entrance standard)
833640 -1 0800-0850 MTWThF, PeikH 215, Heaney, 5 cr
129612 -2 0800-0850 MTWThF, Kolth S137, 5 cr
329888 -3 0905-0955 MTWThF, AmundH 156, Fenner, 5 cr
123896 -4 1010-1100 MTWThF, Phys 236A, Juengling, 5 cr
824081 -5 1115-1205 MTWThF, FordH 170, Norton, 5 cr
729645 -6 1220-1310 MTWThF, VinH 20, Garrott, 5 cr
442938 -7 1325-1415 MTWThF, Kolth S134, 5 cr
- r1104 Intermediate German** (prereq 1103 or 10 cr of 1110 or Entrance Standard proficiency test)
129522 -1 0800-0850 MTWThF, SmithH 111, Kautz, 5 cr
531672 -2 1115-1205 MTWThF, FolH 138, Cameron, 5 cr
- r1105 Intermediate German** (prereq 1104 or placement)
231116 -1 1010-1100 MTWThF, MurH 311, Rink, 5 cr
733663 -2 1115-1205 MTWThF, Kolth S132, Dickerson, 5 cr
231830 -3 1325-1415 MTWThF, Kolth S136, Dolaptsi, 5 cr
- r1106 Intermediate German** (prereq 1105 or placement)
026654 -1 0800-0850 MTWThF, Kolth S138, Jakub, 5 cr
029764 -2 0905-0955 MTWThF, Arch 20, Barcours, 5 cr
632747 -3 1220-1310 MTWThF, PeikH 225, Langbehn, 5 cr
733517 -4 1325-1415 MTWThF, Kolth S132, Shandley, 5 cr
- r3011 Conversation and Composition** (prereq 1106, graduation proficiency test)
933595 1115-1205 MTThF, MurH 311, Roetzel, 4 cr
- r3012 Conversation and Composition** (prereq 3011)
933399 1115-1205 MTWF, FolH 234, Mueller, 4 cr
- r3013 Conversation and Composition** (prereq 3012)
130038 -1 1220-1310 MTWF, FolH 334, Eckart, 4 cr
823836 -2 1715-1900 TTh, FolH 104, Grotans, 4 cr
- r3016 Techniques of Translation** (prereq 3013 or #)
431812 0945-1100 TTh, FolH 218, Parente, 4 cr
- r3022 Advanced Business German** (prereq 3021)
746672 1820-2050 W, FolH 104, Zinggeler, 4 cr
- r3043 Oral Interpretation of German Drama** (prereq 3013 or equiv, #)
647765 1535-1715 M, FolH 306, Firchow, 2 cr
- r3104 Reading and Analysis of Prose** (prereq 1106 or #)
231133 1010-1100 MWF, FolH 116, Strand, 4 cr

- r3105 Reading and Analysis of Drama and Poetry** (prereq 1106 or #)
133630 1245-1400 TTh, FolH 134, Parente, 4 cr
- r3301 Lyric Poetry: Klopstock through Holderlin** (prereq 3104, 3105)
642940 1325-1415 MWF, FolH 240, Taraba, 4 cr
- r3510 Topics in German Studies: Contemporary Austria** (max 8 cr; prereq 1106 or equiv)
142943 1430-1600 TTh, FolH 326, Good, 4 cr
- r3513 German Civilization and Culture: 1800 to Present** (prereq 3104, 3105, one additional 3xxx German course)
431034 1430-1520 MW, 1430-1625 F, FolH 116, Weiss, 4 cr
- 3590 Directed Studies: German-Speaking Countries** (prereq 3501, #)
931135 5 cr
- r3703 Introduction to Old High and Low German** (prereq 3702, Ling 3001 or 5001 or #)
942944 1220-1310 MWF, FolH 114, Fullerton, 4 cr
- 3970 Directed Studies** (prereq #, Δ, □)
024922 1-5 cr
- r5102 The Analysis of German** (prereq Ling 3001 or 5001, Ger 1105 or #)
742945 1430-1625 W, FolH 114, Fullerton, 4 cr
- 5970 Directed Studies** (prereq #, Δ, CLA approval)
729564 1-5 cr
- r8219 Literature of the 19th Century**
546673 1640-1835 T, FolH 114, Weiss, 4 cr
- r8340 Topics in 20th-Century German Literature** (max 12 cr)
725790 -1 1430-1625 M, FolH 114, McCormick, 4 cr (Postwar to Postmodern--45 Years of West German Film and Literature)
142948 -2 1640-1835 W, FolH 114, Teraoka, 4 cr (Heiner Mueller and Literary Tradition)
- r8451 Friedrich Nietzsche**
042949 1430-1625 F, FolH 114, Taraba, 4 cr
- r8743 Gothic and Methods of Comparative Germanic Linguistics** (prereq 8742)
346674 1430-1625 Th, FolH 114, Liberman, 4 cr
- 8777 Thesis Credits: Masters**
731881 1-16 cr
- r8810 The German Woman as Writer: 18th-Century** (max 8 cr)
142951 1430-1625 T, FolH 114, Joeres, 4 cr
- r8820 Advanced Theoretical Seminar: SIGNS Seminar** (max 12 cr; \$WoSt 8610; prereq 8112 or 8113 or #) (A-F only)
130274 1330-1600 W, FordH 175, Joeres, 4 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
232573 1-36 cr
- 8990 Reading and Research** (prereq #)
925576 3-6 cr

GERMANIC PHILOLOGY (GPhl)

8777 Thesis Credits: Masters
331754 1-16 cr

8888 Thesis Credits: Doctoral (max 18 cr per qtr)
227731 1-36 cr

GREEK (Grk)

Classical & Near Eastern Studies Liberal Arts

- 1103 Selections from Greek Literature** (§1020, 3051-3052; prereq 1102 or equiv)
132999 -1 0800-0850 MTWThF, FolH 214, 5 cr
932575 -2 1010-1100 MTWThF, PeikH 155, 5 cr
- 3106 Greek Poetry** (prereq 1122 or 3052 or 3105 or Δ)
130895 0905-0955 MWF, FolH 234, Hershbell, 5 cr
- 3120 The Greek New Testament** (max 10 cr; prereq 1104 or 1122 or 3052 or 3106 or Δ, #) (A-F only)
442714 1325-1415 MWF, FolH 334, Sellow, 5 cr
- 3451 Advanced Undergraduate Greek: Homer** (prereq 3106 or 5 cr of 3120 or 3 yrs high school Greek or Δ)
242715 1115-1230 TTh, FolH 426, Sheets, 5 cr

- 3951 Major Project** (prereq Grk-Lat or Grk maj, three 3xxx courses in Greek or #) (A-F only)
927246 5 cr
- 3960H Honors Tutorial** (prereq Δ)
325906 5 cr
- 3970 Directed Studies** (prereq #, Δ, □)
327834 1-5 cr
- 5310 Greek Literature: Oratory** (max 12 cr)
142716 1430-1545 MF, FolH 104, Kauls, 4 cr
- 5715 Introduction to Classical Philology** (§Lat 5715)
244349 1245-1400 TTh, FolH 50, Sheets, 4 cr
- 5970 Directed Studies** (prereq #, Δ, CLA approval)
925545 1-5 cr
- 5980 Directed Teaching** (prereq #, Δ, CLA approval)
930566 ar cr
- 5990 Directed Research** (prereq #, Δ, CLA approval)
725983 ar cr
- 8120 Greek Text Course** (prereq 3052 or Δ, non-maj)
233724 -1 0905-0955 MWF, FolH 234, Hershbell, 4 cr
429252 -2 1115-1230 TTh, FolH 426, Sheets, 4 cr
- 8777 Thesis Credits: Masters**
133845 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
529789 1-36 cr
- 8910 Seminar**
833847 1330-1630 W, FolH 246, Belfiore, 4 cr

HEALTH INFORMATICS (Hinf) Laboratory Medicine and Pathology Medical School

- 5432 Health Informatics III: Health Information Systems** (prereq 5430, 5431, or #)
126015 0905-0955 MTWTh, PWB 5206, Ellis, 4 cr
- 5433 Computer Methodology in Delivery of Health Care I: Physiological Monitoring and Testing** (prereq 5432 or #)
524804 1115-1230 TTh, PWB 5206, Finkelstein, 3 cr
- 5436 Seminar: Health Informatics (S-N only)**
227079 1535-1625 Th, DiehlH 555, Ellis, 1 cr
- 5470 Topics in Health Informatics** (prereq #)
833606 ar cr
- 8449 Advanced Readings in Health Informatics** (prereq 5432, PubH 5434, #)
227972 1-3 cr
- 8450 Research in Health Informatics** (prereq #)
923987 ar cr
- 8777 Thesis Credits: Masters**
225090 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
624826 1-36 cr

HEALTH SCIENCE UNITS (HSU) Health Sciences

- r5001 Interdisciplinary Team Training in Health Services Delivery** (§PubH 5013, SW 5013)
024628 1745-2045 W, MoosT 2571, Schwanke, Sullivan, others, 3 cr
- 5010 Public Health Approaches to AIDS** (prereq upper div or grad or professional stu)
132851 1640-1825 M, 1640-1730 W, MoosT 2520, Rothenberger, Rhame, 3 cr
- r5011 The Teaching-Learning Process in the Health Care Setting** (§PubH 5064)
925819 1535-1820 M, MoosT 2571, 2585, Garloff, 3 cr
- r5013 Systems Approach to Design of Instruction** (§CISy 5201)
134034 1615-1900 M, PeikH 335, Sales, 3 cr
- r5030 Humanities and Aging** (§SAHP 5008)
629136 1640-1825 Th, Aph 102, Yahnlke, 2 cr
- 5039 Topics in Alcohol and Drug Problems** (§PubH 5044; prereq #)
330183 Schaefer, Meland, 1 cr (meets one weekend in Apr)

5210 Terminology of the Health Sciences (§SAHP 5210)
232542 McKennell, 2 cr (for information go to HSUnitF 5-120 before first day of quarter or call 624-2442)

HEBREW (Hebr)
Classical & Near Eastern Studies
Liberal Arts

r1103 Beginning Hebrew (prereq 1102)
829734 1220-1310 MTWThF, FolH 138, Dworsky, 5 cr

r3013 Intermediate Hebrew (prereq 3012)
427081 1220-1310 MTWThF, FolH 240, Shendar, 5 cr

3304 Modern Hebrew Short Story (prereq 3017 or #)
742721 1010-1100 MWF, FolH 114, Paradise, 4 cr

3980 Directed Instruction (prereq #, Δ, □)
424214 1115-1205 MWF, FolH 240, Shendar, 4 cr

5970 Directed Readings (prereq 3013, #, Δ, CLA approval)
727359 ar cr

5990H Honors Course: Research (prereq 5970, #, Δ, CLA approval)
332614 ar cr

HINDI (Hndi)
South Asian & Middle Eastern
Languages & Cultures
Liberal Arts

1103 Beginning Hindi (prereq 1102)
029800 0905-0955 MTWThF, Arch 30, Staneslow, 5 cr

5133 Intermediate Hindi (§3033; prereq 5132)
428554 1010-1100 MTWThF, FolH 138, Staneslow, 5 cr

r5163 Advanced Hindi (prereq 5162)
629699 1315-1430 TTh, FolH 426, Junghare, 4 cr

HISTORY (Hist)
Liberal Arts

r1013 Introduction to World History (A-F only)
★LECT 1115-1230 TTh, WilleyH 125, Evans S.
827448 -1 REC 0800-0850 MW, BlegH 350, 5 cr
531249 -2 REC 0800-0850 MW, BlegH 115, 5 cr
134079 -3 REC 0905-0955 MW, BlegH 245, 5 cr
032180 -4 REC 1220-1310 MW, BlegH 235, 5 cr
630285 -5 REC 1325-1415 MW, BlegH 240, 5 cr
928395 -6 REC 0800-0850 TTh, BlegH 250, 5 cr
226367 -7 REC 0800-0850 TTh, BlegH 350, 5 cr
224599 -8 REC 0905-0955 TTh, AndH 350, 5 cr
728396 -9 REC 0905-0955 TTh, BlegH 5, 5 cr
126368 -10 REC 1325-1415 TTh, AndH 350, 5 cr
024600 -11 REC 0800-0850 WF, BlegH 245, 5 cr
233142 -12 REC 0905-0955 WF, BlegH 260, 5 cr
431227 -13 REC 1010-1100 WF, BlegH 5, 5 cr
129335 -14 REC 1220-1310 WF, BlegH 350, 5 cr
627449 -15 REC 1325-1415 WF, AndH 330, 5 cr
926369 -16 REC 1325-1415 WF, AndH 370, 5 cr

r1013H Honors: Introduction to World History (A-F only)
★LECT 1115-1230 TTh, WilleyH 125, Evans S.
832181 -80 REC 0800-0850 TTh, SocSci 101, 5 cr

r1023 Introduction to Western Civilization (§1023H) (A-F only)
★LECT 0945-1100 TTh, AndH 370, Rudolph
833914 -1 REC 0800-0850 MW, BlegH 260, 5 cr
129990 -2 REC 1010-1100 MW, BlegH 205, 5 cr
630805 -3 REC 1115-1205 MW, BlegH 5, 5 cr
532577 -4 REC 1220-1310 MW, Law 1, 5 cr
027741 -5 REC 1325-1415 MW, Law 1, 5 cr
932091 -6 REC 0800-0850 TTh, BlegH 225, 5 cr
925920 -7 REC 0800-0850 TTh, BlegH 245, 5 cr
727068 -8 REC 1115-1205 TTh, BlegH 150, 5 cr
129794 -9 REC 1220-1310 TTh, BlegH 245, 5 cr
425105 -10 REC 1220-1310 TTh, RarigC 610, 5 cr
925657 -11 REC 1325-1415 TTh, BlegH 420, 5 cr
527878 -12 REC 0800-0850 WF, BlegH 205, 5 cr

423967 -13 REC 0905-0955 WF, HHHctr 25, 5 cr
623837 -14 REC 0905-0955 WF, AndH 230, 5 cr
632019 -15 REC 1115-1205 WF, AndH 310, 5 cr
128080 -16 REC 1220-1310 WF, BlegH 420, 5 cr

r1023H Introduction to Western Civilization (prereq #)
★LECT 0945-1100 TTh, AndH 370, Rudolph
644252 -80 REC 1325-1510 T, Law 1, Rudolph, 5 cr

r1301 American History (§1301H)
★LECT 0905-0955 MWF, WilleyH 175, Ruggles
446620 -1 REC 0800-0850 M, BlegH 245, 4 cr
246621 -2 REC 1010-1100 M, BlegH 245, 4 cr
146622 -3 REC 1220-1310 M, HHHctr 20, 4 cr
946623 -4 REC 1220-1310 T, BlegH 125, 4 cr
746624 -5 REC 0800-0850 W, BlegH 125, 4 cr
546625 -6 REC 0800-0850 W, BlegH 220, 4 cr
346626 -7 REC 1220-1310 W, BlegH 155, 4 cr
146627 -8 REC 1220-1310 W, AndH 330, 4 cr
046628 -9 REC 0800-0850 Th, BlegH 255, 4 cr
846629 -10 REC 0800-0850 Th, BlegH 260, 4 cr
146630 -11 REC 1220-1310 Th, BlegH 150, 4 cr
046631 -12 REC 1430-1520 Th, BlegH 210, 4 cr
846632 -13 REC 0800-0850 F, BlegH 105, 4 cr
646633 -14 REC 1010-1100 F, BlegH 155, 4 cr
746638 -15 REC 1115-1205 F, BlegH 105, 4 cr
546639 -16 REC 1220-1310 F, BlegH 105, 4 cr

r1301H Honors Course: American History (§1301; prereq #)
★LECT 0905-0955 MWF, WilleyH 175, Ruggles
746641 -80 REC 1220-1310 W, SocSci 101, Ruggles, 4 cr

3033 Medicine and Disease in History (§HMed 3003)
631226 0905-0955 MWF, SmithH 331, Tang, 4 cr

3053 Ancient Civilization (§1053)
143042 1245-1400 TTh, AndH 330, Evans J., 4 cr

3283 Intellectual and Cultural History of Modern Europe
325534 1010-1100 MWF, BlegH 220, Thayer, 4 cr

r3403 Survey of Latin American History: 1929 to Present (§1403, LAS 3403)
★LECT 0945-1100 TTh, AndH 330, Hedberg
826090 -1 REC 1115-1205 M, AndH 210, 4 cr
332547 -2 REC 1325-1415 T, AndH 310, 4 cr
328949 -3 REC 1115-1205 W, AndH 210, 4 cr
526679 -4 REC 0800-0850 Th, HHHctr 30, 4 cr
531770 -5 REC 1220-1310 Th, BlegH 215, 4 cr
130288 -6 REC 1115-1205 F, BlegH 110, 4 cr

3424 History of Mexico: Pre-Columbian Period Through Independence
943043 1245-1400 TTh, BlegH 235, Schwartz, 4 cr

r3432 History of Africa: 1800 to Present (§1432)
★LECT 1115-1230 TTh, BlegH 280, Isaacman
847487 -1 REC 1010-1100 W, BlegH 155, 4 cr
647488 -2 REC 1115-1205 W, HHHctr 60, 4 cr
447489 -3 REC 1325-1415 Th, BlegH 215, 4 cr
647491 -4 REC 0905-0955 F, BlegH 115, 4 cr
447492 -5 REC 1010-1100 F, BlegH 205, 4 cr

r3481 Introduction to East Asia: Early Civilization (§1481, EAS 1481)
★LECT 1325-1415 MWF, AndH 230, Taylor R.
543045 -1 REC 1220-1310 M, BlegH 225, 4 cr
343046 -2 REC 1430-1520 M, BlegH 205, 4 cr
143047 -3 REC 1220-1310 W, BlegH 150, 4 cr
043048 -4 REC 1430-1520 W, RarigC 616, 4 cr
843049 -5 REC 1220-1310 F, BlegH 205, 4 cr
143050 -6 REC 1430-1520 F, BlegH 205, 4 cr

r3464 Early Modern China, 1350-1750 (§5464)
643084 0945-1100 TTh, BlegH 115, Downs, 4 cr

3468 People's Republic of China: The Communist Revolution, 1900 to Present (§5468, EAS 3468)
146613 0945-1100 TTh, AndH 210, McDonald, 4 cr

r3471 Twentieth Century Japan (§5471, EAS 3471)
043051 1115-1205 MWF, BlegH 135, Marshall, 4 cr

3480 Topics in the History of India
843052 1325-1520 W, BlegH 420, Kopf, 4 cr

3547 History of the Ottoman Empire (A-F only)
046614 1115-1230 TTh, HHHctr 20, Toprak, 4 cr

r3616 France in the High Middle Ages
544230 0945-1100 TTh, BlegH 235, Reyerson, 4 cr

3653 The English Civil War and Restoration
643053 0905-0955 MWF, BlegH 135, Lehmborg, 4 cr

3681 Modern Irish History
443054 1115-1205 MWF, BlegH 240, Altholz, 4 cr

r3723 Europe Since World War II
431230 0905-0955 MWF, BlegH 150, 4 cr

3775 History of the European Jews from the Middle Ages to the Present
243055 1115-1230 TTh, AndH 330, Rudolph, 4 cr

r3812 Civil War and Reconstruction
143056 0945-1100 TTh, BlegH 330, Howe, 4 cr

r3823 United States in the 20th Century: 1960 to the Present
926923 0905-0955 MWF, BlegH 5, Berman, 4 cr

3835 History of Civil Liberties and Civil Rights in the United States
943057 1115-1205 MWF, AndH 230, Murphy, 4 cr

3845 American Economic History, 1870 to the Present
543059 0905-0955 MWF, BlegH 155, Green, 4 cr

r3872 American Indian History: 1850 to Present (§Amin 3112)
630948 -1 0945-1100 TTh, AndH 270, O'Brien, 4 cr
547841 -2 1115-1230 TTh, AndH 270, Townsend, 4 cr

r3955 Introduction to Historical Research (prereq Δ, to be taken prior to 3961)
626835 -1 1325-1520 W, BlegH 245, 4 cr
827935 -2 1325-1520 Th, BlegH 245, 4 cr

r3961 Major Paper (prereq Δ)
024080 -1 1325-1520 T, SocSci 710, Gaut, 5 cr
443085 -2 1325-1520 W, SocSci 710, Maynes, 5 cr (1st meeting)

3970 Directed Studies (prereq #, Δ, □)
825330 1-15 cr

3990 Directed Research (prereq #, Δ, □)
528528 1-15 cr

r5012 Quantitative Methods in Historical Research (prereq #)
943080 1100-1230 F, Law 3, Ruggles, 4 cr

r5072 History of Rome: 133-31 B.C.
543062 1115-1230 TTh, BlegH 205, Evans J., 4 cr

5115 Medieval Latin Historians (prereq good reading knowledge of Latin)
343063 1325-1520 T, BlegH 125, Bachrach, 4 cr

5118 Scandinavia in the Middle Ages (§Geog 5178, Scan 5118)
143064 1430-1545 WF, BlegH 440, Rice, 4 cr

5136 From Ivan the Terrible to Peter the Great: Russia, 1530-1700
043065 1115-1205 MWF, Law 1, Noonan, 4 cr

5137 The Nomads of Southern Russia from the Scythians to the Mongols, 600 B.C.-1300 A.D.
843066 0905-0955 MWF, Law 1, Noonan, 4 cr

5173 Modern England: 1901 to 1972
643067 1430-1520 MWF, BlegH 425, Altholz, 4 cr

r5200 Topics in European History: Women in the Post-War Era
846615 0945-1100 TTh, FordH 285, Schmidlechner, 4 cr

5266 Modern Russia: The 20th Century
944273 1010-1100 MWF, BlegH 105, Stavrou, 4 cr

5468 People's Republic of China: The Communist Revolution, 1900 to Present (§3468, EAS 3468)
446617 0945-1100 TTh, AndH 210, McDonald, 4 cr

5514 Proseminar: Topics in Ming and Ch'ing History, 1350-1800 (prereq #)
043079 1215-1415 M, BlegH 210, Waltner, 4 cr

5522 Proseminar: Current Issues in Japanese History (prereq #)
443068 1430-1600 W, BlegH 340, Marshall, 4 cr

5573 Proseminar: Roman History (5571-5572-5573+; prereq 5572)
531252 1500-1700 W, BlegH 125, Evans J., 4 cr

- 5613 **Proseminar: Medieval History** (prereq 1 yr of medieval history, reading knowledge of French or German, #)
344231 1325-1520 T, BlegH 215, Reyerson, 4 cr
- 5730 **Proseminar in Middle East History: Social and Economic History of the Ottoman Empire: 19th- and 20th-Centuries** (max 12 cr; §MidE 5730) (A-F only)
843875 1315-1500 W, BlegH 130, Toprak, 4 cr
- 5763 **Proseminar: Russian History** (5761-5762-5763†; prereq 5762)
343080 1325-1520 M, BlegH 120, Stavrou, 4 cr
- 5802 **Proseminar: 17th, 18th Century American History** (5801-5802†; prereq 5801)
443071 1530-1730 W, SocSci 101, O'Brien, Menard, 4 cr
- 5845 **Proseminar: American Labor History** (prereq #)
243072 1325-1520 M, BlegH 245, Berman, 4 cr
- 5890 **Topics in American Indian Social History** (prereq #)
143073 1325-1520 F, BlegH 135, O'Brien, 4 cr
- 5920 **Topics in Comparative Women's History: Matrilineality and Patrilineality in Comparative and Historical Perspective** (prereq #) (A-F only)
943074 -1 1300-1500 T, HHHCtr 20, Waltner, 4 cr
743075 -2 1300-1500 Th, Law 1, Maynes, 4 cr
- 5930 **Topics in Comparative Third World History: War and Genocide** (prereq #)
143081 1325-1520 T, BlegH 245, Kopf, 4 cr
- 5970 **Directed Studies** (prereq #, Δ, CLA approval)
725546 1-15 cr
- 5990 **Directed Research** (prereq #, Δ, CLA approval)
124871 1-15 cr
- 8113 **Medieval History** (8111-8112-8113†; prereq 8112)
443040 1535-1735 Th, BlegH 225, Hanawalt, 3 cr
- 8121 **Renaissance History** (prereq #)
543076 Tracy, 3 cr
- 8240 **Gender, Race, Class, and/or Ethnicity in America** (§AmSt 8240; max 12 cr; prereq 8239 or # or Δ) (A-F only)
246618 1325-1525 W, ScottH 2, May, 4 cr
- 8486 **Research in Late Imperial China: Yuan, Ming and Qing** (prereq reading knowledge of Chinese, #)
143078 Taylor R., 3 cr
- 8777 **Thesis Credits: Masters**
332984 1-16 cr
- 8888 **Thesis Credits: Doctoral** (max 18 cr per qtr)
125785 1-36 cr
- 8970 **Directed Studies** (prereq #)
431566 1-15 cr
- 8990 **Directed Research** (prereq #)
828132 1-15 cr

HISTORY OF MEDICINE (HMed) Medical School

- r3003 **Doctors and Disease in History** (§Hist 3033, primarily for CLA students)
432152 0905-0955 MWF, SmithH 331, Tang, 4 cr
- 5402 **Medicine in the 19th, 20th Centuries**
142724 1430-1520 MWF, FordH 170, Wilson, 4 cr
- 8232 **Readings: History of Science**
327025 Wilson, 3 cr
- 8632 **Directed Study** (prereq #)
632036 3-15 cr
- 8777 **Thesis Credits: Masters**
729855 1-16 cr
- 8888 **Thesis Credits: Doctoral** (max 18 cr per qtr)
930664 1-36 cr

HISTORY OF SCIENCE AND TECHNOLOGY (HSci) Institute of Technology

- r1713 **Technology and Western Civilization: 19th and 20th Centuries** (§3713)
★LECT 1325-1415 MWF, FordH 55, Layton
127259 -1 REC 1325-1415 T, Arch 55, 4 cr
524009 -2 REC 1010-1100 W, FordH 70, 4 cr
231455 -3 REC 1220-1310 W, FordH 115, 4 cr
029876 -4 REC 0905-0955 Th, Arch 55, 4 cr
028811 -5 REC 1430-1520 Th, FordH 150, 4 cr
025164 -6 REC 1115-1205 F, FordH 130, 4 cr
- r1813 **Introduction to History of Science: Modern Science** (§3813)
★LECT 0905-0955 MWF, FordH 120, Beatty, Stuewer
831452 -1 REC 1220-1310 M, FordH 115, 4 cr
129528 -2 REC 0905-0955 T, MechE 18, 4 cr
125754 -3 REC 1115-1205 W, FordH 130, 4 cr
424259 -4 REC 1115-1205 Th, FordH 120, 4 cr
330457 -5 REC 1325-1415 Th, FordH 155, 4 cr
326120 -6 REC 1010-1100 F, FordH 70, 4 cr
- r3331 **Technology and American Culture**
634157 1430-1545 TTh, FordH 155, Norberg, 4 cr
- r3713 **Technology and Western Civilization: 19th and 20th Centuries** (§1713)
★LECT 1325-1415 MWF, FordH 55, Layton
528660 -1 REC 1325-1415 T, Arch 55, 4 cr
327123 -2 REC 1010-1100 W, FordH 70, 4 cr
827725 -3 REC 1220-1310 W, FordH 115, 4 cr
730004 -4 REC 0905-0955 Th, Arch 55, 4 cr
125771 -5 REC 1430-1520 Th, FordH 150, 4 cr
833895 -6 REC 1115-1205 F, FordH 130, 4 cr
- r3813 **Introduction to History of Science: Modern Science** (§1813)
★LECT 0905-0955 MWF, FordH 120, Beatty, Stuewer
123812 -1 REC 1220-1310 M, FordH 115, 4 cr
230774 -2 REC 0905-0955 T, MechE 18, 4 cr
131523 -3 REC 1115-1205 W, FordH 130, 4 cr
024757 -4 REC 1115-1205 Th, FordH 120, 4 cr
933340 -5 REC 1325-1415 Th, FordH 155, 4 cr
830981 -6 REC 1010-1100 F, FordH 70, 4 cr
- 3825 **Physics and Society in 20th Century America** (§3835, 5825)
143090 1245-1400 TTh, Phys 236A, Stuewer, 4 cr
- r5331 **Technology and American Culture**
132257 1430-1545 TTh, FordH 155, Norberg, 4 cr
- 5825 **Physics and Society in 20th Century America** (§3825, 3835)
943091 1245-1400 TTh, Phys 236A, Stuewer, 4 cr
- 5990 **Directed Research** (prereq #, Δ, CLA approval)
633381 1-15 cr
- 8111 **Historiography of Science and Technology** (prereq HSci grad stu or #)
524849 Beatty, 4 cr
- 8888 **Thesis Credits: Doctoral** (max 18 cr per qtr)
933709 1-36 cr
- 8930 **Seminar: History of Technology** (prereq #)
834108 Layton, 4 cr
- 8940 **Science and Technology in America** (prereq #)
126314 1300-1500 W, FordH 349, Kohlstedt, 4 cr
- 8970 **Directed Study** (max 15 cr; prereq #)
933354 1-5 cr
- 8990 **Directed Research** (max 15 cr; prereq #)
924332 1-5 cr

HOME ECONOMICS (HE) Human Ecology

- r1191 **Career Planning Strategies** (S-N only)
932978 0935-1130 Th, McNH 146, Exline, 2 cr
- r3191 **Proseminar: Home Economics** (prereq 3rd qtr soph, registered in home economics interdepartmental program or #) (S-N only)
225431 1200-1330 W, McNH 146, 2 cr
- 5003 **Field Experience** (max 15 cr; prereq #)
733419 1200-1330 M, McNH 363, Yust, 1-5 cr
- 5130 **Independent Study in Home Economics** (max 16 cr; prereq #)
829118 1-5 cr

- r5150H **Honors Seminar** (max 6 cr; prereq admission to Honors Program)
333231 1145-1245 Th, BioSci 70, 1 cr

- 5725 **Seminar in International Studies**
747465 1430-1730 MW, BioSci 6, Morris, 4 cr

HOME ECONOMICS EDUCATION (HEEd) Vocational And Technical Education Education

- 3910 **Educational Methods for Home Economists and Related Professionals** (prereq jr, non-home econ educ maj) (S-N optional)
132601 1605-1850 W, VoTech R380, Warren, 3 cr
- r5001 **Special Topics** (S-N optional)
143095 1605-1850 Th, VoTech R370, Thomas, 3 cr
- 5021 **Education Through Extension Methods** (§AgEd 5021; prereq grad or #) (A-F only)
630450 1500-1745 Th, VoTech R385, Norenberg, 3 cr
- 5025 **Extension Program Development** (§AgEd 5025) (A-F only)
427792 1500-1745 T, VoTech R385A, Krueger, 3 cr
- r5027 **Practicum: Placement for Extension Experiences** (max 9 cr; §HEEd 3605, AgEd 5027) (S-N optional)
627015 Norenberg, 2-9 cr
- 5056 **Application of Farming Systems Research and Extension** (prereq AgEd 5055 or HEEd 5055) (A-F only)
824954 0830-1025 T, VoTech R385, Leske, 3 cr
- 5315 **Evaluation: Theoretical and Technical Aspects** (A-F only)
628446 1605-1850 W, VoTech R370, Rossmann, 3 cr
- r5407 **Family Life Education** (max 12 cr) (A-F only)
227891 1605-1850 T, VoTech R380, Rossmann, 3 cr
- 5514 **Clinical Seminar: Teaching** (§Ind 5514; prereq 5512, 5513, or HEEd 5512, HEEd 5513, or #) (S-N only)
831693 1605-1850 T, VoTech R390, Kate, 12 cr (addtl hrs ar)
- r5600 **Practicum: Adult Education** (prereq #) (A-F only)
630531 1605-1850 M, VoTech R370, Cutting, 1-9 cr (addtl hrs ar)
- r5900 **Readings: Home Economics Education** (max 12 cr; prereq #) (A-F only)
529307 1-3 cr
- 5920 **Directed Studies** (prereq #) (S-N optional)
533387 1-6 cr
- 8530 **Seminar: Home Economics Education** (max 3 cr)
830477 1900-2100 M, VoTech R380, Rossmann, 1 cr
- 8777 **Thesis Credits: Masters**
327607 1-16 cr
- 8900 **Problems: Home Economics Education** (prereq 8300, #)
231892 1-9 cr

HONORS COLLOQUIA (HCol) Honors Program Liberal Arts

- r1010 **The Vietnam War and American Culture** (prereq fr, soph, regis honors div)
930079 1010-1205 W, JohH 125, Michael Bibby, 2 cr
- r1020 **Film as History: When Can Seeing Lead to Believing** (prereq fr, soph, regis honors div)
627693 1010-1205 T, JohH 125, Kathryn Reisdorfer-Slayton, 2 cr
- r1030 **Death and Dying in Classical Greece** (prereq fr, soph, regis honors div)
042725 1430-1625 Th, JohH 125, Martha Edwards, 2 cr

- r1040 **Animated Women: Images of Female Characters in Comics, Cartoons, and Feature Length Animation** (prereq fr, soph, regis honors div)
131948 1010-1205 M, JohH 125, Pam Olano, 2 cr
- r1050 **The Moral Status of Non-Human Animals** (prereq fr, soph, regis honors div)
131649 1535-1730 M, FolH 426, Denis Arnold, 2 cr
- r1060 **Physician as an Artist** (prereq fr or soph, regis honors div)
130735 0800-0955 W, JohH 125, Peter Dorsen, 2 cr
- r1070 **Humanity: Unity and Diversity** (prereq fr, soph, regis honors div)
232539 0945-1100 TTh, FolH 114, Eugene Ogan, 4 cr
- 1970 **Honors Colloquium: Directed Studies** (prereq fr, soph, regis honors div, #, Δ)
831449 1-4 cr

HONORS SEMINAR (HSem) Honors Program Liberal Arts

- r3010 **Service Industries Transforming American Cities** (prereq jr or sr, reg honors div)
325548 1325-1520 Th, SocSci 101, John Adams, 4 cr
- r3020 **King Arthur as Archetype** (prereq jr or sr, reg honors div)
628231 1010-1205 TTh, LindH 216, Stephanie Vand'Elden, 4 cr
- r3040 **The Fantastic Voyage: Travellers East and West** (prereq jr or sr, reg honors div)
433589 1010-1205 MW, BlegH 115, Ann Waltner, 4 cr
- r3050 **The Grand Transformation: The Devolution of Central Planning in the Central and Eastern European Economies and Its Aftermath** (prereq jr or sr, reg honors div)
130582 1010-1205 MW, SocSci 101, Avner Ben-Ner, 4 cr
- r3060 **Competition in the Delivery of Health Services: A Public Health Perspective** (§PubH 5732; prereq jr or sr reg honors div or Δ)
134048 1535-1835 W, MoosT 2530, Lester Block, 4 cr
- r3090 **Issues and Controversies in Maltreatment Across the Life Cycle** (prereq jr or sr, regis honors div)
544566 1325-1520 M, Mayo A316, ten Benschel, 4 cr
- 3970 **Honors Seminar: Directed Studies** (prereq jr, sr, reg honors div, #, Δ)
825618 1-5 cr

HORTICULTURAL SCIENCE (Hort) Agriculture

- r1010 **Home Horticulture** (no cr for hort emphasis sequence)
★LECT 1040-1130 MWF, HrG 172, Mullin 832018 -1 LAB 1355-1550 W, HrG 172, Mullin, 4 cr
- r1022 **Herbaceous Plant Materials**
★LECT 1355-1445 TTh, AlderH 415, Mullin 123955 -1 LAB 1145-1340 TTh, HrG 172, Mullin, 5 cr
132436 -2 LAB 1500-1655 TTh, HrG 172, Mullin, 5 cr
- r3016 **Greenhouse Management** (prereq 1100 or I, AgEc 3025 or I)
★LECT 1145-1250 T, AlderH 415, Strefeler 032163 -1 LAB 1250-1550 W, HrG 174, Strefeler, 2 cr
- r3072 **Turf Management** (prereq Soil 1122, Hort 1100 or Agro 3020)
★LECT 1355-1445 MWF, AlderH 415, White 431650 -1 LAB 1500-1800 M, HrG 172, 4 cr
- 3097 **Horticulture Practicum** (prereq upper division horticulture emphasis or sequence, Δ)
725336 2-4 cr

- r5034 **Commercial Vegetable Agriculture** (prereq 1100 or Agro 1010, Soil 1122...PIPh 3131 rec) (A-F only)
★LECT 1605-1800 MW, HrG 174, Davis 332094 -1 LAB 1605-1655 F, HrG 174, Davis, 5 cr
- 5048 **Nursery Management II** (5046-5047-5048†; prereq 5047)
★LECT 0830-1025 TTh, AlderH 415, Swanson 226157 -1 LAB 1250-1655 T, HrG 174, 4 cr
- r5054 **Commercial Floriculture Crop Production** (prereq 1036, 3016, PIPh 3131) (A-F only)
★LECT 0935-1235 T, HrG 174, Strefeler 532689 -1 LAB 1500-1800 TTh, HrG 174, 2 cr
- 5091 **Directed Studies** (prereq 8 cr upper division hort course, Δ)
024791 2-6 cr
- 8007 **Extension Horticulture Practicum** (max 6 cr; prereq 12 grad cr)
129228 1-5 cr
- 8042 **Horticultural Seminar** (S-N only)
525192 1605-1655 W, AlderH 415, 1 cr
- 8051 **Advanced Problems in Horticultural Crop Breeding** (prereq #)
631064 3-9 cr
- 8052 **Advanced Problems in Physiology of Horticultural Crops** (prereq #)
624115 3-9 cr
- 8061 **Discussions in Plant Reproductive Biology** (prereq #)
127317 Smith, 1 cr
- 8062 **Discussions in Plant Hardiness** (prereq #)
833797 1145-1235 F, AlderH 398, Li, 1 cr
- 8064 **Discussions in Floricultural Science** (prereq #)
831094 Strefeler, 1 cr
- 8065 **Discussions in Postharvest Physiology** (prereq #)
030106 Li, Tong, 1 cr
- 8066 **Discussions in Horticultural Research** (prereq #) (S-N only)
732688 1605-1655 Th, AlderH 394, Smith, 1 cr
- 8777 **Thesis Credits: Masters**
523961 1-16 cr
- 8888 **Thesis Credits: Doctoral** (max 18 cr per qtr)
133053 1-36 cr

HOUSING (Hsg) Design, Housing, and Apparel Human Ecology

- r1801 **Residential Technology** (prereq Phys 1001 or 1041, soph or #)
931264 0830-1025 MW, McNH 180, Yust, 4 cr
- r3863 **Environment: Housing and Community** (prereq 1851 or #)
225042 0935-1130 TTh, McNH 180, Goetz, 4 cr
- r3880 **Internship in Housing** (max 15 cr; prereq 3870, completion of one-half of professional sequence, #) (S-N only)
832763 1145-1235 M, McNH 363, Franklin, 5-15 cr
- 3888 **Directed Study in Housing** (max 4 cr; prereq #)
532448 Franklin, Goetz, others, 1-4 cr
- r5861 **Housing Management** (prereq 3863 or #)
529145 1355-1630 TTh, McNH B3, Franklin, 5 cr
- r5865 **Housing in World Perspective I** (prereq 3863 or equiv)
827742 1250-1445 MW, McNH 316, Morris, 4 cr
- 5888 **Directed Study in Housing** (max 4 cr; prereq #)
632053 Franklin, Goetz, others, 1-4 cr
- 8880 **Directed Study in Housing** (max 8 cr; prereq #) (A-F only)
725966 Franklin, Goetz, others, 1-4 cr

HUMANITIES (Hum) Liberal Arts

- r1003 **Humanities in the Modern World III** (§Rhet 1303)
543109 1115-1205 MWF, FordH 55, Tapp, 4 cr

- r1004 **Humanities in the Modern World IV** (§Rhet 3381)
943110 0815-0930 TTh, FordH 55, Crawford, 4 cr
- r1111 **European Heritage: Greece** (§Rhet 3321)
743111 0905-0955 MWF, FordH 130, 4 cr
- r1301 **Discourse and Society**
530425 -1 0900-0955 MWF, FordH 160, 4 cr
946668 -2 1220-1310 MWF, FordH 160, 4 cr
146667 -3 0945-1100 TTh, FordH 160, 4 cr
746669 -4 0945-1100 TTh, FordH 120, 4 cr
- r1302 **Text and Context**
528352 -1 1010-1100 MWF, FordH 130, 4 cr
146670 -2 1115-1230 TTh, FordH 349, 4 cr
- r1303 **Knowledge, Persuasion, Power**
324562 -1 1010-1100 MWF, FordH 349, Josephides, 4 cr
533101 -2 0945-1100 TTh, FordH 70, 4 cr
946671 -3 1115-1230 TTh, FordH 160, 4 cr
- r3172 **Music as Discourse**
543112 0945-1100 TTh, FordH 130, Thomas, 4 cr
- r3677 **Self-Realization in 20th-Century Literature** (prereq jr or sr or #)
831192 1245-1400 TTh, FordH 285, Kiger, 4 cr
- 3970 **Directed Studies** (prereq #, Δ)
127343 ar cr
- r5301 **Society, Ideology and the Production of Art** (§CSDS 5301; prereq jr, sr, grad)
343113 1245-1400 TTh, FordH 130, Crawford, 4 cr
- r5398 **Phenomenology and Ethnography** (prereq jr or sr or grad stu or #)
143114 1325-1625 M, FordH 50, Josephides, 4 cr
- r5910 **Topics in the Humanities**: (prereq jr or sr or grad stu)
544275 -1 1115-1230 TTh, FolH 246, Duroche, 4 cr (Making of the Modern Male: Male Gender Studies)
247445 -2 1445-1730 Th, FordH 175, Przybylowicz, 4 cr (Women in Film and Media) (§CSDS 5910, sec 2)
- 5970 **Directed Studies** (prereq jr or sr or grad student, #, Δ)
832908 ar cr

INDUSTRIAL EDUCATION (Ind) Vocational And Technical Education Education

- r1001 **Technical Design and Product Development** (A-F only)
443118 0830-1130 TTh, VoTech 110, Gagel, 3 cr
- r1612 **Construction** (prereq 1610) (A-F only)
130193 0830-1130 MW, VoTech 120, Jay, 3 cr
- r1624 **Photography** (A-F only)
931765 0830-1130 TTh, VoTech 110, Nilsen, 3 cr
- 3200 **Technical Development: Advanced** (max 33 cr; prereq 1000, 1001, #) (A-F only)
826445 Miletich, 1-9 cr
- r3750 **Industrial Practices and Processes** (prereq #) (A-F only)
627886 1355-1655 T, VoTech R270, Miletich, 3 cr
- 3900 **Independent Study** (prereq #) (A-F only)
025696 3 cr
- 3901 **Independent Study** (prereq #) (A-F only)
931636 3 cr
- r5000 **Occupational Experience** (prereq #) (A-F only)
134132 Miletich, 1-5 cr
- 5200 **Technical Development: Specialized** (max 24 cr; prereq #) (A-F only)
032230 Miletich, 1-9 cr
- 5305 **Critical Issues in Industrial Education** (prereq educ or grad stu) (A-F only)
229298 1605-1850 T, VoTech R280, Swanson, 3 cr
- 5325 **Foundations of Industrial Education** (A-F only)
927408 1605-1850 Th, VoTech R280, Lewis, 3 cr

- 5514 Clinical Seminar: Teaching** (§HeEd 5514; prereq 5512, 5513, or HEEd 5512, HEEd 5513, or #) (S-N only)
046001 1500-1655 F, VoTech R280, Bjorkquist, 12 cr
- 5516 Curriculum/Development in Technical Education** (A-F only)
447850 1605-1850 W, VoTech R270, Lewis, 4 cr
- 5900 Field-Based Projects in Industrial Education** (max 12 cr; prereq 5305, 5325, MEd student)
829765 1-6 cr
- 5901 Independent Study** (prereq Δ) (A-F only)
728513 1-6 cr
- 8700 Research Seminar** (max 6 cr) (S-N only)
124952 1250-1340 T, VoTech R280, Bjorkquist
- 8777 Thesis Credits: Masters**
731816 1-16 cr
- 8900 Research Problems** (prereq approval of candidacy)
730844 3-9 cr
- 8901 Research Problems** (prereq approval of candidacy)
132050 3-9 cr

INDUSTRIAL ENGINEERING/OPERATIONS RESEARCH (IEOR)

Mechanical Engineering Institute of Technology

- R5020 Engineering Cost Accounting, Analysis and Control** (prereq 3000, IT or grad., ME 3900 rec)
833699 0800-0850 MWThF, AkerH 211, Arora, 4 cr
- R5040 Introduction to Operations Research** (prereq IT or grad stu, Math 1241...3000 rec)
728981 1010-1100 MWThF, MechE 221, Starr, 4 cr
- R5071 Human Factors in System Design** (prereq 5070 and/or 5010, IT stu or grad)
★LECT 1430-1520 MW, AkerH 211, Kvalseth
430868 -1 REC 1525-1730 W, AkerH 313, 4 cr
- R5180 Applied Industrial Engineering** (prereq 3000, 5010, 5020, 5030, 5040, Δ)
828518 3-5 cr
- R5198H Industrial Engineering Upper Division Honor Thesis I** (prereq upper div ME honors stu IEOR option)
825117 4 cr
- R5199H Industrial Engineering Upper Division Honor Thesis II** (prereq upper div ME/IEOR option honors stu)
026198 4 cr
- R5254 Design Morphology with Applications** (prereq completion of sequences ME 3201/3 or 5, ME 3303 or 5342, upper div mech engr maj)
★LECT 1325-1415 T, MechE 18
126118 -1 LAB 1430-1730 T, 1325-1730 Th, OwreH 2230, 4 cr
- R5311 Management for Engineers** (prereq 3000 or 5000, IT stu or grad)
131903 -1 0800-0850 MWThF, MechE 102, Barnett, 4-5 cr
- R5442 Operations Research III** (prereq 5441, IT stu or grad)
525578 0905-0955 MWThF, AmundH 240, Starr, 4 cr
- 8773 Graduate Seminar** (S-N only)
632540 1525-1625 W, MechE 108, 1 cr
- 8774 Graduate Seminar** (S-N only)
626124 1525-1625 W, MechE 108, 1 cr
- 8775 Graduate Seminar** (S-N only)
024211 1525-1625 W, MechE 108, 1 cr
- 8777 Thesis Credits: Masters**
131142 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
031952 1-36 cr

INDUSTRIAL RELATIONS (IR) Management

Non-SMgt students should refer to page 9, Carlson School of Management Courses, before attempting to register for IR courses.

- R3002 Personnel and Industrial Relations** (§8002; prereq Econ 1101, 1102, Psy 1001)
627760 -1 0800-0945 TTh, BlegH 220, 4 cr
225669 -2 1000-1145 TTh, BlegH 220, 4 cr
530909 -3 1300-1445 TTh, BlegH 220, 4 cr
- R3007 Collective Bargaining and Labor Relations**
229088 0800-0945 TTh, BlegH 210, Gagala, 4 cr
- R5006 Labor Policy** (§PA 5430)
146675 1430-1545 TTh, HHCtr 30, Kleiner, 3 cr
- R5990 Independent Study in Personnel and Industrial Relations** (prereq SMgt or grad SMgt approval)
229740 1-8 cr
- R8001 Introduction to Quantitative Methods and Techniques for Industrial Relations** (prereq IR grad stu or Δ)
★LECT 1730-2100 M, HHCtr 15, Wang
846677 -1 LAB 1730-2100 W, HHCtr 15, 4 cr
- R8002 An Introduction to Industrial Relations** (§3002; prereq Econ 1001, 1002, Psy 1001, IR MA student or Δ)
031059 1730-2100 T, BlegH 205, Azevedo, 4 cr
- R8004 Organization Theory and Analysis** (prereq 8002 or #, IR MA student or Δ)
527802 1300-1445 TTh, HHCtr 15, Parks, 4 cr
- R8011 Intermediate Quantitative Methods and Techniques for Industrial Relations** (prereq 8001, IR grad stu, or Δ) (A-F only)
★LECT 1300-1445 MW, HHCtr 15, Noe
646681 -1 LAB 1300-1445 F, HHCtr 15, 4 cr
- R8012 Industrial Relations Systems** (prereq completion of the core sequence in IR or #, IR MA student or Δ)
928064 1730-2100 M, BlegH 205, Seltzer, 4 cr
- R8014 Organization Design and Administration** (prereq 8004 or #, IR MA student or Δ)
947450 1730-2100 W, BlegH 260, Wang, 4 cr
- R8022 International Human Resource Management** (prereq 8002 or MBA 8015 or #, IR MA student or Δ)
933452 1730-2100 T, HHCtr 15, Zaidi, 4 cr
- R8026 Macro Labor Market Analysis** (prereq 8006 or #, IR MA student or Δ)
528934 1500-1645 MW, HHCtr 30, Keane, 4 cr
- R8027 Methods for Dispute Resolution** (prereq 8007 or #, IR MA student or Δ)
826297 1730-2100 M, BlegH 120, Flagler, 4 cr
- R8033 Management Development** (prereq 8003 or #, IR MA student or Δ)
332144 1730-2100 W, BlegH 330, Noe, 4 cr
- R8035 Motivation and Work Behavior** (prereq 8005 or 8004 or #, IR MA student or Δ)
133585 1730-2100 Th, BlegH 210, Parks, 4 cr
- 8777 Thesis Credits: Masters**
132498 1-16 cr
- R8802 Seminar: Industrial Relations Systems** (prereq completion of the industrial relations core or # and IR grad student or Δ)
027285 1000-1145 TTh, HHCtr 60, Zaidi, 4 cr
- R8804 Seminar: Organization Theory** (prereq 8004 and/or # and IR grad student or Δ)
342737 1500-1645 MW, BlegH 105, Ben-Ner, 4 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
731072 1-36 cr
- R8990 Independent Study in Industrial Relations** (prereq #)
927599 ar cr

INFORMATION AND DECISION SCIENCES (IDSc) Management

Non-SMgt students should refer to page 9, Carlson School of Management Courses, before attempting to register for IDSc courses.

- R1010 Fundamentals of Information Development and Use** (§MSci 1010; prereq 30 cr, Math 1111 or #) (A-F only)
★LECT 1100-1215 MW, BlegH 10
831077 -1 LAB 0800-0900 Th, BlegH 90, 130, 4 cr
929045 -2 LAB 0915-1015 Th, BlegH 90, 4 cr
★LECT 1230-1345 MW, BlegH 10
427811 -3 LAB 1030-1130 Th, BlegH 90, 4 cr

- 327140 -4 LAB 1145-1245 Th, BlegH 90, 125, 4 cr
★LECT 1400-1515 MW, BlegH 10
925254 -5 LAB 1300-1400 Th, BlegH 90, 125, 4 cr
032504 -6 LAB 1415-1515 Th, BlegH 90, 125, 4 cr

- R3030 Information Systems and Information Management** (§MIS 3300, MSci 3030; prereq OMS 1020) (A-F only)
★LECT 0800-0915 MW, BlegH 130
230595 -1 LAB 0800-0900 Th, HHCtr 35, 4 cr
133313 -2 LAB 0915-1015 Th, HHCtr 35, 4 cr
★LECT 0930-1045 MW, BlegH 130
628696 -3 LAB 1030-1130 Th, HHCtr 35, 4 cr
531414 -4 LAB 1145-1245 Th, HHCtr 35, 4 cr
- R5103 Database Design, Manipulation and Management** (§MIS 5103; prereq 3001 or 3002 or 3030) (A-F only)
127410 1515-1700 TTh, BlegH 110, Everest, 4 cr
- R8101 MIS: The Management of Information Technology in Organizations** (§MIS 8100, MIS 8300; prereq MBA 8025 or #) (A-F only)
428697 1300-1445 MW, BlegH 330, Beath, 4 cr
- R8104 MIS: Software Design and Programming** (§MIS 8301; prereq MBA 8025 or #) (A-F only)
125656 1500-1645 MW, BlegH 330, Naumann, 4 cr
- R8430 Advanced Database Design and Administration** (§MIS 8313; prereq 8103 or equiv or #) (A-F only)
727877 1730-2100 Th, BlegH 110, Everest, 4 cr
- R8440 Advanced Information Systems Development** (§MIS 8312; prereq 8103 or equiv or #) (A-F only)
626298 1730-2100 W, BlegH 420, Beath, 4 cr
- R8480 Expert Systems** (§S480, DSci 5040; prereq #) (A-F only)
224652 -1 1730-2100 T, BlegH 330, Johnson, 4 cr
833198 -2 1730-2100 T, BlegH 330, Johnson, 4 cr (PhD students only)
- R8799 Seminar in Decision Sciences Topics** (§DSci 8799; prereq PhD stu, #) (A-F only)
246683 1500-1645 MW, HHCtr 60, Johnson, 4 cr
- R8990 Readings in Information and Decision Sciences** (§DSci 8990, MIS 8990; prereq PhD stu, #) (A-F only)
133781 ar cr
- R8995 Graduate Research in Information and Decision Sciences** (§DSci 8995, MIS 8995; prereq PhD stu, #) (A-F only)
927943 ar cr

INSTITUTE OF TECHNOLOGY (IoT) Institute of Technology

- 3103 Industrial Solid Waste Characterization and Recovery** (prereq Chem 1003 or equiv)
327946 1010-1100 MWF, AmundH 162, 1530-1700 M, BorH 335, Hepworth, 4 cr
- R3311 Developing Effective Job Search Skills** (prereq Jr, sr or grad student in IT) (S-N only)
733968 1535-1625 T, AkerH 309, Clinton, 1 cr

INSURANCE (Ins) Management

Non-SMgt students should refer to page 9, Carlson School of Management Courses, before attempting to register for Ins courses.

- R5100 Risk Management and Insurance** (§3100, 8100) (A-F only)
225106 0905-0955 MWF, BlegH 240, Whitman, 4 cr
- 8990 Readings in Risk Management and Insurance** (prereq consent of advisor, #, grad SMgt approval)
425718 ar cr
- 8995 Graduate Research in Risk Management and Insurance** (prereq grad SMgt approval)
726910 ar cr

INTERDEPARTMENTAL STUDY (ID)

Liberal Arts

- 3101 An Introduction to Marxism**
023995 0945-1100 TTh, Arch 15, Erickson, 4 cr
- 3170 HECUA Off-Campus Study Program: Metro Urban Studies Term** (prereq #)
334038 1-24 cr (off-campus) (for information call Chip Peterson, International Studies 624-4525)
- 3180 HECUA Off-Campus Study Program: City Arts** (prereq #)
130332 1-24 cr (for information contact Foreign Studies Office, NichH 104)
- r3201 Topics in Cultural Perspective** (prereq Δ)
447220 1220-1415 MW, 1220-1310 F, FolH 344, 5 cr (prereq consult with office for Special Learning Opportunities, JohH 220, for information contact Carl Brandt 624-7577)
- 3252 Metro Internship Seminar** (3251-3252); (prereq 3251, #)
728186 Shapiro, 2 cr (for information call Tim Herwig, Director 625-3800)
- r3925 Life/Career Planning** (prereq sr or #)
543871 0905-1100 F, SmithH 121, Kline, 2 cr
- 3970 Directed Studies** (prereq consult with Office for Special Learning Opportunities, JohH 220, □)
329910 1-15 cr
- 5970 Directed Studies** (prereq Δ)
446259 1-4 cr

INTERDISCIPLINARY MEDICINE (InMd)

Medical School

- 5000 Independent Study, Student Status**
429574 0 cr
- 5115 Clinical Correlations** (prereq regis med, Medical School Curriculum Affairs Office Approval) (S-N only)
429090 1430-1625 M, PWB 2470, Kaplan, 1 cr (Mar 30-June 6)
- 5204 Pathophysiology IV** (prereq regis med, Medical School Curriculum Affairs Office Approval) (S-N only)
925416 0800-1100 MW, 0800-1310 Th, 0800-1205 TF, MoosT 2650, Soltis, 6 cr (Apr 20-May 16)
- 5290 Laboratory Medicine** (prereq regis med, Medical School Curriculum Affairs Office Approval)
130954 1 cr
- 5500 Clinical Medicine IV/Ambulatory Medicine** (prereq regis med) (S-N only)
132736 0830-1600 W, PWB 8335, 9 cr
- 5501 Emergency Room Externship** (prereq regis med, Med 5500)
233299 9 cr
- 5552 Indian Health Service Elective** (prereq regis med)
432801 9 cr
- 5560 Elective Away at the National Institutes of Health**
729158 9 cr

INTERNATIONAL RELATIONS (IntR)

Liberal Arts

- r3101 Theoretical Approaches to International Relations** (prereq international relations maj or #) (A-F only)
★LECT 0905-0955 MW, BlegH 330, Leibel
047522 -1 REC 0905-0955 F, BlegH 330, 4 cr
- r3620 Foreign Language News Coverage of International Events** (prereq IntR maj or #, completion of college language requirement in language of course) (A-F only)
726387 -1 1325-1520 W, BlegH 350, 2 cr (Spanish)
724607 -2 1325-1520 W, BlegH 235, 2 cr (French)

- r3900 Topics in International Relations** (prereq 12 cr in social sciences)
443121 -1 1130-1300 MW, BlegH 110, DeFosse, Stewart, 4 cr (Development, Disease and International Biocultural Interactions: Latin America)
847523 -2 1115-1230 TTh, BlegH 330, Pilz, Tuchman, 4 cr (Nationalism)
447525 -3 1130-1245 TTh, BlegH 240, Chowdhurie, Laffey, 4 cr (Democracy and Markets in Western Europe, 1945-1992)
- 3960 Field Studies/Internship in International Studies** (max 8 cr for international relations maj; prereq Δ)
125986 1-8 cr
- 3970 Directed Studies** (prereq #, Δ, □)
430742 1-15 cr
- r3981 Major Project Seminar** (prereq non-honors IntR maj, sr, or #) (A-F only)
927456 1245-1515 M, BlegH 350, Davidheiser, 4 cr
- 3990H Honors Course: Supervised Research Paper** (†3990H; prereq sr honors candidate in international relations, Δ)
428117 1-5 cr
- r3991H Junior Research Seminar** (prereq jr honors international relations maj) (A-F only)
147852 1430-1545 MW, BlegH 240, Turner, 3 cr
- r5145 Development in Africa** (§Afro 5145, Geog 5145; prereq #)
133232 0905-0955 MWF, BlegH 415, Scott, 4 cr
- r5900 Topics in International Relations: The History of European Integration** (prereq 12 cr in social science)
525385 0945-1130 MW, SocSci 1383, BoxHoom, 4 cr
- r5930 Topics in International Development: Approaches to African Development** (§Afro 5876; prereq 12 cr in social science)
647524 1325-1415 MWF, BlegH 255, Coifman, 4 cr

ITALIAN (Ital) French And Italian Liberal Arts

- r1103 Beginning Italian** (prereq 1102)
128824 -1 0800-0850 MTWThF, Kolth S139, 5 cr
826655 -2 0905-0955 MTWThF, AmundH 116, 5 cr
029599 -3 1010-1100 MTWThF, AkerH 225, 5 cr
833928 -4 1115-1205 MTWThF, PeikH 155 5 cr
624566 -5 1220-1310 MTWThF, Arch 15, 5 cr
743125 -6 1220-1310 MTWThF, ChDev 218, 5 cr
- r1106 Intermediate Italian** (prereq 1105)
333102 -1 0800-0915 MWF, FolH 208, 5 cr
431194 -2 0930-1045 MWF, FolH 208, 5 cr
429302 -3 1100-1215 MWF, FolH 208, 5 cr
727412 -4 1230-1345 MWF, FolH 208, 5 cr
343127 -5 1230-1345 MWF, FolH 234, 5 cr
- r3015 Intermediate Italian Conversation and Composition** (prereq 1106)
647457 1015-1130 MW, AmundH 116, Lavecchia, 4 cr
- 3970 Directed Readings** (prereq undergrad, #, Δ, □)
032549 1-5 cr
- r5402 Dante** (prereq 5401)
447458 1115-1230 MW, FolH 50, Martinez, 4 cr
- r5609 Dante (In English)**
247459 1430-1545 MW, Kolth S133, Martinez, 4 cr
- 8777 Thesis Credits: Masters**
323833 1-16 cr
- 8970 Directed Readings**
032082 1-5 cr

JAPANESE (Jpn) East Asian Languages & Literatures Liberal Arts

- r1013 Beginning Japanese** (prereq 1012)
★LECT 0905-0955 TTh, Kolth S136, Yanagimachi

- 727023 -1 REC 0800-0850 MTWThF, Kolth S140, 5 cr
323931 -2 REC 0800-0850 MTWThF, Kolth S132, 5 cr
724073 -3 REC 1010-1100 MTWThF, Kolth S136, 5 cr
★LECT 1115-1205 TTh, Kolth S137, Yanagimachi
231066 -4 REC 0905-0955 MTWThF, Kolth S137, 5 cr
328935 -5 REC 1010-1100 MTWThF, Kolth S137, 5 cr
924914 -6 REC 1220-1310 MTWThF, Kolth S140, 5 cr
- r3023 Intermediate Japanese** (prereq 3022)
★LECT 0800-0850 TTh, FolH 138, Okada
030414 -1 REC 0800-0850 MWF, FolH 138, 5 cr
828261 -2 REC 0800-0850 MWF, FolH 246, 5 cr
★LECT 0905-0955 TTh, FolH 138, Okada
527881 -3 REC 0905-0955 MWF, FolH 138, 5 cr
334041 -4 REC 0905-0955 MWF, FolH 240, 5 cr
- 3033 Third Year Japanese** (prereq 3032)
331866 0905-0955 MWF, FolH 114, Okada, 5 cr
- 3053 Advanced Japanese Conversation and Composition** (§5053; prereq 3023 or #)
725871 1220-1310 MWF, FolH 51E, Yanagimachi, 4 cr
- 3090H Honors Course: Tutorial** (prereq Δ)
629623 1-4 cr
- r3165 Japanese Performance Arts**
126300 1245-1400 TTh, FolH 208, Monnet, 4 cr
- 3970 Directed Studies** (prereq #, Δ, □)
730827 1-15 cr
- 5053 Advanced Japanese Conversation and Composition** (§5053; prereq 3023 or #)
324965 1220-1310 MWF, FolH 51E, Yanagimachi, 4 cr
- r5361 Readings in Modern Japanese Literature I** (prereq 3031)
547452 1430-1545 TTh, FolH 218, Monnet, 4 cr
- 5453 Structure of Japanese Discourse: Conversational Analysis** (prereq 3023, Ling 3001 or #)
446844 1220-1310 MW, FolH 142, Sztatowski, 4 cr
- 5650 Proseminar: Japanese Linguistics** (max 12 cr; prereq 5451 or #)
628455 1430-1730 T, FolH 134, Jacobsen, 4 cr
- 5970 Directed Studies in Japanese** (prereq #, Δ, CLA approval)
730987 1-15 cr
- 8650 Seminar: Japanese Linguistics** (prereq 5451, 5452 or #)
234193 1430-1730 M, FolH 134, Sztatowski, 4 cr
- 8777 Thesis Credits: Masters**
931619 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
127729 1-36 cr

JEWISH STUDIES (JwSt) Classical & Near Eastern Studies Liberal Arts

- 3315 Contemporary Israeli Literature in English**
242746 0905-0955 MWF, FolH 306, Paradise, 4 cr
- 5900 Topics in Jewish Studies** (§RelS 3900)
130095 4 cr
- 5970 Directed Readings** (max 12 cr; prereq #, Δ, CLA approval)
331902 1-12 cr

JOURNALISM AND MASS COMMUNICATION (Jour) Liberal Arts

- r1001 Introduction to Mass Communication** (A-F only)
232797 1325-1415 MWF, MurH 105, Johnson, 4 cr
- r3003 Producing Mass Media Messages** (§1003; prereq formal pre-jour prog filed, 1001, fr comp or exemption, Δ) (A-F only)
★LECT 1220-1310 TTh, MurH 105, 4 cr
041266 -1 LAB 1430-1520 T, MurH 435
841267 -2 LAB 0800-0850 W, MurH 435
641268 -3 LAB 1115-1205 W, MurH 435

- 441269 -4 LAB 1220-1310 W, MurH 435
 841270 -5 LAB 1325-1415 W, MurH 435
 641271 -6 LAB 1430-1520 W, MurH 435
 441272 -7 LAB 0800-0850 F, MurH 435
 843147 -8 LAB 0905-0955 F, MurH 435
 141274 -9 LAB 1010-1100 F, MurH 435
 643148 -10 LAB 1115-1205 F, MurH 435
 443149 -11 LAB 1220-1310 F, MurH 435
- R3003H Honors Course: Producing Mass Media Messages** (§1003H; prereq formal pre-jour prog filed, 1001, fr comp or exemp, honors div reg, #, Δ) (A-F only)
 ★LECT 1220-1310 TTh, MurH 105, 4 cr
 043146 -80 LAB 1325-1415 T, MurH 435
- R3004 Information for Mass Communication** (§1004; prereq jour maj or min status, 3003, Δ) (A-F only)
 941275 0905-0955 MWF, MurH 105, Ward, 4 cr
- R3006 Visual Communication** (§1002, prereq jour maj or min status, 3004 or §3004, Δ) (A-F only)
 243945 1010-1205 TTh, MurH 105, Griffin, 4 cr
- R3008 Mass Communication Processes and Structure** (prereq jour maj or min status, 3004 or §3004, Δ) (A-F only)
 543143 1115-1205 MWF, MurH 308, Chang, 4 cr
- R3101 Reporting** (prereq jour maj status, 3004, grad students must pass 30 wpm, Δ) (A-F only)
 324819 -1 0800-1100 TTh, MurH 212, 4 cr
 432586 -2 1325-1625 TTh, MurH 212, Babcock, 4 cr
- R3121 Public Affairs Reporting** (prereq jour maj status, 3004, 3101, grad students must pass 30 wpm, Δ) (A-F only)
 529131 0905-1100 MW, MurH 435, 4 cr
- R3155 Publications Editing** (prereq jour maj status, 3004, 3101, Δ) (A-F only)
 ★LECT 0800-1200 M, 0800-1100 W, MurH 315, 4 cr
 226899 -1 LAB 0800-1100 F, MurH 315, (not all lab hrs required)
- R3193 Community Newspaper** (prereq jour maj status, 3004, Δ) (A-F only)
 843150 1415-1530 MW, MurH 212, Soley, 4 cr
- R3201 Principles of Advertising** (prereq jour maj or min status, 3004, Δ) (A-F only)
 231486 0815-0930 TTh, MurH 105, 4 cr
- R3241 Advertising Copywriting** (prereq jour maj status, 3004, 3201, Δ) (A-F only)
 933807 0800-0955 MW, MurH 311, 4 cr
- R3614 History of Mass Communication Technology** (only officially admitted maj or min in SJMC prog may apply this course toward maj or min) (A-F only)
 345993 1245-1400 MW, MurH 308, Fang, 4 cr
- R3776 Mass Communication Law** (only officially admitted maj or min in SJMC prog may apply this course toward maj or min) (A-F only)
 133103 0945-1100 TTh, MurH 308, Gillmor, 4 cr
- R3970 Projects in Journalism** (max 8 cr; prereq jour maj or min status, 3004, #, Δ, □) (A-F only)
 125406 1-4 cr
- 3980 Directed Instruction** (prereq maj stat, adv appr, 1 prof crse for prof maj, 1 adv appr crse for mass comm maj, Δ) (S-N only)
 947934 1-2 cr
- R5131 Interpretive Reporting** (prereq jour maj status, 3004, 3121 or 3173 or 5155, Δ) (A-F only)
 727801 1535-1730 TTh, MurH 435, 4 cr
- R5233 Graphic Design Analysis** (prereq jour maj status, 3004, 3321, Δ) (A-F only)
 244254 1010-1310 TTh, MurH 315, 435, Craig, 4 cr
- R5251 Psychology of Advertising** (prereq jour maj or min status, 3004, Psy 1001, Δ) (A-F only)
 329843 1415-1530 TTh, MurH 105, Tims, 4 cr
- R5263 Advertising Campaign Planning** (prereq jour maj status, 3004, 5261, Mktg 3000 or #, Δ) (A-F only)
 025438 1630-1800 TTh, MurH 308, 4 cr
- R5272 Advanced Advertising Copywriting** (prereq jour maj status, 3004, 3241, Δ) (A-F only)
 643151 1535-1730 WF, MurH 30, 4 cr
- R5302 Advanced Photographic Communication** (prereq jour maj status, 3004, 3301 or #, Δ) (A-F only)
 026427 1315-1600 TTh, MurH 20, Schwartz, 4 cr
- R5442 Advanced Television News** (prereq jour maj status, 3004, 3451, Δ) (A-F only)
 ★LECT 0905-1100 MF, MurH 207
 233304 -1 LAB 1030-1230 T, 0800-1205 W, MurH 207, 302, 4 cr
- R5444 Television and Radio Documentary** (prereq jour maj status, 3004, 3451 or 5174 or 5302, Δ) (A-F only)
 ★LECT 1245-1400 TTh, MurH 207, Fang
 925772 -1 LAB 1030-1230 T, 0800-1205 W, MurH 207, 302, 4 cr
- R5531 Communication and Public Opinion II** (prereq jour maj status, 3004, 5501 or Soc 5355, Δ) (A-F only)
 131819 1430-1520 MWF, MurH 311, Tichenor, 4 cr
- R5601 History of Journalism** (only officially admitted maj or min in SJMC prog may apply this course toward maj or min) (A-F only)
 927876 0945-1100 MW, MurH 308, Roberts, 4 cr
- R5615 History of Visual Communication in the Mass Media** (prereq jour maj or min status, 3004, Δ) (A-F only)
 124451 1010-1310 MW, MurH 105, Griffin, 4 cr
- R5721 Mass Media and U.S. Society** (prereq jour maj or min status, 3004, Comp 3027 or #, Δ) (A-F only)
 231195 1430-1520 MWF, MurH 105, Ward, 4 cr
- R5725 The Management of Media Organizations** (prereq jour maj or min status, 3004, Δ) (A-F only)
 125101 1600-1730 MW, MurH 311, 4 cr
- R5825 World Communication Systems** (prereq jour maj or min status, 3004, Δ) (A-F only)
 432216 1415-1530 WF, MurH 308, Chang, 4 cr
- R5970 Advanced Projects in Journalism** (max 8 cr; prereq jour maj or min status, 3004, #, B avg, Δ, □) (A-F only)
 132887 1-4 cr
- R5970H Honors Course: Advanced Projects in Journalism** (prereq jour maj or min status, 3004, #, B avg, Δ, □, honors div registration) (A-F only)
 732545 1-4 cr
- R8513 Seminar: Ethnographic Methods in Mass Communication Research** (prereq proseminars or #, Δ) (A-F only)
 443152 1315-1600 M, MurH 435, Schwartz, 4 cr
- R8640 Seminar: Broadcast News** (prereq 5442 or #) (A-F only)
 243153 0905-1205 Th, MurH 207, Fang, 4 cr
- R8651 Mass Media and Social Change** (prereq course in statistics, #) (A-F only)
 143154 0905-1100 WF, MurH 30, Tichenor, 4 cr
- R8652 Seminar: Public Opinion and Propaganda** (prereq 5531, #, Δ) (A-F only)
 943155 1325-1625 Th, MurH 30, Soley, 4 cr
- R8673 Seminar: Media Management** (prereq 5725 or 5726 recommended, #, Δ) (A-F only)
 743156 1325-1625 T, MurH 30, Busterna, 4 cr
- R8681 Seminar: International Mass Communication** (prereq 5801 or 5825 or #, Δ) (A-F only)
 343144 1400-1700 M, MurH 30, Babcock, 4 cr
- 8777 Thesis Credits: Masters**
 528075 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
 724171 1-36 cr
- R8970 Advanced Projects in Mass Communication** (max 8 cr; prereq grad maj or min in mass comm, #, Δ) (A-F only)
 124918 1-4 cr
- R8990 Special Problems in Mass Communication: Media, Culture and Society** (prereq #, Δ) (A-F only)
 344276 1700-2000 M, MurH 435, Craig, 4 cr
- R3114 Prevention and Care of Injuries** (§PE 3114; prereq 3110 or CBN 1027; PEL) (A-F only)
 846002 1010-1100 MWF, BFAB 285, Wollenburg, 3 cr
- R3115 Physiological Application to Sports** (§3385, 3386, PE 3115, PE 3385, PE 3386; prereq Phsl 3051 or #; PEL) (A-F only)
 334203 1430-1520 MWF, CookeH 215, Ekstrom, 3 cr
- R3144 Administration** (§PE 3144; prereq kinesiology maj, sr; PEL) (A-F only)
 343161 1615-1815 M, CookeH 215, Krotee, 2 cr
- R3171 Basketball Coaching** (§PE 3171; PEL) (A-F only)
 430398 0800-0855 TTh, CookeH 215, Kosmoski, 2 cr
- R3172 Football Coaching** (§PE 3172; PEL) (A-F only)
 143162 0905-1000 TTh, CookeH 215, FieldHse, 2 cr
- R3310 Athletic Training Laboratory** (§PE 3310; prereq 3114) (A-F only)
 926582 0905-1100 T, BFAB, Marshall, 1 cr (Trng Rm)
- R3327 Teaching Physical Education in the Elementary School** (§PE 3327; prereq elementary education maj) (A-F only)
 224702 -1 1325-1415 MWF, NorrisH M151, Lampe, 3 cr
 033250 -2 1430-1520 MWF, NorrisH M151, Lampe, 3 cr
- R3624 Student Teaching: Coaching** (§PE 3624; prereq Δ; PEL) (S-N only)
 231343 1830-2000 W, CookeH 214, La Mott, 3 cr (1 hr ar)
- R3625 Supervised Practical Experience** (§PE 3625; max 12 cr; prereq Δ) (S-N only)
 129441 1615-1800 T, CookeH 214, Schulz, Serfass, 1-12 cr
- R3900 Directed Study** (§PE 3900; max 12 cr; prereq Δ) (A-F only)
 827546 Serfass, 1-12 cr
- 5102 Practicum: Developmental/Adapted Physical Education** (§PE 5102; max 6 cr; prereq 5100, 5101 or #; PEL) (S-N only)
 131344 1815-2015 M, CookeH 214, Burton, 3 cr
- R5126 Advanced Psychological and Sociological Dimensions of Physical Activity** (§PE 5126) (A-F only)
 627547 1615-1815 Th, CookeH 215, Wiese-Bjornstal, 3 cr
- R5135 Motor Learning and Human Performance** (§PE 5135; prereq 3135 or #; PEL) (A-F only)
 134204 1615-1815 T, CookeH 400, Hancock, 3 cr
- R5136 Psychology of Coaching** (§PE 5136; PEL) (A-F only)
 043163 1615-1815 T, CookeH 215, Wiese-Bjornstal, 3 cr
- R5163 Developmental Motor Assessment** (§PE 5163) (A-F only)
 230399 1815-2045 W, CookeH 206, Burton, 3 cr
- R5380 Computer Applications in Kinesiology** (§PE 5380; prereq phys ed maj or #) (A-F only)
 843164 1325-1600 W, CookeH 214, Greer, 3 cr
- 5388 Exercise Testing, Conditioning, and Cardiac Rehabilitation** (§PE 5388; prereq 3386 or equiv, 5387 or #) (A-F only)
 526584 1615-1800 MW, CookeH 214, Serfass, Crow, 4 cr
- 5389 Practical Experience in Graded Exercise Testing, Prescription, and Direction** (§PE 5389; max 6 cr; prereq 5388 or #) (A-F only)
 124703 Serfass, 3-6 cr
- R5455 Recreational Sports** (§Rec 5455) (A-F only)
 947397 1615-1830 M, CookeH 206, Anderson, 3 cr
- R5510 Women in Sport and Leisure** (§Rec 5510) (A-F only)
 147396 1245-1400 TTh, CookeH 214, Kane, 3 cr
- 5563 Clinical Experience III: Physical Education** (prereq admission to post BA phys ed licensure prog or #, 5562; PEL) (A-F only)
 943270 9 cr
- 5860 Legal Aspects of Sport and Physical Activity** (§Rec 5860; prereq 3143 or Rec 3550 or Rec 5460) (A-F only)
 446004 1015-1205 TTh, CookeH 109, Schultz, 4 cr

**KINESIOLOGY (Kin)
 School of Kinesiology & Leisure
 Studies
 Education**

- R1990 Directed Study** (§PE 1990; prereq Δ) (A-F only)
 132302 Serfass, 1-6 cr
- R3111 Mechanics of Movement** (§PE 3111; prereq CBN 1027; PEL) (A-F only)
 630397 0800-0850 MWF, CookeH 215, Greer, 3 cr

- 5981 Problems** (\$PE 5981; prereq MEd candidate, #) (A-F only)
 326585 -21 Burton, ar cr
 924704 -22 Greer, ar cr
 833251 -23 Hancock, ar cr
 931345 -24 Kane, ar cr
 829443 -25 Krotee, ar cr
 427548 -26 Serfass, ar cr
 034205 -28 Wade, ar cr
 532305 -29 Wiese-Bjornstal, ar cr
- 5983 Readings: Kinesiology** (\$PE 5983; max 9 cr; prereq educ or grad stu) (A-F only)
 026587 -21 Burton, ar cr
 834206 -22 Greer, ar cr
 332306 -23 Hancock, ar cr
 030400 -24 Kane, ar cr
 628505 -25 Krotee, ar cr
 826588 -26 Serfass, ar cr
 633252 -28 Wade, ar cr
 629444 -29 Wiese-Bjornstal, ar cr
- 8777 Thesis Credits: Masters** (\$PE 8777)
 626589 1-16 cr
- 8888 Thesis Credits: Doctoral** (\$PE 8888; max 18 cr per qtr)
 634207 1-36 cr
- 8980 Graduate Research Seminar** (\$PE 8980; max 2 cr; prereq #) (S-N only)
 132307 1430-1625 M, CookeH 109, 110, NorrisH 4, Wade, 1 cr
- 8981 Research Problems** (\$PE 8981; prereq 8980 or #) (S-N only)
 830401 -21 Burton, ar cr
 026590 -22 Greer, ar cr
 630402 -23 Hancock, ar cr
 228507 -24 Kane, ar cr
 826591 -25 Krotee, ar cr
 524706 -26 Serfass, ar cr
 427551 -28 Wade, ar cr
 426593 -29 Wiese-Bjornstal, ar cr

LABORATORY MEDICINE AND PATHOLOGY (LaMP)

Laboratory Medicine and Pathology Medical School

- 3050 Pathology for Mortuary Science** (prereq elementary anatomy, elementary microbiology)
 *LECT 1430-1625 TWTh, MoosT 2690, Estensen, 4 cr
 724851 -1 LAB 1535-1730 T, JacH 5161
- 5100 Systemic Pathology for Dental Students** (prereq 5099 or qualification) (A-F only)
 *LECT 0905-0955 WF, MoosT 2690, Estensen, 3 cr
 125227 -1 LAB 1010-1205 T, MoosT 2690, Estensen
- 5101 General Pathology** (prereq regis med fr or pathobiology grad) (A-F only)
 *LECT 1010-1100 TThF, PWB 2470, Perrone, (Mar 30-June 6)
 325551 -1 LAB 1010-1205 TW, MoosT 3331, 3337, 3343, 3349, 2-6 cr
 226708 -2 LAB 1325-1520 T, 1430-1625 W, MoosT 3331, 3337, 3343, 3349, 2-6 cr
- 5113 Surgical Pathology: University Hospitals** (prereq 3rd or 4th yr medical student)
 830964 Snover, 6-9 cr
- 5114 Surgical Pathology: Hennepin County Medical Center** (prereq 3rd or 4th yr medical student)
 033264 Anderson, 6-9 cr
- 5115 Surgical Pathology: Veterans Administration Hospital** (prereq 3rd or 4th yr medical student)
 324917 Limas, ar cr
- 5118 Endocrine Pathology: St. Paul Ramsey Hospital** (prereq 3rd or 4th yr medical student)
 230967 Lakatua, ar cr
- 5119 Forensic Pathology: Medical Examiner's Office, Hennepin County Medical Center** (prereq 3rd or 4th yr medical student)
 325680 ar cr
- 5125 Chronobiology** (prereq 3rd or 4th yr medical student, #)
 924881 Haberg, ar cr
- 5141 Problems in Experimental Pathology** (prereq 3rd or 4th yr medical student, #)
 232976 ar cr

- 5150 Anatomic Pathology in a Hospital Setting: University Hospitals** (prereq 3rd or 4th yr medical student)
 424195 Burke, 6-9 cr
- 5151 Anatomic Pathology in a Hospital Setting: Hennepin County Medical Center** (prereq 3rd or 4th yr medical student)
 330927 Anderson, 6-9 cr
- 5152 Anatomic Pathology in a Hospital Setting: Veterans Administration Hospital** (prereq 3rd or 4th yr medical student)
 131022 Posalaky, ar cr
- 5153 Anatomic Pathology in a Hospital Setting: St. Paul-Ramsey Medical Center** (prereq 3rd or 4th yr medical student)
 132073 Posalaky, ar cr
- 5158 Cardiac Pathology: United Hospital** (prereq 3rd or 4th yr medical student, #)
 630951 Edwards, ar cr
- 5177 Pathology for Allied Health Students: General and System Pathology** (prereq Anat 1004, physiology or I)
 625443 1010-1205 TTh, MoosT 2530, Bradley, Linne, 4 cr
- 5181 Laboratory and Clinical Hematology** (prereq #)
 124717 Brunning, ar cr
- 5184 Immunohematology in Blood Banking** (prereq #)
 524351 McCullough, ar cr
- 5185 Laboratory Problems in Blood Coagulation** (prereq #)
 430627 Edson, ar cr
- 5186 Laboratory Medicine in a Community Hospital** (prereq 4th yr medical student, #)
 429879 Bandt, ar cr
- 5187 Clinical Pathology Externship** (prereq #)
 524205 0800-1310 MTWThF, Mayo 125, Fuhrman, ar cr (Mar 30-June 6)
- 5188 Clinical Pathology Externship: Methodist Hospital** (prereq #)
 732996 Segal, ar cr
- 5192 Laboratory Medicine for Primary Care: Virginia** (prereq 4th yr medical student, #)
 127866 Knabe, ar cr
- 5193 Clinical Pathology Externship: Hibbing Hospital** (prereq #)
 424472 Eilers, ar cr
- 5194 Computer Applications in Medicine** (prereq #)
 426903 Ellis, ar cr
- 5195 Computer Applications in Medical Research** (prereq #)
 624938 Ellis, ar cr
- 5210 Surgical Pathology for Post-M.D.s** (prereq regis med fellow special, #) (S-N only)
 127570 1-10 cr
- 5211 Autopsies for Post-M.D.s** (prereq regis med fellow special, #) (S-N only)
 432653 1-10 cr
- 5212 Advanced Neuropathology for Post-M.D.s** (prereq regis med fellow special, #)
 630013 Sung, 1-5 cr
- 5213 Laboratory Medicine for Post-M.D.s** (prereq regis med fellow special, #) (S-N only)
 427775 1-10 cr

LANDSCAPE ARCHITECTURE (LA)

Arch & Landscape Arch

- r1022 History of Environmental Design** (\$Arch 1022; prereq 1021)
 126144 -1 1115-1310 TTh, SmithH 100, Neckar, 4 cr (Mpls)
 524656 -2 1730-1920 TTh, SmithH 100, Neckar, 4 cr (Mpls)
- 3083 Basic Design** (prereq 3082) (A-F only)
 830849 1400-1730 MWF, NorH 305, Sand, 6 cr
- 3094 Independent Study in Graphics** (prereq landscape architecture student, #) (A-F only)
 224196 1-4 cr

- 3095 Independent Study in Planting Design** (prereq landscape architecture student, #) (A-F only)
 727300 1-4 cr
- 3096 Independent Study in History or Theory** (prereq landscape architecture student, #) (A-F only)
 723859 1-4 cr
- 3097 Independent Study in Computer Aided Design** (prereq landscape architecture, #) (A-F only)
 533888 1-4 cr
- 3098 Independent Study in Design** (prereq landscape architecture student, #) (A-F only)
 131139 1-4 cr
- 3099 Independent Study in Technology** (prereq landscape architecture student, #) (A-F only)
 130694 1-4 cr
- 3101 Communicating Landscape Quality** (prereq 1025, 3082) (A-F only)
 827045 0830-1025 M, 0830-1235 F, AlderH 405, Condon, 4 cr
- 3200 Landscape Architecture Practicum** (prereq landscape architecture student, #) (S-N only)
 324951 1-6 cr
- r5063 Landscape Construction: Spatial Performance** (prereq 3081 or #) (A-F only)
 *LECT 0830-0920 TTh, ClaOff B42, Gunderson
 431423 -1 LAB 0935-1130 TTh, NorH 315, Gunderson, 4 cr
- 5107 Regional Landscape Design** (prereq 3092) (A-F only) (course fee)
 227003 1400-1730 MWF, AlderH 405, Pitt, 6 cr
- 5110 Advanced Landscape Planning and Design** (prereq terminal qtr of study) (A-F only)
 228913 1400-1730 MWF, NorH 305, Robinson, 6 cr
- 5131 Directed Studies in Landscape Architecture History and Theory** (prereq third yr landscape architecture student, Δ) (A-F only)
 930762 1-6 cr
- 5132 Directed Studies in Landscape Architecture Design** (prereq third yr landscape architecture student, Δ) (A-F only)
 930826 1-6 cr
- 5133 Directed Studies in Landscape Architecture Technology** (prereq third yr landscape architecture student, Δ) (A-F only)
 625880 1-6 cr
- 5134 Directed Studies in Emerging Areas for Landscape Architecture** (prereq third yr landscape architecture student, Δ) (A-F only)
 931992 1-6 cr
- 5140 Interdisciplinary Studies in Landscape Architecture** (max 18 cr; prereq #) (A-F only)
 724929 Sand, 2-6 cr
- 5224 Contemporary Issues in Landscape Architecture** (prereq terminal yr of study) (A-F only)
 430420 1000-1200 MW, NorH 305, Hard, 4 cr
- 8110 Graduate Landscape Planning and Design** (prereq 5101, 5103, 5015 or 5107) (A-F only)
 627631 1400-1730 MWF, NorH 207, Robinson, 6 cr
- 8283 Research Proposals in Landscape Architecture** (prereq 8282 or #) (A-F only)
 432684 1200-1400 F, NorH 207, Pitt, 2 cr
- 8284 Landscape Architecture Colloquium** (prereq 8283 or #) (S-N only)
 025522 Nassauer, 1 cr
- 8500 Landscape Architecture Research Project** (prereq 8283 or #) (A-F only)
 024869 1-6 cr
- 8600 Landscape Architecture Education** (prereq M.L.A. candidate or #) (A-F only)
 125180 1-4 cr
- 8777 Thesis Credits: Masters**
 932706 1-16 cr

LATIN (Lat)

Classical & Near Eastern Studies Liberal Arts

- r1102 Beginning Latin** (1101-1102+; prereq 1101)
 043213 0905-0955 MTWThF, SmithH 111, 5 cr

- r1103 Selections from Latin Literature** (§3051-3052; prereq 1102 or equiv)
030154 -1 0800-0850 MTWThF, FolH 116, 5 cr
823920 -2 0905-0955 MTWThF, PeikH 225, 5 cr
731430 -3 1010-1100 MTWThF, PeikH 225, 5 cr
424231 -4 1010-1100 MTWThF, KolH S135, 5 cr
729791 -5 1115-1205 MTWThF, Phys 236A, 5 cr
426786 -6 1325-1415 MTWThF, JonesH 11, 5 cr

- r3106 Latin Poetry** (prereq 1122H or 3052 or 3105 or Δ)
428750 -1 0800-0850 MWF, FolH 240, Sonkowsky, 5 cr
134154 -2 1115-1205 MWF, FolH 218, 5 cr
843214 -3 1535-1625 MWF, FolH 138, Krevans, 5 cr

- 3452 Advanced Undergraduate Latin** (prereq 3106 or 4 yrs high school Latin or Δ)
643215 0905-0955 MWF, FolH 116, Sonkowsky, 5 cr

- 3951 Major Project** (prereq Greek-Latin or Latin maj, three 3xxx courses in Latin or #) (A-F only)
624860 5 cr

- 3960H Honors Tutorial** (prereq Δ)
024855 5 cr

- 3970 Directed Studies** (prereq #, Δ, □)
630920 1-5 cr

- 5310 Latin Literature: History** (max 12 cr)
243217 1245-1400 WF, FolH 116, Keuls, 4 cr

- 5715 Introduction to Classical Philology** (§Grk 5715)
644350 1245-1400 TTh, FolH 50, Sheets, 4 cr

- 5970 Directed Studies** (prereq #, Δ, CLA approval)
129884 1-5 cr

- 5980 Directed Instruction** (prereq #, Δ, CLA approval)
831791 ar cr

- 5990 Directed Research** (prereq #, Δ, CLA approval)
530411 ar cr

- 8120 Latin Text Course** (prereq 3052 or Δ, non-maj)
130962 -1 0800-0850 MWF, FolH 240, Sonkowsky, 4 cr
829927 -2 0905-0955 MWF, FolH 116, Sonkowsky, 4 cr
443216 -3 1115-1205 MWF, FolH 218, 4 cr
146684 -4 1535-1625 MWF, FolH 138, Krevans, 4 cr

- 8777 Thesis Credits: Masters**
425086 1-16 cr

- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
033975 1-36 cr

LATIN AMERICAN STUDIES (LAS)

Liberal Arts

- r3134 Middle America** (§Geog 3131)
034186 0905-0955 MWF, BlegH 440, Barrett, 4 cr

- 3250 Role of Renewable Natural Resources in Developing Countries** (§FR 3250, FR 5250)
726499 1500-1630 W, BorH 335, Gregersen, Rose, 2 cr (SIP)

- r3403 Survey of Latin American History: 1929 to Present** (§Hist 1403, Hist 3403)
★LECT 0945-1100 TTh, AndH 330, Hedberg
126502 -1 REC 1115-1205 M, AndH 210, 4 cr
424665 -2 REC 1325-1415 T, AndH 310, 4 cr
733209 -3 REC 1115-1205 W, AndH 210, 4 cr
731301 -4 REC 0800-0850 Th, HHCtr 30, 4 cr
729399 -5 REC 1220-1310 Th, BlegH 215, 4 cr
327509 -6 REC 1115-1205 F, BlegH 110, 4 cr

- 3424 History of Mexico: Pre-Columbian Period through Independence** (§Hist 3424)
946685 1245-1400 TTh, BlegH 235, Schwartz, 4 cr

- 5120 Seminar: Topics**
327767 1220-1335 WF, BlegH 225, 4 cr

- r5131 Colonial Mexico and The Caribbean** (§Geog 5131)
426500 1220-1310 MWF, BlegH 415, Barrett, 4 cr

- r5530 Topics in Latin American Studies: The Economic Development of Latin America** (§PA 5593)
745604 0905-1020 MW, HHCtr 60, Schuh, 4 cr

- r5970 Directed Studies** (prereq #, Δ, CLA approval)
928817 ar cr

LEARNING AND ACADEMIC SKILLS (LASK)

Liberal Arts

- r1001 Becoming a Master Student** (not for CLA degree credit)
931782 -1 0800-0850 MWF, EddyH 102, 2 cr
830625 -2 0905-0955 MWF, AmundH 162, 2 cr
328546 -3 0905-0955 MWF, EddyH 102, 2 cr
126765 -4 1010-1100 MWF, EddyH 102, 2 cr
826848 -5 1115-1205 MWF, EddyH 102, 2 cr
928985 -6 1220-1310 MWF, EddyH 102, 2 cr
932012 -7 1220-1310 MWF, JonesH 2, 3 cr (ESL only)

- 528049 -8 1325-1415 MWF, EddyH 102, 2 cr

- r1302 Job Seeking Skills for Disabled Students** (prereq 1301 or equiv)
846260 1325-1520 Th, Arch 20, Aase, 2 cr

LINGUISTICS (Ling)

Linguistics

Liberal Arts

- r3001 Introduction to Linguistics** (§3005, 5001)
★LECT 0905-0955 MTW, Arch 50
724915 -1 REC 0905-0955 Th, Arch 50, 5 cr
825828 -2 REC 0905-0955 F, Arch 50, 5 cr

- 3051H Honors Course: Linguistics** (prereq candidacy for honors in linguistics or #)
931815 4 cr

- 3601 Introduction to Historical Linguistics** (§5601; prereq 3001 or #)
625166 1430-1520 MWF, JonesH 11, Miranda, 4 cr

- 3812 Ethnic Bilingualism in the United States** (knowledge of ling or a non-English language helpful)
632148 1010-1100 MWF, FolH 50, Downing, 4 cr

- 3970 Directed Studies** (prereq linguistics maj, #, Δ, □)
331981 1-5 cr

- 3971 Senior Project** (prereq #) (S-N only)
533745 1 cr

- 5013 Mathematical Linguistics** (prereq 5012)
143226 0945-1100 TTh, FolH 116, Kac, 4 cr

- 5202 Introduction to Syntax** (prereq 5201)
132557 0945-1100 TTh, FolH 246, Gundel, 4 cr

- 5212 Linguistic Pragmatics** (prereq 5002, 5201 or #)
043227 1545-1700 TTh, FolH 148, Gundel, 4 cr

- 5303 Introduction to Phonology** (prereq 5302)
233836 1115-1205 MWF, FolH 246, Stemberger, 4 cr

- 5601 Introduction to Historical Linguistics** (§3601; prereq 5001 or #)
225964 1430-1520 MWF, FolH 138, Miranda, 4 cr

- 5605 Indo-European Linguistics** (prereq 3601 or 5601 or #)
647474 1325-1415 MWF, JonesH 2, Miranda, 4 cr

- r5722 English as a Second Language: Practicum** (prereq maj or min in ESL, 5721, #) (S-N only)
546687 0845-1000 TTh, FolH 142, Tarone, 4 cr

- 5742 Linguistic Description of Modern English** (prereq 5741)
123938 1535-1650 MW, FolH 218, Downing, 4 cr

- 5910 Seminar in Linguistics: Applied Discourse Analysis** (prereq #)
843228 1415-1530 TTh, FolH 148, Sheldon, 4 cr

- 5970 Directed Studies** (prereq linguistics or ESL maj, #, Δ, CLA approval)
924508 1-5 cr

- 8500 Seminar: Topics in Linguistics: Language Contact**
043230 1535-1650 MW, FolH 326, Cohen, 4 cr

- 8777 Thesis Credits: Masters**
427209 1-16 cr

- 8841 Philosophy of Linguistics** (prereq 5011, 5202, 5303, Phil 5601 or #)
843231 1115-1230 TTh, FolH 116, Hutchinson, 4 cr

- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
230869 1-36 cr

- 8900 Independent Study** (prereq Ling maj, #)
629072 1-5 cr

LOGISTICS MANAGEMENT (LM) Management

Non-SMgt students should refer to page 9, Carlson School of Management Courses, before attempting to register for LM courses.

- r5010 Topics: Logistics Management** (§Tran 5134; prereq 3000 or 5030, or 5020 with #) (A-F only)
728883 1315-1445 TTh, BlegH 340, Beier, 4 cr

- 8990 Readings in Logistics Management** (prereq consent of advisor, #, grad SMgt approval) (A-F only)
125981 ar cr

- 8995 Graduate Research in Logistics Management** (prereq grad SMgt approval) (A-F only)
429705 ar cr

MANAGEMENT (Mgmt) Management

Non-SMgt students should refer to page 9, Carlson School of Management Courses, before attempting to register for Mgmt courses.

- r3001 Fundamentals of Management** (§8001) (A-F only)
129830 -1 0800-0930 MW, BlegH 110, Sutcliffe, 4 cr
724090 -2 0945-1115 MW, BlegH 110, Sutcliffe, 4 cr
128743 -3 0945-1115 TTh, BlegH 110, Saavedra, 4 cr
024659 -4 1300-1430 TTh, BlegH 145, Saavedra, 4 cr

- r3002 Psychology in Management** (§8006) (A-F only)
428022 1300-1430 MW, BlegH 105, Schander, 4 cr

- r3004 Business Policy: Strategy Formulation and Implementation** (prereq sr, completion of business core courses or equiv of final core course) (A-F only)
034043 -1 0945-1145 MW, BlegH 340, Zaheer, 5 cr
432149 -2 1245-1445 MW, BlegH 250, Zaheer, 5 cr
330250 -3 1500-1700 MW, BlegH 435, Zaheer, 5 cr

- r3008 Entrepreneurship and the Smaller Enterprise** (prereq completion of the business core courses or #)
126306 0800-0930 MW, BlegH 105, Rao, 4 cr

- r5101 Advanced Topics in Management: Managerial Communications** (prereq MBA stu) (A-F only)
133408 1500-1645 MW, BlegH 335, Kumerfield, 4 cr

- r8021 Organization Design and Development** (prereq grad mgmt student or grad SMgt approval)
224568 1730-2100 T, BlegH 350, Albert, 4 cr

- r8033 Managing the Strategy Process** (prereq grad mgmt stu or grad SMgt approval, 8032) (A-F only)
444284 1730-2100 M, BlegH 340, Nichols, 4 cr

- r8040 International Business** (§BGS 3004, Mktg 8040; prereq grad mgmt stu or grad SMgt approval, 3001 or 8001 or MBA 8010)
424956 1730-2100 W, HHCtr 20, Jacque, 4 cr

- r8203 Research Topics and Methods in Business-Government-Society** (prereq PhD student or grad SMgt approval)
244240 0900-1200 Th, Law 3, Lenway, 4 cr

- r8303 Organizational Research Seminar** (prereq PhD stu, #)
345606 1300-1600 M, Law 3, Van de Ven, 4 cr

- r8401 Seminar in Strategy Formulation** (prereq PhD student or grad SMgt approval)
144241 0900-1200 W, Law 3, Balakrishnan, 4 cr

- r8990 Readings in Management Theory and Administration** (prereq 2nd yr grad stu, requisite intro courses, consent of adviser, #, grad SMgt approval)
124000 ar cr
- r8995 Research in Management Theory and Administration** (prereq 2nd yr grad stu, requisite intro courses, consent of adviser, #, grad SMgt approval)
125429 ar cr

MARATHI (Mar) South Asian & Middle Eastern Languages and Cultures Liberal Arts

- 1103 Beginning Marathi** (§5103; prereq 1102)
344441 Junghare, 5 cr
- 5103 Beginning Marathi** (§1103; prereq 5102)
144442 Junghare, 5 cr
- 5970 Directed Readings**
924587 Junghare, ar cr

MARKETING (Mktg) Management

Non-SMgt students should refer to page 9, Carlson School of Management Courses, before attempting to register for Mktg courses.

- r3000 Principles of Marketing** (§8000; prereq Econ 1101 or equiv) (A-F only)
632960 -1 0945-1115 TTh, BlegH 240, Rudelius, 4 cr
127908 -2 1130-1300 TTh, BlegH 435, Ruekert, 4 cr
627502 -3 1315-1445 TTh, BlegH 433, Ruekert, 4 cr
- r3010 Buyer Behavior and Marketing Analysis** (prereq 3000, OMS 1020, or equiv)
232590 -1 1315-1445 TTh, BlegH 130, John D., 4 cr
131196 -2 1500-1630 TTh, BlegH 130, John D., 4 cr
- r3020 Marketing Operations Management** (prereq 3010)
523930 0945-1115 TTh, BlegH 335, Kelton, 4 cr
- r3050 Marketing Communications** (prereq 3020)
129304 -1 0945-1115 TTh, BlegH 230, Ross, 4 cr
942765 -2 1315-1445 TTh, BlegH 335, Ross, 4 cr
- r3065 Retail Management** (§8065; prereq 3010)
624003 0915-1015 MWF, BlegH 420, Werner, 4 cr
- r8051 Marketing Research** (§8095; prereq either MBA core courses, or MBA 8045, f, grad mgmt student or grad SMgt approval)
426982 -1 1300-1445 MW, HHHCtr 35, Schneider, 4 cr
327218 -2 1300-1445 TTh, BlegH 330, Loken, 4 cr
742766 -3 1500-1645 TTh, BlegH 330, Loken, 4 cr
- r8060 Marketing Systems** (prereq either MBA core courses, or MBA 8045, or Δ, grad mgmt student or grad SMgt approval)
324805 1730-2100 Th, BlegH 425, Beler, 4 cr
- r8074 Product and Price Policy** (§8084, 8086; prereq either MBA core courses, or MBA 8045, or Δ, grad mgmt student or grad SMgt approval)
542767 1730-2100 T, BlegH 340, Shocker, 4 cr
- r8084 Business Plans for New Products** (prereq MBA core courses or MBA 8045, grad mgmt stu) (A-F only)
634191 1730-2100 M, BlegH 255, Rudelius, 4 cr
- r8088 Strategic Marketing** (§8086; prereq either MBA core courses, or MBA 8045, or Δ, grad mgmt student or grad SMgt approval)
027822 -1 1300-1445 MW, BlegH 435, Walker, 4 cr
433401 -2 1500-1645 TTh, BlegH 340, Kelton, 4 cr
- r8090 Marketing Topics** (prereq either MBA core courses or MBA 8045, or Δ, grad mgmt student or grad SMgt approval)
144255 Houston, 4 cr (PhD students only)

- r8990 Readings in Marketing** (prereq MBA core courses or MBA 8045, Δ, consent of advisor, #, grad SMgt approval)
025617 ar cr
- r8995 Graduate Research in Marketing** (prereq MBA core courses or MBA 8045, Δ, consent of advisor, #, grad SMgt approval)
825702 ar cr

MASTER OF BUSINESS ADMINISTRATION (MBA) Management

- r8015 Human Resources Management** (prereq MBA students only) (A-F only)
330992 -1 1000-1145 MW, BlegH 425, DuBois, 4 cr
528805 -2 0800-0945 TTh, BlegH 425, DuBois, 4 cr
- r8060 Strategy and Policy** (prereq MBA students only) (A-F only)
624972 -1 0800-0945 MW, BlegH 435, Chakravarthy, 4 cr
431597 -2 1000-1145 MW, BlegH 335, Chakravarthy, 4 cr
529968 -3 1000-1145 TTh, BlegH 340, Balakrishnan, 4 cr
728625 -4 1500-1645 TTh, BlegH 435, Balakrishnan, 4 cr

MATERIALS SCIENCE (MatS) Chemical Engineering & Materials Science Institute of Technology

- r3091 Industrial Employment**
526844 1-2 cr
- r3400 Mechanical Properties of Materials** (prereq 2nd yr IT student)
★LECT 1430-1520 MWF, AmundH B75, Bates
131733 -1 LAB 1530-1800 M, AmundH 410, Bates, 4 cr
533258 -2 LAB 1530-1800 W, AmundH 410, Bates, 4 cr
327865 -3 LAB 1530-1800 F, AmundH 410, Bates, 4 cr
- r5013 Introduction to Electrical and Magnetic Properties of Materials** (prereq upper division IT, 5011 or #)
124958 1115-1205 MWThF, AmundH 124, Chalikowsky, 4 cr
- r5102 Diffusion and Solid State Kinetics** (prereq upper division IT, 5101, 5001 or ChEn 5001 or #)
732979 0905-0955 MTWF, AmundH 104, Francis, 4 cr
- r5304 Failure Analysis** (prereq 5012, AEM 5016 or #)
★LECT 1010-1100 MW, AmundH 240, Gerberich, 4 cr
924458 -1 LAB 1325-1520 TTh, AmundH 410
- r5470 Corrosion and Electrochemistry on Homogeneous and Heterogeneous Surfaces** (prereq 5450 or 5460 or #)
327963 1430-1520 MWF, AmundH 156, Smyrl, 4 cr
- 5481 Special Problems in Physical Metallurgy and Materials Science** (prereq sr)
527248 ar cr
- 5483 Special Problems in Physical Metallurgy and Materials Science** (prereq sr)
028730 ar cr
- r5500 Senior Design Project** (prereq sr material science maj)
428098 2 cr
- r5613 Polymer Laboratory** (prereq 5610 or 5630 or 5630 or Chem 8611) (A-F only)
126564 -1 LAB 1325-1715 M, SmithH 249A, Bates, 2 cr
324691 -2 LAB 0800-1150 T, SmithH 249A, 2 cr
- r5820 Thin Films and Interfaces of Microelectronic Materials** (prereq 5013 or #)
629797 1220-1310 MWF, AmundH 124, Weaver, 3 cr

- r8311 Theories of Mechanical Behavior of Solids**
624356 1010-1205 TTh, AmundH 116, Gerberich, 3 cr
- 8472 Seminar: Materials Science and Engineering** (prereq 8471) (S-N only)
728088 1325-1625 TTh, AmundH B75, 1 cr
- r8480 Selected Topics in Materials Science and Engineering**
928638 1325-1415 MWF, AmundH 158, Shores, 3 cr
- r8481 Selected Topics in Materials Science and Engineering** (prereq 8480)
447329 ar cr
- r8482 Selected Topics in Materials Science and Engineering** (prereq 8481)
032938 0905-0955 MWF, AmundH 120, Ward, 3 cr
- r8521 Topics in Electron Microscopy**
543238 1535-1730 TTh, AmundH 120, Carter, 3 cr
- 8777 Thesis Credits: Masters**
532370 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
132016 1-36 cr

MATHEMATICS (Math) Institute of Technology

For Math 1008, 1111, and 1201, course fees are assessed instead of tuition. (See Section 2 for fees for these courses.) Credits for these courses will not count in the tuition plateau but will count towards assessment of the student services fee.

- r1005 Introduction to Elementary Mathematics** (prereq pre-elem educ stu, 1111 or equiv)
★LECT 1010-1100 MWF, VinH 8
731346 -1 REC 1010-1100 T, Phys 143, 4 cr
- r1006 Introduction to Elementary Mathematics** (for pre-elementary educ student; prereq 1005)
★LECT 0905-0955 MWF, VinH 113
531347 -1 REC 0905-0955 T, VinH 211, 4 cr
★LECT 1115-1205 MWF, VinH 113
227549 -2 REC 1115-1205 Th, VinH 211, 4 cr
- r1008 Trigonometry** (§1201; prereq plane geometry, 2 yrs hs algebra or §1111, grade of C or better in GC 0631)
624440 -1 1010-1100 MTWF, CivMinE 212, 4 cr
131487 -2 1115-1205 MTWF, AmundH 240, 4 cr
644221 -3 1220-1310 MTWF, VinH 211, 4 cr
- r1111 College Algebra and Analytic Geometry** (§1201; prereq plane geom, 2 yrs hs alg or plane geom, grade of C or better in GC 0631)
★LECT 0935-1025 MWF, AgEng 108, (SIP)
030476 -1 REC 0935-1025 TTh, AgEng 108, 5 cr (SIP)
627077 -2 REC 0935-1025 TTh, AgEng 108, 5 cr (SIP)
230953 -3 REC 1040-1130 TTh, AgEng 108, 5 cr (SIP)
★LECT 0800-0850 MWF, Arch 5
424942 -4 REC 0800-0850 TTh, Zoology 313, 5 cr
431051 -5 REC 0800-0850 TTh, FolH 208, 5 cr
428229 -6 REC 0905-0955 TTh, FolH 208, 5 cr
229737 -7 REC 0905-0955 TTh, Zoology 313, 5 cr
★LECT 0905-0955 MWF, VinH 16
725031 -8 REC 0905-0955 TTh, MurH 311, 5 cr
131537 -9 REC 0905-0955 TTh, AmundH B75, 5 cr
727717 -10 REC 1010-1100 TTh, Zoology 313, 5 cr
826610 -11 REC 1010-1100 TTh, AkerH 313, 5 cr
★LECT 1115-1205 MWF, Moost 2620
124796 -12 REC 1010-1100 TTh, Moost 2620, 5 cr
225641 -13 REC 1010-1100 TTh, Meche 202, 5 cr
523877 -14 REC 1115-1205 TTh, VinH 207, 5 cr
630514 -15 REC 1115-1205 TTh, VinH 301, 5 cr
★LECT 1220-1310 MWF, Arch 40
733825 -16 REC 1115-1205 TTh, FolH 218, 5 cr
629752 -17 REC 1115-1205 TTh, PeikH 315, 5 cr
125396 -18 REC 1220-1310 TTh, SmithH 121, 5 cr
227292 -19 REC 1220-1310 TTh, PeikH 315, 5 cr
★LECT 1325-1415 MWF, Zoology 313
425525 -20 REC 1220-1310 TTh, Botany B6, 5 cr
726082 -21 REC 1220-1310 TTh, SmithH 231, 5 cr
225266 -22 REC 1325-1415 TTh, Botany B6, 5 cr
427355 -23 REC 1325-1415 TTh, SmithH 231, 5 cr

- r1131 Finite Mathematics** (prereq 3 1/2 yrs high school math or grade of C or better in 1111 or 1181, pre-bus or soc and behav sci students)
 ★LECT 1115-1205 MWF, SmithH 331
 524897 -1 REC 1115-1205 TTh, Phys 131, 5 cr
 527704 -2 REC 1115-1205 TTh, Arch 5, 5 cr
 626107 -3 REC 1220-1310 TTh, Phys 131, 5 cr
 926839 -4 REC 1220-1310 TTh, Arch 5, 5 cr
- r1142 Short Calculus** (§1211, 1411H; prereq 3 1/2 yrs hs math or grade of C or better in 1111 or 1181 or 1201)
 ★LECT 0830-0920 MWF, AgEng 108, (STP)
 831385 -1 REC 0830-0920 TTh, HckrH 100, 5 cr (STP)
 ★LECT 1220-1310 MWF, Arch 50
 529498 -2 REC 1220-1310 TTh, MechE 202, 5 cr
 430899 -3 REC 1220-1310 TTh, AmundH 116, 5 cr
 032874 -4 REC 1220-1310 TTh, Phys 133, 5 cr
 623790 -5 REC 1325-1415 TTh, AmundH 116, 5 cr
 646454 -6 REC 1325-1415 TTh, VinH 213, 5 cr
- r1191 Precalculus and Introduction to Higher-Level Mathematical Patterns** (prereq 1181, Δ)
 ★LECT 1220-1310 MWF, VinH 6
 ★REC 1220-1310 TTh, CivMinE 214
 331298 -1 LAB 0905-1100 TTh, Fohl 306, 5 cr
 ★REC 1010-1100 TTh, AkerH 309
 543286 -2 LAB 1220-1415 TTh, CivMinE 213, 5 cr
- r1201 Pre-Calculus** (§1008, 1111; prereq 4 yrs high school math including trigonometry)
 ★LECT 1430-1520 MWF, FordH 155
 132534 -1 REC 1325-1415 TTh, AkerH 309, 5 cr
 632571 -2 REC 1325-1415 TTh, VinH 313, 5 cr
 924718 -3 REC 1430-1520 TTh, AkerH 309, 5 cr
 829247 -4 REC 1430-1520 TTh, VinH 113, 5 cr
- r1251 One-Variable Differential and Integral Calculus I** (§1451H, 1211, 1411H; prereq 4 yrs high schl math incl trig, or C grade or better in 1201 or 1008, 1111, or equiv)
 ★LECT 0905-0955 MWF, Botany B6
 246456 -1 REC 0800-0850 TTh, VinH 311, 4 cr
 146457 -2 REC 0800-0850 TTh, VinH 211, 4 cr
 946458 -3 REC 0905-0955 TTh, LindH 303, 4 cr
 746459 -4 REC 0905-0955 TTh, SmithH 100, 4 cr
 ★LECT 1115-1205 MWF, Arch 50
 946461 -5 REC 1010-1100 TTh, LindH 315, 4 cr
 746462 -6 REC 1010-1100 TTh, AmundH 240, 4 cr
 546463 -7 REC 1115-1205 TTh, EE/CSci 3111, 4 cr
 346464 -8 REC 1115-1205 TTh, AkerH 319, 4 cr
 ★LECT 1220-1310 MWF, FordH 155
 046466 -9 REC 1115-1205 TTh, Phys 166, 4 cr
 846467 -10 REC 1115-1205 TTh, PillsH 110, 4 cr
 646468 -11 REC 1220-1310 TTh, Phys 166, 4 cr
 446469 -12 REC 1220-1310 TTh, PillsH 110, 4 cr
- r1252 One-Variable Differential and Integral Calculus II** (§1452H, 1221, 1421H; prereq C grade or better in 1251)
 ★LECT 0905-0955 MWF, Phys 131
 346481 -1 REC 0800-0850 TTh, VinH 207, 4 cr
 146482 -2 REC 0800-0850 TTh, VinH 2, 4 cr
 046483 -3 REC 0905-0955 TTh, CivMinE 213, 4 cr
 846484 -4 REC 0905-0955 TTh, VinH 314, 4 cr
 ★LECT 1115-1205 MWF, Arch 5
 446486 -5 REC 1010-1100 TTh, Botany B6, 4 cr
 246487 -6 REC 1010-1100 TTh, AmundH B75, 4 cr
 146488 -7 REC 1115-1205 TTh, Botany B6, 4 cr
 946489 -8 REC 1115-1205 TTh, AmundH B75, 4 cr
 ★LECT 1220-1310 MWF, MechE 18
 146491 -9 REC 1115-1205 TTh, VinH 364, 4 cr
 946492 -10 REC 1115-1205 TTh, VinH 314, 4 cr
 746493 -11 REC 1220-1310 TTh, PeikH 155, 4 cr
 546494 -12 REC 1220-1310 TTh, ChDev 105, 4 cr
 ★LECT 1325-1415 MWF, SciCB 325
 146496 -13 REC 1220-1310 TTh, Arch 55, 4 cr
 046497 -14 REC 1220-1310 TTh, Arch 25, 4 cr
 846498 -15 REC 1325-1415 TTh, VinH 211, 4 cr
 646499 -16 REC 1325-1415 TTh, VinH 209, 4 cr
 ★LECT 0800-0850 MWF, MechE 108
 146501 -17 REC 0800-0850 TTh, MechE 108, 4 cr
- r1261 The Algebra and Geometry of Euclidean Space** (§1241, 1553H, 3142, 3551H; prereq 1251 or 1211)
 ★LECT 0800-0850 MWF, VinH 16
 147334 -1 REC 0800-0850 TTh, VinH 301, 4 cr
 947335 -2 REC 0800-0850 TTh, VinH 113, 4 cr
- 747336 -3 REC 0905-0955 TTh, Zoology 102, 4 cr
 547337 -4 REC 0905-0955 TTh, VinH 113, 4 cr
 ★LECT 0905-0955 MWF, Arch 33
 147339 -5 REC 0800-0850 TTh, VinH 16, 4 cr
 547340 -6 REC 0800-0850 TTh, VinH 6, 4 cr
 347341 -7 REC 0905-0955 TTh, VinH 16, 4 cr
 147342 -8 REC 0905-0955 TTh, VinH 6, 4 cr
 ★LECT 1010-1100 MWF, SciCB 375
 847344 -9 REC 0905-0955 TTh, VinH 311, 4 cr
 647345 -10 REC 0905-0955 TTh, VinH 213, 4 cr
 447346 -11 REC 1010-1100 TTh, VinH 364, 4 cr
 247347 -12 REC 1010-1100 TTh, VinH 313, 4 cr
 ★LECT 1115-1205 MWF, MechE 18
 947349 -13 REC 1010-1100 TTh, VinH 311, 4 cr
 247350 -14 REC 1010-1100 TTh, VinH 213, 4 cr
 147351 -15 REC 1115-1205 TTh, VinH 311, 4 cr
 947352 -16 REC 1115-1205 TTh, VinH 213, 4 cr
 ★LECT 1220-1310 MWF, Arch 5
 547354 -17 REC 1115-1205 TTh, VinH 209, 4 cr
 347355 -18 REC 1115-1205 TTh, VinH 313, 4 cr
 147356 -19 REC 1220-1310 TTh, VinH 313, 4 cr
 047357 -20 REC 1220-1310 TTh, VinH 301, 4 cr
 ★LECT 1325-1415 MWF, SciCB 125
 647359 -21 REC 1220-1310 TTh, VinH 213, 4 cr
 047360 -22 REC 1220-1310 TTh, VinH 207, 4 cr
 847361 -23 REC 1325-1415 TTh, VinH 207, 4 cr
 647362 -24 REC 1325-1415 TTh, VinH 6, 4 cr
- r1553H Honors: Linear and Nonlinear Analysis I** (prereq 1251-1252 or 1551H-1552H or equiv, grade of C or better required to continue in sequence, consent of IT Honors Office)
 ★LECT 1010-1100 MWF, VinH 16
 246473 -80 REC 1010-1100 TTh, VinH 211, 4 cr
 146474 -81 REC 1010-1100 TTh, VinH 206, 4 cr
 946475 -82 REC 1115-1205 T, 0905-0955 Th, VinH 211, 4 cr
 746476 -83 REC 1115-1205 T, 0905-0955 Th, VinH 206, 4 cr
- r3001 Actuarial Science Seminar** (prereq 1221 or 1421, soph) (S-N only)
 432958 1115-1205 T, VinH 6, 1 cr
- r3008H The World of Mathematics** (grade B or better req to continue seq; prereq #, grade of B or better in Math 3411 or 3511) (A-F only)
 339566 1430-1530 W, VinH 113, 1 cr
- r3251 Multivariable Differential Calculus** (§3211, 3311, 3521H, 3552H)
 ★LECT 1115-1205 MWF, VinH 16
 247364 -1 REC 1010-1100 TTh, VinH 113, 4 cr
 147365 -2 REC 1010-1100 TTh, VinH 16, 4 cr
 947366 -3 REC 1115-1205 TTh, VinH 113, 4 cr
 747367 -4 REC 1115-1205 TTh, VinH 16, 4 cr
- r3252 Multivariable Integral Calculus** (§3311/3331 or 3211/3331, 3521H, 3552H; prereq 3251 or 13251 or equiv)
 ★LECT 1325-1415 MWF, VinH 16
 347369 -1 REC 1220-1310 TTh, VinH 206, 4 cr
 747370 -2 REC 1220-1310 TTh, VinH 113, 4 cr
 547371 -3 REC 1325-1415 TTh, VinH 206, 4 cr
 347372 -4 REC 1325-1415 TTh, VinH 113, 4 cr
- r3261 Differential Equations with Linear Algebra** (§3221, 3321, 3531H, 3551H; prereq 1252 or 1221, 1261 or 1241)
 ★LECT 0905-0955 MWF, Arch 55
 047374 -1 REC 0905-0955 TTh, VinH 313, 4 cr
 847375 -2 REC 0905-0955 TTh, VinH 207, 4 cr
 647376 -3 REC 1010-1100 TTh, VinH 301, 4 cr
 447377 -4 REC 1010-1100 TTh, VinH 207, 4 cr
 ★LECT 1220-1310 MWF, VinH 16
 147379 -5 REC 1220-1310 TTh, VinH 364, 4 cr
 447380 -6 REC 1220-1310 TTh, VinH 311, 4 cr
 147382 -7 REC 1325-1415 TTh, VinH 311, 4 cr
 947383 -8 REC 1325-1415 TTh, VinH 301, 4 cr
 ★LECT 1430-1520 MWF, MechE 102
 547385 -9 REC 1430-1520 TTh, MechE 102, 4 cr
- r3331 Infinite Sequences and Series: Vector Integral Calculus** (§1231, 3212, 3541H; prereq grade of C or better in 3311, 3321)
 ★LECT 0905-0955 MWF, Zoology 313
 627421 -1 REC 0905-0955 TTh, VinH 364, 5 cr
 226322 -2 REC 0905-0955 TTh, VinH 209, 5 cr
 534054 -3 REC 1010-1100 TTh, VinH 6, 5 cr
 132159 -4 REC 1010-1100 TTh, VinH 314, 5 cr
 ★LECT 1220-1310 MWF, VinH 113
 827417 -5 REC 1220-1310 TTh, VinH 314, 5 cr
 826316 -6 REC 1220-1310 TTh, VinH 209, 5 cr
 134051 -7 REC 1325-1415 TTh, VinH 2, 5 cr
 627418 -8 REC 1430-1520 TTh, VinH 20, 5 cr
- r3541H Honors: Complex Analysis and Related Topics** (§3331, 5568; prereq C or better in 3531H)
 026492 1220-1310 MWF, VinH 313, 4 cr
- r3551H Honors: Linear and Nonlinear Analysis II** (prereq 1553H with C grade of better, consent of IT Honors Office)
 ★LECT 1010-1100 MWF, VinH 2
 346478 -80 REC 1010-1100 TTh, VinH 2, 4 cr
- r3552H Honors: Linear and Nonlinear Analysis III** (prereq 3551H with C grade or better, consent of IT Honors Office)
 ★LECT 1010-1100 MWF, VinH 209
 146507 -80 REC 1010-1100 TTh, VinH 209, 4 cr
- r5007 The Diversity of Mathematics** (no cr for non-elem educ students; prereq 1005-1006 or equiv plus 10 addnl cr of univ level math courses; does not carry grad cr for math majors)
 532868 1430-1520 MWF, VinH 301, Harper, 4 cr
- r5056 Theory of Interest** (prereq 1241 or 1231 or 3511H or equiv)
 227504 1115-1205 MWF, VinH 211, 4 cr
- r5059 Actuarial Mathematics III** (prereq 5058) (A-F only)
 229396 1115-1205 MWF, VinH 207, 4 cr
- r5083 Fundamentals of Geometry** (prereq 3511H or 3212 or [3211, 3142] or [3211, 3221] or equiv; not intended for math majors or minors) (A-F only)
 330023 1600-1715 MW, VinH 311, 4 cr
- r5152 Elementary Mathematical Logic** (§5163; prereq 3311 or 3211 or equiv or #)
 932382 1010-1100 MWF, VinH 311, Fuhrkn, 4 cr
- r5164 Mathematical Logic** (prereq 5163)
 429476 1430-1520 MWF, VinH 207, Prikyr, 4 cr
- r5209 Theory of Numbers** (prereq 3311 or 3211 or equiv or #)
 127222 0905-0955 MWF, VinH 311, Fuhrkn, 4 cr
- r5233 Computer-Oriented Linear Algebra** (prereq 5232)
 825716 1430-1520 MWF, VinH 2, Stenberg, 4 cr
- r5243 Linear Algebra with Applications** (prereq 5242)
 ★LECT 1115-1205 MWF, LindH 305
 346450 -1 REC 1115-1205 Th, VinH 6, 4 cr
 146451 -2 REC 1115-1205 Th, VinH 2, 4 cr
 046452 -3 REC 1220-1310 Th, VinH 6, 4 cr
 846453 -4 REC 1220-1310 Th, VinH 2, 4 cr
- r5247 Introduction to Modern Algebra III** (§5284; prereq 5246)
 043440 -1 0905-0955 MWF, VinH 207, Kahn, 4 cr
 147390 -2 1010-1100 MWF, Arch 45, Daszkiewicz, 4 cr
- r5284 Fundamental Structures of Algebra** (prereq 5283)
 127116 -1 0905-0955 MWF, VinH 211, Sperber, 4 cr
 126323 -2 1325-1415 MWF, VinH 211, Brahm, 4 cr
- r5333 Geometry III** (prereq 5332)
 843441 1115-1205 MWF, VinH 6, Joichi, 4 cr
- r5343 Introduction to Algebraic Topology** (prereq 5342)
 529890 1115-1205 MWF, VinH 301, Palmieri, 4 cr
- r5377 Differential Geometry** (prereq 5376)
 743271 1430-1520 MWF, VinH 313, Aeppil, 4 cr
- r5459 Methods of Applied Mathematics** (prereq 5458)
 124149 -1 1115-1205 MWF, FordH 150, 4 cr
 543272 -2 1325-1415 MWF, VinH 206, Jenkins, 4 cr
- r5475 Analysis of Numerical Methods** (prereq 5474) (A-F only)
 130016 1115-1205 MWF, VinH 209, Xie, 4 cr
- r5479 Applied Numerical Analysis of Partial Differential Equations** (prereq 5478)
 226496 1010-1100 MWF, VinH 207, Cockburn, 4 cr
- r5513 Differential Equations with Applications II** (prereq 5512)
 529453 1010-1100 MWF, VinH 301, Jenkins, 4 cr
- r5521 Introduction to Ordinary Differential Equations** (prereq one sophomore sequence or #...some previous abstract math rec) (A-F only)
 432023 1115-1205 MWF, VinH 314, 4 cr
- r5523 Introduction to Ordinary Differential Equations** (prereq 5522) (A-F only)
 332418 1010-1100 MWF, VinH 314, Loud, 4 cr

r5567 **Fourier Series and Boundary Value Problems** (§5571; prereq 3331 or 3521H or 3213 or [3211, 3066] or [3211, 3221] or equiv or #)
125454 1115-1205 MWF, VinH 311, Markus, 4 cr

r5569 **Operational Mathematics** (§5573; prereq 5568)
333424 1325-1415 MWF, VinH 6, Littman, 4 cr

r5573 **Elementary Partial Differential Equations** (prereq 5572)
931104 0905-0955 MWF, VinH 209, Tribe, 4 cr

r5607 **Advanced Calculus: A Rigorous Approach** (prereq 5606)
627774 1220-1310 MWF, VinH 206, Harper, 4 cr

r5608 **Advanced Calculus: A Rigorous Approach** (prereq 5607)
629217 -1 1220-1310 MWF, VinH 311, Miracle, 4 cr
330264 -2 1325-1415 MWF, VinH 311, Meyers, 4 cr

r5614 **Introduction to Analysis** (prereq 5613)
729631 -1 1220-1310 MWF, VinH 364, Aronson, 4 cr
128144 -2 1325-1415 MWF, VinH 314, 4 cr
447766 -3 1430-1520 MWF, VinH 206, 4 cr

r5679 **Probability** (§5681, Stat 5131; prereq 3521H or 3211 or 3311 or equiv)
231987 1220-1310 MWF, VinH 301, 4 cr

r5683 **Probability and Stochastic Processes** (prereq 5681 or 5679 with #, or Stat 5131 with #)
130427 1010-1100 MWF, VinH 213, Blankenbaker, 4 cr

r5702 **Graph Theory and Optimization** (prereq 3311 or 3211 or 3521H or equiv, 3rd-yr standing...linear algebra is helpful)
343287 1325-1415 MWF, VinH 207, Stanton, 4 cr

r5703 **Constructive Combinatorics** (prereq 5701 or equiv, some knowl of a programming language)
631128 1220-1310 MWF, VinH 213, Reiner, 4 cr

r8168 **Recursion Theory** (prereq 8167)
343273 1430-1520 MWF, VinH 311, Richter, 3 cr

r8202 **General Algebra** (prereq 8201)
426089 0905-0955 MWF, VinH 313, Anderson, 3 cr

r8205 **Algebraic Geometry** (prereq 8204)
143274 1115-1205 MWF, VinH 2, 3 cr

r8210 **Homological Algebra** (prereq 8209)
043275 1535-1620 MWF, VinH 364, Lyubeznik, 3 cr

r8252 **Topics in Group Theory** (prereq 8250)
930356 0905-0955 MWF, VinH 213, Webb, 1-3 cr

r8272 **Lie Groups, Algebras** (prereq 8271)
126788 1430-1520 MWF, VinH 209, Conn, 3 cr

r8302 **Manifolds/Topology** (prereq 8301)
124197 1115-1205 MWF, VinH 213, Green, 3 cr

r8308 **Algebraic Topology** (prereq 8307)
643277 1115-1205 MWF, VinH 313, Gershenson, 3 cr

r8344 **Topological Dynamics** (prereq 8343)
443278 1535-1625 MWF, VinH 209, Ellis, 3 cr

r8367 **Riemannian Geometry** (prereq 8366)
243279 1010-1100 MWF, VinH 364, Gulliver, 3 cr

r8408 **Advanced Methods of Applied Mathematics** (prereq 8407)
132095 1430-1520 MWF, VinH 364, Rejto, 3 cr

r8447 **Numerical Analysis of Ordinary and Partial Differential Equations** (prereq 8446) (A-F only)
629122 1535-1625 MWF, VinH 313, Gremaud, 1-3 cr

r8462 **Problems in Theoretical Physics** (prereq 8461)
643280 1325-1415 MWF, VinH 209, Sattinger, 3 cr

r8482 **Selected Topics of Celestial Mechanics** (prereq 8481)
443281 0905-0955 MWF, VinH 314, Moekkel, 1-3 cr

r8502 **Theory of Ordinary Differential Equations** (prereq 8501)
130640 1325-1415 MWF, VinH 301, McGehee, 3 cr

r8552 **Theory of Partial Differential Equations** (prereq 8551)
524432 1325-1415 MWF, VinH 213, Kichenassamy, 3 cr

r8562 **Calculus of Variations, Minimal Surfaces** (prereq 8561)
243282 1325-1415 MWF, VinH 2, Nitsche, 3 cr

8572 **Infinite Dimensional Dynamical Systems** (prereq 8571)
329356 0840-0955 MW, VinH 206, Sell, 3 cr

r8592 **Topics in Partial Differential Equations** (prereq 8591)
825103 1115-1205 MWF, VinH 206, Krylov, 1-3 cr

r8602 **Real Analysis** (prereq 8601)
131358 -1 1220-1310 MWF, VinH 314, Jodiet, 3 cr
328370 -2 1325-1415 MWF, VinH 313, Weinberger, 3 cr

r8622 **Theory of Singular Integrals** (prereq 8621)
943284 1325-1415 MWF, VinH 364, Fabes, 3 cr

r8640 **Topics in Real Analysis** (prereq 8602 or #)
946508 0905-0955 MWF, VinH 364, Olevskii, 3 cr

r8654 **Introduction to Stochastic Processes** (prereq 8653)
143283 1010-1100 MWF, VinH 313, Baxter, 3 cr

r8658 **Measure Theory and Probability** (prereq 8657)
324285 1010-1100 MWF, VinH 206, Fristedt, 3 cr

r8670 **Introduction to Combinatorial Theory** (prereq 8669)
325484 1115-1205 MWF, VinH 364, Stanton, 3 cr

r8674 **Topics in Combinatorial Theory** (prereq #)
929840 1535-1625 MWF, VinH 206, Edelman, 3 cr

r8692 **Topics in the Theory of Probability** (prereq 8691)
330099 1430-1520 MWF, VinH 213, Jain, 3 cr

r8702 **Complex Analysis** (prereq 8701)
426948 1430-1520 MWF, VinH 314, Hejhal, 3 cr

8777 **Thesis Credits: Masters**
325372 1-16 cr

r8802 **Functional Analysis** (prereq 8801)
527301 1220-1310 MWF, VinH 207, Richards, 3 cr

8888 **Thesis Credits: Doctoral** (max 18 cr per qtr)
629640 1-36 cr

r8992 **Reading and Research** (prereq 8991)
432944 ar cr

MATHEMATICS EDUCATION (MthE) Curriculum And Instruction Education

r5082 **Teaching Algebra** (prereq math educ maj or min, Math 5082 or 1 or #) (A-F only)
428585 1045-1205 TTh, PeikH 375, Day, 2 cr

r5083 **Teaching Geometry** (prereq math educ maj or min, Math 5083 or 1 or #) (A-F only)
433379 1445-1600 MW, PeikH 375, Day, 2 cr

r5101 **Workshop: Elementary School Mathematics** (max 12 cr; prereq #, non math educ majs) (A-F only)
143288 1630-1915 Th, PeikH 385, 3 cr

r5313 **Teaching and Supervision of Mathematics in the Middle School** (prereq elementary or secondary licensure) (A-F only)
043289 1630-2000 M, PeikH 375, Post, 4 cr

r5331 **Current Developments in Elementary School Mathematics Instruction** (prereq 5311 or #) (A-F only)
230872 1630-1915 T, PeikH 375, House, 3 cr

r5332 **Current Trends and Issues in Secondary School Mathematics Instruction** (prereq 5312 or #) (A-F only)
026928 1630-1915 T, PeikH 375, House, 3 cr

5680 **Practicum in Mathematics Education** (max 9 cr; prereq #) (A-F only)
127892 -1 House, 3-9 cr
131036 -2 Jackson, 3-9 cr
725711 -3 Orton, 3-9 cr
231598 -4 Post, 3-9 cr
024421 -5 Stochl, 3-9 cr

5980 **Directed Studies** (max 9 cr; prereq #) (A-F only)
330006 -1 House, 3-9 cr
331060 -2 Jackson, 3-9 cr
729869 -3 Orton, 3-9 cr
129206 -4 Post, 3-9 cr
433608 -5 Stochl, 3-9 cr

8570 **Research: Mathematics Education** (prereq 8500 or #)
143291 1630-2000 Th, PeikH 27, Orton, 4 cr

8680 **Internship: Mathematics Education**
732013 -1 House, ar cr
028114 -2 Jackson, ar cr
525533 -3 Orton, ar cr
432524 -4 Post, ar cr
529761 -5 Stochl, ar cr

8980 **Problems: Mathematics Education** (prereq 8500 or 8570)
032972 -1 House, ar cr
032423 -2 Jackson, ar cr
227888 -3 Orton, ar cr
931118 -4 Post, ar cr
029120 -5 Stochl, ar cr

MECHANICAL ENGINEERING (ME) Mechanical Engineering Institute of Technology

r1025 **Engineering Graphics** (prereq 1Math 1211 or equiv, IT stu)
128265 -1 LECT 1010-1100 MTWThF, Arch 10, Behre, 4 cr
129018 -2 LECT 1325-1415 MTWThF, Arch 10, Behre, 4 cr
★LAB (open hrs, ElectE 118)

r3020 **Mechanical Engineering Computation** (prereq IT stu, Math 3321, CSci 3101)
743304 0800-0850 MWThF, MechE 18, 4 cr

r3203 **Analysis of Mechanisms Systems** (prereq AEM 3036 or equiv, upper division mech engr maj)
★LECT 1010-1100 MWF, MechE 18
128581 -1 REC 1430-1625 M, AkerH 225, 4 cr
225493 -2 REC 1010-1205 T, MechE 18, 4 cr
227258 -3 REC 1430-1625 W, AkerH 309, 4 cr

r3205 **Engineering Systems Design** (prereq AEM 3016, upper division mech engr maj)
★LECT 1325-1415 MWF, Arch 5
324948 -1 REC 1430-1625 M, MechE 321, 4 cr
625393 -2 REC 0905-1100 T, Arch 35, 4 cr
533423 -3 REC 1430-1625 W, AkerH 225, 4 cr
225977 -4 REC 1430-1625 Th, AkerH 313, 4 cr

r3205H **Engineering Systems Design** (§3205; prereq AEM 3016, ME upper div honors stu)
★LECT 1325-1415 MWF, Arch 5
527573 -80 REC 1430-1625 M, MechE 321, 4 cr

r3301 **Thermodynamics** (prereq IT or ForP stu, Chem 1014 or Phys 1281, Math 3321 or equiv)
333259 -1 0800-0850 MTWThF, Arch 55, 4 cr
024483 -2 1010-1100 MTWThF, Arch 50, 4 cr
133966 -3 1325-1415 MTWThF, MechE 202, 4 cr

r3303 **Applied Thermodynamics** (§3303; prereq 3301 or equiv, upper division mech engr or aerospace engr maj)
427680 -1 0800-0850 MTWThF, Arch 40, 4 cr
328997 -2 0905-0955 MTWThF, Arch 40, 4 cr

r3303H **Applied Thermodynamics** (§3303; prereq ME upper div honors stu)
630593 0800-0850 MTWThF, Arch 40, 4 cr

r3701 **Basic Measurements Laboratory I** (prereq 3301 or fl, upper division mech engr maj)
732724 -1 LECT 1220-1310 T, Arch 10, Pui, 2 cr
★LAB (open lab ar, MechE 370-388)

r3701H **Basic Measurement Laboratory I** §3701; prereq ME upper div honors stu)
527587 -80 LECT 1220-1310 T, Arch 10, Pui, 2 cr
★LAB

r3702 **Basic Measurements Laboratory II** (prereq 3701, upper division mech engr maj)
428120 -1 LECT 1220-1310 Th, Arch 10, 2 cr
★LAB (open lab ar, MechE 370-388)

r3741 **Industrial Assignment** (prereq regis in intern program)
530747 Marple, 2 cr

- r3742 Industrial Assignment** (prereq 3741)
324898 Marple, 2 cr
- r3743 Industrial Assignment** (prereq 3742)
027173 Marple, 2 cr
- r5190 Advanced Engineering Problems** (prereq submission of approved departmental permission form)
027836 2-4 cr
- r5203 Advanced Analysis and Synthesis of Mechanical Systems** (prereq 3203 or equiv, IT stu or grad...computer programming desirable)
133277 -1 0905-0955 MWF, MechE 102, Erdman, 3-4 cr
- r5207 Experimental Stress Analysis** (prereq AEM 3016, IT upper division or grad)
130170 -1 LECT 0800-0850 MWF, AkerH 215, Klamecki, 4 cr
★LAB (3 hr lab ar)
- r5221 Computer Graphics in Design** (prereq 5220 or #, IT stu or grad)
726017 -1 LECT 1010-1100 MWThF, AkerH 209, Riley, 4 cr
★LAB
- r5230 Acoustics and Vibration Laboratory** (prereq 3701, 3702, 3201, ME upper div) (A-F only)
★LECT 1325-1415 M, Arch 55, Frohrib
129139 -1 LAB 1430-1730 M, MechE 357, 2 cr
729807 -2 LAB 1430-1730 T, MechE 357, 2 cr
329521 -3 LAB 1430-1730 W, MechE 357, 2 cr
932561 -4 LAB 1430-1730 F, MechE 357, 2 cr
- r5231 Mechatronics Laboratory** (prereq 3701, 3702, 3201, ME upper div) (A-F only)
★LECT 1325-1415 M, AkerH 225, Stelson
927778 -1 LAB 0905-1205 T, ElectE 304, 2 cr
133353 -2 LAB 1430-1730 W, ElectE 304, 2 cr
726812 -3 LAB 1430-1730 F, ElectE 304, 2 cr
- r5244 Vibration Engineering** (prereq 3201 or equiv, IT stu or grad)
925237 0905-0955 MWF, MechE 221, Frohrib, 4 cr
- r5254 Design Morphology with Applications** (prereq completion of sequences 3201/3203/3205, 3303/5342 or #, upper div mech engr maj)
★LECT 1325-1415 T, MechE 18
124894 -1 LAB 1430-1730 T, 1325-1730 Th, JonesH 4, 4 cr
032647 -2 LAB 1430-1730 T, 1325-1730 Th, MechE 321, 4 cr
933418 -3 LAB 1430-1730 T, 1325-1730 Th, AkerH 317, 4 cr
931426 -4 LAB 1430-1730 T, 1325-1730 Th, AkerH 215, 4 cr
333357 -5 LAB 1430-1730 T, 1325-1730 Th, Zoology 313, 4 cr
243301 -6 LAB 1430-1730 T, 1325-1730 Th, SciCB 325, 4 cr
143302 -7 LAB 1430-1730 T, 1325-1730 Th, CivMinE 214, 4 cr
943303 -8 LAB 1430-1730 T, 1325-1730 Th, AkerH 211, 4 cr
- r5255 Engineering Design Project** (prereq 5254, upper division mech engr maj)
★LECT 1325-1415 T, MechE 18
630724 -1 LAB 1430-1730 T, 1325-1730 Th, MechE 18, 4 cr
- r5260 Engineering Materials and Processing** (prereq Chem 1014, Phys 1291, AEM 3016, MatS 3400, CSci 3101 or a similar course in an engr computer lang (FORTRAN), upper div mech engr maj, safety glasses required)
★LECT 1325-1415 MWF, MechE 18
932446 -1 REC 1430-1625 M, MechE 70, 4 cr
733842 -2 REC 0800-0955 T, MechE 70, 4 cr
130850 -3 REC 1010-1205 T, MechE 70, 4 cr
723831 -4 REC 1220-1415 T, MechE 70, 4 cr
727569 -5 REC 1430-1625 T, MechE 70, 4 cr
147311 -6 REC 0800-0955 W, MechE 70, 4 cr
047312 -7 REC 1010-1205 W, MechE 70, 4 cr
847313 -8 REC 1430-1625 W, MechE 70, 4 cr
647314 -9 REC 0800-0955 Th, MechE 70, 4 cr
447315 -10 REC 1010-1205 Th, MechE 70, 4 cr
247316 -11 REC 1220-1415 Th, MechE 70, 4 cr
147317 -12 REC 1430-1625 Th, MechE 70, 4 cr
947318 -13 REC 0800-0955 F, MechE 70, 4 cr
747319 -14 REC 1010-1205 F, MechE 70, 4 cr
147320 -15 REC 1430-1625 F, MechE 70, 4 cr
- r5265 Computer-Assisted Product Realization** (prereq 5260 or equiv, IT sr or grad stu, course in engr computer language)
747322 -1 LECT 1600-1800 W, MechE 202, 4 cr
★LAB
- r5285 Control Systems Laboratory** (prereq 5283 or equiv, IT or grad IT maj)
025259 1325-1415 TTh, MechE 379, Donath, 2 cr
- r5288 Modelling and Simulation of Dynamic Systems** (prereq 5283 or equiv, IT stu or grad)
927506 -1 1115-1310 TTh, MechE 108, Stelson, 4 cr
- r5330 Heat Transfer Laboratory** (prereq 5342, ME upper div) (A-F only)
★LECT 1325-1415 M, MechE 221, Decker
526102 -1 LAB 1430-1730 M, MechE 260, 2 cr
030493 -2 LAB 1430-1730 T, MechE 260, 2 cr
328000 -3 LAB 1430-1730 Th, MechE 260, 2 cr
629606 -4 LAB 1430-1730 F, MechE 260, 2 cr
- r5342 Heat Transfer** (prereq IT upper div or grad or ForP stu, 3301, CE 3400 or AEM 3200)
225297 -1 0905-0955 MTWThF, Arch 10, 4 cr
332354 -2 1115-1205 MTWThF, Arch 10, 4 cr
525273 -3 1325-1415 MTWThF, Arch 40, 4 cr
- r5342H Heat Transfer** (§5342; prereq 3301, CE 3400 or AEM 3200, ME upper div honors stu)
324254 1325-1415 MTWThF, Arch 40, 4 cr
- r5344 Thermodynamics of Fluid Flow** (§AEM 5201; prereq CE 3400 or AEM 3200, IT stu or grad)
926968 1115-1205 MTWThF, MechE 202, 4 cr
- r5346 Intermediate Heat Transfer** (prereq 5342, upper div IT or grad stu)
628360 -1 0905-0955 MTWThF, MechE 108, Sparrow, 4 cr
- r5430 Internal Combustion Engine Performance Laboratory** (prereq CE 3400 or AEM 3200, 3701, 3702, 5480, ME upper div stu) (A-F only)
★LECT 1430-1520 W, MechE 221
128914 -1 LAB 1535-1730 W, MechE 460, 2 cr
025892 -2 LAB 1535-1730 W, MechE 460, 2 cr
547323 -3 LAB 1745-1940 W, MechE 460, 2 cr
- r5432 Steam Power Laboratory** (prereq CE 3400 or AEM 3200, 3303, 3701, 3702, ME upper div stu) (A-F only)
★LECT 1535-1625 M, MechE 460
331639 -1 LAB 1640-1835 M, MechE 260, 2 cr
532465 -2 LAB 1850-2045 M, MechE 260, 2 cr
347324 -3 LAB 1535-1730 Th, MechE 260, 2 cr
- r5433 Compressor, Combuster, and Turbine Laboratory** (prereq CE 3400 or AEM 3200, 3303, 3701, 3702, ME upper div stu) (A-F only)
★LECT 1430-1520 T, MechE 460
523863 -1 LAB 1535-1730 T, MechE 460, 2 cr
632487 -2 LAB 1745-1940 T, MechE 460, 2 cr
- r5443 Turbomachinery** (prereq 3301 or equiv, IT stu or grad) (A-F only)
129035 0800-0850 MWF, MechE 221, Kittelson, 4-5 cr
- r5460 Internal Combustion Engines** (prereq 3301, IT stu or grad)
133229 1010-1100 MWThF, MechE 321, 4 cr
- r5461 Advanced Internal Combustion Engines** (prereq 5460, IT stu or grad)
343306 0905-0955 MWF, MechE 18, 4 cr
- r5480 Biological Fluid Flow** (prereq CE 3400, AEM 3200 or equiv, IT stu or grad)
831371 1220-1310 MWF, MechE 321, Blackshear, 3-4 cr
- r5620 Clean Room Technology and Particle Monitoring** (prereq 3303 or #, IT or grad stu)
125521 0800-0955 TTh, MechE 202, Pui, 4 cr
- r5630 Thermal Environmental Engineering Senior Laboratory** (prereq 3701, 3702, 15603; formerly 5703-4-5, Lab sections E-1, E-2) (A-F only)
★LECT 1115-1205 T, MechE 212
525712 -1 LAB 1115-1310 W, MechE 362, 2 cr
428232 -2 LAB 1115-1310 Th, MechE 362, 2 cr
132994 -3 LAB 1115-1310 F, MechE 362, 2 cr
- r5712 Solar Energy Utilization** (prereq 3303, 5342 or equiv, IT stu or grad)
332483 0905-1100 TTh, Arch 45, 4 cr
- r5741 Industrial Assignment and Design Project** (5741-5742; prereq 3742)
729029 Marple, 4 cr
- r5742 Industrial Assignment and Design Project** (5741-5742; prereq 5741)
029523 Marple, 4 cr
- r8226 Finite Element Methods for Nonlinear/Linear Transient/Static Problems** (prereq 5227, programming or #) (A-F only)
226112 1515-1800 T, MechE 221, Tamma, 4 cr
- r8332 Radiation** (prereq 8331)
633333 -1 1545-1715 MF, MechE 108, Sparrow, 3 cr
- r8334 Turbulent Convection** (prereq 8331)
147325 1325-1455 TTh, MechE 221, Simon, 3 cr
- r8352 Advanced Computation of Fluid Flow and Heat Transfer** (prereq 8351 or #)
028968 1325-1455 WF, Arch 55, Patankar, 3 cr
- r8362 Introduction to Plasma Technology** (prereq 8360 or 8361 or #)
544518 1010-1100 MWF, AkerH 309, Pfender, 3 cr
- r8445 Applied Thermodynamics III** (prereq 8444 or equiv)
130251 3 cr
- r8613 Fundamentals of Aerosol Behavior** (prereq 5613, 5614 or #) (A-F only)
047326 0800-0955 MW, MechE 202, McMurry, 3 cr
- 8770 Mechanical Engineering Research** (prereq Δ)
732660 0905-1100 MW, AkerH 215, ar cr
- 8771 Mechanical Engineering Research** (prereq 8770, Δ)
028825 ar cr
- 8772 Mechanical Engineering Research** (prereq 8771, Δ)
428666 ar cr
- r8773 Graduate Seminar** (S-N only)
029232 -1 1525-1625 W, MechE 108, 1 cr
- r8774 Graduate Seminar** (prereq 8773) (S-N only)
731847 -1 1525-1625 W, MechE 108, 1 cr
- r8775 Graduate Seminar** (prereq 8774) (S-N only)
326618 -1 1525-1625 W, MechE 108, 1 cr
- 8777 Thesis Credits: Masters**
427730 1-16 cr
- r8800 Modern Developments in Mechanical Engineering** (S-N only)
228734 -1 1535-1730 MTWThF, MechE 212, 1 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
830463 1-36 cr

MEDICAL TECHNOLOGY (MedT) Medical School

- 5064 Introduction to Clinical Immunohematology** (prereq MicB 5235) (A-F only)
829863 0905-0955 MTTh, MoosT 2520, Christie, Hallgren, 3 cr
- 5065 Introduction to Clinical Immunohematology** (prereq MicB 5235) (A-F only)
325176 1325-1625 TTh, MoosT 3349, Christie, Hallgren, 2 cr
- 5082 Applied Clinical Chemistry** (prereq 5113) (S-N only)
130422 0700-1600 MTWThF, Hanson, 4 cr
(University Hospital labs)
- 5084 Applied Clinical Virology** (prereq 5100, 5102) (S-N only)
229043 0800-1630 MTWThF, Dirksen, 1 cr
(University Hospital labs)
- 5085 Applied Clinical Hematology** (prereq 5077, 5078, 5765 or CLS 5765) (S-N only)
027156 0715-1600 MTWThF, Lofsness, Swinehart, 4 cr (University Hospital labs)
- 5086 Applied Clinical Immunohematology** (prereq 5064, 5065) (S-N only)
629783 0730-1600 MTWThF, Christie, 4 cr
(University Hospital labs)
- 5088 Applied Diagnostic Microbiology** (prereq 5100, 5102) (S-N only)
733761 0730-1600 MTWThF, Wells, 4 cr
(University Hospital labs)
- 5090 Special Laboratory Methods** (prereq #)
931197 2 cr
- 5092 Honors Program: Laboratory Methods** (prereq #)
930549 5 cr

- 5113 Principles of Clinical Chemistry** (prereq 5112) (A-F only)
★LECT 1010-1100 MTTh, MoosT 2580, Tsai
532725 -1 LAB 1220-1625 M, 0800-1205 WF, HSUnitF 3150, Brunzel, 6 cr
- 5120 Seminar**
927683 1-3 cr
- 5125 Practicum: Teaching** (max 3 cr)
726888 ar cr
- 5128 Elements of Laboratory Administration** (prereq Δ)
747529 1730-1945 MW, MoosT 3317, Karni, 3 cr
- 5130 Practicum in Laboratory Administration** (prereq #)
132560 3 cr
- 5135 Advanced Clinical Microbiology** (prereq #)
★LECT Wells
424570 -1 LAB Wells, 5 cr
- 5138 Seminar: Clinical Microbiology**
128931 1115-1205 F, PWB 15194, Wells, Ferrieri, 1 cr
- 5145 Development of Medical Technology**
232492 3 cr
- 5155 Advanced Clinical Hematology** (prereq #)
925674 5 cr
- 5165 Advanced Clinical Immunohematology** (prereq #)
525063 5 cr
- 5175 Advanced Clinical Chemistry** (prereq #)
824937 5 cr
- 5179 Chemistry Seminar** (prereq #)
128872 1 cr
- 5765 Hematology** (§CLS 5765; prereq MedT stu #)
★LECT 1325-1415 WF, MoosT 2520, Lofsness
132509 -1 LAB 1430-1625 WF, MoosT 3317, Lofsness, 4 cr

MEDICINAL CHEMISTRY (MedC) Medicinal Chemistry and Pharmacognosy Pharmacy

- 5200 The New Drug Development Process** (S-N only)
042790 Abul-Hajj, 1 cr
- 5810 Medicinal Plants** (prereq #) (A-F only)
125804 Staba, 2 cr
- 8100 Medicinal Chemistry Seminar**
027237 1535-1730 T, MoosT 2520, Remmel, ar cr
- 8700 Advanced Concepts in Drug Design** (prereq 5800 or #) (A-F only)
842791 Johnson, 2 cr
- 8777 Thesis Credits: Masters**
630125 1-16 cr
- 8800 Laboratory Techniques** (prereq Chem 3303 or #)
533549 ar cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
425783 1-36 cr
- 8900 Research in Medicinal Chemistry** (prereq Chem 3303 or #)
225672 ar cr

MEDICINAL CHEMISTRY, UNDERGRADUATE (MChm) Pharmacy

- 5200 The New Drug Development Process**
646437 Abul-Hajj, 1 cr
- 5320 Therapeutic Agents I** (prereq 5440 or #) (A-F only)
929112 1010-1100 MWF, MoosT 2690, Hanna, 3 cr
- 5350 Therapeutic Agents IV** (prereq 5340, 5440 or #) (A-F only)
725661 1010-1100 MWF, MoosT 2530, 1115-1205 T, MoosT 2620, Staba, Vince, 4 cr

- 5445 Human Nutrition and Drug Therapy** (prereq 5440) (A-F only)
725384 1115-1205 MWF, MoosT 2690, Abul-Hajj, 3 cr
- 5710H Medicinal Chemistry Seminar** (prereq #) (A-F only)
132923 1 cr
- 5715H Advanced Concepts in Drug Design** (prereq #) (A-F only)
642792 2 cr
- 5970 Directed Studies** (prereq #)
127746 1-5 cr
- 5999 Special Problems** (prereq #)
833315 ar cr

MEDICINE (Med) Medical School

- 5500 Medicine Externship I** (prereq regis med student)
630786 Parenti, 9 cr
- 5501 Externship in Medicine** (prereq regis med student, 5500)
133456 Parenti, 9 cr
- 5505 Infectious Disease Research at the University Hospital**
527122 Jordan, ar cr
- 5507 Research in Oncology** (prereq regis med student)
646079 Ginder, ar cr
- 5508 Preceptorships in Internal Medicine** (prereq regis med)
129982 Hostetter, ar cr
- 5509 Research in Rheumatology**
531896 Messner, 9 cr
- 5511 Research in Gastroenterology**
831595 Levitt, 9 cr
- 5512 Research in Hematology**
130430 Jacob, 1-18 cr
- 5518 Research in Endocrinology** (prereq regis med student)
527993 Oppenheimer, ar cr
- 5521 Infectious Diseases, Clinical Aspects at the University Hospitals**
723876 Jordan, 6-9 cr
- 5522 Medical Gastroenterology**
632327 Olson, 6-9 cr
- 5523 Medical Endocrinology, Metabolism and Clinical Pharmacology**
031918 Oppenheimer, 6-9 cr
- 5525 Cardiovascular Medicine**
132669 Bache, 6-9 cr
- 5526 Medical Oncology Outpatient/Consultation** (prereq 5500)
130749 Luikart, 4.5-9 cr
- 5527 Contemporary Problems in Investigative Cardiology**
930759 Bache, 9 cr
- 5528 Clinical Hematology**
630710 Howe, 6-9 cr
- 5531 Clinical Rheumatology**
825456 Messner, 4.5-9 cr
- 5532 Pulmonary Disease**
927036 Bitterman, 6-9 cr
- 5533 Clinical Allergy at University Hospitals**
129021 Blumenthal, 4.5-9 cr
- 5534 Research in Allergy** (prereq regis med)
846081 Blumenthal, 9 cr
- 5548 Clinical Genetics**
424732 King, 9 cr
- 5554 Fluid Electrolyte, Acid-Base Metabolism**
631047 Ma, 6-9 cr
- 5556 Renal Consultation** (prereq 5500)
223808 Hostetter, 6-9 cr
- 5557 Research in Nephrology** (prereq 5500 at Univ Hosp)
525581 Hostetter, ar cr
- 5562 Clinical Nephrology** (prereq 5500)
225882 Rao, 6-9 cr

- 5570 Clinical Medicine on the General Clinical Research Center**
824758 Bantle, 9 cr
- 5580 Coronary Care Unit (CCU) at VA** (prereq 5500, other basic externships)
646082 Pierpont, 6-9 cr
- 5581 Medicine Intensive Care Unit at Hennepin County Medical Center** (prereq regis med stu)
446083 Leatherman, 6-9 cr
- 5582 Clinical Elective in Medical Intensive Care: Ramsey** (prereq completion of pre-clinical course work, sr med stu preferred)
146085 Marini, 6-9 cr
- 5590 Preceptorships in Internal Medicine**
029697 Howe, 4.5-9 cr
- 5591 Internal Medicine for the Ambulatory Outpatient** (prereq 5502, regis med stu)
331074 Howe, 9 cr
- 5592 Rural Physician Associate Program in Internal Medicine**
127706 Howe, ar cr
- 5593 Preceptorships in Internal Medicine in an HMO Setting**
433429 Howe, ar cr
- 5596 Occupational Health**
228247 Mandel, 4.5 cr
- 5597 Research in Occupational Health**
033409 Mandel, 9 cr
- 8201 Clinical Medicine**
528240 Ferris, ar cr
- 8202 Clinical Conference**
330779 Ferris, 1 cr
- 8203 Clinical Radiology Conference**
928199 Ferris, 1 cr
- 8204 Pathology Conference**
032728 Ferris, 1 cr
- 8205 Electrocardiographic Conference**
129707 Tuna, 1 cr
- 8206 Nephrology Seminar**
330782 Ferris, 3 cr
- 8209 Tumor Clinical Conference**
033040 Kennedy, 1 cr
- 8210 Infectious Disease Seminar**
029022 Jordan, ar cr
- 8211 Diseases of the Cardiovascular System**
125897 Cohn, ar cr
- 8212 Diseases of the Chest**
333391 Bitterman, ar cr
- 8213 Diseases of the Kidney**
528058 Ferris, ar cr
- 8214 Diseases of Diabetes, Endocrinology, Metabolism**
231858 Oppenheimer, ar cr
- 8215 Diseases of Hematology**
327185 Jacob, ar cr
- 8216 Diseases of Gastroenterology**
127973 Bloomer, ar cr
- 8217 Diseases of Oncology**
229673 Kennedy, ar cr
- 8220 Research in Medicine**
127754 Ferris, ar cr
- 8221 Topics in Medicine**
727586 Ferris, ar cr
- 8223 Topics in Related Basic Science**
428716 Ferris, ar cr

MEDIEVAL STUDIES (MeSt) Liberal Arts

- 83610 Topics in Medieval Studies**
244111 -1 0800-0850 MWF, AndH 310, Steyaert, 4 cr (History of Medieval Art)
144112 -2 0945-1100 TTh, FolH 134, Copeland, 4 cr (The Middle Ages)
446438 -3 1220-1310 MWF, FolH 104, Krevans, 4 cr (The Pastoral Tradition)

- r5610 Topics in Medieval Studies** (prereq 1 yr work in some area of Middle Ages, reading knowledge of appropriate language)
 831886 -1 1215-1415 M, JonesH 202, Steyaert, 4 cr (Problems in Medieval Sculpture: Gothic Sculpture in the Netherlands and France)
 526309 -2 1630-1930 T, FolH 218, Alchermes, 4 cr (Literary Sources for Byzantine Art)
 634045 -3 1430-1545 TTh, FolH 312, Grimstad, 4 cr (Old Norse Language and Literature)
 124622 -4 1430-1545 WF, BlegH 440, Metcalf, Rice, 4 cr (Scandinavia in the Middle Ages)
 828423 -5 1245-1500 Th, NichH 209, Copeland, 4 cr (Proseminar in Medieval Studies)
 246439 -6 1220-1310 MWF, FolH 104, Krevans, 4 cr (The Pastoral Tradition)
 046905 -7 1325-1520 T, BlegH 215, Reyerson, 4 cr (Proseminar in Medieval History)
 047505 -8 1245-1500 T, LindH 215, Kendall, 4 cr (Literary and Artistic Culture of the Romanesque Period)
 847506 -9 1115-1230 TTh, LindH 305, Kendall, 4 cr (Beowulf)

METALLURGICAL ENGINEERING

(MetE)

Civil And Mineral Engineering Institute of Technology

- 5102 Chemical Metallurgy III** (prereq 5101 or MatS 5101 or #)
 725367 1220-1310 MTWF, CivMinE 684, Reid, 4 cr
- 5503 Metallurgical Engineering Design III** (prereq IT student)
 324495 Hepworth, 4 cr
- 5903 Hydrometallurgy** (prereq 5100, 5101, 5102 or #)
 ★LECT 0905-0955 MWF, CivMinE 684, Smith, 4 cr
 131836 -1 LAB 1325-1730 Th, CivMinE 684, Smith
- 5942 Special Problems in Extractive Metallurgical Engineering** (prereq grad student)
 129769 Hepworth, 1-6 cr
- 8839 Optimization and Control Techniques in Mineral Processing II** (prereq 8838 or #)
 230645 1325-1415 MW, CivMinE 684, Reid, 3 cr
- 8923 Research in Extractive Metallurgical Engineering** (prereq #) (A-F only)
 828583 ar cr
- 8934 Physical Chemistry of High Temperature Metallurgical Reactions III** (prereq 8932)
 226031 1115-1230 TTh, CivMinE 194, Reid, 3 cr

MICROBIAL ENGINEERING

(MicE)

Biological Sciences

- 5990 Teaching Practicum** (A-F only)
 729340 0-1 cr
- 8777 Thesis Credits: Masters**
 225087 1-16 cr
- 8990 Biotechnology Seminar** (A-F only)
 434127 1700-1800 T, GorL 239, 1 cr

MICROBIOLOGY (MicB)

Medical School

- r5105 Biology of Microorganisms** (§3103, Biol 5013, VPB 3103; prereq 5 cr biological sciences, Biol 5001 or #)
 ★LECT 1245-1400 TTh, MoosT 2530, Hanson, 5 cr
 933631 -1 LAB 0905-1100 TTh, MoosT 2252
- 5206 Microbiology for Medical Students** (prereq §5205, regis med fr, all others #)
 ★LECT 0800-0850 MTWThF, PWB 2470, (Mar 30-June 6), 0905-0955 Th, MoosT 2252 (May 7, 14, 21, 28) Schlievert, 5 cr
 023933 -1 LAB 1010-1205 W, MoosT 2252
 723957 -2 LAB 1535-1730 W, MoosT 2252
- 5352 Applied Microbiology** (prereq 5321 or #)
 131853 1115-1310 TTh, MoosT 2580, Flickinger, 4 cr

- r5424 Biology of Viruses** (prereq 5321 or Biol 5001 or #)
 030252 1010-1100 MWF, MoosT 2620, Plagemann, 3 cr
- r5425 Virology and Microbial Genetics Laboratory** (prereq 5424 or §5424, Biol 5001, GCB 3022 or GCB 5022 or Biol 5003) (A-F only)
 428361 1115-1415 TTh, MoosT 2252, Plagemann, Sauerbier, Schliif, 3 cr
- 5611 Microbial Ecology** (§Soil 5605; prereq 3103 or 5105 or Biol 5013 or Soil 5610 or #) (A-F only)
 044409 1015-1130 TTh, BorH 375, Sadowsky, 3 cr (SIP)
- 5900 Topics in Microbiology** (prereq sr microbiology maj) (A-F only)
 824467 1535-1625 W, PWB, Fontana, 1 cr
- 5970 Directed Studies** (prereq #, Δ)
 529775 ar cr
- 5990 Directed Research** (prereq #, Δ)
 132694 ar cr
- 5992 Practicum: Teaching** (prereq microbiology grad stu or #) (A-F only)
 030882 1 cr
- r8231 Advanced Topics in Microbial Pathogenesis** (prereq microbiology grad stu or #) (A-F only)
 725045 1245-1400 TTh, PWB 5206, Scherer, 3 cr
- 8421 Virology and Tumor Biology** (prereq undergrad biochemistry course, grad maj in microbiology or #)
 731718 0945-1100 MW, PWB 5224, Southern, Conklin, others, 3 cr
- 8777 Thesis Credits: Masters**
 530800 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
 829717 1-36 cr
- r8910 Seminar** (prereq #)
 531848 1200-1300 W, PWB 11157, 1 cr
- 8911 Colloquium in Microbiology** (prereq #)
 628133 1 cr
- 8990 Research in Microbiology** (prereq microbial grad stu or #)
 525676 Schlievert, others, ar cr

MIDDLE EASTERN STUDIES

(MidE)

South Asian & Middle Eastern Studies Liberal Arts

- 3507 Religion and Politics in Islam: Past and Present**
 142800 0945-1100 TTh, BlegH 260, Farah, 4 cr
- 3508 Islam: Iran to India** (§5508)
 125558 1115-1230 TTh, FolH 306, Barker, 4 cr
- 3555 Zoroastrianism**
 342799 1115-1205 MWF, CivMinE 212, Malandra, 4 cr
- 5508 Islam: Iran to India** (§3508)
 624888 1115-1230 TTh, FolH 306, Barker, 4 cr
- 5730 Proseminar in Middle East History: Social and Economic History of the Ottoman Empire: 19th- and 20th-Centuries** (§Hist 5730)
 243878 1315-1500 W, BlegH 130, Toprak, 4 cr
- 5970 Directed Studies** (prereq #, Δ, CLA approval)
 832150 ar cr
- 5990 Directed Research** (prereq #, Δ, CLA approval)
 830253 ar cr

MILITARY SCIENCE (Mil)

- 0100 Leadership Laboratory** (prereq fr or soph) (A-F only)
 024953 0645-0745 Th, Armory 116, Kielpinski, 0 cr
- 0300 Advanced Leadership Laboratory** (prereq enrolled as a military science advanced course cadet or #) (A-F only)
 532935 0645-0800 Th, Armory 100, Dekanich, 0 cr

- 1003 Basic Military Skills** (prereq fr or soph) (A-F only)
 229107 0645-0745 Th, Armory 116, Kielpinski, 1 cr
- r1010 The U.S. Army in Society** (A-F only)
 126676 1010-1100 TTh, Armory 116A, Kielpinski, 2 cr
- 1013 World Military History** (§Hist 1953)
 542803 -1 1010-1100 TTh, Armory 116, Mullins, 2 cr
 342804 -2 1325-1415 TTh, Armory 116, Mullins, 2 cr
- 1203 Leadership: Small Unit Training, Tactics and Terrain Association** (prereq completed one yr of ROTC, prior military experience or #) (A-F only)
 529193 0645-0745 Th, Armory 116A, Mullins, 1 cr
- 1222 Training Management** (A-F only)
 725272 -1 0905-0955 MW, Armory 116A, Mullins, 2 cr
 927859 -2 1430-1520 MW, Armory 116, Mullins, 2 cr
- 3130 Military Science III Leadership Laboratory** (max 3 cr; prereq military science III stu or #) (A-F only)
 729600 0645-0800 Th, Armory 100, Dekanich, 1 cr
- r3133 Small Unit Tactics** (prereq Δ, Leadership Lab) (A-F only)
 133882 -1 0945-1100 MW, Armory 116, Dekanich, 3 cr
 833668 -2 1430-1545 MW, Armory 116A, Dekanich, 3 cr
- 3140 Military Science IV Leadership Laboratory** (max 3 cr; prereq military science IV stu or #) (A-F only)
 826929 0645-0800 Th, Armory 100, Bolin, 1 cr
- r3143 Military Law, Service Orientation** (A-F only)
 527119 -1 0815-0930 T, Armory 116, Bolin, 2 cr
 725613 -2 1430-1545 T, Armory 116, Bolin, 2 cr
- 3970 Directed Studies** (prereq #, Δ) (A-F only)
 731864 1-3 cr

MINING ENGINEERING (MinE)

Civil And Mineral Engineering Institute of Technology

- 8472 Research Problems** (prereq #) (A-F only)
 733324 Barnes, ar cr
- 8603 Seminar: Mineral Engineering** (prereq #) (S-N only)
 227616 1430-1520 F, Hepworth, 1 cr
- 8777 Thesis Credits: Masters**
 025911 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
 528965 1-36 cr

MORTUARY SCIENCE (Mort)

Medical School

- r3010 Funeral Service Law** (A-F only)
 531462 1325-1520 MF, JOAd 2125, Grayson, 4 cr
- r3030 Chemistry** (prereq introductory course in general chemistry, regis in mortuary science) (A-F only)
 423791 1010-1205 TTh, OwreH 2210, Mathews, 4 cr
- r3073 Funeral Service Counseling** (prereq regis in mortuary science, 3070) (A-F only)
 ★LECT 1115-1205 MW, JOAd 2125, Tibbetts
 425394 -1 LAB 0905-1100 M, JOAd 2125, Tibbetts, 3 cr
 129903 -2 LAB 0905-1100 W, JOAd 2125, Tibbetts, 3 cr
 128136 -3 LAB 0905-1100 F, JOAd 2125, Tibbetts, 3 cr
 433107 -4 LAB 1115-1310 F, JOAd 2125, Tibbetts, 3 cr
- R3080 Funeral Service Practicum** (prereq have completed all requirements for graduation with the exception of 3080, Δ) (S-N only)
 828177 Stroud, Mathews, others, 15 cr
- r3090 Independent Study** (prereq regis in mortuary science)
 127561 Burger, Mathews, others, 1-3 cr

MUSEUM STUDIES (MSt)

- r8012 Museum Practices: Curatorial and Education Departments in Museums** (prereq 8010 or #)
042806 1535-1730 W, NMA 223, King, 3 cr
- 8016 Internship** (prereq 8010, prereq permission of Director of Graduate Studies in Museum Studies)
828499 1-6 cr

MUSIC (Mus)

Music

Liberal Arts

- r1001 Fundamentals of Music** (§1003, 1004; prereq non-mus maj)
★LECT 1430-1520 MWF, FergH 225, 4 cr
129187 -1 REC 1010-1100 F, FergH 105
333875 -2 REC 1115-1205 F, FergH 105
825280 -3 REC 1220-1310 F, FergH 105
330572 -4 REC 1325-1415 F, FergH 105
- r1150 Keyboard Skills** (prereq mus maj, #)
145607 0905-0955 TTh, FergH 259, Shockley, 2 cr
- r1153 Piano: Class Lessons** (prereq 1152) (A-F only)
726809 -1 1115-1205 MW, FergH 265, 2 cr
925156 -2 1220-1310 MW, FergH 259, 2 cr
133921 -3 1010-1100 TTh, FergH 259, 2 cr
129732 -4 1115-1205 TTh, FergH 265, 2 cr
125292 -5 1220-1310 TTh, FergH 259, 2 cr
230449 -6 1325-1415 TTh, FergH 259, 2 cr
- r1160 Voice: Class Lessons**
726857 -1 1010-1100 MW, FergH 90, 2 cr
825358 -2 1115-1205 MW, FergH 90, 2 cr
133742 -3 1010-1100 TTh, FergH 90, 2 cr
728673 -4 1115-1205 TTh, FergH 90, 2 cr
527752 -5 1535-1625 WF, FergH 90, 2 cr
- r1163 Diction for Singers III** (prereq 1162 or #)
726437 1010-1205 M, FergH 123, Herzberg, 1 cr
- r1166 Diction for Singers VI** (prereq 1165 or #)
534121 1010-1205 F, FergH 90, Weller, 1 cr
- 1180 Accompanying** (max 3 cr; prereq 12 cr in MusA 1201 or MusA 1301 or #) (A-F only)
032857 1325-1415 T, FergH 267, Freed, 1 cr
- 1340 Jazz Ensemble** (max 6 cr; prereq audition, #) (A-F only)
926131 -1 1640-1835 MW, FergH 95, 1 cr (Jazz I)
431678 -2 1535-1625 MWF, FergH 95, 1 cr (Jazz II)
- r1353 Jazz Class Piano** (prereq 1153 or #)
124636 2 cr
- r1440 Ensemble** (prereq #)
726700 -1 1 cr (guitar)
425539 -2 Miller, 1 cr (harp)
824355 -3 1 cr (piano)
132873 -4 1 cr (strings)
429428 -5 1 cr (tuba, euphonium)
544311 -6 1900-2030 TTh, FergH 95, 1 cr (Jazz Combo)
344312 -7 1 cr (trombone)
144313 -8 1 cr (organ)
044314 -9 1 cr (woodwind)
445614 -10 1 cr (Brass Quintet)
- r1512 Ear-Training and Sight-Singing II** (prereq 1511, 11532) (A-F only)
726311 -1 LAB 0905-0955 TTh, FergH 123, 1 cr
224571 -2 LAB 0905-0955 TTh, FergH 203, 1 cr
233108 -3 LAB 0905-0955 TTh, FergH 205, 1 cr
526312 -4 LAB 0905-0955 TTh, FergH 149, 1 cr
- r1523 Keyboard Harmony** (prereq 1522) (A-F only)
031935 1115-1205 TTh, FergH 259, Shockley, 2 cr
- r1532 Theory II: Diatonic Tonality** (prereq 1531, 1152 or 1522, 11512) (A-F only)
★LECT 0800-0850 TTh, FergH 225, Lubet, 3 cr
133109 -1 REC 0905-0955 MW, FergH 203
731198 -2 REC 0905-0955 MW, FergH 205
929305 -3 REC 1010-1100 MW, FergH 203
127415 -4 REC 1010-1100 MW, FergH 205
- 1804 World Music**
143338 1010-1205 WF, FergH 225, Kagan, 4 cr
- r3021 Introduction to Music** (§1021; prereq non mus maj)
844315 1220-1310 MTWThF, FergH 225, 5 cr

- 3220 Chamber Winds** (prereq #) (A-F only)
628441 1535-1730 W, FergH 85, Becher, 1 cr (Concert Winds)
- 3290 Jazz Singers** (prereq #)
747501 1535-1730 TTh, FergH, McCurdy, 1 cr
- r3333 Jazz Improvisation III** (prereq 3332 or #)
525418 0800-0850 MWF, FergH 95, 2 cr
- 3410 Concert Band** (prereq #)
124241 -1 1325-1520 MWF, FergH 95, Bencriscutto, 1 cr (Wind Ensemble)
829250 -2 1325-1520 TTh, FergH 95, Becher, 1 cr (Symphonic Band)
428151 -3 1535-1625 TTh, FergH 95, Becher, 1 cr (North Star Band)
- 3420 Orchestra** (prereq #)
632781 1535-1730 MTTh, FergH 85, Sidlin, 1 cr
- 3430 University Chorus** (prereq #)
925383 -1 1535-1625 MTTh, FergH 225, 1 cr (Women's Chorus)
432507 -2 1535-1625 MTTh, FergH 90, 1 cr (Men's Chorus)
623840 -3 1220-1310 MTWThF, FergH 90, Weller, 1 cr (Concert Choir)
326313 -4 1900-2130 T, FergH 90, 1 cr (Choral Union)
- r3440 Ensemble** (prereq #)
133375 -1 1 cr (guitar)
932351 -2 Miller, 1 cr (harp)
124281 -3 1 cr (piano)
230922 -4 1 cr (strings)
027724 -5 1 cr (tuba, euphonium)
644316 -6 1900-2030 TTh, FergH 95, 1 cr (Jazz Combo)
444317 -7 1 cr (trombone)
244318 -8 1 cr (organ)
144319 -9 1 cr (woodwind)
245615 -10 1 cr (Brass Quintet)
- 3441 Basic Conducting** (prereq Mus maj, 1533) (A-F only)
831760 1220-1310 MW, FergH 81, Sidlin, 2 cr
- r3512 Ear Training and Sight Singing V** (prereq 3511 or 1508, 13532) (A-F only)
143333 -1 0800-0850 MF, FergH 123, 1 cr
943334 -2 0800-0850 MF, FergH 203, 1 cr
743335 -3 0800-0850 MF, FergH 205, 1 cr
- r3532 Theory V: 20th Century Theory** (prereq 3531 or 1508, 13512) (A-F only)
543336 0905-1100 M, 0905-0955 W, FergH 225, Cherlin, 3 cr
- r3553 Composition** (13551-3552-3553; prereq 3552) (A-F only)
726051 1010-1205 F, FergH 123, Lubet, 2 cr
- 3606 History of Western Music** (prereq 3531 or #) (A-F only)
★LECT 0905-1100 TTh, FergH 225, Hepokoski, 5 cr
329373 -1 REC 0905-0955 F, FergH 225
- 3970 Directed Studies** (prereq #, Δ, □)
925948 1-15 cr
- 3980 Directed Teaching** (prereq #, Δ, □)
224246 1-4 cr
- 3995 Major Project** (prereq sr, #, Δ) (A-F only)
026086 2 cr
- r5016 Trumpet Pedagogy** (prereq 12 cr or of lower division trumpet lessons)
627273 0905-0955 TTh, FergH 224, Baldwin, 2 cr
- 5220 Chamber Winds** (prereq #) (A-F only)
426450 1535-1730 W, FergH 85, Becher, 1 cr (Concert Winds)
- 5290 Jazz Singers** (prereq #)
547502 1535-1730 TTh, FergH, McCurdy, 1 cr
- r5323 Suzuki Violin Pedagogy** (prereq 5322)
130534 1230-1400 W, MacPhC 311, Bjork, 2 cr (off-campus)
- r5326 Advanced Suzuki Violin Pedagogy** (prereq 5325)
123857 1300-1430 M, MacPhC 311, Bjork, 2 cr (off-campus)
- r5333 Jazz Improvisation VI** (prereq 3331, 3332, 3333 or audition) (A-F only)
629637 0800-0955 T, FergH 95, 2 cr
- 5340 Jazz Ensemble** (max 6 cr; prereq audition, #) (A-F only)
624387 -1 1640-1835 MW, FergH 95, 1 cr (Jazz I)
124460 -2 1535-1625 MWF, FergH 95, 1 cr (Jazz II)

- r5353 Piano Pedagogy** (prereq 5352) (A-F only)
131764 1010-1205 W, FergH 123, Shockley, 2 cr
- 5356 Piano Pedagogy Practicum** (prereq 5355, 15353) (A-F only)
434046 Shockley, 1 cr
- r5360 Woodwind Ensemble** (prereq audition)
326697 -1 1640-1830 W, FergH 81, Anderson, 1 cr (Clarinet Choir)
846176 -2 1 cr (Flute Choir)
646177 -3 1 cr (Woodwind Quintet)
446178 -4 1 cr (Saxophone Quartet)
246179 -5 1 cr
- r5370 Vocal Performance Laboratory** (prereq upper div voice maj or #) (A-F only)
833962 1430-1520 MW, FergH 90, Ware, 2 cr
- 5380 Brass Choir** (prereq #)
924198 -1 1325-1415 MWF, FergH 85, Baldwin, 1 cr (Brass Ensemble)
230046 -2 1325-1520 TTh, FergH 85, Baldwin, 1 cr (Brass Choir)
- 5399 Performance in Conducting** (prereq 5388 or 5385, #)
431860 Lancaster, 4 cr
- 5410 Band** (prereq #)
430174 -1 1325-1520 MWF, FergH 95, Bencriscutto, 1 cr (Wind Ensemble)
833038 -2 1325-1520 TTh, FergH 95, Becher, 1 cr (Symphonic Band)
529954 -3 1535-1625 TTh, FergH 95, Becher, 1 cr (North Star Band)
- 5420 Orchestra** (prereq #)
627063 1535-1730 MTTh, FergH 85, Sidlin, 1 cr
- 5430 University Chorus** (prereq #)
233870 -1 1535-1625 MTTh, FergH 225, 1 cr (Women's Chorus) (registration in Mus 3430, sec 4 or Mus 5430, sec 4 available)
325596 -2 1535-1625 MTTh, FergH 90, 1 cr (Men's Chorus) (registration in Mus 3430, sec 4 or Mus 5430, sec 4 available)
232914 -3 1220-1310 MTWThF, FergH 90, Weller, 1 cr (Concert Choir) (registration in Mus 3430, sec 4 or Mus 5430, sec 4 available)
632151 -4 1900-2130 T, FergH 90, 1 cr (Choral Union)
- r5440 Ensemble** (prereq #)
026878 -1 1 cr (guitar)
931054 -2 Miller, 1 cr (harp)
732528 -3 1 cr (piano)
329731 -4 1 cr (strings)
834190 -5 1 cr (tuba, euphonium)
444320 -6 1900-2030 TTh, FergH 95, 1 cr (Jazz Combo)
244321 -7 1 cr (trombone)
144322 -8 1 cr (organ)
944323 -9 1 cr (woodwind)
945617 -10 1 cr (Brass Quintet)
- 5460 New Music Ensemble** (prereq #) (A-F only)
546141 1430-1640 MW, FergH 72, Lubet, 1 cr
- 5470 Opera Workshop and Ensemble** (prereq ability to sing arias satisfactorily, # by audition)
028808 1535-1730 MTTh, ScottH 108, Sutton, 1 cr
- 5480 Opera Theatre** (prereq advanced ability to sing arias satisfactorily, by audition, #)
330829 1535-1730 MTTh, ScottH 108, Sutton, 2 cr
- 5490 Chamber Singers** (prereq audition)
731704 1325-1415 MTWThF, FergH 90, Lancaster, 1 cr (registration in Mus 3430, sec 4 or Mus 5430, sec 4 available)
- r5550 Composition** (prereq 3532 or equiv, 3553 or grad, #) (A-F only)
524138 -1 Argento, 2 cr
231424 -2 Zaimont, 2 cr
131991 -3 Ultan, 2 cr
- 5563 Orchestration** (prereq 5562) (A-F only)
225896 1325-1415 MW, FergH 149, Argento, 2 cr
- 5572 Chromaticism in Late-Tonal Music** (prereq 5531) (A-F only)
143341 1115-1310 MW, FergH 149, Damschroder, 4 cr
- 5647 20th-Century European/American Music** (prereq 3606 or equiv, 12 cr undergrad music hist, 5532 or equiv, # for undergrads) (A-F only)
744324 0905-1100 MW, FergH 105, Jackson, 4 cr

- 85746 Piano Literature** (prereq 12 cr of MusA 1201 or MusA 1301 or #) (A-F only)
447573 1535-1830 T, FergH 149, McNabb, 2 cr
- 85795 Digital Music Synthesis and Processing Techniques** (prereq 5793)
030820 1325-1415 T, FergH 215, Ultan, 2 cr (addtl hrs ar)
- 85810 Asian Music: Performance** (prereq #)
725353 Kagan, 2 cr
- 5950 Topics in Music: Bach** (prereq 3606 or equiv, 12 undergrad cr in mus hist, 5531 or equiv, # for undergrads) (A-F only)
344326 1010-1205 TTh, FergH 149, 4 cr
- 5970 Directed Studies** (prereq #, Δ, CLA approval) (A-F only)
929532 1-5 cr
- 88380 Orchestral Conducting** (prereq #) (A-F only)
646390 Sidlin, 4-5 cr
- 8550 Composition** (max 18 cr; prereq compl of undergrad maj sequence in music theory and composition, #)
128841 -1 Argento, 3 cr
832617 -2 Zaimont, 3 cr
732951 -3 Ultan, 3 cr
147499 -4 Lubet, 3 cr
- 8755 Choral Literature: Classical Era Through the Twentieth Century** (prereq grad student, #)
127035 0905-1100 MWF, FergH 115, Lancaster, 4 cr
- 8777 Thesis Credits: Masters**
432085 1-16 cr
- 88840 Seminar in Musicology** (prereq grad mus maj) (A-F only)
630254 -1 1325-1520 MW, FergH 203, 4 cr (Arcadian Opera, ca. 1700-1730)
947500 -2 1325-1520 TTh, FergH 203, Kagan, 4 cr
- 8847 Seminar: Notation of Polyphonic Music** (prereq undergrad degree in music)
443345 0905-1100 TTh, FergH 105, Jackson, 4 cr
- 88661 History of Music Theory: 1550-1750** (prereq #) (A-F only)
243346 1220-1415 TTh, FergH 123, Damschroder, 4 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
932916 1-36 cr
- 8999 Recital Credits: Doctoral** (max 10 cr per qtr; prereq Doctor of Musical Arts students)
845612 -1 5 cr

MUSIC APPLIED (MusA)

Music Liberal Arts

See section 2, Course Fees, for MusA course fees. These fees are in addition to tuition and are assessed at registration.

- 1101 Piano, Elective** (prereq audition, Δ)
730035 2 cr
- 1102 Harpsichord, Elective** (prereq audition, Δ)
330510 2 cr
- 1103 Organ, Elective** (prereq audition, Δ)
924511 1535-1625 Th, FergH 213, 2 cr
- 1104 Voice, Elective** (prereq audition, Δ)
725742 2 cr
- 1105 Violin, Elective** (prereq audition, Δ)
924797 2 cr
- 1106 Viola, Elective** (prereq audition, Δ)
927974 2 cr
- 1107 Cello, Elective** (prereq audition, Δ)
129545 2 cr
- 1108 Double Bass, Elective** (prereq audition, Δ)
233707 2 cr
- 1109 Flute, Elective** (prereq audition, Δ)
832865 2 cr
- 1111 Oboe, Elective** (prereq audition, Δ)
424844 2 cr
- 1112 Clarinet, Elective** (prereq audition, Δ)
030915 2 cr
- 1113 Saxophone, Elective** (prereq audition, Δ)
729824 2 cr
- 1114 Bassoon, Elective** (prereq audition, Δ)
330068 2 cr
- 1115 French Horn, Elective** (prereq audition, Δ)
129679 2 cr
- 1116 Trumpet, Elective** (prereq audition, Δ)
325498 2 cr
- 1117 Trombone, Elective** (prereq audition, Δ)
031921 2 cr
- 1118 Baritone, Elective** (prereq audition, Δ)
433902 2 cr
- 1119 Tuba, Elective** (prereq audition, Δ)
932754 2 cr
- 1121 Percussion, Elective** (prereq audition, Δ)
731802 2 cr
- 1122 Harp, Elective** (prereq audition, Δ)
932981 2 cr
- 1123 Guitar, Elective** (prereq audition, Δ)
233657 2 cr
- 1201 Piano, Principal** (prereq audition, Δ)
127012 2-4 cr
- 1202 Harpsichord, Principal** (prereq audition, Δ)
425590 2-4 cr
- 1203 Organ, Principal** (prereq audition, Δ)
933564 1535-1625 Th, FergH 213, 2-4 cr
- 1204 Voice, Principal** (prereq audition, Δ)
430045 1430-1520 TTh, FergH 180, 2-4 cr (addtl hrs ar)
- 1205 Violin, Principal** (prereq audition, Δ)
425198 1430-1520 W, FergH 85, 2-4 cr (addtl hrs ar)
- 1206 Viola, Principal** (prereq audition, Δ)
231584 1430-1520 W, FergH 85, 2-4 cr (addtl hrs ar)
- 1207 Cello, Principal** (prereq audition, Δ)
026766 1430-1520 W, FergH 85, 2-4 cr (addtl hrs ar)
- 1208 Double Bass, Principal** (prereq audition, Δ)
126080 1430-1520 W, FergH 85, 2-4 cr (addtl hrs ar)
- 1209 Flute, Principal** (prereq audition, Δ)
127253 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs ar)
- 1211 Oboe, Principal** (prereq audition, Δ)
429168 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs ar)
- 1212 Clarinet, Principal** (prereq audition, Δ)
024967 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs ar)
- 1213 Saxophone, Principal** (prereq audition, Δ)
723800 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs ar)
- 1214 Bassoon, Principal** (prereq audition, Δ)
229625 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs ar)
- 1215 French Horn, Principal** (prereq audition, Δ)
530022 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs ar)
- 1216 Trumpet, Principal** (prereq audition, Δ)
625958 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs ar)
- 1217 Trombone, Principal** (prereq audition, Δ)
129559 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs ar)
- 1218 Baritone, Principal** (prereq audition, Δ)
726079 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs ar)
- 1219 Tuba, Principal** (prereq audition, Δ)
425170 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs ar)
- 1221 Percussion, Principal** (prereq audition, Δ)
430014 2-4 cr
- 1222 Harp, Principal** (prereq audition, Δ)
529887 2-4 cr
- 1223 Guitar, Principal** (prereq audition, Δ)
129455 1325-1415 F, FergH 81, 2-4 cr
- 1301 Piano, Major** (prereq audition, Δ)
731900 2-4 cr
- 1302 Harpsichord, Major** (prereq audition, Δ)
325629 2-4 cr
- 1303 Organ, Major** (prereq audition, Δ)
733291 1535-1625 Th, FergH 213, 2-4 cr
- 1304 Voice, Major** (prereq audition, Δ)
527895 1430-1520 TTh, FergH 180, 2-4 cr (addtl hrs ar)
- 1305 Violin, Major** (prereq audition, Δ)
533907 1430-1520 W, FergH 85, 2-4 cr (addtl hrs ar)
- 1306 Viola, Major** (prereq audition, Δ)
133344 1430-1520 W, FergH 85, 2-4 cr (addtl hrs ar)
- 1307 Cello, Major** (prereq audition, Δ)
024273 1430-1520 W, FergH 85, 2-4 cr (addtl hrs ar)
- 1308 Double Bass, Major** (prereq audition, Δ)
026735 1430-1520 W, FergH 85, 2-4 cr (addtl hrs ar)
- 1309 Flute, Major** (prereq audition, Δ)
133613 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs ar)
- 1311 Oboe, Major** (prereq audition, Δ)
031966 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs ar)
- 1312 Clarinet, Major** (prereq audition, Δ)
431700 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs ar)
- 1313 Saxophone, Major** (prereq audition, Δ)
232427 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs ar)
- 1314 Bassoon, Major** (prereq audition, Δ)
131576 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs ar)
- 1315 French Horn, Major** (prereq audition, Δ)
131974 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs ar)
- 1316 Trumpet, Major** (prereq audition, Δ)
625040 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs ar)
- 1317 Trombone, Major** (prereq audition, Δ)
325856 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs ar)
- 1318 Baritone, Major** (prereq audition, Δ)
124068 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs ar)
- 1319 Tuba, Major** (prereq audition, Δ)
225428 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs ar)
- 1321 Percussion, Major** (prereq audition, Δ)
025178 2-4 cr
- 1322 Harp, Major** (prereq audition, Δ)
725627 2-4 cr
- 1323 Guitar, Major** (prereq audition, Δ)
333004 1325-1415 F, FergH 81, 2-4 cr
- 1401 Piano, Secondary Required** (max 12 cr; prereq mus maj, Δ)
625877 2-4 cr
- 1402 Harpsichord, Secondary Required** (max 12 cr; prereq mus maj, Δ)
533521 2-4 cr
- 1403 Organ, Secondary Required** (max 12 cr; prereq mus maj, Δ)
524818 1535-1625 Th, FergH 213, 2-4 cr
- 1404 Voice, Secondary Required** (max 12 cr; prereq mus maj, Δ)
129531 2-4 cr
- 1405 Violin, Secondary Required** (max 12 cr; prereq mus maj, Δ)
326733 2-4 cr
- 1406 Viola, Secondary Required** (max 12 cr; prereq mus maj, Δ)
228958 2-4 cr
- 1407 Cello, Secondary Required** (max 12 cr; prereq mus maj, Δ)
129617 2-4 cr
- 1408 Double Bass, Secondary Required** (max 12 cr; prereq mus maj, Δ)
429865 2-4 cr
- 1409 Flute, Secondary Required** (max 12 cr; prereq mus maj, Δ)
124319 2-4 cr

- 1411 **Oboe, Secondary Required** (max 12 cr; prereq mus maj, Δ)
127181 2-4 cr
- 1412 **Clarinet, Secondary Required** (max 12 cr; prereq mus maj, Δ)
329101 2-4 cr
- 1413 **Saxophone, Secondary Required** (max 12 cr; prereq mus maj, Δ)
028047 2-4 cr
- 1414 **Bassoon, Secondary Required** (max 12 cr; prereq mus maj, Δ)
932947 2-4 cr
- 1415 **French Horn, Secondary Required** (max 12 cr; prereq mus maj, Δ)
126810 2-4 cr
- 1416 **Trumpet, Secondary Required** (max 12 cr; prereq mus maj, Δ)
227714 2-4 cr
- 1417 **Trombone, Secondary Required** (max 12 cr; prereq mus maj, Δ)
525855 2-4 cr
- 1418 **Baritone, Secondary Required** (max 12 cr; prereq mus maj, Δ)
133773 2-4 cr
- 1419 **Tuba, Secondary Required** (max 12 cr; prereq mus maj, Δ)
523846 2-4 cr
- 1421 **Percussion, Secondary Required** (max 12 cr; prereq mus maj, Δ)
731069 2-4 cr
- 1422 **Harp, Secondary Required** (max 12 cr; prereq mus maj, Δ)
524799 2-4 cr
- 1423 **Guitar, Secondary Required** (max 12 cr; prereq mus maj, Δ)
624146 2-4 cr
- 1501 **Piano, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
628634 2-4 cr
- 1502 **Harpichord, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
724283 2-4 cr
- 1503 **Organ, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
929756 1535-1625 Th, FergH 213, 2-4 cr
- 1504 **Voice, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
228040 2-4 cr
- 1505 **Violin, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
324268 2-4 cr
- 1506 **Viola, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
932348 2-4 cr
- 1507 **Cello, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
327302 2-4 cr
- 1508 **Double Bass, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
229835 2-4 cr
- 1509 **Flute, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
328532 2-4 cr
- 1511 **Oboe, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
228541 2-4 cr
- 1512 **Clarinet, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
731768 2-4 cr
- 1513 **Saxophone, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
027982 2-4 cr
- 1514 **Bassoon, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
531915 2-4 cr
- 1515 **French Horn, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
729547 2-4 cr
- 1516 **Trumpet, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
327655 2-4 cr
- 1517 **Trombone, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
728057 2-4 cr
- 1518 **Baritone, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
028985 2-4 cr
- 1519 **Tuba, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
830639 2-4 cr
- 1521 **Percussion, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
126751 2-4 cr
- 1522 **Harp, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
126183 2-4 cr
- 1523 **Guitar, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
328269 2-4 cr
- 1601 **Piano, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
028789 2-4 cr
- 1602 **Harpichord, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
331835 2-4 cr
- 1603 **Organ, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
330555 1535-1625 Th, FergH 213, 2-4 cr
- 1604 **Voice, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
224182 1430-1520 TTh, FergH 180, 2-4 cr
- 1605 **Violin, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
425458 1430-1520 W, FergH 85, 2-4 cr
- 1606 **Viola, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
633042 1430-1520 W, FergH 85, 2-4 cr
- 1607 **Cello, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
029585 1430-1520 W, FergH 85, 2-4 cr
- 1608 **Double Bass, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
832827 1430-1520 W, FergH 85, 2-4 cr
- 1609 **Flute, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
125440 1220-1310 Th, FergH 95, 2-4 cr
- 1611 **Oboe, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
932527 1220-1310 Th, FergH 95, 2-4 cr
- 1612 **Clarinet, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
124336 1220-1310 Th, FergH 95, 2-4 cr
- 1613 **Saxophone, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
625054 1220-1310 Th, FergH 95, 2-4 cr
- 1614 **Bassoon, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
033426 1220-1310 Th, FergH 95, 2-4 cr
- 1615 **French Horn, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
330460 1220-1310 Th, FergH 95, 2-4 cr
- 1616 **Trumpet, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
524334 1220-1310 Th, FergH 95, 2-4 cr
- 1617 **Trombone, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
229186 1220-1310 Th, FergH 95, 2-4 cr
- 1618 **Baritone, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
725675 1220-1310 Th, FergH 95, 2-4 cr
- 1619 **Tuba, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
231391 1220-1310 Th, FergH 95, 2-4 cr
- 1621 **Percussion, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
132761 2-4 cr
- 1622 **Harp, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
729533 2-4 cr
- 1623 **Guitar, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
732321 1325-1415 F, FergH 81, 2-4 cr
- 1701 **Piano, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
527086 2-4 cr
- 1702 **Harpichord, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
632523 2-4 cr
- 1703 **Organ, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
625815 1535-1625 Th, FergH 213, 2-4 cr
- 1704 **Voice, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
626611 1430-1520 TTh, FergH 180, 2-4 cr
- 1705 **Violin, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
226630 1430-1520 W, FergH 85, 2-4 cr
- 1706 **Viola, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
524401 1430-1520 W, FergH 85, 2-4 cr
- 1707 **Cello, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
133568 1430-1520 W, FergH 85, 2-4 cr
- 1708 **Double Bass, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
828602 1430-1520 W, FergH 85, 2-4 cr
- 1709 **Flute, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
327106 1220-1310 Th, FergH 95, 2-4 cr
- 1711 **Oboe, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
427629 1220-1310 Th, FergH 95, 2-4 cr
- 1712 **Clarinet, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
131917 1220-1310 Th, FergH 95, 2-4 cr
- 1713 **Saxophone, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
133871 1220-1310 Th, FergH 95, 2-4 cr
- 1714 **Bassoon, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
131800 1220-1310 Th, FergH 95, 2-4 cr
- 1715 **French Horn, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
628049 1220-1310 Th, FergH 95, 2-4 cr
- 1716 **Trumpet, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
827899 1220-1310 Th, FergH 95, 2-4 cr
- 1717 **Trombone, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
230550 1220-1310 Th, FergH 95, 2-4 cr
- 1718 **Baritone, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
125535 1220-1310 Th, FergH 95, 2-4 cr
- 1719 **Tuba, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
928588 1220-1310 Th, FergH 95, 2-4 cr
- 1721 **Percussion, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
726762 2-4 cr
- 1722 **Harp, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
027903 2-4 cr
- 1723 **Guitar, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
633509 1325-1415 F, FergH 81, 2-4 cr
- 1901 **Piano** (prereq audition) (A-F only)
624745 2-4 cr
- 1902 **Harpichord** (prereq audition) (A-F only)
828986 2-4 cr
- 1903 **Organ** (prereq audition) (A-F only)
524026 1535-1625 Th, FergH 213, 2-4 cr
- 1904 **Voice** (prereq audition) (A-F only)
425217 1430-1520 TTh, FergH 180, 2-4 cr
- 1905 **Violin** (prereq audition) (A-F only)
124420 1430-1520 W, FergH 85, 2-4 cr
- 1906 **Viola** (prereq audition) (A-F only)
125177 1430-1520 W, FergH 85, 2-4 cr
- 1907 **Cello** (prereq audition) (A-F only)
830561 1430-1520 W, FergH 85, 2-4 cr
- 1908 **Double Bass** (prereq audition) (A-F only)
123907 1430-1520 W, FergH 85, 2-4 cr
- 1909 **Flute** (prereq audition) (A-F only)
431468 1220-1310 Th, FergH 95, 2-4 cr

- 1911 **Oboe** (prereq audition) (A-F only)
129111 1220-1310 Th, FergH 95, 2-4 cr
- 1912 **Clarinet** (prereq audition) (A-F only)
031353 1220-1310 Th, FergH 95, 2-4 cr
- 1913 **Saxophone** (prereq audition) (A-F only)
928946 1220-1310 Th, FergH 95, 2-4 cr
- 1914 **Bassoon** (prereq audition) (A-F only)
229477 1220-1310 Th, FergH 95, 2-4 cr
- 1915 **French Horn** (prereq audition) (A-F only)
525967 1220-1310 Th, FergH 95, 2-4 cr
- 1916 **Trumpet** (prereq audition) (A-F only)
731573 1220-1310 Th, FergH 95, 2-4 cr
- 1917 **Trombone** (prereq audition) (A-F only)
928672 1220-1310 Th, FergH 95, 2-4 cr
- 1918 **Baritone** (prereq audition) (A-F only)
731668 1220-1310 Th, FergH 95, 2-4 cr
- 1919 **Tuba** (prereq audition) (A-F only)
830897 1220-1310 Th, FergH 95, 2-4 cr
- 1921 **Percussion** (prereq audition) (A-F only)
529629 2-4 cr
- 1922 **Harp** (prereq audition) (A-F only)
125477 2-4 cr
- 1923 **Guitar** (prereq audition) (A-F only)
729483 1325-1415 F, FergH 81, 2-4 cr
- 3101 **Piano, Elective** (prereq 12 cr in corresponding
1xxx course, qualifying exam, Δ)
429137 2 cr
- 3102 **Harpichord, Elective** (prereq 12 cr in
corresponding 1xxx course, qualifying exam, Δ)
923830 2 cr
- 3103 **Organ, Elective** (prereq 12 cr in corresponding
1xxx course, qualifying exam, Δ)
232900 1535-1625 Th, FergH 213, 2 cr
- 3104 **Voice, Elective** (prereq 12 cr in corresponding
1xxx course, qualifying exam, Δ)
130864 2 cr
- 3105 **Violin, Elective** (prereq 12 cr in corresponding
1xxx course, qualifying exam, Δ)
029070 2 cr
- 3106 **Viola, Elective** (prereq 12 cr in corresponding
1xxx course, qualifying exam, Δ)
324321 2 cr
- 3107 **Cello, Elective** (prereq 12 cr in corresponding
1xxx course, qualifying exam, Δ)
024306 2 cr
- 3108 **Double Bass, Elective** (prereq 12 cr in
corresponding 1xxx course, qualifying exam, Δ)
633378 2 cr
- 3109 **Flute, Elective** (prereq 12 cr in corresponding
1xxx course, qualifying exam, Δ)
129089 2 cr
- 3111 **Oboe, Elective** (prereq 12 cr in corresponding
1xxx course, qualifying exam, Δ)
529114 2 cr
- 3112 **Clarinet, Elective** (prereq 12 cr in
corresponding 1xxx course, qualifying exam, Δ)
332645 2 cr
- 3113 **Saxophone, Elective** (prereq 12 cr in
corresponding 1xxx course, qualifying exam, Δ)
132977 2 cr
- 3114 **Bassoon, Elective** (prereq 12 cr in
corresponding 1xxx course, qualifying exam, Δ)
433740 2 cr
- 3115 **French Horn, Elective** (prereq 12 cr in
corresponding 1xxx course, qualifying exam, Δ)
225624 2 cr
- 3116 **Trumpet, Elective** (prereq 12 cr in
corresponding 1xxx course, qualifying exam, Δ)
128038 2 cr
- 3117 **Trombone, Elective** (prereq 12 cr in
corresponding 1xxx course, qualifying exam, Δ)
927179 2 cr
- 3118 **Baritone, Elective** (prereq 12 cr in
corresponding 1xxx course, qualifying exam, Δ)
624809 2 cr
- 3119 **Tuba, Elective** (prereq 12 cr in corresponding
1xxx course, qualifying exam, Δ)
331494 2 cr
- 3121 **Percussion, Elective** (prereq 12 cr in
corresponding 1xxx course, qualifying exam, Δ)
425346 2 cr
- 3122 **Harp, Elective** (prereq 12 cr in corresponding
1xxx course, qualifying exam, Δ)
426092 2 cr
- 3123 **Guitar, Elective** (prereq 12 cr in corresponding
1xxx course, qualifying exam, Δ)
730553 2 cr
- 3201 **Piano, Principal** (prereq 12 cr in corresponding
1xxx course, qualifying exam, Δ)
132081 2-4 cr
- 3202 **Harpichord, Principal** (prereq 12 cr in
corresponding 1xxx course, qualifying exam, Δ)
626740 2-4 cr
- 3203 **Organ, Principal** (prereq 12 cr in
corresponding 1xxx course, qualifying exam, Δ)
625622 1535-1625 Th, FergH 213, 2-4 cr
- 3204 **Voice, Principal** (prereq 12 cr in corresponding
1xxx course, qualifying exam, Δ)
227129 1430-1520 TTh, FergH 180, 2-4 cr (addtl
hrs ar)
- 3205 **Violin, Principal** (prereq 12 cr in corresponding
1xxx course, qualifying exam, Δ)
530182 1430-1520 W, FergH 85, 2-4 cr (addtl hrs
ar)
- 3206 **Viola, Principal** (prereq 12 cr in corresponding
1xxx course, qualifying exam, Δ)
733050 1430-1520 W, FergH 85, 2-4 cr (addtl hrs
ar)
- 3207 **Cello, Principal** (prereq 12 cr in corresponding
1xxx course, qualifying exam, Δ)
132431 1430-1520 W, FergH 85, 2-4 cr (addtl hrs
ar)
- 3208 **Double Bass, Principal** (prereq 12 cr in
corresponding 1xxx course, qualifying exam, Δ)
225719 1430-1520 W, FergH 85, 2-4 cr (addtl hrs
ar)
- 3209 **Flute, Principal** (prereq 12 cr in corresponding
1xxx course, qualifying exam, Δ)
233352 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs
ar)
- 3211 **Oboe, Principal** (prereq 12 cr in corresponding
1xxx course, qualifying exam, Δ)
928980 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs
ar)
- 3212 **Clarinet, Principal** (prereq 12 cr in
corresponding 1xxx course, qualifying exam, Δ)
426688 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs
ar)
- 3213 **Saxophone, Principal** (prereq 12 cr in
corresponding 1xxx course, qualifying exam, Δ)
730407 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs
ar)
- 3214 **Bassoon, Principal** (prereq 12 cr in
corresponding 1xxx course, qualifying exam, Δ)
025844 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs
ar)
- 3215 **French Horn, Principal** (prereq 12 cr in
corresponding 1xxx course, qualifying exam, Δ)
228121 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs
ar)
- 3216 **Trumpet, Principal** (prereq 12 cr in
corresponding 1xxx course, qualifying exam, Δ)
724431 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs
ar)
- 3217 **Trombone, Principal** (prereq 12 cr in
corresponding 1xxx course, qualifying exam, Δ)
630836 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs
ar)
- 3218 **Baritone, Principal** (prereq 12 cr in
corresponding 1xxx course, qualifying exam, Δ)
031045 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs
ar)
- 3219 **Tuba, Principal** (prereq 12 cr in corresponding
1xxx course, qualifying exam, Δ)
329695 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs
ar)
- 3221 **Percussion, Principal** (prereq 12 cr in
corresponding 1xxx course, qualifying exam, Δ)
728558 2-4 cr
- 3222 **Harp, Principal** (prereq 12 cr in corresponding
1xxx course, qualifying exam, Δ)
033796 2-4 cr
- 3223 **Guitar, Principal** (prereq 12 cr in
corresponding 1xxx course, qualifying exam, Δ)
631999 1325-1415 F, FergH 81, 2-4 cr
- 3301 **Piano, Major** (prereq 12 cr in corresponding
1xxx course, qualifying exam, Δ)
332788 2-4 cr
- 3302 **Harpichord, Major** (prereq 12 cr in
corresponding 1xxx course, qualifying exam, Δ)
629587 2-4 cr
- 3303 **Organ, Major** (prereq 12 cr in corresponding
1xxx course, qualifying exam, Δ)
031529 1535-1625 Th, FergH 213, 2-4 cr
- 3304 **Voice, Major** (prereq 12 cr in corresponding
1xxx course, qualifying exam, Δ)
133599 1430-1520 TTh, FergH 180, 2-4 cr (addtl
hrs ar)
- 3305 **Violin, Major** (prereq 12 cr in corresponding
1xxx course, qualifying exam, Δ)
932785 1430-1520 W, FergH 85, 2-4 cr (addtl hrs
ar)
- 3306 **Viola, Major** (prereq 12 cr in corresponding
1xxx course, qualifying exam, Δ)
231813 1430-1520 W, FergH 85, 2-4 cr (addtl hrs
ar)
- 3307 **Cello, Major** (prereq 12 cr in corresponding
1xxx course, qualifying exam, Δ)
523801 1430-1520 W, FergH 85, 2-4 cr (addtl hrs
ar)
- 3308 **Double Bass, Major** (prereq 12 cr in
corresponding 1xxx course, qualifying exam, Δ)
130413 1430-1520 W, FergH 85, 2-4 cr (addtl hrs
ar)
- 3309 **Flute, Major** (prereq 12 cr in corresponding
1xxx course, qualifying exam, Δ)
533390 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs
ar)
- 3311 **Oboe, Major** (prereq 12 cr in corresponding
1xxx course, qualifying exam, Δ)
833413 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs
ar)
- 3312 **Clarinet, Major** (prereq 12 cr in corresponding
1xxx course, qualifying exam, Δ)
333469 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs
ar)
- 3313 **Saxophone, Major** (prereq 12 cr in
corresponding 1xxx course, qualifying exam, Δ)
027027 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs
ar)
- 3314 **Bassoon, Major** (prereq 12 cr in corresponding
1xxx course, qualifying exam, Δ)
033877 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs
ar)
- 3315 **French Horn, Major** (prereq 12 cr in
corresponding 1xxx course, qualifying exam, Δ)
529632 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs
ar)
- 3316 **Trumpet, Major** (prereq 12 cr in corresponding
1xxx course, qualifying exam, Δ)
130542 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs
ar)
- 3317 **Trombone, Major** (prereq 12 cr in
corresponding 1xxx course, qualifying exam, Δ)
125146 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs
ar)
- 3318 **Baritone, Major** (prereq 12 cr in corresponding
1xxx course, qualifying exam, Δ)
125317 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs
ar)
- 3319 **Tuba, Major** (prereq 12 cr in corresponding
1xxx course, qualifying exam, Δ)
431731 1220-1310 Th, FergH 95, 2-4 cr (addtl hrs
ar)
- 3321 **Percussion, Major** (prereq 12 cr in
corresponding 1xxx course, qualifying exam, Δ)
525483 2-4 cr
- 3322 **Harp, Major** (prereq 12 cr in corresponding
1xxx course, qualifying exam, Δ)
030459 2-4 cr
- 3323 **Guitar, Major** (prereq 12 cr in corresponding
1xxx course, qualifying exam, Δ)
333343 1325-1415 F, FergH 81, 2-4 cr
- 3401 **Piano, Secondary Required** (max 12 cr;
prereq mus maj, Δ)
032387 2-4 cr
- 3402 **Harpichord, Secondary Required** (max 12
cr; prereq mus maj, Δ)
927201 2-4 cr

- 3403 **Organ, Secondary Required** (max 12 cr; prereq mus maj, Δ)
027643 1535-1625 Th, FergH 213, 2-4 cr
- 3404 **Voice, Secondary Required** (max 12 cr; prereq mus maj, Δ)
824789 2-4 cr
- 3405 **Violin, Secondary Required** (max 12 cr; prereq mus maj, Δ)
127228 2-4 cr
- 3406 **Viola, Secondary Required** (max 12 cr; prereq mus maj, Δ)
732366 2-4 cr
- 3407 **Cello, Secondary Required** (max 12 cr; prereq mus maj, Δ)
824274 2-4 cr
- 3408 **Double Bass, Secondary Required** (max 12 cr; prereq mus maj, Δ)
229138 2-4 cr
- 3409 **Flute, Secondary Required** (max 12 cr; prereq mus maj, Δ)
127205 2-4 cr
- 3411 **Oboe, Secondary Required** (max 12 cr; prereq mus maj, Δ)
531042 2-4 cr
- 3412 **Clarinet, Secondary Required** (max 12 cr; prereq mus maj, Δ)
525290 2-4 cr
- 3413 **Saxophone, Secondary Required** (max 12 cr; prereq mus maj, Δ)
727233 2-4 cr
- 3414 **Bassoon, Secondary Required** (max 12 cr; prereq mus maj, Δ)
230886 2-4 cr
- 3415 **French Horn, Secondary Required** (max 12 cr; prereq mus maj, Δ)
533373 2-4 cr
- 3416 **Trumpet, Secondary Required** (max 12 cr; prereq mus maj, Δ)
527329 2-4 cr
- 3417 **Trombone, Secondary Required** (max 12 cr; prereq mus maj, Δ)
930485 2-4 cr
- 3418 **Baritone, Secondary Required** (max 12 cr; prereq mus maj, Δ)
028579 2-4 cr
- 3419 **Tuba, Secondary Required** (max 12 cr; prereq mus maj, Δ)
823786 2-4 cr
- 3421 **Percussion, Secondary Required** (max 12 cr; prereq mus maj, Δ)
632473 2-4 cr
- 3422 **Harp, Secondary Required** (max 12 cr; prereq mus maj, Δ)
933919 2-4 cr
- 3423 **Guitar, Secondary Required** (max 12 cr; prereq mus maj, Δ)
933032 2-4 cr
- 3501 **Piano, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
024404 2-4 cr
- 3502 **Harpichord, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
124927 2-4 cr
- 3503 **Organ, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
828678 1535-1625 Th, FergH 213, 2-4 cr
- 3504 **Voice, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
531641 2-4 cr
- 3505 **Violin, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
031496 2-4 cr
- 3506 **Viola, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
925738 2-4 cr
- 3507 **Cello, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
629962 2-4 cr
- 3508 **Double Bass, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
125625 2-4 cr
- 3509 **Flute, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
125690 2-4 cr
- 3511 **Oboe, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
928249 2-4 cr
- 3512 **Clarinet, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
431874 2-4 cr
- 3513 **Saxophone, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
027559 2-4 cr
- 3514 **Bassoon, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
030638 2-4 cr
- 3515 **French Horn, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
527766 2-4 cr
- 3516 **Trumpet, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
429994 2-4 cr
- 3517 **Trombone, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
027898 2-4 cr
- 3518 **Baritone, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
632604 2-4 cr
- 3519 **Tuba, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
924041 2-4 cr
- 3521 **Percussion, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
131738 2-4 cr
- 3522 **Harp, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
730858 2-4 cr
- 3523 **Guitar, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
925352 2-4 cr
- 3601 **Piano, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
832472 2-4 cr
- 3602 **Harpichord, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
526908 2-4 cr
- 3603 **Organ, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
424990 1535-1625 Th, FergH 213, 2-4 cr
- 3604 **Voice, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
824940 1430-1520 TTh, FergH 180, 2-4 cr
- 3605 **Violin, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
129464 1430-1520 W, FergH 85, 2-4 cr
- 3606 **Viola, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
230113 1430-1520 W, FergH 85, 2-4 cr
- 3607 **Cello, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
026038 1430-1520 W, FergH 85, 2-4 cr
- 3608 **Double Bass, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
733601 1430-1520 W, FergH 85, 2-4 cr
- 3609 **Flute, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
024158 1220-1310 Th, FergH 95, 2-4 cr
- 3611 **Oboe, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
027805 1220-1310 Th, FergH 95, 2-4 cr
- 3612 **Clarinet, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
827790 1220-1310 Th, FergH 95, 2-4 cr
- 3613 **Saxophone, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
925464 1220-1310 Th, FergH 95, 2-4 cr
- 3614 **Bassoon, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
224120 1220-1310 Th, FergH 95, 2-4 cr
- 3615 **French Horn, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
032678 1220-1310 Th, FergH 95, 2-4 cr
- 3616 **Trumpet, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
025570 1220-1310 Th, FergH 95, 2-4 cr
- 3617 **Trombone, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
632800 1220-1310 Th, FergH 95, 2-4 cr
- 3618 **Baritone, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
328515 1220-1310 Th, FergH 95, 2-4 cr
- 3619 **Tuba, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
624373 1220-1310 Th, FergH 95, 2-4 cr
- 3621 **Percussion, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
929689 2-4 cr
- 3622 **Harp, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
833458 2-4 cr
- 3623 **Guitar, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
725224 1325-1415 F, FergH 81, 2-4 cr
- 3701 **Piano, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
129746 2-4 cr
- 3702 **Harpichord, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
530974 2-4 cr
- 3703 **Organ, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
532644 1535-1625 Th, FergH 213, 2-4 cr
- 3704 **Voice, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
530988 1430-1520 TTh, FergH 180, 2-4 cr
- 3705 **Violin, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
624339 1430-1520 W, FergH 85, 2-4 cr
- 3706 **Viola, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
928123 1430-1520 W, FergH 85, 2-4 cr
- 3707 **Cello, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
029702 1430-1520 W, FergH 85, 2-4 cr
- 3708 **Double Bass, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
824016 1430-1520 W, FergH 85, 2-4 cr
- 3709 **Flute, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
833671 1220-1310 Th, FergH 95, 2-4 cr
- 3711 **Oboe, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
024354 1220-1310 Th, FergH 95, 2-4 cr
- 3712 **Clarinet, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
325047 1220-1310 Th, FergH 95, 2-4 cr
- 3713 **Saxophone, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
323928 1220-1310 Th, FergH 95, 2-4 cr
- 3714 **Bassoon, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
032745 1220-1310 Th, FergH 95, 2-4 cr
- 3715 **French Horn, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
532773 1220-1310 Th, FergH 95, 2-4 cr
- 3716 **Trumpet, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
125132 1220-1310 Th, FergH 95, 2-4 cr
- 3717 **Trombone, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
924184 1220-1310 Th, FergH 95, 2-4 cr
- 3718 **Baritone, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
124286 1220-1310 Th, FergH 95, 2-4 cr
- 3719 **Tuba, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
326845 1220-1310 Th, FergH 95, 2-4 cr
- 3721 **Percussion, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
324433 2-4 cr
- 3722 **Harp, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
233366 2-4 cr

- 3723 Guitar, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
430434 1325-1415 F, FergH 81, 2-4 cr
- 3801 Piano, Minor** (prereq audition, Δ)
328823 2-4 cr
- 3802 Harpsichord, Minor** (prereq audition, Δ)
831001 2-4 cr
- 3803 Organ, Minor** (prereq audition, Δ)
233903 1535-1625 Th, FergH 213, 2-4 cr
- 3804 Voice, Minor** (prereq audition, Δ)
033507 2-4 cr
- 3805 Violin, Minor** (prereq audition, Δ)
732884 2-4 cr
- 3806 Viola, Minor** (prereq audition, Δ)
331110 2-4 cr
- 3807 Cello, Minor** (prereq audition, Δ)
329115 2-4 cr
- 3808 Double Bass, Minor** (prereq audition, Δ)
633901 2-4 cr
- 3809 Flute, Minor** (prereq audition, Δ)
229530 1220-1310 Th, FergH 95, 2-4 cr
- 3811 Oboe, Minor** (prereq audition, Δ)
729757 1220-1310 Th, FergH 95, 2-4 cr
- 3812 Clarinet, Minor** (prereq audition, Δ)
326764 1220-1310 Th, FergH 95, 2-4 cr
- 3813 Saxophone, Minor** (prereq audition, Δ)
127701 1220-1310 Th, FergH 95, 2-4 cr
- 3814 Bassoon, Minor** (prereq audition, Δ)
028162 1220-1310 Th, FergH 95, 2-4 cr
- 3815 French Horn, Minor** (prereq audition, Δ)
933757 1220-1310 Th, FergH 95, 2-4 cr
- 3816 Trumpet, Minor** (prereq audition, Δ)
333613 1220-1310 Th, FergH 95, 2-4 cr
- 3817 Trombone, Minor** (prereq audition, Δ)
224330 1220-1310 Th, FergH 95, 2-4 cr
- 3818 Baritone, Minor** (prereq audition, Δ)
933547 1220-1310 Th, FergH 95, 2-4 cr
- 3819 Tuba, Minor** (prereq audition, Δ)
631517 1220-1310 Th, FergH 95, 2-4 cr
- 3821 Percussion, Minor** (prereq audition, Δ)
328045 2-4 cr
- 3822 Harp, Minor** (prereq audition, Δ)
533499 2-4 cr
- 3823 Guitar, Minor** (prereq audition, Δ)
231374 1325-1415 F, FergH 81, 2-4 cr
- 5101 Piano** (prereq audition, Δ)
623868 2 cr
- 5102 Harpsichord** (prereq audition, Δ)
124023 2 cr
- 5103 Organ** (prereq audition, Δ)
530795 1535-1625 Th, FergH 213, 2 cr
- 5104 Voice** (prereq audition, Δ)
431826 2 cr
- 5105 Violin** (prereq audition, Δ)
729905 2 cr
- 5106 Viola** (prereq audition, Δ)
227793 2 cr
- 5107 Cello** (prereq audition, Δ)
126631 2 cr
- 5108 Double Bass** (prereq audition, Δ)
724204 2 cr
- 5109 Flute** (prereq audition, Δ)
728866 2 cr
- 5111 Oboe** (prereq audition, Δ)
830432 2 cr
- 5112 Clarinet** (prereq audition, Δ)
924959 2 cr
- 5113 Saxophone** (prereq audition, Δ)
232721 2 cr
- 5114 Bassoon** (prereq audition, Δ)
228952 2 cr
- 5115 French Horn** (prereq audition, Δ)
731606 2 cr
- 5116 Trumpet** (prereq audition, Δ)
829202 2 cr
- 5117 Trombone** (prereq audition, Δ)
129951 2 cr
- 5118 Baritone Horn** (prereq audition, Δ)
832083 2 cr
- 5119 Tuba** (prereq audition, Δ)
433933 2 cr
- 5121 Percussion** (prereq audition, Δ)
425881 2 cr
- 5122 Harp** (prereq audition, Δ)
725210 2 cr
- 5123 Guitar** (prereq audition, Δ)
733369 2 cr
- 8201 Piano, Principal** (prereq audition, Δ)
924086 2-4 cr
- 8202 Harpsichord, Principal** (prereq audition, Δ)
128659 2-4 cr
- 8203 Organ, Principal** (prereq audition, Δ)
526701 1535-1625 Th, FergH 213, 2-4 cr
- 8204 Voice, Principal** (prereq audition, Δ)
329972 1430-1520 TTh, FergH 180, 2-4 cr (addtl hrs ar)
- 8205 Violin, Principal** (prereq audition, Δ)
831676 1430-1520 W, FergH 85, 2-4 cr (addtl hrs ar)
- 8206 Viola, Principal** (prereq audition, Δ)
925951 1430-1520 W, FergH 85, 2-4 cr (addtl hrs ar)
- 8207 Cello, Principal** (prereq audition, Δ)
225347 1430-1520 W, FergH 85, 2-4 cr (addtl hrs ar)
- 8208 Double Bass, Principal** (prereq audition, Δ)
930518 1430-1520 W, FergH 85, 2-4 cr (addtl hrs ar)
- 8209 Flute, Principal** (prereq audition, Δ)
333505 2-4 cr
- 8211 Oboe, Principal** (prereq audition, Δ)
329065 2-4 cr
- 8212 Clarinet, Principal** (prereq audition, Δ)
132792 2-4 cr
- 8213 Saxophone, Principal** (prereq audition, Δ)
132565 2-4 cr
- 8214 Bassoon, Principal** (prereq audition, Δ)
228538 2-4 cr
- 8215 French Horn, Principal** (prereq audition, Δ)
330832 2-4 cr
- 8216 Trumpet, Principal** (prereq audition, Δ)
826106 2-4 cr
- 8217 Trombone, Principal** (prereq audition, Δ)
128712 2-4 cr
- 8218 Baritone, Principal** (prereq audition, Δ)
625538 2-4 cr
- 8219 Tuba, Principal** (prereq audition, Δ)
428960 2-4 cr
- 8221 Percussion, Principal** (prereq audition, Δ)
527007 2-4 cr
- 8222 Harp, Principal** (prereq audition, Δ)
730794 2-4 cr
- 8223 Guitar, Principal** (prereq audition, Δ)
725000 1325-1415 F, FergH 81, 2-4 cr
- 8301 Piano, Major** (prereq audition, Δ)
532871 2-4 cr
- 8302 Harpsichord, Major** (prereq audition, Δ)
126757 2-4 cr
- 8303 Organ, Major** (prereq audition, Δ)
731038 1535-1625 Th, FergH 213, 2-4 cr
- 8304 Voice, Major** (prereq audition, Δ)
130816 1430-1520 TTh, FergH 180, 2-4 cr (addtl hrs ar)
- 8305 Violin, Major** (prereq audition, Δ)
829815 1430-1520 W, FergH 85, 2-4 cr (addtl hrs ar)
- 8306 Viola, Major** (prereq audition, Δ)
126628 1430-1520 W, FergH 85, 2-4 cr (addtl hrs ar)
- 8307 Cello, Major** (prereq audition, Δ)
233481 1430-1520 W, FergH 85, 2-4 cr (addtl hrs ar)
- 8308 Double Bass, Major** (prereq audition, Δ)
529470 1430-1520 W, FergH 85, 2-4 cr (addtl hrs ar)
- 8309 Flute, Major** (prereq audition, Δ)
726759 2-4 cr
- 8311 Oboe, Major** (prereq audition, Δ)
625362 2-4 cr
- 8312 Clarinet, Major** (prereq audition, Δ)
832584 2-4 cr
- 8313 Saxophone, Major** (prereq audition, Δ)
128749 2-4 cr
- 8314 Bassoon, Major** (prereq audition, Δ)
832343 2-4 cr
- 8315 French Horn, Major** (prereq audition, Δ)
525208 2-4 cr
- 8316 Trumpet, Major** (prereq audition, Δ)
531901 2-4 cr
- 8317 Trombone, Major** (prereq audition, Δ)
625605 2-4 cr
- 8318 Baritone, Major** (prereq audition, Δ)
533857 2-4 cr
- 8319 Tuba, Major** (prereq audition, Δ)
623983 2-4 cr
- 8321 Percussion, Major** (prereq audition, Δ)
932513 2-4 cr
- 8322 Harp, Major** (prereq audition, Δ)
032826 2-4 cr
- 8323 Guitar, Major** (prereq audition, Δ)
124779 1325-1415 F, FergH 81, 2-4 cr
- 8401 Piano, Secondary Required** (max 12 cr; prereq mus maj, Δ)
929904 2-4 cr
- 8402 Harpsichord, Secondary Required** (max 12 cr; prereq mus maj, Δ)
230788 2-4 cr
- 8403 Organ, Secondary Required** (max 12 cr; prereq mus maj, Δ)
633364 1535-1625 Th, FergH 213, 2-4 cr
- 8404 Voice, Secondary Required** (max 12 cr; prereq mus maj, Δ)
231357 2-4 cr
- 8405 Violin, Secondary Required** (max 12 cr; prereq mus maj, Δ)
227339 2-4 cr
- 8406 Viola, Secondary Required** (max 12 cr; prereq mus maj, Δ)
132520 2-4 cr
- 8407 Cello, Secondary Required** (max 12 cr; prereq mus maj, Δ)
526150 2-4 cr
- 8408 Double Bass, Secondary Required** (max 12 cr; prereq mus maj, Δ)
926825 2-4 cr
- 8409 Flute, Secondary Required** (max 12 cr; prereq mus maj, Δ)
429235 2-4 cr
- 8411 Oboe, Secondary Required** (max 12 cr; prereq mus maj, Δ)
924069 2-4 cr
- 8412 Clarinet, Secondary Required** (max 12 cr; prereq mus maj, Δ)
827904 2-4 cr
- 8413 Saxophone, Secondary Required** (max 12 cr; prereq mus maj, Δ)
126654 2-4 cr
- 8414 Bassoon, Secondary Required** (max 12 cr; prereq mus maj, Δ)
526696 2-4 cr
- 8415 French Horn, Secondary Required** (max 12 cr; prereq mus maj, Δ)
133322 2-4 cr
- 8416 Trumpet, Secondary Required** (max 12 cr; prereq mus maj, Δ)
925559 2-4 cr
- 8417 Trombone, Secondary Required** (max 12 cr; prereq mus maj, Δ)
430725 2-4 cr
- 8418 Baritone, Secondary Required** (max 12 cr; prereq mus maj, Δ)
028596 2-4 cr
- 8419 Tuba, Secondary Required** (max 12 cr; prereq mus maj, Δ)
632070 2-4 cr

- 8421 Percussion, Secondary Required** (max 12 cr; prereq mus maj, Δ)
133389 2-4 cr
- 8422 Harp, Secondary Required** (max 12 cr; prereq mus maj, Δ)
033667 2-4 cr
- 8423 Guitar, Secondary Required** (max 12 cr; prereq mus maj, Δ)
229611 2-4 cr
- 8501 Piano, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
425475 2-4 cr
- 8502 Harpsichord, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
229558 2-4 cr
- 8503 Organ, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
131108 1535-1625 Th, FergH 213, 2-4 cr
- 8504 Voice, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
229219 2-4 cr
- 8505 Violin, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
029974 2-4 cr
- 8506 Viola, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
331589 2-4 cr
- 8507 Cello, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
330121 2-4 cr
- 8508 Double Bass, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
224781 2-4 cr
- 8509 Flute, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
129715 2-4 cr
- 8511 Oboe, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
931748 2-4 cr
- 8512 Clarinet, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
733680 2-4 cr
- 8513 Saxophone, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
824064 2-4 cr
- 8514 Bassoon, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
924461 2-4 cr
- 8515 French Horn, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
130484 2-4 cr
- 8516 Trumpet, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
827336 2-4 cr
- 8517 Trombone, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
031000 2-4 cr
- 8518 Baritone, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
129772 2-4 cr
- 8519 Tuba, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
027058 2-4 cr
- 8521 Percussion, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
225610 2-4 cr
- 8522 Harp, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
332662 2-4 cr
- 8523 Guitar, Secondary Elective** (max 12 cr; prereq mus maj, Δ)
127682 2-4 cr
- 8601 Piano, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
432720 2-4 cr
- 8602 Harpsichord, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
828129 2-4 cr
- 8603 Organ, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
025830 1535-1625 Th, FergH 213, 2-4 cr
- 8604 Voice, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
424438 1430-1520 TTh, FergH 180, 2-4 cr
- 8605 Violin, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
524270 2-4 cr
- 8606 Viola, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
027089 2-4 cr
- 8607 Cello, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
229754 2-4 cr
- 8608 Double Bass, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
228281 2-4 cr
- 8609 Flute, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
324853 2-4 cr
- 8611 Oboe, Principle Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
024807 2-4 cr
- 8612 Clarinet, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
431504 2-4 cr
- 8613 Saxophone, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
525810 2-4 cr
- 8614 Bassoon, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
128234 2-4 cr
- 8615 French Horn, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
132078 2-4 cr
- 8616 Trumpet, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
824971 2-4 cr
- 8617 Trombone, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
627953 2-4 cr
- 8618 Baritone, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
428523 2-4 cr
- 8619 Tuba, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
433656 2-4 cr
- 8621 Percussion, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
732819 2-4 cr
- 8622 Harp, Principle Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
931877 2-4 cr
- 8623 Guitar, Principal Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
824887 2-4 cr
- 8701 Piano, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
726650 2-4 cr
- 8702 Harpsichord, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
825974 2-4 cr
- 8703 Organ, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
325937 1535-1625 Th, FergH 213, 2-4 cr
- 8704 Voice, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
128810 1430-1520 TTh, FergH 180, 2-4 cr
- 8705 Violin, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
127018 2-4 cr
- 8706 Viola, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
032003 2-4 cr
- 8707 Cello, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
025939 2-4 cr
- 8708 Double Bass, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
327848 2-4 cr
- 8709 Flute, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
629735 2-4 cr
- 8711 Oboe, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
533695 2-4 cr
- 8712 Clarinet, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
425220 2-4 cr
- 8713 Saxophone, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
132607 2-4 cr
- 8714 Bassoon, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
533843 2-4 cr
- 8715 French Horn, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
029053 2-4 cr
- 8716 Trumpet, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
133899 2-4 cr
- 8717 Trombone, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
432605 2-4 cr
- 8718 Baritone, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
230693 2-4 cr
- 8719 Tuba, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
226823 2-4 cr
- 8721 Percussion, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
833301 2-4 cr
- 8722 Harp, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
023866 2-4 cr
- 8723 Guitar, Major Beyond Requirement** (max 12 cr; prereq mus maj, Δ)
933337 2-4 cr

MUSIC EDUCATION (MuEd) Liberal Arts

- 1201 Introduction to Music Education (A-F only)**
431518 1115-1205 M, FergH 107, Borg, 1 cr
- 1801 Introduction to Music Therapy (A-F only)**
228118 1010-1100 F, FergH 151, Furman, 1 cr
- r3011 Teaching Music in the Elementary School** (prereq Mus 1001, elementary educ maj) (A-F only)
833007 -1 0905-0955 MWF, FergH 107, Borg, 4 cr
430658 -2 1220-1310 MWF, FergH 107, 4 cr
- 3302 Teaching Vocal and General Music Grades 5-12** (prereq music education maj or #) (A-F only)
827014 1010-1100 MTWTh, FergH 107, McCoy, 4 cr
- 3331 Practicum: Music Education** (prereq music education maj or #) (A-F only)
625961 0800-0955 T, FergH 107, Borg, 2 cr
- 3416 Choral Laboratory II** (prereq music educ maj) (A-F only)
747398 1325-1520 MWF, FergH 107, McCoy, 4 cr
- r3505 Percussion Techniques** (prereq music education maj) (A-F only)
632568 0800-0850 MTWTh, FergH 7A, Dahlgren, 4 cr
- 3650 Student Teaching in Music** (prereq #) (A-F only)
129519 -1 1430-1625 M, FergH 157, Schultz, 3-12 cr
124157 -2 1615-1800 W, FergH 157, Borg, McCoy, 3-12 cr
- 3802 Psychology of Music II** (prereq 3801) (A-F only)
926176 1010-1100 MTWTh, FergH 157, Haack, 4 cr
- 3806 Music Therapy Techniques III** (3805-3806+; prereq 3805) (A-F only)
225025 1115-1310 T, 1115-1205 Th, FergH 151, Furman, 3 cr

- 83850 Field Experiences: Music Therapy** (max 10 cr; prereq 3800, 3804) (S-N only)
230760 -1 1220-1310 Th, FergH 151, Furman, 1-2 cr
927652 -2 1220-1310 Th, FergH 144, Furman, 1-2 cr
930700 -3 1325-1415 Th, FergH 151, Furman, 1-2 cr
133725 -4 1325-1415 Th, FergH 144, Furman, 1-2 cr
- 3851 Internship: Music Therapy** (3851-3852; prereq #) (S-N only)
333794 Furman, 6 cr
- 3852 Internship: Music Therapy** (3851-3852; prereq #) (S-N only)
431633 Furman, 6 cr
- 5611 Techniques and Materials: Music and Related Arts** (prereq #) (A-F only)
943348 1630-1830 Th, FergH 107, Haack, 3 cr
- 8566 Microcomputers in the Music Classroom** (A-F only)
427145 0905-0955 MTW, FergH 113, Schultz, 3 cr
- 5970 Independent Study** (prereq music educ/therapy or grad stu, #, Δ)
032860 1-4 cr
- 8283 Music Education Seminar: Psychological Issues** (prereq 8282)
228135 1615-1845 T, FergH 151, Furman, 3 cr
- 8990 Research Problems** (prereq knowledge of elementary statistics)
825151 1-12 cr

NATURAL RESOURCES AND ENVIRONMENTAL STUDIES (NRES)

Agriculture & Nat Res

- 81010 Issues in the Environment** (A-F only)
231200 0935-1025 MWF, BorH 335, 3 cr
- 83001 Colloquium in Natural Resources and Environmental Studies** (max 4 cr) (A-F only)
628973 1355-1445 M, KaufL 302, 1 cr
- 3050 Experience and Training in a Field Setting** (prereq #) (A-F only)
329308 Underwood, Splett, 1-4 cr
- 3060 Water Quality in Natural Resource Management** (§5060)
146281 0830-0920 MWF, GrnH 19, Perry, 3 cr
- 3225 Directed Study Experience** (prereq fr or soph)
842810 1-5 cr
- 5060 Water Quality in Natural Resource Management** (§3060)
946282 0830-0920 MWF, GrnH 19, Perry, 3 cr
- 5225 Directed Study Experience** (prereq jr or sr or grad stu)
642811 1-5 cr

NAVAL SCIENCE (Nav)

- 80204 Professional Training in Naval Science** (S-N only)
025195 0700-0900 W, Armory 116A, Hatcher, 0 cr
- 83303 Advanced Naval Operations** (prereq 3302 or #) (A-F only)
832729 -1 1220-1415 TTh, Armory 12A, Rishia, 3 cr
726289 -2 1220-1415 WF, Armory 12A, Rishia, 3 cr
- 83403 Principles of Naval Management III** (prereq 3402) (A-F only)
126166 -1 0905-0955 TTh, Armory 205, Lennon, 2 cr
732089 -2 1115-1205 TTh, Armory 205, Lennon, 2 cr

NEUROLOGY (Neur) Medical School

- 5120 Selected Problems in Neurology** (prereq regis med)
924248 Price, ar cr
- 5122 Pediatric Neurology: Health Care Psychology Interns** (prereq #)
433673 Shapiro, ar cr

- 5125 Neuroimmunology Research** (S-N only)
526651 Birnbaum, ar cr
- 5510 Externship in Clinical Neurology** (prereq regis med)
528822 Price, ar cr
- 5541 Pediatric Neurology: Neurochemistry** (prereq regis med)
628584 Swaiman, ar cr
- 5542 Pediatric Neurology** (prereq regis med)
727829 Swaiman, ar cr
- 5544 Clinical Electroencephalography** (prereq regis med)
233688 Torres, ar cr
- 5545 Electromyography** (prereq regis med)
825540 Kennedy, ar cr
- 5599 Subinternship in Clinical Neurology** (prereq 5510, Course Director recommendation, med stu) (S-N only)
147446 Davenport, ar cr
- 8200 Clinical Neurology**
425878 Price, ar cr
- 8201 Clinical Pediatric Neurology**
327896 Swaiman, ar cr
- 8202 Research in Neurology**
833346 Price, ar cr
- 8203 Applied Electroencephalography**
529601 Torres, ar cr
- 8204 Applied Electromyography**
127009 Kennedy, Sung, ar cr
- 8205 Applied Neuropathology**
526889 ar cr
- 8221 Neurochemical Aspects of Selected Clinical Disorders**
133179 Price, 2 cr
- 8233 Neurological Clinical Pathological Conference**
433527 Price, 1 cr
- 8234 Neuropsychology Conference**
125289 Meier, Sung, 1 cr
- 8236 Research in Neuropathology**
631792 Sung, ar cr
- 88704 Survey of Neuropathology** (§Path 8702)
124207 Sung, 1 cr
- 8705 Neurological-Neurosurgical Conference** (§Surg 8318, Rad 0124)
429526 1 cr
- 8777 Thesis Credits: Masters**
427064 -1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
833573 1-36 cr

NEUROSCIENCE (NSc)

- 5203 Computational Neuroscience III: Neural Systems and Information Processing** (§Phl 5203; prereq 5202 or equiv)
947478 1430-1600 MW, MirdH 5276, Soechting, 5 cr
- 5444 Muscle Contraction** (§MdBc 5444, Phsl 5444, VB 5444; prereq undergrad courses in biochem or physiology or #)
325801 1515-1645 TTh, MoosT 2585, Thomas, Donaldson, others, 3 cr
- 5660 Behavioral Neuroscience** (prereq NSc maj or min or #)
828289 Chapman, 4 cr
- 8207 Seminar: Psychopharmacology** (max 3 cr, §Phl 8207; prereq #)
632943 Sparber, 1 cr
- 8216 Selected Topics: Neurophysiology** (§Phl 8216; prereq CBN 5111, Phsl 5112 or equiv, or #)
632876 -1 Poppele, Soechting, ar cr
631291 -2 Miller, ar cr
- 8248 Readings in Auditory Physiology** (§Otol 8248; prereq #)
646857 Ruggero, 1-3 cr
- 8324 Readings in Neurobiology** (§NSu 8324; prereq Phsl 8104 or #)
430479 Ebner, 1 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
428568 1-36 cr

NEUROSURGERY (NSu) Medical School

- 5500 Externship at the University Hospitals** (prereq regis med)
325212 Heros, others, 4.5-9 cr
- 5510 Externship at Veterans Hospital** (prereq regis med)
629475 Maxwell, Cox, 4.5-9 cr
- 5511 Externship at Hennepin County Medical Center** (prereq regis med)
225848 Rockswold, 4.5-9 cr
- 5512 Externship at St. Paul Ramsey Hospital** (prereq regis med)
831015 Amaral, 4.5-9 cr
- 5520 Neurosurgical Investigation** (prereq regis med)
732433 Ebner, Low, ar cr
- 5530 Neuropsychology**
529615 Meier, 3 cr
- 5531 Advanced Neuropsychological Seminar** (prereq psych fellow specialist or #)
624857 Meier, 2 cr
- 5532 Clerkship in Neuropsychological Assessment** (prereq psych fellow specialist or #)
429803 Meier, 1-4 cr
- 5533 Case Conference in Neuropsychology** (prereq psych fellow specialist or #) (S-N only)
429848 Meier, 1 cr
- 5534 Introduction to Neuropsychological Assessment** (prereq psych fellow specialist or #) (S-N only)
131786 Meier, 3 cr
- 5535 Case Conference in Clinical Psychology** (prereq psych fellow specialist)
532059 Meier, 1-2 cr
- 5536 Seminar in Clinical Psychology** (prereq psych fellow specialist)
825179 Meier, 1-2 cr
- 5537 Psychology Internship** (prereq psych fellow specialist)
629749 Meier, 4-8 cr
- 5550 Neurophysiological Literature Seminar** (prereq medical school course in physiology, #)
829961 Meier, 1 cr
- 8305 Neurosurgical Diagnosis**
527220 Heros, others, 4 cr
- 8308 Neurosurgical Problems and Management**
530859 Heros, others, 4 cr
- 8311 Operative Neurosurgery**
430076 Heros, others, 4 cr
- 8316 Neurosurgical Research**
929496 Ebner, 6 cr
- 8318 Neuroanatomical Conference**
126040 1630-1730 F, Mayo C231, Heros, others, 1 cr (Todd Amph)
- 8320 Neurosurgical Conference**
129780 0800-1100 S, Mayo B507, Heros, Ebner, others, 2 cr
- 8324 Readings in Neurobiology** (§NSc 8324; prereq 8104, consent of Medical School)
325971 Ebner, ar cr
- 8330 Neurosurgery Literature Seminar**
633588 2000-2200 Th, Mayo B507, Heros, others, 2 cr
- 8777 Thesis Credits: Masters**
727460 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
126393 1-36 cr

NORWEGIAN (Nor) Scandinavian Studies Liberal Arts

- 81103 Beginning Norwegian** (prereq 1102)
427260 -1 0800-0850 MTWThF, FolH 50, 5 cr
931085 -2 1115-1205 MTWThF, Arch 15, 5 cr

- r1106 Intermediate Norwegian** (prereq 1105 or equiv)
628780 -1 0905-0955 MTWThF, KoltH S132, Homstad, 5 cr
632215 -2 1010-1100 MTWThF, KoltH S132, Simpson, 5 cr
- r3670 Readings in Norwegian Literary Texts** (max 28 cr; prereq 1106 or equiv)
526763 0905-0955 MWF, FolH 218, Mishler, 4 cr

NURSING, SCHOOL OF (Nurs)

- 5140 Restoration and Enhancement of Health in the Acutely Ill Across the Life Span** (prereq 5040, 5041, 5042 or 15042)
528898 1220-1415 TF, OwreH 2230, Pederson, Weisensee, 4 cr
- 5141 Practicum: Ill Children/Aged** (prereq 15140)
★LAB 0800-1205 T, HSUnitF 4120
433785 -1 CLN 8 cr (WTh, 8 hrs ar per day)
★LAB 0800-1205 F, HSUnitF 4120
631761 -2 CLN 8 cr (WTh, 8 hrs ar per day)
- r5142 Advanced Interpersonal Communications** (prereq 5042, admission to the School of Nursing or #)
326862 -1 0800-1205 T, HSUnitF 2110, 2 cr
226787 -2 0800-1205 T, HSUnitF 2140, 2 cr
226191 -3 0800-1205 F, HSUnitF 2110, 2 cr
524379 -4 0800-1205 F, HSUnitF 2140, 2 cr
- 5216 Expansion of the Clinical Role of the RN** (prereq 5214, 5215, RN)
432233 1640-1835 T, 3-5 cr
- r5420 Applied Clinical Research** (prereq 5440)
031238 1325-1625 Th, MoosT 2580, Bull, 3 cr
- 5420H Applied Clinical Research I** (prereq nurs honors stu, □)
029344 1430-1625 T, Brand, Duckett, 1 cr
- 5441 Practicum: Families with Children** (prereq 15440, 15445)
★REC 0800-0955 M, HSUnitF 2110, 2140
526391 -1 CLN 5 cr
- 5443 Practicum: Individuals/Groups/Populations** (prereq 15440, 15445)
★REC 0800-0955 M, HSUnitF 2120, 2130
833153 -1 CLN 5 cr
- r5460 Leadership/Followership/Management** (prereq 5440)
030333 1220-1415 TTh, HSUnitF 2120, 2130, Krichbaum, 4 cr (addtl 3 hrs per week ar)
- 5462 Professional Issues** (prereq 5440)
032194 1430-1625 T, PWB 2470, Fahy, 2 cr
- 5480 Special Topics** (prereq admission to School of Nursing or #) (S-N only)
830298 1220-1310 Th, HSUnitF 2110, 2140, 1-2 cr
- 5482H Senior Honors Seminar** (prereq sr nursing honors stu, Δ)
424682 1010-1205 T, HSUnitF, 1 cr
- 5609 Special Educational Experiences in Nursing** (prereq Δ)
046225 1-6 cr
- 5620 Independent Study in Nursing Topics** (prereq #)
742816 -1 1640-1835 T, HSUnitF, Ryden, 3 cr
846226 -2 1-9 cr
- r5640 Common Response Patterns to Illness** (prereq #)
232234 1640-1835 T, Snyder, 3 cr (addtl hr ar per week)
- r5650 Therapeutic Touch: Practice and Research** (prereq nurs stu or grad nurs stu or #)
646227 1640-1835 Th, HSUnitF, Sodergren, Egan, 2 cr
- r5711 Spirituality - Part of the Whole Person** (prereq any two of the following: 5611, 5612, 5613, 5614)
628407 1640-1835 W, Gustafson, 2-3 cr
- 5799 Self-Directed Study as a Means of Accomplishing Nursing Electives** (prereq #)
731427 ar cr
- r5941 Care of the Elderly I: Physiological Concepts** (prereq #)
546222 1640-1835 W, HSUnitF, Snyder, 2 cr
- r5942 Nursing Care of the Elderly I** (prereq grad nurs stu, assessment of the elderly course)
346223 4 cr

- r5945 Nursing Care of the Elderly: Assessment and Management** (prereq 5940, grad nurs stu)
146224 1325-1625 W, HSUnitF, Burns, 4 cr
- 8001 Special Educational Experiences in Nursing** (prereq Δ)
023818 ar cr
- 8009 Special Topics** (prereq #)
533955 1640-1835 T, HSUnitF, Ryden, 3 cr
- r8010 Structure of the Discipline of Nursing**
427047 1220-1520 T, Egan, 3 cr
- r8011 Moral and Ethical Positions in Nursing** (prereq grad nurs stu or #)
630299 1640-1940 W, Corcoran-Perry, 3 cr
- r8014 Research in Nursing** (prereq inferential statistics)
133658 1640-1940 T, HSUnitF, DeHart, 3 cr
- 8022 Clinical Investigation in Community Health Nursing in Long-Term Care** (prereq 18011, 18021, 15330, #)
542817 1640-1835 Th, HSUnitF, Bull, 6 cr
- r8030 Nursing Intervention Models** (8 cr must be completed before any cr is given; prereq 8011, 8012 or 18011, #)
629931 -1 LECT 0905-1310 W, HSUnitF, Lindquist, 8 cr (cln ar) (Med-Surg)
★REC (cln conf ar)
428439 -2 LECT 0905-1100 Th, Tomlinson, 4 cr (cln ar) (CCFN) (8 cr must be completed before any credit granted)
★REC
- r8050 Problems in Nursing** (prereq #) (S-N only)
631095 -1 Alaniz, 1-9 cr
029487 -2 Bull, 1-9 cr
928090 -3 Burns, 1-9 cr
532899 -4 Corcoran-Perry, 1-9 cr
132929 -5 Crisham, 1-9 cr
825165 -6 DeHart, 1-9 cr
833878 -7 Dineen, 1-9 cr
124949 -8 Donaldson, 1-9 cr
331379 -9 Duckett, 1-9 cr
533826 -10 Edwardson, 1-9 cr
130906 -11 Egan, 1-9 cr
532787 -12 Fahy, 1-9 cr
128945 -13 Feldman, 1-9 cr
528996 -14 Gordon, 1-9 cr
528092 -15 Gross, 1-9 cr
024144 -16 Gustafson, 1-9 cr
324271 -17 Krichbaum, 1-9 cr
125938 -18 Lindquist, 1-9 cr
229950 -19 Miller, 1-9 cr
429204 -20 Newman, 1-9 cr
827630 -21 Pederson, 1-9 cr
132039 -22 Ryden, 1-9 cr
930471 -23 Sime, 1-9 cr
230130 -24 Snyder, 1-9 cr
446228 -25 Sodergren, 1-9 cr
246229 -26 Tomlinson, 1-9 cr
547497 -27 0905-1205 Th, 1325-1625 Th, Sime, 1-9 cr
- 8051 Special Topics in Nursing Research**
946220 1-9 cr
- 8060 Advanced Clinical Nursing** (prereq #, Δ)
226806 3-9 cr
- r8111 Moral and Ethical Development in Nursing Science** (prereq 8011 or equiv, Δ)
133182 1325-1730 W, Crisham, 4 cr
- r8314 Nurse-Midwifery Management During Childbearing** (prereq #)
★LECT 0905-1205 W, HSUnitF, Dineen, 10 cr
★REC (cln conf ar)
824744 -1 CLN (cln ar)
- r8415 Nurse Clinician Role Development** (prereq a course dealing with the health care delivery system, #)
★LECT 0905-1205 T, HSUnitF, Burns, 6-9 cr
★REC (cln conf ar)
129125 -1 CLN (cln ar)
- 8425 Psychiatric-Mental Health Nursing: Role Development** (prereq #)
★LECT 0905-1205 W, HSUnitF, Gordon, 6 cr (cln ar)
930521 -1 REC (cln conf ar)
- 8451 Teaching-Learning Process in Nursing** (prereq 8030, ficourse in learning theory, #)
933578 0905-1205 T, 1325-1625 T, Gustafson, 4 cr

- 8509 Special Topics: Nursing Education** (prereq #)
032955 ar cr
- 8609 Special Topics in Nursing Supervision** (prereq #)
828888 ar cr
- 8777 Thesis Credits: Masters**
128211 1-16 cr
- 8802 Phenomenon of Health II** (prereq 8800, #) (S-N only)
746221 0905-1205 T, HSUnitF, Newman, 3 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
624308 1-36 cr

NUTRITION (Nutr) Food Science and Nutrition Agriculture & Human Ecology

- 8745 Seminar** (prereq #) (S-N only)
430188 1605-1655 T, FScN 23, Savaiano, 1 cr
- 8777 Thesis Credits: Masters**
228894 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
627807 1-36 cr
- 8990 Graduate Research** (prereq #)
731928 2-5 cr

OBSTETRICS AND GYNECOLOGY (Obst) Medical School

- 5500 Externship in Obstetrics and Gynecology** (prereq regis med)
130100 Twiggs, others, 9 cr
- 5520 Obstetrics and Gynecology Externship in Clinical Practice** (prereq regis med)
129576 Twiggs, others, 4.5 cr
- 5540 Advanced Externship in Obstetrics and Gynecology** (prereq 5500)
933872 Twiggs, others, ar cr
- 5560 Research in Reproduction** (prereq 5500)
425699 Twiggs, others, ar cr
- 5575 Gynecological Pathology and Diagnostic Cytology** (prereq 5500)
127584 Okagaki, Brooker, others, 9 cr
- 5590 Preceptorship in Obstetrics and Gynecology** (prereq 5500)
627855 Twiggs, others, 9 cr
- 8201 Advanced Obstetrics and Gynecology I**
324335 Twiggs, others, ar cr
- 8202 Advanced Obstetrics and Gynecology I** (prereq 8201)
428876 Twiggs, others, ar cr
- 8203 Advanced Obstetrics and Gynecology I** (prereq 8202)
433043 Twiggs, others, ar cr
- 8204 Advanced Obstetrics and Gynecology I** (prereq 8203)
324366 Twiggs, others, ar cr
- 8205 Advanced Obstetrics and Gynecology II**
730729 Twiggs, others, ar cr
- 8206 Advanced Obstetrics and Gynecology II** (prereq 8205)
625992 Twiggs, others, ar cr
- 8207 Advanced Obstetrics and Gynecology II** (prereq 8206)
027884 Twiggs, others, ar cr
- 8208 Advanced Obstetrics and Gynecology II** (prereq 8207)
028517 Twiggs, others, ar cr
- 8209 Advanced Obstetrics and Gynecology III**
128072 Twiggs, others, ar cr
- 8210 Advanced Obstetrics and Gynecology III** (prereq 8209)
227342 Twiggs, others, ar cr
- 8211 Advanced Obstetrics and Gynecology III** (prereq 8210)
125163 Twiggs, others, ar cr
- 8212 Advanced Obstetrics and Gynecology III** (prereq 8211)
128041 Twiggs, others, ar cr

- 8213 Advanced Obstetrics and Gynecology IV** (prereq 8212)
433866 Twiggs, others, ar cr
- 8214 Advanced Obstetrics and Gynecology IV** (prereq 8213)
831581 Twiggs, others, ar cr
- 8215 Advanced Obstetrics and Gynecology IV** (prereq 8214)
533275 Twiggs, others, ar cr
- 8216 Advanced Obstetrics and Gynecology IV** (prereq 8215)
624714 Twiggs, others, ar cr
- 8217 Seminar: Obstetrics and Gynecology IV** (prereq 8216)
330071 Twiggs, others, ar cr
- 8218 Seminar: Obstetrics and Gynecology** (prereq 8217)
723814 Twiggs, others, ar cr
- 8219 Seminar: Obstetrics and Gynecology** (prereq 8218)
832438 Twiggs, others, ar cr
- 8221 Seminar: Obstetrics and Gynecology** (prereq 8219)
825361 Twiggs, others, ar cr
- 8222 Gynecological Oncology** (prereq 8221)
433883 Twiggs, ar cr
- 8223 Gynecological Oncology** (prereq 8222)
632831 Twiggs, others, ar cr
- 8224 Gynecological Endocrinology I** (prereq 8223)
030994 Twiggs, others, ar cr
- 8225 Gynecological Endocrinology II** (prereq 8224)
928039 Twiggs, others, ar cr
- 8226 Obstetrical Physiology and Anesthesiology** (prereq 8225)
725319 Twiggs, others, ar cr
- 8227 Preceptorship in Clinical Practice** (prereq 8226)
128158 Twiggs, others, ar cr
- 8228 Selected Aspects of Radiation Therapy** (prereq 8227)
233383 Twiggs, others, ar cr
- 8229 Selected Aspects of Medical Oncology** (prereq 8228)
724784 Twiggs, others, ar cr
- 8230 Research in Reproduction** (prereq 8229)
925979 Twiggs, ar cr
- 8777 Thesis Credits: Masters**
025245 1-16 cr

OPERATIONS AND MANAGEMENT SCIENCES (OMS) Management

Non-SMgt students should refer to page 9, Carlson School of Management Courses, before attempting to register for 3000- and 5000-level OMS courses.

- R1020 Data Analysis and Statistical Inference for Managers** (SMSci 1020, DSci 1050; prereq IDSc 1010, Math 1111...Math 1131 rec) (A-F only)
★LECT 0815-0930 TTh, BlegH 10
126662 -1 LAB 0800-0900 F, BlegH 130, 4 cr
632988 -2 LAB 0915-1015 F, BlegH 130, 4 cr
★LECT 0945-1100 TTh, BlegH 10
831757 -3 LAB 1030-1130 F, BlegH 130, 4 cr
331625 -4 LAB 1145-1245 F, BlegH 130, 4 cr
- R3000 Introduction to Operations Management** (SOM 3000) (A-F only)
623966 -1 1130-1300 MW, BlegH 130, Hoffmann, 4 cr
233982 -2 0945-1115 TTh, BlegH 130, Khosla, 4 cr
030056 -3 1130-1300 TTh, BlegH 130, Khosla, 4 cr
- R3059 Quality Management** (SOM 3059; prereq 3000 or #) (A-F only)
934049 0800-0930 TTh, BlegH 205, Misterek, 4 cr
- R8051 Management of Service Operations** (prereq 3000 or MBA 8050 or #) (A-F only)
629511 0800-0945 TTh, HHHCTr 60, Hill, 4 cr

- R8057 Process, Technology, and Innovation in the Operations Function** (SOM 8057; prereq 3000 or MBA 8050 or #) (A-F only)
927750 1300-1445 TTh, BlegH 10, Schmidt, 4 cr
- R8058 Operations Strategy** (SOM 8058; prereq 3000 or MBA 8050 or #) (A-F only)
132154 1000-1145 TTh, BlegH 210, Schroeder, 4 cr
- R8651 Experimental Design** (SDSci 8651; prereq 8650 or equiv, PhD stu or #) (A-F only)
042823 1300-1445 MW, BlegH 335, Nachtsheim, 4 cr
- R8671 Simulation Analysis** (SDSci 8671; prereq 8605, PhD stu or #) (A-F only)
842824 1000-1145 MW, HHHCTr 20, Kelton, 4 cr
- R8740 Research in Operations Strategy and Technology Management** (SOM 8901; prereq 8705, PhD stu or #) (A-F only)
642825 0900-1200 T, SocSci 1383, Sinha, 4 cr
- 8990 Readings in Operations and Management Science** (SOM 8990; prereq #, Grad Schl of Mgmt approval) (A-F only)
033913 ar cr
- 8995 Graduate Research in Operations and Management Science** (SOM 8995; prereq #, Grad Schl of Mgmt approval) (A-F only)
131884 ar cr

OPHTHALMOLOGY (Oph) Medical School

- 5100 Introduction to Anatomy, Histology, and Embryology** (prereq physician or vet med student)
132333 0715-0830 Th, PWB 9335, Cameron, 1 cr
- 5180 Externship** (prereq regis med)
032809 ar cr
- 5190 Research Problems** (prereq regis med)
031028 ar cr
- 8101 Clinical Ophthalmology**
829572 0800-1700 MTWThF, PWB 9100, Knobloch, others, 8 cr (Eye Clinic)
- 8106 Strabismus Management** (prereq grad physician or grad in veterinary science)
432765 0800-0900 M, PWB 9339, Letson, 1 cr
- 8118 General Medical Problems** (prereq grad physician or grad in veterinary science)
442955 1400-1500 F, PWB 9339, Knobloch, 3 cr
- 8119 Clinical Pathological Correlations in Ophthalmology** (prereq grad physician or grad in veterinary sci)
829023 1500-1630 F, PWB 9339, Cameron, 1 cr
- 8120 Scope of Ophthalmic Pathology** (prereq grad physician or grad in veterinary science)
125933 1630-1730 F, PWB 9339, Cameron, 2 cr
- 8131 Practical Ocular Surgery**
129133 0800-1200 MTWThF, Knobloch, others, 3 cr (Mayo OR)
- 8142 Ophthalmic Pathology Laboratory**
727930 1330-1530 T, PWB 9335, Cameron, 2 cr
- 8152 Ophthalmology Laboratory**
728723 15 cr
- 8155 Special Topics in Ophthalmology** (prereq #)
927019 Knobloch, 1-3 cr
- 8777 Thesis Credits: Masters**
230189 1-16 cr

ORAL AND MAXILLOFACIAL SURGERY (OSur) Dentistry

- 5257 Ambulatory General Anesthesia**
032793 1 cr
- 5275 Oral Pathology Review**
825264 1 cr
- 5276 Medicine for the Oral Surgeon** (prereq participation in an oral surgery residency program)
524012 2 cr
- 5280 Advanced Oral Surgery for Postgraduate Dental Fellows** (S-N only)
129374 1 cr

- 8250 Advanced Oral and Maxillofacial Surgery**
132753 ar cr
- 8251 Seminar: Oral Surgery** (max 1 cr)
032390 ar cr
- 8252 Research in Oral and Maxillofacial Surgery**
133280 ar cr
- 8253 Problems in Oral and Maxillofacial Surgery**
932057 ar cr
- 8254 Topics: Oral Surgery**
732447 1 cr
- 8255 General Surgery**
126953 ar cr
- 8258 Anesthesia II Seminar**
031854 1 cr
- 8280 Oral and Maxillofacial Surgery Clinical Pathology Conference**
729192 1 cr

ORAL BIOLOGY (OBio) Dentistry

- 8001 Research in Oral Biology**
626687 ar cr
- 8002 Tutorial in Oral Biology**
927053 ar cr
- 8023 Topics in Oral Biology** (prereq #)
932155 1-3 cr
- 8030 Seminar** (S-N only)
824338 1 cr
- 8103 Topics in Cariology** (prereq possession of a dental degree or PhD) (A-F only)
826820 1-2 cr
- 8777 Thesis Credits: Masters**
432846 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
626995 1-36 cr

ORAL PATHOLOGY (OPat) Dentistry

- 5017 Oral Pathology Clinic**
625846 ar cr
- 8001 Research in Oral Pathology**
525452 ar cr
- 8002 Oral Pathology** (prereq 5251, 5252)
833394 -1 LECT ar cr
★LAB
- 8003 Oral Pathology** (prereq 5251, 5252)
233321 ar cr
- 8004 Histopathology**
830575 2 cr
- 8006 Current Literature Review**
633011 1 cr
- 8008 Clinical Oral Pathology**
128628 1 cr
- 8011 Surgical Oral Pathology**
131134 -1 LECT ar cr
★LAB
- 8015 Methods of Genetic Counseling and Treatment**
424052 1 cr
- 8302 Seminar: Human Developmental Genetics**
430689 ar cr

ORTHODONTICS (Otho) Dentistry

- 5003 Clinical Orthodontics**
933743 ar cr
- 8001 Research in Orthodontics**
225932 ar cr
- 8202 Growth and Development**
033006 ar cr
- 8206 Orthodontic Diagnosis and Treatment Planning**
533471 ar cr
- 8210 Orthodontic Seminar**
529677 ar cr
- 8218 Topic in Orthodontics**
625944 ar cr

ORTHOPAEDIC SURGERY (OrSu) Medical School

- 5180 Orthopaedics I** (prereq regis med)
525709 Thompson, others, ar cr
- 5185 Orthopaedics II: Externship in Orthopaedic Surgery** (prereq regis med)
131490 Thompson, others, ar cr
- 5186 Research Problems in Orthopaedic Surgery** (prereq regis med)
028923 Thompson, others, ar cr
- 5188 Externship in Orthopaedic Surgery and Fractures-Gillette Children's Hospital** (prereq regis med)
524723 Winter, 4.5-9 cr
- 5190 Externship in Orthopaedic Surgery and Fractures-Veterans Hospital** (prereq regis med)
124790 Premer, ar cr
- 5191 Orthopaedic Externship at Hennepin County Medical Center** (prereq regis med)
226904 Gustilo, ar cr
- 5193 Scoliosis and Other Spinal Deformities** (prereq general orthopaedic course or elective clerkship in orthopaedic surgery)
027139 9 cr
- 8401 Orthopaedic Conference**
927764 Thompson, others, 3 cr
- 8403 Fractures**
325467 Gustilo, 5 cr
- 8405 Orthopaedic Diagnosis**
226062 Thompson, others, 3 cr
- 8407 Pediatric Orthopaedics**
531591 Winter, 5 cr
- 8408 Orthopaedic Problems and Management**
924895 Thompson, others, 5 cr
- 8409 Orthopaedic Problems and Management**
126905 Aamoth, 5 cr
- 8410 Orthopaedic Pathology**
230435 Thompson, others, 2 cr
- 8411 Orthopaedic Operative Surgery**
933466 Thompson, others, 5 cr
- 8412 Orthopaedic Anatomy**
226921 House, 2 cr
- 8416 Orthopaedic Research**
633946 Bradford, 5 cr
- 8777 Thesis Credits: Masters**
125647 1-16 cr

OTOLARYNGOLOGY (Otol) Medical School

- 5102 Introduction to the Basic Sciences in Otolaryngology, II: Head and Neck** (prereq #)
524561 Lassman, others, 3 cr
- 5500 General ENT Elective**
427906 Levine, 4.5 cr
- 5501 Acting Internship-ENT Elective**
930728 Levine, 4.5-9 cr
- 5503 Research Basic Science** (prereq regis med student)
932690 Levine, ar cr
- 5504 Externship in Otolaryngology - Overseas** (prereq fourth-year medical student or perm of course director...knowledge of German rec)
526083 Levine, Boies, 4.5-9 cr
- 5970 Directed Studies** (prereq #)
427257 ar cr
- 8220 Research**
328921 18 cr
- 8230 Clinical Otorhinolaryngology**
126032 Adams, others, 6 cr
- 8231 Surgery of Ear, Nose, and Throat**
933774 Adams, others, 4 cr
- 8232 Maxillofacial Surgery**
628942 Adams, Boies, others, 1 cr
- 8233 Plastic and Reconstructive Surgery of the Head and Neck**
026623 Adams, Boies, others, 1 cr

- 8234 Anatomy of the Head and Neck and Temporal Bone Dissection**
627967 Levine, 2 cr
- 8235 Roentgenology of the Head and Neck**
824730 2 cr
- 8236 Pharmacology in ENT**
729709 2 cr
- 8237 Endoscopy**
530120 Adams, others, 2 cr
- 8238 Pathology of the Ear, Nose, and Throat**
224117 Adams, others, 2 cr
- 8239 Otoneurology**
824419 Anderson, Levine, 2 cr
- 8240 Allergy**
332824 2 cr
- 8241 Tumor Clinic**
128282 Adams, others, 1 cr
- 8242 Audiology and Speech Pathology**
131934 Lassman, Margolis, others, 2 cr
- 8243 Introduction to Research Methodology**
331673 Ward, others, 2 cr
- 8244 Seminar: Current Literature**
633624 Adams, Goding, others, 1 cr
- 8245 Master's Thesis Research**
929207 ar cr
- 8246 Ph.D. Thesis Research**
128032 ar cr
- 8248 Readings in Auditory Physiology** (prereq #)
733274 Ruggero, 1-3 cr
- 8249 Seminar: Current Topics in Cochlear Anatomy** (prereq #) (S-N only)
725756 Santl, 1 cr
- 8250 Advanced Biochemistry of the Auditory System** (prereq MdBc 5100, MdBc 5101 or equiv or #)
228152 Juhn, 2 cr
- 8262 Advanced Clinical Audiology** (prereq Otol grad maj, 8242 or #) (A-F only)
145879 Margolis, 3 cr
- 8777 Thesis Credits: Masters**
723960 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
226658 1-36 cr

PATHOBIOLOGY (Path) Laboratory Medicine And Pathology Medical School

- 5101 General Pathology** (prereq pathobiology grad, #)
★LECT 1010-1100 TThF, PWB 2470, Perrone, (Mar 30-June 6)
126149 -1 LAB 1010-1205 TW, MoosT 3331, 3337, 3343, 3349, 1-6 cr
431681 -2 LAB 1325-1520 T, 1430-1625 W, MoosT 3331, 3337, 3343, 3349, 1-6 cr
- 5109 Seminar: Selected Topics in Pathobiology** (prereq #)
628648 1600-1730 T, MoosT 2116, LeBien, 1 cr
- 5110 Seminar: Pathology** (prereq #) (S-N only)
130680 1200-1300 M, Mayo C231, 1 cr (Todd Amph)
- 5115 Basic Transmission Electron Microscopy** (prereq path grad, #) (S-N only)
★LECT 1115-1205 T, JacH 3145, Palm
526603 -1 LAB 1220-1510 T, 4 cr
- 5865 Departmental Seminar** (prereq #) (S-N only)
029117 0800-0900 W, Mayo D230, 1 cr (Eustis Amph)
- 8110 Pathobiology III** (prereq 8108, 8109)
428859 0905-0955 MWF, MoosT 2580, LeBien, 3 cr
- 8130 Cell Biology of the Extracellular Matrix** (prereq MdBc 5100-5101 or equiv, Path 8108-8109-8110, #)
642968 1245-1400 TTh, MoosT 2107, McCarthy, 3 cr
- 8135 Biochemical Aspects of Normal and Abnormal Cell Growth** (prereq #)
146233 1600-1715 WF, JacH 3145, Ahmed, 3 cr

- 8201 Research**
931944 ar cr
- 8300 Current Topics in Medical Genetics** (prereq # or Δ)
230015 Eaton, 2 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
133708 1-36 cr

PEDIATRIC DENTISTRY (Pedo) Dentistry

- 5405 Advanced Pediatric Dentistry for Postgraduate Dental Fellows** (S-N only)
127486 1 cr
- 5414 Advanced Clinical Pedodontics**
445886 0900-1200 MThF, 1400-1600 T, MoosT 6125, ar cr
- 8290 Hospital Pedodontics I** (S-N only)
128693 0830-1200 TW, PWB 7302, ar cr
- 8291 Hospital Pedodontics II** (S-N only)
132090 1300-1600 MTWThF, ar cr
- 8292 Pedodontic Literature**
128170 0800-0900 F, MoosT 6162, ar cr
- 8294 Pedodontic Diagnosis and Treatment Planning**
531588 0800-0900 M, MoosT 6162, ar cr

PEDIATRICS (Ped) Medical School

- 5501 Pediatric Externship** (prereq successful completion of Year 2 Clinical Medicine III Pediatrics)
727765 Moller, 9 cr
- 5503 Pediatric Clerkship with Outstate Clinicians**
631372 Moller, ar cr
- 5504 Clinical Aspects of Pediatric Psychology** (prereq #)
230502 Chang, ar cr
- R5512 Pediatric Acting Internship**
324934 Moller, 9-18 cr
- 5520 Pediatrics Ambulatory Selective Course** (prereq 2nd yr clinical pediatrics)
431440 Moller, ar cr
- 5533 Pediatric Clinical Allergy at University Hospital** (prereq 3rd or 4th yr medical student)
627144 Blumenthal, 4.5-9 cr
- R5534 Pediatric Cardiology at the University Hospital**
030090 Moller, ar cr
- R5535 Infectious Diseases**
923911 Ferrieri, ar cr
- R5536 Pediatric Hematology/Oncology/Bone Marrow Transplantation at the University Hospital**
432863 Smith, ar cr
- R5537 Pediatric Endocrinology and Metabolism at the University**
725806 Klein, ar cr
- R5538 Pediatric Gastroenterology**
229222 Sharp, ar cr
- 5539 Neonatal Medicine Externship**
124944 Boros, ar cr
- R5540 Pediatric Neurology**
827787 Swaiman, ar cr
- R5543 Nephrology at the University**
532353 Fish, ar cr
- R5544 Pulmonary Disease in Pediatrics** (prereq #)
229060 Warwick, 4.5-18 cr
- R5547 Topics in Maternal and Child Care** (prereq 5500, 5501 or 5502, #)
631937 tenBensel, ar cr
- R5548 Pediatric Genetics at the University**
332337 Pierpont, 9 cr
- R5553 Adolescent Medicine**
526939 Rematedi, 9 cr
- R5555 Neonatal Clerkship** (prereq 5501 or 5512)
829524 Moller, ar cr
- R5556 Clinical Pediatrics Clerkship** (prereq 5501 or 5512)
729466 Moller, ar cr

- 5560 Research/Special Problems in Pediatrics** (prereq regis med) (S-N only)
228250 Moller, ar cr
- 8204 Residency in Pediatrics** (prereq #)
629704 Shannon, ar cr
- 8206 Pediatric Special Interest** (prereq #)
332838 Shannon, ar cr

PERIODONTICS (Pero) Dentistry

- 5300 Advanced Periodontics for Postgraduate Dental Fellows** (S-N only)
126452 1 cr
- 8000 Advanced Clinical Periodontology**
630707 1330-1615 MTTh, 0945-1215 TWThF,
MoosT 7470, 5 cr
- 8200 Lectures**
825490 1215-1315 M, MoosT 7360, 1 cr
- 8450 Bacteriology and Immunology of Periodontal Diseases**
234131 0830-0930 T, MoosT 7580, 1 cr

PERSIAN (Per) South Asian & Middle Eastern Languages & Cultures Liberal Arts

- 5900 Readings in an Iranian Language** (max 12 cr; §SCAS 5900; prereq 3013 or #)
442969 Malandra, 1-4 cr

PHARMACEUTICS (Phm) Pharmacy

- 8100 Seminar: Pharmaceutics**
531364 1640-1730 Th, MoosT 2520, Zimmerman,
1 cr
- 8101 Readings in Pharmaceutics**
825585 1640-1730 W, HSUnitF 7193, Rahman,
1 cr
- 8105 Pharmacokinetics Research Seminar** (prereq grad in pharmaceutics majoring in pharmacokinetics) (S-N only)
831404 1700-1900 M, HSUnitF 9105, Sawchuk, Zimmerman, 2 cr
- 8440 Physical Pharmacy** (prereq Phar 5680, survey course in physical chemistry or #)
946217 Ripple, 4 cr (HSUnitF 3150)
- 8450 Industrial Pharmacy** (prereq Phmc 5605 or #)
127138 Banker, Agyilirah, 3 cr
- 8777 Thesis Credits: Masters**
128895 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
432572 1-36 cr

PHARMACEUTICS, UNDERGRAD (Phmc) Pharmaceutics Pharmacy

- 5620 Principles of Drug Delivery II** (prereq 5610) (A-F only)
927134 0905-0955 MWF, OwreH 2230, Suryanarayanan, 3 cr
- 5650 Dispensing Pharmacy** (prereq 5605, 5630) (A-F only)
425671 0905-0955 MWF, OwreH 2210, Carlson, 3 cr
- 85651 Dispensing Pharmacy Laboratory** (prereq 5605, 5603, 5650) (A-F only)
229169 -1 LAB 0800-1100 T, 1325-1625 Th, HSUnitF 2160, Carlson, 2 cr
533325 -2 LAB 1325-1625 T, 0800-1100 Th, HSUnitF 2160, Carlson, 2 cr
- 5685 Clinical Pharmacokinetics** (prereq 5680 with grade of A or B or #) (A-F only)
026315 1325-1520 M, HSUnitF 7135, Sawchuk, 2 cr
- 5730H Pharmaceutics Seminar** (prereq #) (A-F only)
927358 1 cr

- 5731H Industrial Pharmacy** (prereq 5605, #) (A-F only)
642971 3 cr
- 5970 Directed Studies** (prereq #)
432474 1-5 cr
- 5999 Special Problems** (prereq #)
733484 ar cr

PHARMACOGNOSY (Phcg) Medicinal Chemistry and Pharmacognosy Pharmacy

- 5810 Medicinal Plants** (prereq #)
131392 Staba, 2 cr
- 5899 Special Problems in Pharmacognosy** (prereq #)
124054 ar cr
- 8500 Pharmacognosy Seminar**
932043 Remmel, 1 cr
- 8777 Thesis Credits: Masters**
133448 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
024838 1-36 cr
- 8900 Research in Pharmacognosy** (prereq #)
029668 ar cr

PHARMACOLOGY (Phcl) Medical School

- 1450 Drugs and Society: Concepts of Drug Action** (prereq upper div stu or #)
824520 Miller, 2 cr
- 5109 Problems in Pharmacology** (prereq grad or upper div stu or #)
827109 Loh, ar cr
- 8112 Advanced Pharmacology III** (prereq biochem, physiol background, 5111 or #) (A-F only)
133787 Loh, others, 3 cr
- 8203 Research in Pharmacology** (prereq #) (A-F only)
345721 Loh, ar cr
- 8204 Seminar: Selected Topics in Pharmacology** (max 3 cr; prereq 5110 or #)
329597 Wilcox, 1 cr
- 8207 Seminar: Psychopharmacology** (§NSC 8207, max 3 cr; prereq #)
823805 Sparber, 1 cr
- 8209 Current Research in Drug Metabolism** (prereq #) (A-F only)
631596 Holtzman, 1 cr
- 8210 Pharmacology of Anti-Cancer Drugs** (prereq #) (A-F only)
530005 Sladek, 1 cr
- 8213 Renal Handling of Drugs and Organic Substances** (prereq #) (A-F only)
827191 Quebbemann, 1 cr
- 8214 Toxicology** (prereq MdBc 5101 or #) (A-F only)
132811 Holtzman, 2 cr
- 8777 Thesis Credits: Masters**
730939 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
125504 1-36 cr

PHARMACY PRACTICE (Phar) Pharmacy

- 5008 Humanities and Aging** (§HSU 5030)
943365 1640-1825 Th, ApH 102, 2 cr
- 5009 Multidisciplinary Perspectives on Aging** (§AdEd 5440, CFSy 5305, Educ 5440, HSU 5009, PA 5414, PubH 5220, PubH 5737, SAHP 5009, Soc 5960, SW 5024)
446701 1640-1825 MW, MoosT 2690, 4 cr
- 5210 Terminology of the Health Sciences** (§HSU 5210)
743366 McKennell, 2 cr (for information go to rm 5120 HSUnitF before first day of quarter)
- 5245 Financial Management** (A-F only)
543367 1115-1205 MWF, MoosT 2530, Hadsall, 3 cr

- 5286 Community Drug Information** (prereq third yr phar student, #)
627127 Green, 1-3 cr
- 5290 Specialty Clerkships**
924573 1-16 cr
- 5291 Specialty Externship**
433110 1-12 cr
- 5295 Clinical Research Methods and Biostatistics** (A-F only)
143369 1235-1415 WF, MoosT 2530, Gross, 3 cr
- 5308 Assessment of the Medicated Patient** (prereq third yr phar stu or #) (S-N only)
225803 0905-1205 F, HSUnitF 7135, 2 cr
- 5323 Pharmacotherapeutics III** (prereq MChP 5330, MChP 5340, MChm 5350, Phcl 5101, Phcl 5102) (A-F only)
227650 -1 LECT 1430-1625 M, 1430-1520 W, MoosT 2650, Uden, 3 cr
★REC 1535-1625 W,
- 5390 Community Practice Externship** (prereq third yr phar student) (S-N only)
029635 -1 LECT 0800-0955 T, HSUnitF 7135, 7 cr
★REC
- 5395 B.S. Clerkship** (prereq third yr pharmacy student) (S-N only)
832374 -1 LECT 1430-1625 W, HSUnitF 2110, 2140, 7 cr
★REC
- 5501 Pathophysiology and Therapeutics: Pulmonary Diseases** (prereq 3rd yr pharmacy stu) (A-F only)
132834 1325-1520 TTh, HSUnitF 7135, O'Connell, 3 cr
- 5502 Pathophysiology and Therapeutics: Nervous System Disorders** (prereq 3rd yr pharmacy stu) (A-F only)
031899 1010-1205 MW, HSUnitF 7135, Graves, 3 cr
- 5509 Pathophysiology and Therapeutics: Psychiatric Disorders** (prereq 3rd yr pharmacy stu) (A-F only)
628861 0800-0955 MW, HSUnitF 7135, Roerig, 3 cr
- 5512 Pathophysiology and Therapeutics: Eye, Ear, Nose, Throat and Skin Disorders** (prereq 3rd yr pharmacy stu) (A-F only)
827594 1010-1205 Th, HSUnitF 7135, Larson T., 1 cr (2nd 5 weeks)
- 5513 Pathophysiology and Therapeutics: Arthritis and Related Disorders** (prereq 3rd yr pharmacy stu) (A-F only)
430112 1010-1205 TTh, HSUnitF 7135, Johnson T., 2 cr (1st 5 weeks)
- 5515 Neuroanatomy** (prereq 3rd yr pharmacy stu) (S-N only)
131473 Graves N., 1 cr (independent study ar, HSUnitF 7115)
- 5550 Pharmacy Practice Clerkship: Acute Care** (prereq PharmD IV student) (S-N only)
326148 4-12 cr
- 5551 Pharmacy Practice Clerkship: Clinical Pharmacokinetics** (prereq PharmD IV student) (S-N only)
831905 4 cr
- 5552 Pharmacy Practice Clerkship: Pediatrics** (prereq PharmD IV student) (S-N only)
825070 4 cr
- 5553 Pharmacy Practice Clerkship: Clinical Elective I** (prereq PharmD IV student) (S-N only)
926744 4-12 cr
- 5554 Pharmacy Practice Clerkship: Special Elective I** (prereq PharmD IV student) (S-N only)
524124 4-12 cr
- 5555 Pharmacy Practice Clerkship: Clinical Elective II** (prereq PharmD IV student) (S-N only)
224490 4-12 cr
- 5556 Pharmacy Practice Clerkship: Clinical Elective III** (prereq PharmD IV student) (S-N only)
324352 4-12 cr
- 5557 Pharmacy Practice Clerkship: Special Elective II** (prereq PharmD IV student) (S-N only)
430482 4-12 cr

- 5558 Pharmacy Practice Clerkship: Special Elective III** (prereq PharmD IV student) (S-N only)
331513 4-12 cr
- 5778H Hospital Pharmacy Administration II** (prereq #) (A-F only)
543370 3 cr
- 5970 Directed Studies** (prereq #)
728804 1-5 cr
- 5999 Special Problems** (prereq #)
724736 ar cr

PHILOSOPHY (Phil)

Liberal Arts

- r1001 Introduction to Logic**
★LECT 0905-0955 MWF, SmithH 100, Dolan
626141 -1 REC 0800-0850 T, FordH 150, 5 cr
426917 -2 REC 0905-0955 T, FordH 155, 5 cr
325727 -3 REC 0905-0955 T, FordH 150, 5 cr
825683 -4 REC 1010-1100 T, FordH 55, 5 cr
527332 -5 REC 1010-1100 T, FordH 155, 5 cr
833959 -6 REC 0905-0955 Th, Arch 25, 5 cr
231715 -7 REC 0905-0955 Th, FordH 155, 5 cr
826123 -8 REC 1010-1100 Th, FordH 155, 5 cr
727085 -9 REC 1010-1100 Th, FordH 55, 5 cr
★LECT 1325-1415 MWF, AmundH B75, Reeder
033524 -10 REC 1220-1310 T, FordH 70, 5 cr
632912 -11 REC 1325-1415 T, FordH 155, 5 cr
032535 -12 REC 1325-1415 T, FordH 120, 5 cr
330684 -13 REC 1220-1310 Th, FordH 170, 5 cr
427162 -14 REC 1325-1415 Th, FordH 150, 5 cr
028632 -15 REC 1325-1415 Th, FordH 120, 5 cr
- r1002 Introduction to Philosophy**
★LECT 1115-1205 MTW, FordH 155, Lewis
324187 -1 REC 0905-0955 Th, AmundH 104, 5 cr
133411 -2 REC 0905-0955 Th, NichH 201, 5 cr
933385 -3 REC 1115-1205 Th, AmundH 240, 5 cr (MLK students only)
130727 -4 REC 1115-1205 Th, FordH 70, 5 cr
932074 -5 REC 1220-1310 Th, FordH 175, 5 cr
825599 -6 REC 1325-1415 Th, FordH 175, 5 cr
★LECT 1115-1230 TTh, FordH 55, Gunderson
623918 -7 REC 1115-1205 M, FordH 130, 5 cr
728107 -8 REC 1220-1310 M, FordH 50, 5 cr
624891 -9 REC 1115-1205 W, FordH 70, 5 cr
333116 -10 REC 1220-1310 W, FordH 50, 5 cr
531204 -11 REC 1115-1205 F, FordH 70, 5 cr
824579 -12 REC 1220-1310 F, FordH 175, 5 cr
- r1003 Introduction to Ethics**
043390 1220-1310 MTWF, FordH 120, Peterson, 5 cr
- r3004 General History of Western Philosophy**
★LECT 1415-1530 TTh, FordH 55, Gunderson
643392 -1 REC 1325-1415 W, FordH 70, 5 cr
443393 -2 REC 1430-1520 W, FordH 70, 5 cr
243394 -3 REC 1430-1520 F, FordH 175, 5 cr
- 3008 Introduction to Aristotle** (prereq 3001 or #)
643456 0905-0955 MWF, FordH 349, Dahl, 4 cr
- r3308 Social Justice and Community Service: Power and Democracy** (prereq 3307)
246702 -1 0945-1100 TTh, FordH 115, Wallace, 4 cr
147454 -2 0945-1100 TTh, FordH 115, Wallace, 4 cr (concurrent registration in Comp 3012, section 4 is required; prereq #)
- r3311 Introduction to Ethical Theory**
943396 1430-1520 MWF, FordH 150, Anderson, 4 cr
- 3970 Directed Studies** (prereq #, Δ, □)
224067 1-5 cr
- 3980 Directed Instruction** (prereq #, Δ, □)
024788 1-5 cr
- 5021 Medieval Philosophy** (prereq 3001, 3002 or #)
943401 0945-1100 TTh; SmithH 121, Hopkins, 4 cr
- 5043 Hume** (prereq 3003 or #)
543398 1245-1400 TTh, FordH 50, Lewis, 4 cr
- 5203 Symbolic Logic III** (prereq 5202)
★LECT 1010-1100 MWF, FordH 150, Anderson
525788 -1 REC 1010-1100 TTh, FordH 150, 4 cr

- 5302 History of Ethics: Selected Classical Moralists** (prereq 1003 or one qtr history of philosophy or #)
343399 1115-1205 MWF, FordH 175, Dahl, 4 cr
- 5321 Theories of Justice** (prereq 1003 or 1004 or 5311 or #)
143400 1245-1400 TTh, FordH 160, Bowie, 4 cr
- r5521 Philosophy of Religion** (prereq 8 cr in philosophy)
144232 1115-1230 TTh, SmithH 331, Hopkins, 4 cr
- 5611 Philosophy of the Social Sciences I** (prereq 12 cr in philosophy or social sciences or #)
743397 1325-1415 MWF, FordH 170, Root, 4 cr
- 5760 Selected Topics in Philosophy** (prereq 4 3xxx-5xxx cr in philosophy or #)
347453 1415-1530 TTh, FordH 130, 4 cr
- 5970 Directed Studies and Research** (prereq #, Δ, CLA approval)
724865 1-5 cr
- 5990 Directed Studies and Research** (prereq #, Δ, CLA approval)
224473 1-5 cr
- 8180 Seminar: Philosophy of Language**
743402 1535-1730 Th, FordH 359, Dolan, 4 cr
- 8310 Seminar: Moral Philosophy** (prereq 5311 or #)
627287 1535-1730 T, FordH 349, Mason, 4 cr
- 8600 Seminar in Philosophy of Science**
727507 1535-1730 W, FordH 170, Giere, Scheman, 4 cr
- 8620 Seminar: Philosophy of Biology**
543403 1325-1520 Th, FordH 359, Caplan, 4 cr
- 8777 Thesis Credits: Masters**
324030 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
030588 1-36 cr
- 8970 Directed Study and Research** (prereq passing grade on written prelim exam for PhD in philosophy, #)
324996 1-4 cr
- 8990 Directed Study and Research** (prereq passing grade on written prelim exam for PhD in philosophy, #)
826980 1-4 cr

PHYSICAL EDUCATION (PE) School of Kinesiology & Leisure Studies Education

Courses listed below are ranked numerically according to activity level, i.e., the level or skill required. The activity level of each course is indicated by the second digit in the course number. 0 = first level, 1 = second level, and so on. Thus 1007, for example, is a first-level course and 1107 is a second-level course. In most cases, the lower level course is prerequisite for the higher; however, students who can demonstrate sufficient skill in activity may usually register for the most advanced course without completing the prerequisite(s). Most of the courses are considered high intensity, that is, they require a high level of physical exertion. Thus students are encouraged to consider carefully any limits on their health or physical fitness and to consult a physician if they have any questions about their health or about their ability to participate safely in the physical activities involved in any course for which they wish to register.

- r1004 Diving, Springboard** (prereq 1007 or #)
727118 0800-0855 TTh, UAqCtr, 1 cr (Natorium Diving Well)
- r1007 Swimming** (prereq non-swimmer)
624258 -1 0800-0855 MWF, CookeH 10, 1 cr
931507 -2 0905-0955 MWF, CookeH 10, 1 cr
- r1014 Conditioning**
130730 -1 0800-0850 MWF, FieldHse, 1 cr
731041 -2 0905-0955 MWF, FieldHse, 1 cr
128533 -3 1010-1100 MWF, FieldHse, 1 cr
328577 -4 1115-1205 MWF, FieldHse, 1 cr
626754 -5 0800-0855 TTh, FieldHse, 1 cr
033376 -6 0905-1000 TTh, FieldHse, 1 cr
128063 -7 1010-1105 TTh, FieldHse, 1 cr
829314 -8 0830-0920 MWF, Gym, 1 cr (StP)
- r1015 Weight Training**
128192 -1 0800-0850 MWF, CookeH 5, 1 cr
425816 -2 0905-0955 MWF, CookeH 5, 1 cr
727779 -3 0800-0855 TTh, CookeH 5, 1 cr
825960 -4 1325-1420 TTh, CookeH 5, 1 cr
124815 -5 1430-1525 TTh, CookeH 5, 1 cr
929370 -6 0935-1025 MWF, Gym 15, 1 cr (StP)
- r1016 Posture and Individual Exercise** (moderate intensity)
925027 1325-1420 TTh, CookeH 308, 1 cr
- r1032 Badminton**
733548 -1 0800-0855 TTh, CookeH 325, 1 cr
547399 -2 0905-1000 TTh, CookeH 325, 1 cr
- r1033 Foli Fencing**
625670 0905-1000 TTh, CookeH 308, Sobalvarro, 1 cr
- r1034 Judo** (facility fee)
029165 1325-1420 TTh, Gym 200, Holm, 1 cr (StP)
- r1035 Karate** (facility fee)
329096 -1 0905-1000 MW, CookeH 308, Fusaro, 1 cr
832052 -2 1010-1105 MW, CookeH 308, Fusaro, 1 cr
- r1038 Tennis**
633431 -1 0800-0850 MWF, FieldHse, TCts, 1 cr
824145 -2 0905-0955 MWF, FieldHse, TCts, 1 cr
528710 -3 1010-1100 MWF, FieldHse, TCts, 1 cr
825036 -4 0800-0855 TTh, FieldHse, TCts, 1 cr
032518 -5 0905-1000 TTh, FieldHse, TCts, 1 cr
233965 -6 1010-1105 TTh, FieldHse, TCts, 1 cr
227423 -7 0830-0920 MWF, Gym, 1 cr (StP)
326327 -8 0935-1025 MWF, Gym, 1 cr (StP)
- r1041 Cycling** (supply own bicycle)
427484 0935-1025 TTh, Gym, 1 cr (StP)
- r1042 Orienteering**
527055 1325-1420 TTh, Armory, 1 cr
- r1044 Self Defense**
032681 -1 0800-0850 MWF, NorrisH M151, Bendickson, Brandt, 1 cr
526617 -2 0905-1000 TTh, NorrisH M151, Bendickson, Brandt, 1 cr
- r1050 Golf** (moderate intensity)
433477 -1 0905-0955 MTWThF, Golf Course, 1 cr (May 4-June 5)
427842 -2 1010-1100 MTWThF, Golf Course, 1 cr (May 4-June 5)
431793 -3 1115-1205 MTWThF, Golf Course, 1 cr (May 4-June 5)
230970 -4 1220-1310 MTWThF, Golf Course, 1 cr (May 4-June 5)
- r1059 Track and Field**
128547 1010-1105 TTh, FieldHse, BFAB Track, 1 cr
- r1072 Soccer**
024094 -1 0905-0955 MWF, FieldHse, BFAB Soccer Fields, BFAB 101, 1 cr
133683 -2 1010-1100 MWF, FieldHse, BFAB Soccer Fields, BFAB 101, 1 cr
032731 -3 1325-1420 TTh, FieldHse, BFAB Soccer Fields, BFAB 101, 1 cr
- r1073 Softball**
026900 -1 0905-0955 MWF, FieldHse, BFAB Softball Fields, BFAB 101, 1 cr
128189 -2 1010-1100 MWF, FieldHse, BFAB Softball Fields, BFAB 101, 1 cr
928851 -3 1325-1415 MWF, FieldHse, BFAB Softball Fields, BFAB 101, 1 cr
- r1074 Volleyball**
530585 -1 0800-0850 MWF, CookeH 325, 1 cr
325842 -2 0905-0955 MWF, CookeH 325, 1 cr
- r1107 Swimming** (prereq swim 100 yards)
130999 0905-1000 TTh, UAqCtr, 1 cr (Natorium West)
- r1133 Fencing** (prereq 1033)
733808 1010-1105 TTh, CookeH 308, Sobalvarro, 1 cr
- r1138 Tennis** (prereq 1038 or equiv)
727961 -1 1115-1205 MWF, FieldHse, TCts, 1 cr
247400 -2 1115-1210 TTh, FieldHse, TCts, 1 cr
- r1160 Tumbling and Floor Exercise** (prereq 1060 or equiv)
125695 0905-1000 TTh, CookeH 302, 1 cr
- r1205 Scuba and Skin Diving** (prereq 1107 or equiv) (facility fee)
633705 1010-1205 TTh, UAqCtr, CookeH 400, Whortenbury, 1 cr (Natorium East)

- R1306 Advanced Lifesaving** (prereq ability to swim 440 yds)
228166 1010-1100 MWF, UAqCtr, 1 cr
(Natorium East)
- R1410 Water Safety Instructor** (prereq curr ARC adv Lifesaving Cert, have or concurrently acquire ARC First Aid, CPR Cert)
730648 0800-1000 TTh, UAqCtr, 2 cr (Natorium)
- R1497 Directed Study** (prereq 3 cr in physical education, Δ)
224957 1-6 cr

PHYSICAL MEDICINE AND REHABILITATION (PMed) Medical School

- 5135 Pathokinesiology** (prereq #) (A-F only)
227406 Coleman, Allison, 3 cr
- 5161 Theory of Physical Medicine, Rehabilitation Applied to Medical Sciences Lectures**
331849 1535-1625 MTThF, 1535-1730 W, MoosT 2620, Berkeland, Allison, 5 cr
- 5222 Therapeutic and Evaluation Procedures III** (prereq regis PT)
930969 0905-1100 M, 1325-1520 TThF, ChRC R220, Allison, Coleman, 4 cr
- 5281 Theory of Therapeutic Exercise** (prereq regis PT)
326019 1220-1310 MF, 1010-1205 W, ChRC R208, Scudder, Amundsen, 4 cr
- 5283 Techniques of Therapeutic Exercise** (prereq regis PT)
132719 1325-1520 M, 0900-0955 W, 0905-1100 TF, ChRC R220, Scudder, Coleman, others, 4 cr
- 5292 Introduction to Research** (prereq regis PT)
628729 1220-1310 TTh, Mayo C368, Amundsen, 2 cr
- 5294 Independent Study in Physical Therapy** (prereq #) (A-F only)
124854 Ellingham, ar cr
- 5295 Clinical Education in Physical Therapy** (prereq regis PT)
825814 Ellingham, 15 cr
- 5312 Therapeutic Activities II** (prereq regis OT)
627337 1010-1205 MWF, ChRC R255, Meyers, 3 cr
- 5342 Theory II: Psychosocial Dysfunction** (prereq regis OT)
625328 0800-0955 MWF, 1010-1205 TTh, ChRC R262, Reisman, 6 cr
- 5360 Group Process Seminar** (prereq regis OT)
831919 1010-1205 MWF, ChRC R262, Berkeland, 3 cr
- 5393 Kinesiology/Evaluation** (prereq OT) (A-F only)
527105 1325-1520 MTWThF, ChRC R262, Huss, Thomas, 4 cr
- 5396 Field Work Education in Occupational Therapy** (prereq regis OT) (S-N only)
231746 Meyers, ar cr
- 5398 Fieldwork Education in Occupational Therapy** (prereq registered in program in occupational therapy) (S-N only)
826672 Meyers, 1 cr
- 5410 Adult Rehabilitation Medicine** (prereq regis med)
324982 Dykstra, ar cr
- 5411 Rehabilitation Medicine: Children** (prereq regis med)
733677 ar cr
- 5414 Physical Medicine and Rehabilitation for the Family Physician** (prereq regis med)
833542 Dykstra, ar cr
- 5415 Private Practice in Physical Medicine and Rehabilitation** (prereq regis med)
029862 Eckman, 4.5-9 cr
- 5416 Physical Medicine and Rehabilitation at St. Paul Ramsey** (prereq regis med)
724462 Koslark, ar cr
- 5814 Physiological Assessment in Physical Therapy**
628617 Amundsen, 1-3 cr

- 5817 Special Topics in Physical Therapy**
424116 Amundsen, 1-3 cr
- 5841 Instrumentation and Analysis Techniques** (prereq Phys 1031, 1032 or equiv)
626138 1640-1810 TTh, ChRC R208, Patterson, 3 cr
- 5951 Bioelectric Stimulation** (prereq Phsl 5441, engineering level calc and phys, 5950 or #) (A-F only)
824632 1010-1130 TTh, ChRC R208, Patterson, 3 cr
- 8103 Clinic** (prereq regis PT)
931829 Ellingham, ar cr
- 8130 Seminar: Current Literature in Physical Therapy**
333729 Amundsen, Scudder, 1 cr
- 8135 Advanced Kinesiology** (prereq kinesiology course)
733422 Allison, Coleman, 3 cr
- 8140 Physiological Assessment in Physical Therapy**
432894 Amundsen, Allison, 1 cr
- 8170 Special Topics in Physical Therapy** (prereq #)
131683 Amundsen, 1 cr
- 8172 Educational Administration** (prereq #)
128735 Allison, ar cr
- 8180 Physiological Bases for Therapeutic Exercise**
129620 3 cr
- 8185 Problems in Physical Therapy** (prereq regis PT)
130105 Amundsen, ar cr
- 8188 Teaching Practicum** (max 8 cr; prereq #)
532515 Ellingham, ar cr
- 8192 Research Design in Physical Therapy** (prereq #)
424391 Amundsen, 3 cr
- 8193 Research Problems in Physical Therapy** (prereq 8192 or #)
428134 Amundsen, ar cr
- 8195 Research in Physical Therapy** (prereq #)
527816 Amundsen, ar cr
- 8200 Physical Medicine and Rehabilitation Service**
133675 Awad, others, ar cr
- 8205 Readings in Physical Medicine and Rehabilitation** (max 2 cr)
329874 0900-1000 M, ChRC R208, Benninghoff, 2 cr
- 8206 Conference on Physical Medicine and Rehabilitation**
133814 0800-0900 F, ChRC R208, Benninghoff, others, 2 cr
- 8207 Basic and Applied Physiatry**
923990 0800-0900 M, 1400-1600 F, ChRC R208, Benninghoff, others, 2 cr
- 8210 Research in Physical Medicine**
324397 Awad, others, ar cr
- 8212 Electromyography** (prereq #)
028792 1300-1700 MTWThF, ChRC R311, Benninghoff, others, ar cr
- 8214 Readings in Electromyography** (max 3 cr; prereq #)
730164 0900-1000 F, ChRC R208, Benninghoff, others, 1 cr
- 8220 Seminar: Physical Medicine and Rehabilitation**
030610 0800-0900 W, ChRC R208, Benninghoff, others, 2 cr
- 8777 Thesis Credits: Masters**
430465 Amundsen, 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
133909 1-36 cr

PHYSICS (Phys) Institute of Technology

- R1001 The Physical World** (Sany phys courses other than 1002, 1061, no cr for IT stu; prereq 1 yr high school algebra) (companion lab is 1005)
828731 0800-0850 MTWThF, Phys 166, Goldman, 4 cr

- R1005 Physics Laboratory** (no cr for IT students; prereq 1001 or f1001) (S-N only)
223792 -1 LAB 0905-1100 T, 1 cr
226059 -2 LAB 1430-1625 T, 1 cr
632859 -3 LAB 1325-1520 W, 1 cr
424181 -4 LAB 1010-1205 F, 1 cr
- R1042 Introductory Physics** (Sother intro physics course, no cr for IT except arch, pre-arch, env design; prereq 1041)
031742 -1 LECT 1430-1520 MTWThF, Phys 150, Mauersberger, 4 cr (required recitation sections, 1430-1520 Th, assigned first 2 days of class) (concurrent registration in one of lab sections 1-12 of 1046 required)
★REC
- R1046 Introductory Physics Laboratory** (no cr for IT except arch, pre-arch, env design; prereq 1042 or f1042, 1045) (S-N only) (concurrent registration in 1042 required)
428067 -1 LAB 1220-1415 T, 1 cr
629928 -2 LAB 1535-1730 T, 1 cr
830740 -3 LAB 1745-1925 T, 1 cr
831564 -4 LAB 1220-1415 W, 1 cr
128015 -5 LAB 1535-1730 W, 1 cr
528836 -6 LAB 1010-1205 Th, 1 cr
129660 -7 LAB 1220-1415 Th, 1 cr
631419 -8 LAB 1535-1730 Th, 1 cr
624454 -9 LAB 1010-1205 F, 1 cr
430949 -10 LAB 1220-1415 F, 1 cr
832715 -11 LAB 1535-1730 F, 1 cr
147401 -12 LAB 1745-1925 F, 1 cr
- R1106 General Physics** (no cr for IT students; prereq 1105) (companion lab is 1109)
333763 1115-1205 MTWThF, Phys 150, Pepin, 4 cr
- R1109 General Physics Laboratory** (no cr for IT students; prereq 1108, 1106 or f1106) (S-N only)
130677 -1 LAB 0800-0955 T, 1 cr
332581 -2 LAB 1220-1415 T, 1 cr
333455 -3 LAB 1430-1625 T, 1 cr
928297 -4 LAB 1640-1835 T, 1 cr
030672 -5 LAB 0905-1100 W, 1 cr
631565 -6 LAB 1325-1520 W, 1 cr
632098 -7 LAB 1745-1925 W, 1 cr
433852 -8 LAB 0905-1100 Th, 1 cr
425668 -9 LAB 1220-1415 Th, 1 cr
128936 -10 LAB 1430-1625 Th, 1 cr
947402 -11 LAB 0800-0955 F, 1 cr
747403 -12 LAB 1220-1415 F, 1 cr
547404 -13 LAB 1430-1625 F, 1 cr
- R1252 General Physics II** (prereq Math 1221 or fMath 1221, 1251)
★LECT 1010-1100 MWF, Phys 150, Walsh, 4 cr
★REC 1010-1100 Th, SmithH 331
646521 -1 LAB 0800-0955 T,
446522 -2 LAB 0800-0955 Th,
★REC 1010-1100 Th, LindH 320
246523 -3 LAB 0800-0955 W,
146524 -4 LAB 0800-0955 F,
★REC 1010-1100 Th, Arch 35
946525 -5 LAB 1115-1310 W,
746526 -6 LAB 1115-1310 F,
★REC 1010-1100 Th, Phys 150
546527 -7 LAB 1220-1415 T,
346528 -8 LAB 1220-1415 Th,
★REC 1010-1100 Th, Phys 143
146529 -9 LAB 1325-1520 W,
546530 -10 LAB 1325-1520 F,
★REC 1010-1100 Th, Phys 133
346531 -11 LAB 1430-1625 T,
146532 -12 LAB 1430-1625 Th,
★REC 1010-1100 Th, Phys 131
046533 -13 LAB 1640-1835 T,
846534 -14 LAB 1640-1835 F,
- R1253 General Physics III** (prereq Math 1241 or fMath 1241, 1252)
★LECT 0800-0850 MWF, Phys 150, Dahlberg, Johnson, 4 cr
★REC 0800-0850 Th, Phys 143
346545 -1 LAB 0800-0955 T,
146546 -2 LAB 1535-1730 F,
★REC 0800-0850 Th, Phys 166
046547 -3 LAB 0905-1100 W,
846548 -4 LAB 0905-1100 F,
★REC 0800-0850 Th, Phys 133
646549 -5 LAB 1010-1205 T,
046550 -6 LAB 1010-1205 Th,
★REC 0800-0850 Th, Phys 131
846551 -7 LAB 1115-1310 W,
646552 -8 LAB 1115-1310 F,
★REC 0905-0955 Th, Phys 166
446553 -9 LAB 1220-1415 T,
246554 -10 LAB 1220-1415 Th,
★REC 0905-0955 Th, Phys 133

- 146555 -11 LAB 1325-1520 W,
946556 -12 LAB 1325-1520 F,
★REC 0905-0955 Th, Phys 131
746557 -13 LAB 1430-1625 T,
546558 -14 LAB 1430-1625 Th,
★REC 0905-0955 Th, Phys 236A
346559 -15 LAB 1640-1835 T,
746560 -16 LAB 1640-1835 Th,
★REC 0905-0955 Th, Phys 143
546561 -17 LAB 0800-0955 S,
346562 -18 LAB 1010-1205 S,
★LECT 1325-1415 MWF, Phys 150,
Courant, Jones, 4 cr
★REC 1220-1310 Th, Phys 170
946573 -19 LAB 0800-0955 T,
746574 -20 LAB 0800-0955 Th,
★REC 1220-1310 Th, Phys 210
546575 -21 LAB 0905-1100 W,
346576 -22 LAB 0905-1100 F,
★REC 1220-1310 Th, Phys 157
146577 -23 LAB 1010-1205 T,
046578 -24 LAB 1010-1205 Th,
★REC 1220-1310 Th, Phys 143
846579 -25 LAB 1115-1310 W,
146580 -26 LAB 1115-1310 F,
★REC 1325-1415 Th, Phys 166
046581 -27 LAB 1220-1415 T,
846582 -28 LAB 1430-1625 F,
★REC 1325-1415 Th, Phys 133
646583 -29 LAB 1430-1625 T,
446584 -30 LAB 1430-1625 Th,
★REC 1325-1415 Th, Phys 170
246585 -31 LAB 1640-1835 T,
146586 -32 LAB 1640-1835 Th,
★REC 1325-1415 Th, Phys 143
946587 -33 LAB 1745-1925 W,
746588 -34 LAB 1745-1925 F,
★REC 1325-1415 Th, Phys 157
546589 -35 LAB 0800-0955 S,
946590 -36 LAB 1010-1205 S,
- r1285 General Physics Laboratory II** (prereq 1275,
1281 or f1281 or 1331 or f1331) (S-N only)
724168 -1 LAB 1640-1835 W, 1 cr
327753 -2 LAB 1010-1205 Th, 1 cr
- r1295 General Physics Laboratory III** (prereq 1285,
1291 or f1291 or 1341 or f1341) (S-N only)
824324 -1 LAB 0800-0955 Th, 1 cr
826803 -2 LAB 1220-1415 Th, 1 cr
126202 -3 LAB 1745-1925 F, 1 cr
- r1453H Honors Physics III** (prereq 1452H, consent of
IT Honors office)
★LECT 1115-1205 MWF, Phys 131, Ellis,
Halley, 4 cr
★REC 1010-1100 T, Phys 157
846596 -80 LAB 1325-1520 Th,
646597 -81 LAB 1220-1415 F,
★REC 1115-1205 T, Phys 157
446598 -82 LAB 1220-1415 T,
246599 -83 LAB 1220-1415 W,
★REC 0905-0955 Th, Phys 157
046600 -84 LAB 1430-1625 T,
★REC 1010-1100 Th, Phys 157
846601 -85 LAB 1115-1310 Th,
646602 -86 LAB 1430-1625 F,
- r3513 Quantum Physics II** (prereq 3512)
123888 1010-1100 MTWF, Phys 131, Huang, 4 cr
- r3515 Modern Physics Laboratory** (prereq 3501 or
f3501 or 3512 or f3512)
943480 -1 LAB 1430-1730 M, Phys 62,
Broadhurst, 1 cr
743481 -2 LAB 1430-1730 T, Phys 62,
Broadhurst, 1 cr
543482 -3 LAB 0800-1100 Th, Phys 62,
Broadhurst, 1 cr
343483 -4 LAB 1430-1730 Th, Phys 62,
Broadhurst, 1 cr
- r3970 Directed Studies** (prereq #, Δ)
730147 1-5 cr
- r5024 Introduction to Electric and Magnetic Fields**
(prereq 5023)
133806 1115-1205 MTWThF, Phys 133, Kubota,
4 cr
- r5053 Classical Physics** (prereq 5052)
128760 0855-1000 MWF, Phys 210, Bayman, 4 cr
- r5123 Methods of Experimental Physics III** (prereq
5122 or #)
133028 -1 1220-1310 MWF, Phys 170, Ganz,
4 cr (lab ar)
130551 -2 1220-1310 MWF, Phys 170, Ruddick,
4 cr (lab ar) (department approval and
concurrent registration in Comp 3015, sec
3 is required)
- r5124 Experimental Project** (prereq 5123, #)
925755 ar cr
- r5153 Quantum Mechanics** (prereq 5152)
531543 0815-0955 TTh, Phys 210, Suura, 4 cr
- r5162 Introduction to Plasma Physics** (prereq 5022,
5024 or #)
547533 1430-1520 MWThF, Phys 131, Lysak, 4 cr
- r5211 Introductory Solid State Physics** (prereq
5101, 5202 or equiv)
530117 1010-1100 MTWF, Phys 133, Glazman,
4 cr
- r5233 Introduction to Solid State Physics** (prereq
5232)
527797 1115-1205 MTWF, Phys 143,
Zimmermann, 4 cr
- r5301 Introduction to Nuclear Physics** (prereq 5102
or equiv)
429834 1220-1310 MTWF, Phys 143, Dehnard,
4 cr
- r5371 Introduction to Elementary Particle Physics**
(prereq 5102 or equiv)
724333 1325-1415 MTWF, Phys 143, Vainshtein,
4 cr
- r5400H Junior Honors Seminar** (prereq IT or CLA
upper div honors student, #) (S-N only)
127097 1535-1650 T, Phys 157, Dahlberg, 1 cr
- r5410H Senior Honors Seminar** (prereq IT or CLA
upper div honors student, #) (S-N only)
926615 1535-1650 Th, Phys 157, Johnson, 1 cr
- r5912 Concepts in Physics** (no cr for phys maj;
prereq 5911)
047407 1615-1730 TTh, Phys 131, Jones R., 4 cr
(addtl 2 hr lab ar)
- r5950 Seminar** (prereq Δ)
828681 1600-1730 W, Phys 131, Heller, ar cr
- r5970 Directed Studies** (prereq #, Δ)
025018 1-5 cr
- r5990 Directed Research** (prereq 3rd yr, Δ)
127981 ar cr
- r8083 Cosmology and Particle Physics** (prereq
5371, 8082 or #)
445435 1325-1415 MWF, Phys 236A, Olive, 3 cr
- r8123 Relativistic Quantum Field Theory** (prereq
8122 or #)
128869 0905-0955 MWF, Phys 236A, Rudaz, 3 cr
- r8131 Symmetry and Its Applications to Physical
Problems** (prereq 5153 or #)
231634 1220-1310 MTWF, Phys 157, Ruddick,
4 cr
- r8161 Atomic and Molecular Structure** (prereq 5153
or #)
847408 1010-1100 MWF, Phys 157, Bayman,
Broadhurst, 3 cr
- r8200 Seminar: Condensed Matter Physics** (prereq
#) (S-N only)
131657 1325-1500 TTh, Phys 210, Ganz, ar cr
- r8216 Many-Body Theory** (prereq 8121 or #)
923827 1010-1100 MWF, Phys 210, Valls, 3 cr
- r8223 Solid-State Physics** (prereq 8222)
625555 0800-0850 MWF, Phys 143, Campbell,
3 cr
- r8300 Seminar: Nuclear Physics** (prereq #) (S-N
only)
424763 1430-1625 W, Phys 143, ar cr
- r8370 Seminar: Elementary Particle Physics**
(prereq #) (S-N only)
430546 1325-1500 WF, Phys 157, Walsh, ar cr
- 8373 Elementary Particle Physics** (prereq 8372)
127424 1010-1100 MWF, Phys 143, 3 cr
- r8400 Seminar: Space Physics** (prereq #) (S-N only)
743478 1430-1630 T, Phys 236A, ar cr
- r8411 Cosmic Ray and Space Physics** (prereq 5102,
5053 or #)
543479 1115-1205 MWF, Phys 157, Waddington,
3 cr
- r8500 Plan B Project** (no cr toward PhD; prereq #)
(S-N only)
023804 1220-1310 MWF, Phys 236A, Giese, 4 cr
- 8777 Thesis Credits: Masters**
931006 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
227065 1-36 cr
- r8950 Seminar: Problems of Physics Teaching and
Higher Education** (prereq #)
031255 1 cr
- r8990 Research In Physics** (prereq #)
030865 1430-1630 ThF, Phys 143, ar cr

PHYSIOLOGY (Phs) Medical School

- 3091H Honors Course: Readings in Physiology**
(prereq honors candidates in physiology, Δ)
331432 Poppele, ar cr
- 3092H Honors Course: Problems in Physiology**
(prereq honors candidates in physiology, Δ)
029683 Poppele, ar cr
- 3970 Directed Studies** (prereq #, Δ)
724476 ar cr
- 5101 Neuroscience for Dental Students** (prereq
courses in biochemistry and human anatomy,
fCBN 5110)
★LECT 1325-1415 TWTh, MoosT 2620,
1.5 cr
524219 -1 LAB 1430-1730 W, MoosT 3110
- 5111 Human Physiology** (prereq 5110, 1st yr med
stu or grad stu)
★LECT 0905-0955 MWThF, PWB 2470,
Wangensteen, 4 cr (Mar 30-June 6)
232895 -1 LAB 1325-1730 Th, MoosT 3110
329471 -2 LAB 1220-1625 F, MoosT 3110
727698 -3 LAB 1325-1730 T, MoosT 3110
- 5112 Human Neuroscience B** (prereq first year med
student or grad, CBN 5111)
131772 1010-1100 M, PWB 2470, Ebner, 3 cr
(Mar 30-April 30) (lab ar)
- 5113 Problems in Physiology** (prereq #)
127715 ar cr
- 5203 Computational Neuroscience III: Neural
Systems and Information Processing** (NSc
5203; prereq 5202)
642985 1430-1600 MW, MirdH 5276, Soechting,
5 cr
- 5444 Muscle Contraction** (§MdBc 5444, NSc 5444,
VB 5444; prereq undergrad courses in
biochemistry or physiology, #)
327252 1515-1645 TTh, MoosT 2585, Donaldson,
others, 3 cr
- 5552 Readings in Physiology**
025486 ar cr
- 5553 Research in Physiology**
823884 ar cr
- 5577 Methods in Physiology** (prereq #)
333021 Stish, 3 cr
- 8113 Problems in Physiology** (prereq #)
428795 ar cr
- 8201 Literature Seminar** (S-N only)
931930 Branton, 1 cr
- 8202 Readings in Physiology**
133263 ar cr
- 8203 Research in Physiology**
430630 ar cr
- 8211 Selected Topics in Heart and Circulation**
(prereq 8110, 8111 or equiv, #)
242987 Heller, Mohrman, 2 cr
- 8216 Selected Topics in Neurophysiology** (prereq
5112, CBN 5111)
027321 Soechting, ar cr
- 8227 Methods in Physiology** (prereq #)
030039 Stish, 3 cr
- 8777 Thesis Credits: Masters**
728687 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
728284 1-36 cr

PLANT BIOLOGY (PBio) Biological Sciences

- r1009 Minnesota Plant Life** (§Bot 1009; suitable for
non maj) (course fee)
★LECT 1250-1340 TTh, BioSci 6, Wetmore,
Cholewa, (4 field trips 1200-1600 T, 2nd
half of quarter)
231553 -1 LAB 1040-1235 TTh, BioSci 115, 4 cr
524835 -2 LAB 1355-1550 TTh, BioSci 115, 4 cr
- r1012 Plants Useful to Humans** (§Bot 1012)
224179 1115-1205 MWThF, SciCB 175, Pratt, 4 cr
(Mpls)

- 3131 Survey of Plant Physiology** (§5131, Bot 3131, Bot 5131, PIPh 3131, PIPh 5131; prereq Biol 1103 or Biol 3012, BioC 3031 or 1 or Biol 5001) 126192 1250-1340 MTWF, BioSci 12, Gantt, 4 cr
- r3201 Introductory Plant Systematics** (§Bot 3201; prereq Biol 1103 or Biol 3012)
★LECT 1250-1340 TTh, BorH 365, Doebley 024239 -1 LAB 1355-1655 TTh, BioSci 176, 4 cr
- 5001 Basic Botany** (§Bot 5001; prereq Biol 1008 or Biol 1009, #, Δ) 529792 ar cr
- 5131 Survey of Plant Physiology** (§3131, Bot 3131, Bot 5131, PIPh 3131, PIPh 5131; prereq Biol 1103 or Biol 3012, BioC 3031 or 1 or Biol 5001)
★LECT 1250-1340 MTWF, BioSci 12, Gantt 326666 -1 REC 1250-1340 Th, BioSci 12, 4 cr
- 5182 Plant Metabolism** (§Bot 5182, PIPh 5182; prereq 5131 or equiv, biochem course) 129178 0805-0920 TTh, BioSci 12, Soulen, 3 cr
- r5970 Directed Studies** (prereq #, Δ) 225512 ar cr

5990 Directed Research (prereq #, Δ) 225252 ar cr

8777 Thesis Credits: Masters 225655 1-16 cr

8888 Thesis Credits: Doctoral (max 18 cr per qtr) 126930 1-36 cr

8990 Research Problems (prereq #, Δ) 327283 ar cr

PLANT BREEDING (PIBr)

8777 Thesis Credits: Masters 729788 1-16 cr

8888 Thesis Credits: Doctoral (max 18 cr per qtr) 526777 1-36 cr

PLANT PATHOLOGY (PIPa)

Agriculture

3090 Research in Plant Pathology (prereq 1001 or equiv or #) 633607 ar cr

5000 Professional Experience Program (prereq #) 733498 Groth, Percich, 4 cr

5007 Air Pollutants and Their Effects on Plants (prereq 20 or Biol, including biochem and plant physiology, 10 cr college chem, or equiv) (A-F only) 129570 0830-0920 MF, BorH 365, Krupa, 2 cr

r5008 Introduction to Plant Nematology (prereq 5002 or #) (A-F only)
★LECT 1250-1340 TTh, BorH 291, MacDonald, 3 cr
131568 -1 LAB 1355-1550 T, BorH 291, MacDonald

r5050 Forest Pathology (prereq Biol 1103 or equiv)
★LECT 0830-0920 TTh, BorH 365, Blanchette
524298 -1 LAB 1250-1445 MW, BorH 295, Blanchette, 4 cr
747479 -2 LAB 1500-1645 MW, BorH 295, 4 cr

8003 Plant Disease Theory III: Populations (prereq 5005, 5006, 5007 or #, 8001, 8002) 030655 1355-1550 TTh, BorH 491, Groth, Roelofs, others, 4 cr

8090 Advanced Procedures and Research in Plant Pathology 631470 ar cr

8095 Advanced Procedures and Research in Mycology 825313 Stewart, others, 1-6 cr

8500 Research in Plant Pathology (S-N only) 645403 Larsen, 1-8 cr

8777 Thesis Credits: Masters 228569 1-16 cr

8888 Thesis Credits: Doctoral (max 18 cr per qtr) 426044 1-36 cr

PLANT PHYSIOLOGY (PIPh)

Agriculture

8251 Seminar: Plant Physiology (S-N only) 333181 Markhart, 1 cr

8777 Thesis Credits: Masters 125088 1-16 cr

8888 Thesis Credits: Doctoral (max 18 cr per qtr) 126659 1-36 cr

POLISH (Plsh)

Slavic and Central Asian Languages

& Literatures

Liberal Arts

1103 Beginning Polish (prereq 1102)

443166 0905-1030 MWF, Arch 15, Polakiewicz, 5 cr

5900 Topics

630738 1820-2050 Th, FolH 240, Swieczkowski, 4 cr

5970 Directed Readings (prereq #, Δ, CLA approval)

425752 1-4 cr

POLITICAL SCIENCE (Pol)

Liberal Arts

r1001 American Government and Politics

★LECT 1010-1100 MTW, WilleyH 125, McGuire

943589 -1 REC 0905-0955 Th, BlegH 125, 5 cr
243590 -2 REC 0905-0955 Th, BlegH 215, 5 cr
243587 -3 REC 0905-0955 Th, HHHctr 20, 5 cr
143588 -4 REC 1010-1100 Th, HHHctr 20, 5 cr
343595 -5 REC 1220-1310 Th, BlegH 155, 5 cr
843598 -6 REC 1220-1310 Th, BlegH 250, 5 cr
143591 -7 REC 1325-1415 Th, BlegH 155, 5 cr
943592 -8 REC 1325-1415 Th, BlegH 120, 5 cr
143601 -9 REC 0905-0955 F, BlegH 340, 5 cr
743593 -10 REC 1010-1100 F, BlegH 115, 5 cr
543594 -11 REC 1010-1100 F, BlegH 335, 5 cr
143596 -12 REC 1010-1100 F, HHHctr 30, 5 cr
043597 -13 REC 1010-1100 F, BlegH 340, 5 cr
643599 -14 REC 1010-1100 F, BlegH 145, 5 cr
343600 -15 REC 1115-1205 F, HHHctr 30, 5 cr
143610 -16 REC 1115-1205 F, BlegH 335, 5 cr

r1025 World Politics

131092 0905-0955 MWF, AndH 210, Selbin, 4 cr

r1026 American Foreign Policy

129044 1220-1310 MWF, AndH 210, Sampson, 4 cr

r1041 Contemporary Political Ideologies

330541 0905-0955 MWF, AndH 370, Disch, 4 cr

r3051 Introduction to Political Analysis

★LECT 1115-1230 MW, AndH 370, Holt
146708 -1 REC 1115-1230 F, AndH 370, Holt, 5 cr
046709 -2 REC 1115-1230 F, BlegH 145, Holt, 5 cr
346710 -3 REC 1115-1230 F, BlegH 220, Holt, 5 cr

3070 Directed Field Studies (prereq #, Δ) (A-F only)

728995 1-4 cr

3080 Internship (max 8 cr; prereq Δ) (S-N only)

929692 4 cr

r3085 Introduction to Political Research (prereq 3051 or #)

531624 -1 0945-1100 TTh, BlegH 225, Shively, 4 cr (pol sci maj only)
747532 -2 0945-1100 TTh, BlegH 225, Shively, 4 cr

3110H Honors Work in Selected Fields (max 6 cr; prereq political science honors program maj, 3109H)

432961 1-6 cr

r3306 The American Presidency (prereq 1001 or equiv or #)

143607 1010-1130 TTh, BlegH 5, Jacobs, 4 cr

r3308 The United States Congress (prereq 1001 or equiv or #)

443605 1325-1415 MWF, BlegH 215, Smith, 4 cr

r3661 Democratic Theory (prereq 3051 or 9 cr social science or #)

043602 1430-1520 MWF, BlegH 215, 4 cr

r3766 Political Psychology (prereq 1001 or equiv or #)

643604 1245-1400 TTh, AndH 230, Healy, 4 cr

r3835 The International System (§5884)

033121 1010-1100 MWF, AndH 370, Oren, 4 cr

3970 Directed Studies (prereq #, Δ, □)

928252 1-6 cr

r5303 The American Democracy (prereq 1001 or equiv or #)

743609 1820-2050 Th, BlegH 235, McAvoy, 4 cr

r5410 Advanced Topics in Government and Politics (prereq 3051 or non-political science grad or #)

126550 -1 1415-1535 MW, BlegH 155, Holt, 4 cr

(Politics of Environmental Movements)

146711 -2 1220-1310 MWF, BlegH 215, Toprak, 4 cr (Middle Eastern Women)

r5471 Government and Politics of the Soviet Union (§5443; prereq 3051 or non-political science grad student or #)

946704 0945-1100 TTh, BlegH 250, Davidheiser, 4 cr

r5473 Chinese Government and Politics (§5454; prereq 3051 or non-political science grad student or #)

746705 0945-1100 MW, BlegH 235, Kelliher, 4 cr

r5478 Government and Politics of African Countries (§5448; prereq 3051 or non-political science grad student or #)

031739 1820-2050 T, BlegH 155, Nimitz, 4 cr

r5737 American Political Parties (prereq 1001 or equiv or #)

630268 1220-1310 MWF, BlegH 120, Backstrom, 4 cr

r5877 Comparative Foreign Policy (prereq 3836 or non-political science grad student or #)

546706 1245-1400 MW, BlegH 425, Selbin, 4 cr

r5883 International Organizations (prereq 3835 or non-political science grad student or #)

346707 1325-1450 TTh, BlegH 110, Duval, 4 cr

r5889 The Politics of Global Economic Relations (prereq 3835 or non-political science grad student or #)

843603 1115-1205 MWF, BlegH 120, 4 cr

8102 Approaches to Political Research (prereq pol sci grad maj or Δ)

432913 1535-1730 Th, SocSci 1383, Shively, 3 cr

8103 Political Science as a Profession (prereq pol sci grad stu) (S-N only)

927795 1325-1500 T, SocSci 1383, Kvakiv, 3 cr

8121 Introduction to Quantitative Analysis (prereq pol sci grad stu or Stat 5021 or #)

424729 1325-1520 TTh, HHHctr 60, Flanagan, 4 cr

8140 Individual Readings and Research in Methodology (prereq pol sci grad maj or #, Δ)

424021 1-3 cr

8150 Research Seminar: Methodology (prereq pol sci grad maj or #)

226160 3 cr

8200 Understanding Political Theory (prereq pol sci grad maj or Δ)

126331 1230-1500 W, SocSci 1383, Ball, 4 cr

8231 Democratic Theory (prereq pol sci grad maj or #)

143579 1325-1520 F, SocSci 1383, Disch, 3 cr

8240 Individual Reading and Research in Political Thought (prereq pol sci grad maj or #, Δ)

327624 1-3 cr

8250 Research Seminar: Political Theory (prereq pol sci grad maj or #)

928137 3 cr

8321 Urban Politics (prereq pol sci grad maj or #) (A-F only)

543580 1535-1730 Th, BlegH 245, Backstrom, 3 cr

8335 Public Policy (prereq pol sci grad maj or #)

343581 1325-1520 W, SocSci 101, Gray, 3 cr

8340 Individual Reading and Research in American Politics (prereq pol sci grad maj or #, Δ)

833881 1-3 cr

8350 Research Seminar: American Politics (prereq pol sci grad maj or #)

427761 3 cr

8402 Conflict Dynamics and Security (prereq 8401 or #) (A-F only)

143582 1325-1520 F, SocSci 101, Oren, 3 cr

- 8608 Government and Politics of the U.S.S.R.** (prereq 5471 or equiv or #)
843584 1325-1520 T, SocSci 101, Davidheiser, 3 cr
- 8611 Government and Politics in East Asia** (prereq 5473 or equiv or #)
643585 1535-1730 M, SocSci 1383, Kelliher, 3 cr
- 8637 Comparative Political Economy** (prereq pol sci grad maj or #) (A-F only)
443586 1325-1520 M, SocSci 1383, Freeman, 3 cr
- 8640 Individual Readings and Research in Comparative Politics** (prereq pol sci grad maj or #, Δ)
326828 1-3 cr
- 8650 Research Seminar: Comparative Politics** (prereq pol sci grad maj or #)
731699 3 cr
- 8777 Thesis Credits: Masters**
232847 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
324173 1-36 cr

PORTUGUESE (Port) Spanish And Portuguese Liberal Arts

- r1003 Beginning Portuguese** (prereq 1002 or #)
126094 -1 0905-0955 MTWThF, FolH 214, 5 cr
725479 -2 1115-1205 MTWThF, FolH 104, 5 cr
- r1005 Intermediate Portuguese** (prereq 1004)
629914 1010-1100 MTWThF, FolH 234, 5 cr
- r1006 Intermediate Portuguese** (prereq 1005)
531381 0945-1100 MWF, FolH 426, 5 cr
- r3104 The Art of Reading Luso-Brazilian Literary Texts** (prereq 3014)
243170 1220-1310 MWF, FolH 246, 4 cr
- r3502 Luso-Brazilian Civilization II** (prereq 1006)
943172 1010-1100 MWF, FolH 246, Reis, 5 cr
- r3603 Modern and Contemporary Brazilian Prose Fiction: Its Political and Social Content**
143171 1325-1415 MWF, FolH 318, Reis, 4 cr
- 3970 Directed Studies** (prereq #, Δ, □)
831127 1-5 cr
- 5940 Figures in Luso-Brazilian Literature** (prereq Span 3104 or SpPI 3104 or Δ)
743173 1515-1800 W, FolH 240, Reis, 4 cr
- 5970 Directed Readings** (max 15 cr; prereq #, Δ, CLA approval)
827966 1-5 cr
- 5990 Directed Research** (prereq #, Δ, CLA approval)
024502 1-5 cr
- 8777 Thesis Credits: Masters**
131621 1-16 cr
- 8970 Directed Readings in Romance Languages**
524169 ar cr

PROSTHODONTICS (Pros) Dentistry

- 5200 Fixed Prosthodontics Seminar for Postgraduate Dental Fellows** (S-N only)
134137 1 cr
- 8005 Advanced Clinical Prosthodontics I**
133854 ar cr
- 8006 Advanced Clinical Prosthodontics II** (prereq #)
231360 ar cr
- 8015 Seminar: Prosthodontics I** (prereq #)
224960 ar cr
- 8020 Applied Gnathology** (prereq #)
726146 ar cr
- 8025 Seminar: Applied Biomaterials I** (prereq #)
028131 ar cr
- 8032 Principles of Maxillofacial Care** (prereq #)
031806 ar cr

PSYCHOLOGY (Psy) Liberal Arts

- r1001 Introduction to Psychology**
★LECT 1325-1415 MTWTh, WilleyH 175, Peterson, others, 5 cr
032308 -1 REC 0905-0955 F, BlegH 235
430403 -2 REC 0905-0955 F, Arch 5
128508 -3 REC 1010-1100 F, BlegH 235
226594 -4 REC 1010-1100 F, Arch 5
324707 -5 REC 1010-1100 F, FolH 306
126595 -6 REC 1115-1205 F, BlegH 10
133255 -7 REC 1115-1205 F, FolH 306
929448 -8 REC 1220-1310 F, BlegH 150
047763 -9 REC 1220-1310 F, BlegH 10
847764 -10 REC 1325-1415 F, BlegH 150
- r1005 Introductory Laboratory Psychology** (1004-1005†; prereq 1004)
★LECT 0905-0955 M, NichH 211, Fox, Peterson
431373 -1 LAB 1325-1625 T, EIH 50, 4 cr
231567 -2 LAB 1325-1625 T, EIH 60, 4 cr
026850 -3 LAB 0905-1205 W, EIH 50, 4 cr
033359 -4 LAB 0905-1205 W, EIH 60, 4 cr
131585 -5 LAB 1325-1625 W, EIH 50, 4 cr
228555 -6 LAB 1325-1625 W, EIH 60, 4 cr
330961 -7 LAB 0905-1205 Th, EIH 50, 4 cr
233772 -8 LAB 0905-1205 Th, EIH 60, 4 cr
523782 -9 LAB 1325-1625 Th, EIH 50, 4 cr
- r1011 Career Decision Making** (cannot be applied toward any CLA degree; prereq fr or soph or #)
430787 -1 1220-1415 T, JonesH 4, Klein, 2 cr
426609 -2 1325-1520 Th, PeikH 315, Klein, 2 cr
- r3101 Introduction to Personality** (§5101; prereq 1001)
143512 0945-1100 TTh, NichH 45, Tellegen, 4 cr
- 3201 Introduction to Social Psychology** (prereq 1001)
943513 1010-1100 MWF, NichH 45, Fleming, Gonzales, 4 cr
- r3604 Introduction to Abnormal Psychology** (§5604H; prereq 1001)
732834 1245-1400 TTh, NichH 45, Butcher, 4 cr
- 3617 Introduction to Clinical Psychology** (prereq 3604 or 5604H, 3801 or equiv)
724641 0945-1100 TTh, EIH N227, Grove, 4 cr
- r3902 Major Project in Psychology** (prereq 1005, 3801, jr or sr psychology maj)
628732 -1 1430-1625 T, ChDev 105, 4 cr
530926 -2 1325-1520 W, JonesH 4, 4 cr
629086 -3 1010-1205 Th, PeikH 215, 4 cr
- 3970 Directed Studies** (prereq #, Δ, □)
228068 1-8 cr
- 3990 Directed Research** (prereq #, Δ, □)
429140 1-8 cr
- 5013 Psychology of Learning** (prereq 1005, 3011 or EBB 3111 or #, except grad students)
243508 0905-0955 MWF, EIH N119, Overmier, 4 cr
- r5014 Psychology of Human Learning and Memory** (prereq 1005 or 3011 or 3051 or # except for student in honors sequence, grad students)
929465 0945-1100 TTh, BuH 120, Fox, 4 cr
- r5034 Psychobiology of Vision** (§NSc 5034; prereq 3031 or #)
127429 0945-1100 TTh, EIH 150, Burkhardt, 4 cr
- r5136 Human Abilities** (prereq 3135 or 5135, 5862 or equiv or #)
030428 1415-1700 T, EIH N119, Ackerman, 4 cr
- 5141 Psychology of Women** (prereq 1001)
143509 0945-1100 TTh, BuH 123, Frazier, 4 cr
- r5202 Attitudes and Social Behavior** (prereq 3201 or #)
433981 1325-1415 MWF, EIH N119, Borgida, 4 cr
- 5204 Psychology of Interpersonal Relationships** (§FSoS 5202; prereq 3201 or # except for stu in honors sequence and grad stu) (A-F only)
046712 1010-1100 MWF, EIH N119, Berscheid, 4 cr
- r5501 Vocational Psychology** (prereq 3801 or #)
533891 0945-1100 TTh, EIH N119, Dawis, 4 cr
- r5900H Honors Seminar: Psychology** (prereq psychology honors maj or #) (S-N only)
124362 1430-1625 W, EIH N227, Fletcher, 1 cr
- 5901H Honors Project** (prereq sr, #) (A-F only)
629590 4-8 cr

- 5960 Topics in Psychology** (prereq 1001, #)
725644 1115-1230 TTh, EIH N119, Kersten, 4 cr
- 8019 Seminar: Readings in Behavior Theory** (prereq 5017, 5012 or #)
443510 1325-1520 T, EIH N227, Overmier, 3 cr
- 8037 Psychophysics and Audition** (prereq #)
130145 1245-1400 TTh, EIH N668, Viemeister, 3 cr
- 8041 Psychophysiology** (prereq 8040, #)
443507 0930-1100 T, EIH N668, Lykken, Iacono, 4 cr (3 hrs addtl lab ar)
- 8056 Seminar: Psychology of Language** (prereq 5054, #)
429915 1245-1400 TTh, EIH 225, Fletcher, 3 cr
- 8070 Seminar: Psychopharmacology** (prereq #)
324304 1200-1300 M, MlrDh 3260, Hatsukami, Sparber, 1 cr
- 8114 Scientific Study of Psychopathology** (8114-8115†; prereq #)
233786 1300-1600 Th, EIH N595, Leon, 3 cr
- 8121 Achievement Motivation and Women** (prereq 8 cr psychology, grad student, #)
732593 1230-1530 W, EIH N668, Faunce, 3 cr
- 8206 Seminar: Research in Social Psychology** (prereq 8205, #)
730715 1300-1500 T, EIH N305, Fleming, Snyder, 3 cr
- 8208 Advanced Social Psychology: The Self** (prereq #)
833637 1000-1200 W, EIH N227, Snyder, 3 cr
- 8410 Perspectives in Learning, Perception, and Cognition** (prereq post-baccalaureate status) (S-N only)
830902 1535-1730 Th, EIH 150, 160, Overmier, 1 cr
- 8503 Counseling Psychology III: Interviewing and Theories** (prereq 8501, 8502, counseling psychology stu or #)
★LECT 1430-1610 T, EIH N595, Layton, 4 cr
333486 -1 LAB 1325-1520 F, EIH N595, Layton
- 8516 Practicum in Student Counseling** (prereq 8501, 8502, 8503 or equiv) (S-N only)
426724 1430-1625 Th, EddyH 202, Loper, 3 cr
- 8519 Practicum in Rehabilitation Counseling** (prereq 8503 or #)
030431 1325-1520 TTh, Mayo 796, Atheistan, 3 cr
- 8522 Pre-Practicum in Applied Psychology** (prereq #) (S-N only)
328904 1535-1730 M, EIH N595, Wark, 1-6 cr
- 8526 Seminar: Student Personnel Work** (prereq grad stu)
547466 1400-1600 W, EIH, Pazandak, Kroeger, 2 cr
- 8546 Seminar: Research in Counseling Psychology** (prereq 8544, 8545, #) (S-N only)
727491 Hendel, 1 cr
- 8560 Internship in Counseling Psychology** (prereq #)
530957 1-12 cr
- 8574 Seminar: Strong Interest Inventory** (prereq counseling psych grad stu or #) (S-N only)
147468 Hansen, 2 cr
- 8613 Professional Methods in Clinical Psychology I: Assessment** (prereq clinical psychology maj)
643506 1400-1615 W, EIH N423, Depue, 4 cr
- 8620 Practicum in Clinical Psychology** (prereq #) (S-N only)
529744 1-6 cr
- 8660 Seminar: The Psychopathic Personality: Theory and Research** (prereq #)
425203 0945-1100 Th, EIH N668, Lykken, 2 cr
- 8670 Internship in Clinical Psychology** (prereq PhD candidate in clinical psychology, permission of director of training program)
833279 2-4 cr
- 8777 Thesis Credits: Masters**
633977 1-16 cr
- 8863 Seminar: Psychometric Methods** (8861-8882-8883†; prereq 8882)
833122 Weiss, 1 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
425914 1-36 cr

- 8900 Seminar: Behavioral Genetics** (prereq #)
032762 McGue, 2 cr
- r8970 Seminar: Special Areas of Psychology and Related Sciences** (prereq #)
730438 -1 1600-1745 M, WulH 230, Schur, 3 cr
527072 -3 1220-1415 TTh, EITH N647, Cudeck, 4 cr
047469 -5 1530-1630 Th, EITH N227, Viemeister, 1 cr
347470 -6 1330-1500 Th, EIRH N227, Snyder, 1-6 cr
- 8980 Directed Teaching in Psychology** (prereq #)
732948 1-6 cr
- 8990 Research Problems** (prereq #)
029554 1-6 cr

PUBLIC AFFAIRS (PA)

- r5002 Planning and Management of Organizational Relations** (prereq grad or adult special or Δ)
946721 1600-1745 MWF, HHHCTr 25, Light, 4 cr
- r5012 Policy Analysis II** (§8202; prereq 5011, public affairs or planning maj or #) (A-F only)
832245 1600-1745 TTh, HHHCTr 25, 1430-1545 F, Hoernack, 4 cr
- 5122 Public Budgeting II** (†5121-5122; prereq 5121, grad or public health or public affairs and planning maj)
346724 1325-1500 MWF, HHHCTr 25, Brandl, Jernberg, 3 cr
- 5123 Financial Management in Public and Nonprofit Organizations** (prereq grad or adult special or Δ)
228183 0900-1130 M, HHHCTr 25, Stevens, 3 cr
- 5197 Topics in Community Development and Citizen Action** (prereq grad stu or adult special or Δ)
233173 1900-2130 Th, HHHCTr 25, Dewar, 3 cr
- r5221 Law and Urban Affairs** (§8511; prereq grad or adult special or Δ)
527038 1815-2045 Th, HHHCTr 30, Sellergren, 3 cr
- r5293 Topics in Planning** (prereq grad or adult special or Δ)
728446 1900-2130 W, HHHCTr 30, Diaz, 3 cr
- 5294 Topics in Planning: International Urbanization and Urban Planning** (prereq grad or adult special or Δ)
146725 1115-1230 TTh, HHHCTr 25, Assaad, 3 cr
- 5320 Modeling and Causal Inference in the Social Sciences** (§8209; prereq public affairs or planning maj, 5011, 5012 or Δ)
133191 1245-1400 TTh, HHHCTr 25, Hoernack, 3 cr
- 5413 Seminar: Aging Policy** (§8606; prereq grad or adult special or Δ)
046726 1115-1330 M, HHHCTr 60, Eustis, 3 cr
- r5430 Labor Policy** (prereq 5021 or equiv, grad or adult special or #)
846727 1430-1545 TTh, HHHCTr 30, Kleiner, 3 cr
- r5442 Seminar on Women and Public Policy: Reconciling Work and Family** (prereq grad or adult special or Δ)
529355 1245-1400 TTh, HHHCTr 30, Fraser, 3 cr
- r5494 Topics in Social Policy** (prereq grad or adult special or Δ)
647538 1815-2045 T, HHHCTr 25, Williams, 3 cr
- 5497 Topics in Social Policy: Human Services Planning** (prereq grad or adult special or Δ)
931281 1325-1555 Th, HHHCTr 20, Bolan, 3 cr
- r5593 Topics in Economic and Community Development: The Economic Development of Latin America** (prereq grad or adult special or Δ)
243525 0905-1020 MW, HHHCTr 60, Schuh, 3 cr
- r5594 Topics in Economic and Community Development: Tools and Techniques of Community and Economic Development** (prereq grad or adult special or Δ)
444561 1815-2045 M, HHHCTr 20, Campbell, 3 cr
- r5603 Metropolitan Analysis II: Urban Economic Geography** (§Geog 5373; prereq grad stu or adult special or Δ) (A-F only)
043521 0800-1000 TTh, BlegH 415, Adams J., 4 cr

- r5622 Managing Urban Growth and Change** (prereq grad or adult special or #)
843522 1115-1230 MW, HHHCTr 30, Luce, 3 cr
- 5692 Topics in Land Use and Human Settlements: Central Europe** (§Geog 5900)
646731 1315-1515 TTh, BlegH 255, Korcelli, 3 cr
- 5712 Energy Policy II** (prereq 5711, grad or adult special or Δ)
828924 0905-1020 MW, HHHCTr 30, Abrahamson, 3 cr
- r5792 Topics in Technology, Energy and Environmental Policy: Environmental Economics and Policy** (prereq grad or adult special or Δ)
646728 1115-1230 TTh, HHHCTr 30, Kanninen, 3 cr
- 5794 Topics in Technology, Energy and Environmental Policy: Economics of Natural Resource Policy** (§AgEc 5650; prereq grad or adult special)
446732 0945-1100 TTh, HHHCTr 30, Archibald, 4 cr
- r5820 The Multinational Corporation** (prereq intermediate microeconomics, grad or adult special or Δ)
746722 1325-1440 MW, HHHCTr 30, Kudrie, 4 cr
- 5892 Topics in Foreign Policy** (prereq grad or adult special or Δ)
846730 1815-2045 Th, HHHCTr 60, Bochniarz, 3 cr
- r5893 Topics in Foreign Policy** (prereq grad or adult special or Δ)
647541 0945-1215 T, Kudrie, 2 cr
- r5961 General Topics: Public Leadership** (prereq grad or adult special or Δ)
443524 1900-2130 T, HHHCTr 30, Bryson, 3 cr
- r8300 Case Studies in Policy Analysis** (§8203; prereq 5011, 5012, Δ)
127469 1900-2130 M, HHHCTr 30, Brandl, 3 cr
- 8441 Seminar: Higher Education Policy** (§8620; prereq #)
047536 1430-1545 TTh, HHHCTr 25, Nelson, 3 cr
- r8791 Advanced Topics in Technology, Energy, and Environmental Policy**
447539 0815-0930 TTh, BlegH 330, Abrahamson, 3 cr
- 8900 Public Affairs Internship** (max 6 cr; prereq PA or planning majors who have completed core courses in PA, 5001, 5002, 5011, 5012, 5021, 5022 or #) (S-N only)
332516 1-6 cr
- 8901 Plan B Paper Tutorial** (prereq public aff or planning maj, 5001, 5002, 5011, 5012, 5021, 5022, or #) (A-F only)
146720 4 cr
- 8910 Independent Study** (prereq #)
424777 ar cr

PUBLIC HEALTH (PubH)

- 3001 Personal and Community Health** (§3004, 5022, 5023, GC 3114)
929479 1220-1310 MWF, PWB 2470, Rothenberger, 3 cr
- 3034 Topics in Alcohol and Drug Problems** (prereq #)
326649 ar cr
- 3301 Perspectives: Interrelationships of People and Animals in Society Today** (§5301, CVM 3100, CVM 5100)
746252 1600-1740 T, AnScVM 125, Robinson, Quigley, 2-3 cr
- 3400 Directed Studies: Biometry** (prereq #)
328725 ar cr
- 5004 Field Instruction in Public Health** (prereq #)
131089 ar cr
- 5005 Topics in Public Health** (prereq advanced proposal, #)
132810 ar cr (comm hlth educ or hlth educ maj only)
- 5008 Preventive Medicine Seminar** (prereq hlth sci grad stu) (S-N only)
443197 1325-1520 F, MoosT 2146, Folsom, 1 cr (alt F bgn Apr 3)

- r5010 Public Health Approaches to AIDS** (prereq upper div or grad stu)
932639 1640-1825 M, 1640-1730 W, MoosT 2520, Rothenberger, 3 cr
- r5013 Interdisciplinary Team Training in Health Services Delivery** (§HSU 5001, SW 5013)
133174 1745-2045 W, MoosT 2585, 2571, Berkeland, Sullivan, 3 cr
- 5015 Topics in Interdisciplinary Studies** (prereq #)
723795 ar cr
- 5022 Personal and Community Health** (§3001, 3004, 5023, GC 3114)
530473 1220-1310 MWF, PWB 2470, Rothenberger, 3 cr
- 5044 Topics in Alcohol and Drug Problems** (prereq advance proposal, #)
031062 1-4 cr
- r5064 The Teaching-Learning Process in the Health Care Setting** (§HSU 5011)
125616 1535-1820 M, MoosT 2571, 2585, Garloff, 3 cr
- r5084 Internship in Health Education Practice I** (prereq health educ maj and community health educ maj or #) (S-N only)
333701 ar cr
- r5085 Internship in Health Education Practice II** (prereq health educ maj and community health educ maj or #) (S-N only)
432331 ar cr
- 5090 Research Topics in Health Education** (prereq health educ maj and community health educ maj or #)
531123 2-8 cr
- 5096 Topics: Research** (prereq health educ maj and community health educ maj or #)
132316 ar cr
- 5097 Topics: Selected Readings** (prereq grad student in health sciences)
125213 ar cr
- 5150 Topics: Environmental and Occupational Health** (prereq #)
433947 -1 ar cr
028288 -2 McGovern, ar cr
643196 -3 Olson, ar cr
- 5152 Environmental Health**
427078 0800-0850 TTh, OwreH 2210, Vesley, 2 cr
- 5153 Case Studies in Environmental Health** (prereq maj in environmental health and †5152 or #) (A-F only)
425332 1430-1625 T, Mayo 1250, Greaves, 2 cr
- 5154 Practicum in Environmental and Occupational Health** (prereq environmental health maj) (S-N only)
432054 1-6 cr
- 5158 Health Risk Evaluation** (prereq environmental health stu or #)
829197 1220-1310 MWF, Mayo 1250, Barber, 3 cr
- 5159 Seminar: Environmental Health** (prereq environmental health student) (S-N only)
025746 1325-1520 Th, MoosT 2520, 2 cr
- 5165 The Political Process in Public Health** (§5576; prereq public hlth or grad stu or #)
831273 0905-1205 Th, HSUnitF 2110, 2140, McGovern, 3 cr
- 5195 Seminar: Safety in the Workplace** (§5595)
746249 1220-1310 T, HSUnitF 2110, 2140, Gerberich, 1 cr
- 5197 Topics: Injury Prevention in the Workplace, Community, and Home** (§5597; prereq #)
433138 Gerberich, 1-3 cr
- r5212 Ventilation Control of Environmental Hazards** (prereq 5211 or #)
843195 1325-1625 W, Mayo A269, Vincent, 3 cr
- 5213 Ergonomics in Occupational Health**
832455 0800-0955 M, Mayo A270, Jetzer, 2 cr
- 5215 Applied Occupational Toxicology** (prereq 5261 or #)
732478 1430-1730 F, Mayo 1250, Willard, 3 cr
- 5218 Field Problems in Occupational Health** (prereq 5211 or #)
330409 0800-1100 F, Mayo A270, Olson, 3 cr
- 5233 Biological Safety** (prereq #)
146250 0800-0955 W, Mayo A270, Vesley, 2 cr

- 5242 Environmental Health Aspects of Groundwater Systems** (prereq 5240, 5241, 5242, 5243, 5244, 5245, 5246, 5247, 5248, 5249, 5250, 5251, 5252, 5253, 5254, 5255, 5256, 5257, 5258, 5259, 5260, 5261, 5262, 5263, 5264, 5265, 5266, 5267, 5268, 5269, 5270, 5271, 5272, 5273, 5274, 5275, 5276, 5277, 5278, 5279, 5280, 5281, 5282, 5283, 5284, 5285, 5286, 5287, 5288, 5289, 5290, 5291, 5292, 5293, 5294, 5295, 5296, 5297, 5298, 5299, 5300, 5301, 5302, 5303, 5304, 5305, 5306, 5307, 5308, 5309, 5310, 5311, 5312, 5313, 5314, 5315, 5316, 5317, 5318, 5319, 5320, 5321, 5322, 5323, 5324, 5325, 5326, 5327, 5328, 5329, 5330, 5331, 5332, 5333, 5334, 5335, 5336, 5337, 5338, 5339, 5340, 5341, 5342, 5343, 5344, 5345, 5346, 5347, 5348, 5349, 5350, 5351, 5352, 5353, 5354, 5355, 5356, 5357, 5358, 5359, 5360, 5361, 5362, 5363, 5364, 5365, 5366, 5367, 5368, 5369, 5370, 5371, 5372, 5373, 5374, 5375, 5376, 5377, 5378, 5379, 5380, 5381, 5382, 5383, 5384, 5385, 5386, 5387, 5388, 5389, 5390, 5391, 5392, 5393, 5394, 5395, 5396, 5397, 5398, 5399, 5400, 5401, 5402, 5403, 5404, 5405, 5406, 5407, 5408, 5409, 5410, 5411, 5412, 5413, 5414, 5415, 5416, 5417, 5418, 5419, 5420, 5421, 5422, 5423, 5424, 5425, 5426, 5427, 5428, 5429, 5430, 5431, 5432, 5433, 5434, 5435, 5436, 5437, 5438, 5439, 5440, 5441, 5442, 5443, 5444, 5445, 5446, 5447, 5448, 5449, 5450, 5451, 5452, 5453, 5454, 5455, 5456, 5457, 5458, 5459, 5460, 5461, 5462, 5463, 5464, 5465, 5466, 5467, 5468, 5469, 5470, 5471, 5472, 5473, 5474, 5475, 5476, 5477, 5478, 5479, 5480, 5481, 5482, 5483, 5484, 5485, 5486, 5487, 5488, 5489, 5490, 5491, 5492, 5493, 5494, 5495, 5496, 5497, 5498, 5499, 5500, 5501, 5502, 5503, 5504, 5505, 5506, 5507, 5508, 5509, 5510, 5511, 5512, 5513, 5514, 5515, 5516, 5517, 5518, 5519, 5520, 5521, 5522, 5523, 5524, 5525, 5526, 5527, 5528, 5529, 5530, 5531, 5532, 5533, 5534, 5535, 5536, 5537, 5538, 5539, 5540, 5541, 5542, 5543, 5544, 5545, 5546, 5547, 5548, 5549, 5550, 5551, 5552, 5553, 5554, 5555, 5556, 5557, 5558, 5559, 5560, 5561, 5562, 5563, 5564, 5565, 5566, 5567, 5568, 5569, 5570, 5571, 5572, 5573, 5574, 5575, 5576, 5577, 5578, 5579, 5580, 5581, 5582, 5583, 5584, 5585, 5586, 5587, 5588, 5589, 5590, 5591, 5592, 5593, 5594, 5595, 5596, 5597, 5598, 5599, 5600, 5601, 5602, 5603, 5604, 5605, 5606, 5607, 5608, 5609, 5610, 5611, 5612, 5613, 5614, 5615, 5616, 5617, 5618, 5619, 5620, 5621, 5622, 5623, 5624, 5625, 5626, 5627, 5628, 5629, 5630, 5631, 5632, 5633, 5634, 5635, 5636, 5637, 5638, 5639, 5640, 5641, 5642, 5643, 5644, 5645, 5646, 5647, 5648, 5649, 5650, 5651, 5652, 5653, 5654, 5655, 5656, 5657, 5658, 5659, 5660, 5661, 5662, 5663, 5664, 5665, 5666, 5667, 5668, 5669, 5670, 5671, 5672, 5673, 5674, 5675, 5676, 5677, 5678, 5679, 5680, 5681, 5682, 5683, 5684, 5685, 5686, 5687, 5688, 5689, 5690, 5691, 5692, 5693, 5694, 5695, 5696, 5697, 5698, 5699, 5700, 5701, 5702, 5703, 5704, 5705, 5706, 5707, 5708, 5709, 5710, 5711, 5712, 5713, 5714, 5715, 5716, 5717, 5718, 5719, 5720, 5721, 5722, 5723, 5724, 5725, 5726, 5727, 5728, 5729, 5730, 5731, 5732, 5733, 5734, 5735, 5736, 5737, 5738, 5739, 5740, 5741, 5742, 5743, 5744, 5745, 5746, 5747, 5748, 5749, 5750, 5751, 5752, 5753, 5754, 5755, 5756, 5757, 5758, 5759, 5760, 5761, 5762, 5763, 5764, 5765, 5766, 5767, 5768, 5769, 5770, 5771, 5772, 5773, 5774, 5775, 5776, 5777, 5778, 5779, 5780, 5781, 5782, 5783, 5784, 5785, 5786, 5787, 5788, 5789, 5790, 5791, 5792, 5793, 5794, 5795, 5796, 5797, 5798, 5799, 5800, 5801, 5802, 5803, 5804, 5805, 5806, 5807, 5808, 5809, 5810, 5811, 5812, 5813, 5814, 5815, 5816, 5817, 5818, 5819, 5820, 5821, 5822, 5823, 5824, 5825, 5826, 5827, 5828, 5829, 5830, 5831, 5832, 5833, 5834, 5835, 5836, 5837, 5838, 5839, 5840, 5841, 5842, 5843, 5844, 5845, 5846, 5847, 5848, 5849, 5850, 5851, 5852, 5853, 5854, 5855, 5856, 5857, 5858, 5859, 5860, 5861, 5862, 5863, 5864, 5865, 5866, 5867, 5868, 5869, 5870, 5871, 5872, 5873, 5874, 5875, 5876, 5877, 5878, 5879, 5880, 5881, 5882, 5883, 5884, 5885, 5886, 5887, 5888, 5889, 5890, 5891, 5892, 5893, 5894, 5895, 5896, 5897, 5898, 5899, 5900, 5901, 5902, 5903, 5904, 5905, 5906, 5907, 5908, 5909, 5910, 5911, 5912, 5913, 5914, 5915, 5916, 5917, 5918, 5919, 5920, 5921, 5922, 5923, 5924, 5925, 5926, 5927, 5928, 5929, 5930, 5931, 5932, 5933, 5934, 5935, 5936, 5937, 5938, 5939, 5940, 5941, 5942, 5943, 5944, 5945, 5946, 5947, 5948, 5949, 5950, 5951, 5952, 5953, 5954, 5955, 5956, 5957, 5958, 5959, 5960, 5961, 5962, 5963, 5964, 5965, 5966, 5967, 5968, 5969, 5970, 5971, 5972, 5973, 5974, 5975, 5976, 5977, 5978, 5979, 5980, 5981, 5982, 5983, 5984, 5985, 5986, 5987, 5988, 5989, 5990, 5991, 5992, 5993, 5994, 5995, 5996, 5997, 5998, 5999, 6000)
- 5242 Environmental Health Aspects of Groundwater Systems** (prereq 5240, 5241, 5242, 5243, 5244, 5245, 5246, 5247, 5248, 5249, 5250, 5251, 5252, 5253, 5254, 5255, 5256, 5257, 5258, 5259, 5260, 5261, 5262, 5263, 5264, 5265, 5266, 5267, 5268, 5269, 5270, 5271, 5272, 5273, 5274, 5275, 5276, 5277, 5278, 5279, 5280, 5281, 5282, 5283, 5284, 5285, 5286, 5287, 5288, 5289, 5290, 5291, 5292, 5293, 5294, 5295, 5296, 5297, 5298, 5299, 5300, 5301, 5302, 5303, 5304, 5305, 5306, 5307, 5308, 5309, 5310, 5311, 5312, 5313, 5314, 5315, 5316, 5317, 5318, 5319, 5320, 5321, 5322, 5323, 5324, 5325, 5326, 5327, 5328, 5329, 5330, 5331, 5332, 5333, 5334, 5335, 5336, 5337, 5338, 5339, 5340, 5341, 5342, 5343, 5344, 5345, 5346, 5347, 5348, 5349, 5350, 5351, 5352, 5353, 5354, 5355, 5356, 5357, 5358, 5359, 5360, 5361, 5362, 5363, 5364, 5365, 5366, 5367, 5368, 5369, 5370, 5371, 5372, 5373, 5374, 5375, 5376, 5377, 5378, 5379, 5380, 5381, 5382, 5383, 5384, 5385, 5386, 5387, 5388, 5389, 5390, 5391, 5392, 5393, 5394, 5395, 5396, 5397, 5398, 5399, 5400, 5401, 5402, 5403, 5404, 5405, 5406, 5407, 5408, 5409, 5410, 5411, 5412, 5413, 5414, 5415, 5416, 5417, 5418, 5419, 5420, 5421, 5422, 5423, 5424, 5425, 5426, 5427, 5428, 5429, 5430, 5431, 5432, 5433, 5434, 5435, 5436, 5437, 5438, 5439, 5440, 5441, 5442, 5443, 5444, 5445, 5446, 5447, 5448, 5449, 5450, 5451, 5452, 5453, 5454, 5455, 5456, 5457, 5458, 5459, 5460, 5461, 5462, 5463, 5464, 5465, 5466, 5467, 5468, 5469, 5470, 5471, 5472, 5473, 5474, 5475, 5476, 5477, 5478, 5479, 5480, 5481, 5482, 5483, 5484, 5485, 5486, 5487, 5488, 5489, 5490, 5491, 5492, 5493, 5494, 5495, 5496, 5497, 5498, 5499, 5500, 5501, 5502, 5503, 5504, 5505, 5506, 5507, 5508, 5509, 5510, 5511, 5512, 5513, 5514, 5515, 5516, 5517, 5518, 5519, 5520, 5521, 5522, 5523, 5524, 5525, 5526, 5527, 5528, 5529, 5530, 5531, 5532, 5533, 5534, 5535, 5536, 5537, 5538, 5539, 5540, 5541, 5542, 5543, 5544, 5545, 5546, 5547, 5548, 5549, 5550, 5551, 5552, 5553, 5554, 5555, 5556, 5557, 5558, 5559, 5560, 5561, 5562, 5563, 5564, 5565, 5566, 5567, 5568, 5569, 5570, 5571, 5572, 5573, 5574, 5575, 5576, 5577, 5578, 5579, 5580, 5581, 5582, 5583, 5584, 5585, 5586, 5587, 5588, 5589, 5590, 5591, 5592, 5593, 5594, 5595, 5596, 5597, 5598, 5599, 5600, 5601, 5602, 5603, 5604, 5605, 5606, 5607, 5608, 5609, 5610, 5611, 5612, 5613, 5614, 5615, 5616, 5617, 5618, 5619, 5620, 5621, 5622, 5623, 5624, 5625, 5626, 5627, 5628, 5629, 5630, 5631, 5632, 5633, 5634, 5635, 5636, 5637, 5638, 5639, 5640, 5641, 5642, 5643, 5644, 5645, 5646, 5647, 5648, 5649, 5650, 5651, 5652, 5653, 5654, 5655, 5656, 5657, 5658, 5659, 5660, 5661, 5662, 5663, 5664, 5665, 5666, 5667, 5668, 5669, 5670, 5671, 5672, 5673, 5674, 5675, 5676, 5677, 5678, 5679, 5680, 5681, 5682, 5683, 5684, 5685, 5686, 5687, 5688, 5689, 5690, 5691, 5692, 5693, 5694, 5695, 5696, 5697, 5698, 5699, 5700, 5701, 5702, 5703, 5704, 5705, 5706, 5707, 5708, 5709, 5710, 5711, 5712, 5713, 5714, 5715, 5716, 5717, 5718, 5719, 5720, 5721, 5722, 5723, 5724, 5725, 5726, 5727, 5728, 5729, 5730, 5731, 5732, 5733, 5734, 5735, 5736, 5737, 5738, 5739, 5740, 5741, 5742, 5743, 5744, 5745, 5746, 5747, 5748, 5749, 5750, 5751, 5752, 5753, 5754, 5755, 5756, 5757, 5758, 5759, 5760, 5761, 5762, 5763, 5764, 5765, 5766, 5767, 5768, 5769, 5770, 5771, 5772, 5773, 5774, 5775, 5776, 5777, 5778, 5779, 5780, 5781, 5782, 5783, 5784, 5785, 5786, 5787, 5788, 5789, 5790, 5791, 5792, 5793, 5794, 5795, 5796, 5797, 5798, 5799, 5800, 5801, 5802, 5803, 5804, 5805, 5806, 5807, 5808, 5809, 5810, 5811, 5812, 5813, 5814, 5815, 5816, 5817, 5818, 5819, 5820, 5821, 5822, 5823, 5824, 5825, 5826, 5827, 5828, 5829, 5830, 5831, 5832, 5833, 5834, 5835, 5836, 5837, 5838, 5839, 5840, 5841, 5842, 5843, 5844, 5845, 5846, 5847, 5848, 5849, 5850, 5851, 5852, 5853, 5854, 5855, 5856, 5857, 5858, 5859, 5860, 5861, 5862, 5863, 5864, 5865, 5866, 5867, 5868, 5869, 5870, 5871, 5872, 5873, 5874, 5875, 5876, 5877, 5878, 5879, 5880, 5881, 5882, 5883, 5884, 5885, 5886, 5887, 5888, 5889, 5890, 5891, 5892, 5893, 5894, 5895, 5896, 5897, 5898, 5899, 5900, 5901, 5902, 5903, 5904, 5905, 5906, 5907, 5908, 5909, 5910, 5911, 5912, 5913, 5914, 5915, 5916, 5917, 5918, 5919, 5920, 5921, 5922, 5923, 5924, 5925, 5926, 5927, 5928, 5929, 5930, 5931, 5932, 5933, 5934, 5935, 5936, 5937, 5938, 5939, 5940, 5941, 5942, 5943, 5944, 5945, 5946, 5947, 5948, 5949, 5950, 5951, 5952, 5953, 5954, 5955, 5956, 5957, 5958, 5959, 5960, 5961, 5962, 5963, 5964, 5965, 5966, 5967, 5968, 5969, 5970, 5971, 5972, 5973, 5974, 5975, 5976, 5977, 5978, 5979, 5980, 5981, 5982, 5983, 5984, 5985, 5986, 5987, 5988, 5989, 5990, 5991, 5992, 5993, 5994, 5995, 5996, 5997, 5998, 5999, 6000)
- 5271 Occupational Epidemiology** (prereq basic course in epidemiology, biostatistics) 531395 1115-1205 MWF, Mayo 1250, Mandel, 3 cr
- 5301 Perspectives: Interrelationships of People and Animals in Society Today** (§3301, CVM 3100, CVM 5100) 546253 1600-1740 T, AnScVM 125, Robinson, Quigley, 2-3 cr
- 5326 Research in Animal/Human Health** (prereq VPH or Epi maj or #) 926601 Robinson, Diesch, others, ar cr
- 5335 Epidemiology of Infections and Communicable Disease** (prereq health sci grad stu or #) 429431 1430-1545 MW, MoosT 2520, Melnick, 3 cr
- 5341 Epidemiology III: Interpretation of Data from Epidemiologic Research** (prereq 5340, 5420, 5454, or #, PubH or hlth sci or grad stu) 530134 1115-1230 MWF, Mayo A270, Murray, 4 cr
- 5361 Hospital Infection Control** (prereq # or current employment in hospital environment) 728351 1640-1755 TTh, MoosT 2146, Rhame, 2 cr
- 5381 Genetic Epidemiology** (prereq 5330, 5414 or equiv, college coursework in genetics) 447542 0905-1020 TTh, PWB 5206, Sellers, Rich, 3 cr
- 5389 Nutritional Epidemiology** (prereq 5330 or #, public hlth or grad stu) 243203 1325-1440 TTh, Mayo A269, Elmer, 3 cr
- r5391 Introduction to Behavioral Epidemiology** (prereq pub hlth or hlth sci stu, prof in hlth-rel discipl, grad in soc or behav sci or #) 125311 1415-1530 TTh, PWB 6210, Pirie, 3 cr
- 5392 Public Health Approaches to Health Behavior Change** (prereq pubh or grad or hlth sci stu or #) 633185 1220-1500 W, PWB 6210, Wolfson, 3 cr
- 5395 Epidemiology of Obesity** (prereq public health student or grad or #) 247543 1030-1200 MW, MoosT 2571, Shah, 3 cr
- 5398 Public Health Policy As a Prevention Strategy** (prereq epidemiology, health education, community health education maj or #) 530246 1245-1400 TTh, PWB 5224, Forster, 3 cr
- 5399 Seminar: Topics in Epidemiology** 625118 -1 1115-1310 TTh, MoosT 2113, Gross, 4 cr (Biomarkets for Epidemiologic Research) (prereq 5330, 5340, 5384, or equiv, public hlth or grad stu) 926565 -2 0905-1150 Th, Mayo A269, Wagenaar, 3 cr (Epidemiology of Alcohol and Other Drugs) (prereq public hlth or grad stu)
- r5422 Statistical Computing III: Data Collection and Management** (prereq 5420, 5421, 5462 or #) 127947 1430-1520 MW, 1325-1520 Th, Neaton, 3 cr (off-campus)
- 5450 Biostatistics I** (§5414; prereq Math 1111 or Math 1201) 030736 1115-1310 TTh, MoosT 2520, Jeffries, 4 cr
- 5454 Biostatistics III** (prereq 5452, knowledge of SAS, familiarity with basic concepts of calculus) 831578 1010-1100 MTWTh, MoosT 2520, Grambsch, 4 cr
- r5456 Biostatistics Consulting Seminar** (prereq biostatistics or statistics grad stu) (S-N only) 931037 1245-1400 TTh, MoosT 2639, Boen, 3 cr
- 5459 Introduction to the Mathematical Foundation of Biostatistics** (prereq 2 qtrs calculus, 5452) 832410 1115-1230 TTh, Mayo A270, Carlin, 3 cr
- 5461 Biostatistical Topics in Epidemiology** (prereq 5452) 031661 0800-0850 MWF, Mayo 1250, Connett, 3 cr
- 5470 Topics in Biostatistics** (prereq #) 125356 ar cr
- r5510 Research Methodology in Public Health Nursing** (prereq #) (S-N only) 125074 -1 Aroskar, 1-3 cr 024287 -2 Berkseth, 1-3 cr 226837 -3 Froberg, 1-3 cr 132056 -4 McGovern, 1-3 cr 129052 -5 Olson, 1-3 cr 624079 -6 Ostwald, 1-3 cr 126104 -7 Spradley, 1-3 cr
- r5575 Topics: Public Health Nursing** (prereq #) 130176 -1 Aroskar, 1 cr 626785 -2 Berkseth, ar cr 243198 -3 Froberg, ar cr 143199 -4 McGovern, ar cr 843200 -5 Olson, ar cr 643201 -6 Ostwald, ar cr 443202 -7 Spradley, ar cr
- 5607 Adolescent Health: Issues and Challenges** (prereq grad or PubH stu or #) 532238 1220-1520 F, Mayo A269, Story, Leonard, 3 cr
- 5614 Field Experience in Maternal and Child Health** (prereq MCH grad student) (S-N only) 825991 -1 Alexander, ar cr 232038 -2 Berkseth, ar cr 228586 -3 Brown, ar cr 827952 -4 Froberg, ar cr 631050 -5 Himes, ar cr 425038 -6 Leland, ar cr 128788 -7 Leonard, ar cr 626862 -8 Patterson, ar cr 428442 -9 Story, ar cr 926453 -10 ten Benschel, ar cr
- 5625 Use of Computers in Public Health Research** (prereq MCH stu, 5806, 5414 or equiv) 246246 0905-1030 T, 0905-1030 Th, Mayo A270, Leland, 3 cr
- 5630 Reproductive Health** 328692 1535-1835 W, Mayo A270, 3 cr
- 5645 Families and Health** (prereq publ hlth or hlth sci stu, prof in hlth rel discipl, soc or behav sci grad stu or #) 543188 1325-1625 T, HSUnitF 2110, Patterson, 3 cr
- 5648 Topics in Maternal and Child Health** (prereq #) 430336 -1 Alexander, ar cr 146255 -2 Berkseth, ar cr 046256 -3 Brown, ar cr 846257 -4 Froberg, ar cr 146238 -5 Himes, ar cr 046239 -6 Leland, ar cr 346240 -7 Leonard, ar cr 146241 -8 Patterson, ar cr 046242 -9 Story, ar cr 846243 -10 ten Benschel, ar cr
- 5649 Maternal and Child Health Research** (prereq #) (S-N only) 233562 -1 Alexander, ar cr 624423 -2 Berkseth, ar cr 830155 -3 Brown, ar cr 826624 -4 Froberg, ar cr 129853 -5 Himes, ar cr 432930 -6 Leland, ar cr 631114 -7 Leonard, ar cr 128595 -8 Patterson, ar cr 532854 -9 Story, ar cr 527945 -10 ten Benschel, ar cr
- 5702 Public Health Administration III** (prereq 5701, student in public health administration or #) 830009 1325-1520 TTh, Mayo A270, Block, 3 cr
- 5703 Public Health Administration Clerkship** (prereq student in public health administration or #) (S-N only) 729936 1-12 cr
- 5704 Field Experience: Public Health Administration** (prereq student in public health administration or #) (S-N only) 927604 -1 Block, 1-12 cr 631789 -2 Dornblaser, 1-12 cr 526147 -3 Gordon, 1-12 cr 431521 -4 Johnson, 1-12 cr 128024 -5 Litman, 1-12 cr 429008 -6 Ostwald, 1-12 cr 028209 -7 Resnick, 1-12 cr 829135 -8 Spradley, 1-12 cr 928641 -9 Stauffer, 1-12 cr 132842 -10 Veninga, 1-12 cr 532045 -11 Weckwerth, 1-12 cr
- 5707 Independent Study: Public Health Administration** (prereq student in public health administration or #) (S-N only) 326160 -1 Block, 1-12 cr 343189 -2 Ostwald, 1-12 cr 743190 -3 Spradley, 1-12 cr 543191 -4 Veninga, 1-12 cr 343192 -5 1-12 cr
- r5711 Public Health Law** (prereq student in public health or #) 525841 1640-1835 T, Mayo C381, 4 cr
- r5722 Interpersonal Behavior In Health Organizations** (§5059) 127455 1535-1715 MW, MoosT

- 5862 Cost-Benefit, Cost-Effectiveness and Decision Analysis in Healthcare** (prereq 3 cr in intern econ) (A-F only)
946248 0945-1100 TTh, Mayo D330, Christianson, 3 cr
- 5870 Survey Research and Sample Design in Health Services Research** (A-F only)
146247 1430-1545 MW, Mayo D330, Moscovice, 3 cr
- 5906 Field Experience: Public Health Nutrition** (prereq public health nutrition maj) (S-N only)
631436 -1 1325-1415 M, Mayo A316, Krinke, 1-8 cr (Mar 23, Apr 20, May 18 only)
726292 -2 Story, 1-8 cr
- 5909 Topics in Public Health Nutrition** (prereq public health nutrition student or #)
124787 -1 Brown, 1-12 cr
424357 -2 Buzzard, 1-12 cr
131805 -3 Himes, 1-12 cr
333682 -4 Krinke, 1-12 cr
130033 -5 Kushi, 1-12 cr
033605 -6 Splett, 1-12 cr
732402 -7 Story, 1-12 cr
826414 -8 1-12 cr
733100 -9 1-12 cr
- 5914 Nutrition Intervention** (prereq nutrition course or #)
446245 1325-1415 T, 1220-1415 Th, Mayo 1250, 3 cr
- 5932 Nutrition: Adults and the Elderly** (prereq 3000 level nutrition course or equiv or #)
027853 1600-1715 MW, EE/CSci 3125, Krinke, 3 cr
- 8150 Research: Environmental and Occupational Health** (prereq #) (S-N only)
533342 1-6 cr
- r8185 Analysis of Toxicants** (prereq #)
043194 1325-1625 M, Mayo 1165, Swackhamer, 3 cr
- 8191 Research: Injury Prevention in the Workplace, Community, and Home** (prereq #) (S-N only)
134090 Gerberich, 3-6 cr
- 8194 Occupational Injury Prevention and Safety Research Seminar** (prereq 8193, prereq environmental hith grad maj or #) (S-N only)
946251 Gerberich, 1 cr
- 8261 Molecular Toxicology** (prereq 5262, Biol 5001, #)
726566 0945-1100 MW, Mayo A269, Toscano, 3 cr
- 8269 Toxicology Seminar** (prereq 5262, 8261, #) (S-N only)
730245 1535-1625 M, Mayo 1250, Toscano, 1 cr
- 8330 Research in Epidemiology** (prereq epidemiology maj)
131571 1-8 cr
- 8331 Field Practice in Epidemiologic Investigations** (prereq epidemiology maj) (S-N only)
425895 1-8 cr
- 8332 Readings in Epidemiology** (prereq epidemiology maj, #)
827921 1-4 cr
- 8379 Seminar in Epidemiology** (prereq epidemiology, physiological hygiene maj) (S-N only)
627189 -1 1325-1520 M, Mayo A270, Sprafka, 2 cr
925724 -2 0905-1100 F, Mayo A269, Murray, 2 cr
747546 -3 2 cr (Behavioral Epidemiology) (prereq epi maj or #)
- 8389 Seminar: Topics in Epidemiology** (prereq epidemiology or comm hith educ maj)
934195 1325-1625 T, MoosT 1104, Jacobs, McGovern, 3 cr
- 8400 Seminar in Biostatistics** (prereq biostat maj or #)
530652 ar cr
- 8422 Modern Non-parametrics** (prereq 5454, 5459 or Stat 5133 or equiv and #)
346254 1325-1500 TTh, HSUnitF 2165, Louis, 3 cr
- 8433 Analysis of Longitudinal Data** (prereq Stat 5131-5132-5133 or equiv, Stat 8311-8312 or equiv, or #)
947545 1220-1345 TTh, MoosT 2571, Grambsch, Thomas, 3 cr

- 8449 Topics in Biostatistics** (prereq 5450, #)
825411 ar cr
- 8450 Research in Biostatistics**
133935 ar cr
- 8510 Directed Research** (prereq #)
825621 ar cr
- 8511 Directed Research** (prereq #)
826607 3 cr
- 8763 External Forces Affecting Health Services Delivery** (prereq PhD student in hospital administration or health services research and policy or #) (A-F only)
528027 Weckwerth, 3 cr
- 8764 Research Applications to Health Services Delivery** (prereq 8763) (S-N only)
325758 Weckwerth, 3 cr
- r8770 Seminar: Health and Human Behavior** (prereq 5790 or Soc 5855 or #)
143193 1115-1310 T, Mayo C396, Litman, 3 cr
- 8777 Thesis Credits: Masters**
630870 1-16 cr
- 8782 Research Practicum** (prereq PhD student in hospital administration or health services research and policy or #)
828826 -1 Litman, Weckwerth, 3 cr
928087 -2 Weckwerth, Litman, 3 cr
- 8812 Seminar: Research Studies in Health Care** (8810-8811-8812); prereq 8811 or #) (A-F only)
829376 1245-1400 MWF, Mayo D330, Finch, 4 cr
- 8821 Seminar: Advanced Health Economics** (prereq 8820 or #) (A-F only)
926291 0905-0955 MWF, Mayo D330, Feldman, 3 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
132087 1-36 cr

RADIOLOGY (Rad) Medical School

- 0120 X-Ray Conference** (prereq #)
432314 1600-1800 T, Mayo C231, Thompson, 0 cr (Todd Amph)
- 0121 Medical Roentgenologic Conference**
730990 1130-1300 T, Mayo C231, Thompson, 0 cr (Todd Amph)
- 0123 Surgical Roentgenologic Conference**
433026 0900-1100 S, Mayo C231, Thompson, 0 cr (Todd Amph)
- 0124 Neurosurgical-Roentgenologic Conference**
131674 1300-1430 F, Mayo C231, Latchaw, 0 cr (Todd Amph)
- 0125 Cardiovascular Roentgenologic Conference**
231844 1200-1300 Th, Mayo B167, Amplatz, 0 cr (Rigler Lib)
- 0126 Roentgenologic Conference on Chest Diseases**
026119 1200-1300 M, Mayo B167, Thompson, 0 cr (Rigler Lib)
- 0220 Nuclear Medicine: Clinical Conference**
628956 1700-1800 T, Mayo C231, Boudreau, 0 cr (Todd Amph)
- 5101 Externship: Diagnostic Radiology-University Hospitals** (prereq regis med)
430854 Thompson, ar cr
- 5102 Externship: Diagnostic Radiology-Veterans Administration Hospital** (prereq regis med)
829832 Reinke, ar cr
- 5103 Externship: Diagnostic Radiology-Hennepin County General Hospital** (prereq regis med)
123932 Anderson, ar cr
- 5104 Externship: Diagnostic Radiology-St. Paul Ramsey Hospital** (prereq regis med)
928820 Krueckeberg, ar cr
- 5105 Externship: Diagnostic Radiology-St. Luke's Hospital, Duluth** (prereq regis med)
327011 Ahrens, ar cr
- 5110 Research Problems in Radiology** (prereq regis med)
127889 ar cr

- 5140 Special Problems: Roentgenology** (prereq regis med)
128668 Thompson, ar cr
- 5172 Radiation Biology** (SBPhy 5172, TRad 5172; prereq 5170 or #)
229205 1600-1730 W, Mayo B167, Ritenour, 3 cr (Rigler Lib)
- 5240 Special Problems: Nuclear Medicine** (prereq regis med)
628620 Boudreau, ar cr
- 5511 Roentgen Technique**
225283 1700-1800 M, Mayo C231, Ritenour, 1 cr (Todd Amph)
- 5530 Externship in Nuclear Medicine at University Hospital** (prereq regis med)
128256 Boudreau, ar cr
- 5540 Special Problems: Radiological Physics** (prereq regis med)
431101 Ritenour, ar cr
- 8100 Gastrointestinal Roentgenology**
626849 Letourneau, ar cr
- 8101 Urologic Roentgenology**
132980 Goldberg, ar cr
- 8102 Neurological Roentgenology**
327347 Latchaw, ar cr
- 8103 Cardiovascular Roentgenology**
624941 Amplatz, ar cr
- 8104 Pediatric Roentgenology**
231519 Day, ar cr
- 8105 Pulmonary Roentgenology**
730617 Thompson, ar cr
- 8150 Research: Roentgenology**
232394 Thompson, ar cr
- 8200 Nuclear Medicine**
331138 Boudreau, ar cr
- 8210 Fundamentals of Nuclear Medicine** (prereq 1st yr resident)
829667 1600-1700 M, Mayo C231, Boudreau, 1 cr (Todd Amph)
- 8250 Research: Nuclear Medicine**
733694 Boudreau, ar cr
- 8450 Research: Radiation Biology**
528982 Ritenour, Song, ar cr
- 8550 Research: Radiological Physics**
224747 Ritenour, ar cr
- 8777 Thesis Credits: Masters**
224375 1-16 cr

RECREATION, PARK, AND LEISURE STUDIES (Rec) School of Kinesiology & Leisure Studies Education

- r1520 Orientation to Leisure and Recreation** (A-F only)
131447 1325-1520 TTh, CookeH 206, James, 4 cr
- r1540 Camp Counseling** (A-F only)
623885 1325-1520 MW, CookeH 206, Parker, 4 cr
- r3540 Recreation Programming** (prereq 1520, recreation maj or Δ) (A-F only)
632599 0905-1100 TTh, CookeH 206, Magnuson C., 4 cr
- 3700 Senior Internship** (prereq sr, recreation maj or minor, Δ) (S-N only)
531636 Schultz, 1-15 cr
- 3900 Directed Study** (max 9 cr; prereq recreation maj only, Δ) (S-N optional)
226692 3 cr
- r5240 Recreation and Aging** (prereq 3540 or 5100 or Δ) (A-F only)
125194 1325-1520 MW, CookeH 214, Weiss, 4 cr
- r5250 Financing Leisure Services** (prereq 3550 or Δ) (A-F only)
628374 0945-1100 MW, CookeH 206, Schultz, 3 cr
- r5270 Community Leisure Services and Persons with Disabilities** (prereq 1520, rec and park maj or Δ) (A-F only)
226336 1615-1930 T, CookeH 206, Schleien, 4 cr

- n5310 Programming in Outdoor Education** (prereq 5300 or #) (A-F only)
831497 1615-1930 Th, CookeH 206, McAvoy, 4 cr
(weekend field trip ar)
- n5455 Recreational Sports** (§Kin 5455) (A-F only)
130548 1615-1830 M, CookeH 206, Anderson, 3 cr
- n5510 Women in Sport and Leisure** (§Kin 5510) (A-F only)
531266 1245-1400 TTh, CookeH 214, Kane, 3 cr
- 5630 Practicum: Therapeutic Recreation** (prereq recreation M.Ed. or grad) (S-N only)
126158 Weiss, Schliein, 3-9 cr
- 5640 Practicum: Leisure Services** (prereq recreation M.Ed. or grad) (S-N only)
232444 McAvoy, Schultz, 3-9 cr
- 5695 Practicum: Sport Management** (§Kin 5695, PE 5695; prereq Δ) (A-F only)
543529 Kane, 3-9 cr
- 5860 Legal Aspects of Sport and Physical Activity** (§Kin 5860; prereq 3550 or 5460 or Kin 3143) (A-F only)
946010 1010-1205 TTh, CookeH 109, Schultz, 4 cr
- 5981 Problems** (prereq MEd or MA student or Δ) (A-F only)
930650 ar cr
- 5983 Readings: Recreation** (prereq MEd or grad or Δ) (A-F only)
629153 1-3 cr
- n8370 Seminar: Administrative Problems in Therapeutic Recreation** (prereq 5220 or #)
130825 1335-1610 T, CookeH 109, Weiss, 3 cr
- 8777 Thesis Credits: Masters**
428828 1-16 cr
- 8980 Research Problems** (prereq 5980, PsyF 5110 or EPsy 5260 or #) (S-N only)
433706 1535-1625 W, CookeH 109, McAvoy, 1 cr
- 8981 Research Problems** (prereq 8980 or #) (S-N only)
528870 ar cr

RELIGIOUS STUDIES (RelS) Liberal Arts

- 3037 Zoroastrianism** (§MidE 3555)
143534 1115-1205 MWF, CivMinE 212, Malandra, 4 cr
- n3073 Roman Religion and Early Christianity** (§5073, Clas 3073, Clas 5073)
043535 1115-1205 MWF, NichH 45, Sellaw, 4 cr
- 3203 The Bible: Wisdom, Poetry, and Apocalyptic** (§ANE 1003, ANE 3003)
331236 0945-1100 TTh, NichH 211, Zahavy, 4 cr
- 3251 The Modern Study of the Old Testament** (§ANE 3251)
443538 0800-0850 MWF, NichH 211, Reisman, 4 cr
- n3413 Buddhism** (§5413, SoAS 3413, SoAS 5413)
246733 1115-1230 TTh, FolH 50, Junghare, 4 cr
- 3508 Islam: Iran to India** (§5508, MidE 3508, MidE 5508)
243539 1115-1230 TTh, FolH 306, Barker, 4 cr
- n3701 Scientific Study of Religion** (prereq jr or sr or grad stu or #)
246845 1445-1730 W, FordH 50, Tapp, 4 cr
- 3970 Directed Studies** (prereq #, Δ, □)
828101 3-5 cr
- n5073 Roman Religion and Early Christianity** (§3073, Clas 3073, Clas 5073)
843536 1115-1205 MWF, NichH 45, Sellaw, 4 cr
- n5413 Buddhism** (§3413, SoAS 3413, SoAS 5413)
146734 1115-1230 TTh, FolH 50, Junghare, 4 cr
- 5508 Islam: Iran to India** (§3508, MidE 3508, MidE 5508)
643540 1115-1230 TTh, FolH 306, Barker, 4 cr
- n5701 Scientific Study of Religion** (prereq jr or sr or grad stu or #)
146846 1445-1730 W, FordH 50, Tapp, 4 cr
- 5970 Directed Studies** (prereq Δ)
147275 3-5 cr

- 8777 Thesis Credits: Masters**
628570 1-16 cr
- 8970 Directed Studies** (prereq Δ)
131478 2-5 cr

RHETORIC (Rhet) Agriculture

NOTE: A \$35 microcomputer lab care will be required in all computer-assisted sections of the following rhetoric courses: 1101, 1104, 1151, 3562. This card may be purchased at the Bursar's Office. Check with the instructor on the first day of class for more information.

- r1101 Writing to Inform and Persuade** (§Comp 1011)
726843 1015-1130 MW, HckrH 302, Kim Wharton, 4 cr (computer assisted instruction) (course fee)
- r1104 Library Research Methods** (S-N only)
728169 -1 LAB 0935-1025 M, CentLib 2, Richardson, 1 cr (computer assisted instruction) (course fee)
131120 -2 LAB 1500-1550 M, CentLib 2, Richardson, 1 cr (computer assisted instruction) (course fee)
325985 -3 LAB 1145-1235 T, CentLib 2, Richardson, 1 cr (computer assisted instruction) (course fee)
132596 -4 LAB 1500-1550 T, CentLib 2, Richardson, 1 cr (computer assisted instruction) (course fee)
732397 -5 LAB 1145-1235 W, CentLib 2, Richardson, 1 cr (computer assisted instruction) (course fee)
943544 -6 LAB 1500-1550 W, CentLib 2, Richardson, 1 cr (computer assisted instruction) (course fee)
- r1151 Writing in Your Major** (prereq completion of fr communication requirement, soph status, 1104 or for College of Natural Resources stu only: FR 1104 or ForP 1104 or FW 1104)
125043 -1 0830-0945 MW, HckrH 302, Anderson, 4 cr (computer assisted instruction) (course fee)
733033 -2 1145-1300 MW, HckrH 302, McFarland, 4 cr (computer assisted instruction) (course fee)
233853 -3 0935-1025 MWF, HckrH 210, Theesfeld, 4 cr
433821 -4 1040-1130 MWF, HckrH 210, Anderson, 4 cr
528206 -5 1015-1130 TTh, HckrH 111, Plomondon, 4 cr
424584 -6 1315-1430 TTh, HckrH 111, Plomondon, 4 cr
- r1160 Efficient College Reading**
232041 1315-1455 TTh, HckrH 210, Bennett, 3 cr
- r1222 Public Speaking** (prereq completion of freshman communication requirement)
627600 -1 0935-1025 MTWTh, CentLib 6, Maack, 4 cr
124983 -2 1040-1130 MTWTh, CentLib 6, 4 cr
426030 -3 0820-1000 MW, CentLib 4, Smith, 4 cr
030574 -4 1015-1155 TTh, CentLib 4, Bennett, 4 cr
928798 -5 1145-1325 TTh, CentLib 6, Smith, 4 cr
331561 -6 1315-1455 TTh, CentLib 4, Schuelke, 4 cr
- r1303 Humanities: Modern Thought and the Impact of Evolution**
530036 1015-1130 TTh, HckrH 312, Walzer, 4 cr
- r1310 Humanities: The Land in American Experience**
624731 1145-1235 MWF, HckrH 312, Scanlan, 4 cr
- r3101 Functional Photography** (prereq Dsgn 1501 or Rhet 3562)
429963 1355-1535 MW, CentLib 4, Breneman, 4 cr
- r3105 Corporate Video for Technical Communicators** (prereq 3562 or equiv)
347484 0830-1010 MW, HckrH 209, Becker, 4 cr
- r3254 Advanced Public Speaking** (prereq 1222)
131514 0830-0920 MTWTh, HckrH 222, Gore, 4 cr
- r3266 Communication, Discussion in Small Group Decision Making** (prereq 1222 or #)
529596 1315-1455 TTh, HckrH 222, Keith Wharton, 4 cr
- 3270 Speech: Special Problems** (prereq #, Δ)
925397 Connolly, Gore, others, 1-5 cr
- r3276 Special Topics in Rhetoric and Communication: Communication in Organizations—Managing for Innovation** (prereq 1222, Psy 1001, Spch 1101, or equiv)
743545 1315-1455 MW, HckrH 222, Amram, 4 cr
- r3370 American Humanities**
326716 1250-1340 MWF, HckrH 210, Horberg, 4 cr
- 3374 Special Problems in Humanities** (prereq #, Δ)
431048 Scanlan, Horberg, 1-2 cr
- r3380 Humanities: The Literature of Social Reflection**
432460 1145-1300 T, McNH 146, Horberg, 2 cr
- r3381 Humanities: 20th-Century Culture**
133126 1040-1155 MWF, HckrH 100, Gross, 4 cr
- r3390 Humanities: Technology, Self, and Society** (prereq jr, STC/Tech Comm or pre-STC/Tech Comm, or Δ)
831211 0935-1025 MWF, HckrH 312, Scanlan, 4 cr
- r3395 In Search of Nature**
147485 1315-1430 TTh, HckrH 312, Marchand, 4 cr
- r3562 Writing in Your Profession** (prereq completion of freshman communication requirement, 1151, jr or sr) (A-F only)
825778 -1 0935-1025 MWF, HckrH 111, Ferguson, 4 cr
825537 -2 1040-1130 MWF, HckrH 111, Horberg, 4 cr
424004 -3 1145-1235 MWF, HckrH 111, Castor, 4 cr
327784 -4 1315-1440 MW, HckrH 302, Gross, 4 cr (computer assisted instruction) (course fee)
030025 -5 0845-1000 TTh, HckrH 302, Norcross, 4 cr (computer assisted instruction) (course fee)
432359 -6 1015-1130 TTh, HckrH 302, Lay, 4 cr (computer assisted instruction) (course fee)
223842 -7 1145-1300 TTh, HckrH 302, Mikelonis, 4 cr (computer assisted instruction) (course fee)
343547 -8 1315-1430 TTh, HckrH 302, Church, 4 cr (computer assisted instruction) (course fee)
846422 -9 1445-1600 TTh, HckrH 302, Church, 4 cr (computer assisted instruction) (course fee)
- r3572 Grammatical Editing for Technical Writers** (prereq STC/Tech comm maj or pre-maj) (S-N only)
143548 1500-1615 Th, HckrH 312, Walzer, 2 cr
- r3582 Senior Seminar** (prereq sr)
933628 1315-1455 Th, HckrH 100, Mikelonis, 2 cr
- r3670 Visual Rhetoric: Theories and Applications** (prereq 3562 or equiv, Agri 1200 or equiv) (A-F only)
946427 1500-1640 TTh, HckrH 111, Lay, 4 cr
- r3700 Rhetorical Theory: Persuasion and the Literature of Science** (prereq completion of freshman communication requirement)
824288 1315-1430 TTh, HckrH 301, Walzer, 4 cr
- 5100 Technical Communication: Special Problems** (prereq #, Δ)
228104 McDowell, Duin, others, 4 cr
- n5160 Advanced College Reading** (prereq 1160 or equiv or #, grad stu) (A-F only)
924119 1315-1455 TTh, HckrH 210, Bennett, 4 cr
- n5170 Managerial Communications** (prereq freshman communication or equiv or grad status)
428974 1250-1430 MW, HckrH 312, Wharton, 4 cr
- 5180 Internship in Technical Communication** (prereq #, Δ)
227647 Ferguson, McDowell, others, 2-6 cr
- r5257 Scientific and Technical Presentations** (prereq 1222, 3562 or grad status or #)
425704 -1 LECT 1500-1730 T, HckrH 209, Connolly, 4 cr
★LECT 1015-1130 TTh, HckrH 209, Connolly, 4 cr
724042 -1 LAB 1355-1445 T, HckrH 209, Connolly
126152 -2 LAB 1145-1235 W, HckrH 209, Connolly

- r5500 Research in Communication Strategies**
531011 1600-1920 Th, HckrH 222, McDowell, 4 cr
- r5533 Scientific and Technical Communication Course Development: Teaching in a Computer Classroom** (prereq 5531...5532 rec)
546429 1250-1340 M, HckrH 301, Lay, 1 cr
- 5571 Writing for Special Purposes** (prereq STC/Tech comm maj, freshman communication, 3562 or #, or grad stu)
043549 2 cr
- r5572 Procedures and Policies Manual** (prereq STC/Tech comm, freshman communication requirement, 3562 or grad stu or #)
932379 1630-1810 W, HckrH 312, Ferguson, 2 cr (Apr 1-29)
- r8120 Reading and Writing Processes and the Technical Communicator** (prereq 5160 or #)
343550 1500-1750 T, HckrH 312, Duin, 4 cr
- r8180 Design Project** (prereq MS student in STC/techn comm plan B)
925268 4 cr
- r8500 Qualitative Research: Strategies in Technical Communication** (prereq grad stu in sci and tech comm or #)
143551 1355-1715 M, HckrH 301, Schuelke, 4 cr
- r8510 Theory and Practice in Designing Messages** (prereq MS student in tech comm)
728009 1600-1830 Th, HckrH 301, Mikelonis, 3 cr
- 8777 Thesis Credits: Masters**
130940 1-16 cr

RUSSIAN (Russ) Slavic & Central Asian Languages & Literatures Liberal Arts

- r1103 Beginning Russian** (prereq 1102 or equiv)
332967 -1 0800-0850 MTWThF, WulIH 130, 5 cr
431471 -2 0905-0955 MTWThF, NichH 122, 5 cr
130718 -3 1010-1100 MTWThF, WulIH 130, Walter, 5 cr
926842 -4 1220-1310 MTWThF, FolH 218, 5 cr
234162 -5 1325-1415 MTWThF, KolIH S133, 5 cr
- r1106 Intermediate Russian** (prereq 1105)
524768 -1 0800-0955 MW, Phys 157, 4 cr
324478 -2 1325-1520 MW, PeikH 225, 4 cr
826199 -3 0905-1100 TTh, JonesH 4, 4 cr
- r3103 Third-Year Russian** (prereq 3102)
328207 -1 0905-1100 MW, SmithH 121, Popova, 4 cr
129875 -2 1115-1310 TTh, JonesH 11, Popova, 4 cr
- 3106 The Current Soviet Scene** (prereq 3105)
931488 1325-1520 TTh, SmithH 121, Corten, 4 cr
- 3311 Major Project in Russian** (prereq Russian lang maj or #)
126877 2 cr
- 3311H Honors Course: Major Project in Russian** (prereq honors sr, Russian lang maj or #) (A-F only)
224991 2-4 cr
- 3970 Directed Readings** (prereq #, Δ, □)
929711 3-5 cr
- 5211 Modern Russian Literature in Translation**
425573 0905-1100 TTh, FolH 426, Corten, 4 cr
- 5970 Directed Readings** (prereq #, Δ, CLA approval)
127835 1-4 cr
- 8111 Seminar in the Study of Russian Literature** (prereq Russian Area Studies grad stu) (A-F only)
643618 1430-1625 M, FolH 208, Jahn, 4 cr
- 8777 Thesis Credits: Masters**
031756 1-16 cr

SANSKRIT (Skt) South Asian & Middle Eastern Languages & Cultures Liberal Arts

- 5133 Beginning Sanskrit** (prereq 5132)
743352 0905-0955 MWF, FolH 142, Malandra, 5 cr

SCANDINAVIAN (Scan) Scandinavian Studies Liberal Arts

- r3457 Sweden: Social Structure, Social Change** (§Soc 3457)
743626 1010-1100 MWF, BlegH 120, Cooperman, 4 cr
- r3505 Scandinavian Fiction from 1890 to Present**
943625 1325-1415 MWF, FolH 308, Simpson, 4 cr
- r3602 The Scandinavian Fairy Tale as Literature**
543627 1430-1545 TTh, FolH 104, Houe, 4 cr
- r3970 Directed Studies** (max 15 cr; prereq #, Δ, □)
933371 1-5 cr
- r5118 Scandinavia in the Middle Ages** (§Geog 5178, Hist 5118)
343628 1430-1545 WF, BlegH 440, Metcalf, Rice, 4 cr
- r5613 Contemporary Scandinavian Literature**
143629 1115-1205 MWF, FolH 419, Mishler, 4 cr
- r5616 Strindberg and the Drama in Revolt and Transition**
843634 1115-1230 TTh, FolH 114, Stockenstrom, 4 cr
- r5645 Folk Arts of Scandinavia** (§ArH 5645)
543630 0945-1100 TTh, JonesH 207A, Nelson, 4 cr
- r5670 Topics in Scandinavian Studies: Scandinavian Art and Design 1880-1915** (§ArH 5950)
343631 1400-1600 M, FolH 50, Nelson, 4 cr
- r5702 Old Norse Language and Literature** (prereq 5701)
143632 1430-1545 TTh, FolH 312, Grimstad, 4 cr
- r5970 Directed Studies** (prereq #, Δ, CLA approval)
231701 1-15 cr
- r8501 Seminar: Medieval Scandinavian Languages and Literature**
043633 1640-1835 Th, FolH 312, Liberman, 4 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
430191 1-36 cr
- r8970 Research: Scandinavian Literature and Language**
733503 1-6 cr

SCIENCE IN AGRICULTURE (ScAg) Agriculture

- 5009 Undergraduate Senior Thesis: Science in Agriculture** (not for grad credit; prereq #) (A-F only)
324383 Hunter, 1-5 cr

SCIENTIFIC COMPUTATION (SciC)

- 8101 Supercomputer Research Seminar** (max 4 cr) (A-F only)
543353 1315-1430 W, Truhler D., 1 cr (Minnesota Supercomputer Center, 1200 Washington Ave S, Room 3125)

SECONDARY EDUCATION (SeEd) Curriculum And Instruction Education

- 3151 Directed Study** (prereq Δ) (A-F only)
633879 1-9 cr
- r3152 Practicum: Secondary Education** (max 7 cr; prereq educ stu, Δ) (S-N only)
826851 -1 1535-1625 Th, PeikH 375, Wick, 1 cr (math maj only)
046743 -2 Minger, 4 cr
- 3357 Teaching Secondary School Science** (prereq science educ maj or min...for majs, 3356, §3152) (A-F only)
846744 1415-1615 MWF, PeikH 365, Gennaro, 4 cr

- r3368 Teaching Secondary School Mathematics** (prereq 3365, 3366) (A-F only)
233495 1325-1520 TTh, PeikH 355, 375, House, 3 cr

- 3600 Student Teaching** (prereq Δ) (S-N only)
532546 Anderson, ar cr
- 3621 Directed Experiences in Teaching English** (prereq 5350, #) (S-N only)
725157 -1 Law, Swanson, 9 cr (English postbac students only)
530148 -2 Law, Swanson, 6 cr (minors to majors only)
- 3631 Student Teaching in Second Languages** (S-N only)
529565 Tedick, 3-12 cr
- r3641 Student Teaching in Social Studies** (max 15 cr; prereq 3350, sr) (S-N only)
525743 Lewis, 3-15 cr (off-campus)
- 3651 Student Teaching in Science** (prereq sr, 3357, 4 cr in 3152...for minors: 3357, #) (S-N only)
646745 Finley, 1-12 cr (off-campus)
- r3661 Student Teaching in Mathematics** (prereq 3365 during same year) (S-N only)
129058 1630-1900 M, PeikH 385, Desmond, Wick, 3-12 cr
- 5122 Teaching Culture: Theory and Application** (prereq postbac or grad student) (A-F only)
331530 1615-2000 T, PeikH 155, Paige, 4 cr
- 5150 Advanced Methods of Teaching the Social Studies** (A-F only)
143655 1630-1900 T, PeikH 165, Avery, 3 cr (MED students only)
- r5151 School-Based Projects in Social Studies Education** (max 12 cr) (A-F only)
432345 Avery, 1-12 cr
- 5153 New Perspectives in Social Studies** (max 12 cr) (A-F only)
327249 1630-1930 M, PeikH 165, Lewis, 3 cr (postbac licensure students only)
- 5175 Secondary Remedial Reading Instruction** (prereq 5344 or Elem 5331) (A-F only)
232170 1630-1915 W, PeikH 46, Graves, 3 cr
- 5185 School and Professional Based Experiences in Second Languages and Cultures** (max 12 cr; prereq MEd students) (A-F only)
129936 -1 Jorstad, 1-12 cr (MEd only)
628598 -2 Lange, 1-12 cr (MEd only)
031076 -3 Paige, 1-12 cr (MEd only)
333780 -4 Tedick, 1-12 cr (MEd only)
329857 -5 Walker, 1-12 cr (MEd only)
- 5191 Workshop: Teaching of Second Languages and Cultures** (max 10 cr) (A-F only)
432040 1630-1900 W, Leonard, 3 cr (off-campus)
- 5219 Reading and Writing in a Second Language** (A-F only)
244352 1630-2000 M, Tedick, 4 cr (off-campus)
- r5250 Secondary School Teaching** (prereq 15251 or reg in approved prog area practicum, educ stu or CLA music ed maj or #) (A-F only)
247476 0800-0955 MW, PeikH 28, Freeman, 3 cr
- r5251 Orientation in the Secondary Schools** (prereq 15250) (A-F only)
147477 Campbell, 0-2 cr
- 5321 Teaching Literature in Secondary Schools** (A-F only)
130159 1630-1915 M, PeikH 46, Beach, 3 cr
- 5351 Directed Study** (max 6 cr; prereq educ or grad stu) (S-N optional)
729225 -1 Avery, ar cr
826347 -2 Beach, ar cr
524589 -3 Finley, ar cr
733126 -4 Gennaro, ar cr
231214 -5 Heller, ar cr
729323 -6 Park, ar cr
343659 -7 Williams, ar cr
- r5395 School-Based Projects in Science Education** (max 12 cr; prereq MEd student in science education) (A-F only)
724753 -1 Finley, 1-12 cr
625216 -2 Gennaro, 1-12 cr
130833 -3 Heller, 1-12 cr
- r5404 Language, Culture, and Education** (§Spch 5404) (A-F only)
447475 1325-1520 TTh, PeikH 40, Piche, 4 cr

- 5659 School-Related Projects in Language Arts** (max 6 cr; prereq MEd student in English education) (A-F only)
131867 -1 Beach, 1-6 cr
830012 -2 Graves, 1-6 cr
723926 -3 Keglér, 1-6 cr
- 5702 Teaching Secondary School Science: A Constructivist Approach** (prereq 5700, 5701, admission to post BA sci educ prog or #, 15703) (A-F only)
332287 1415-1615 MWF, PeikH 365, Gennaro, 4 cr (postbac students only)
- 5703 Applying Science Methods in High Schools** (prereq 5700, 5701, admission to post BA prog in sci educ or #, 15702) (S-N only)
830382 Gennaro, 4 cr (off campus)
- 5704 Clinical Experience in Science Teaching** (prereq 5702, 5703, #, 15705) (S-N only)
628486 -1 Finley, 6-12 cr (off campus) (15705)
943656 -2 Olness, 12 cr (postbac students only) (off campus)
743657 -3 Huffman, 12 cr (postbac students only) (off campus)
- 5705 Seminar: Reflecting on Clinical Experience in Science Teaching** (prereq 5702, 5703, #, 15704) (A-F only)
526553 1730-2000 Th, PeikH 365, Finley, 3 cr (15704)
- 5801 Second Language Curriculum** (max 9 cr) (A-F only)
446746 1220-1415 MW, PeikH 215, Walker, 3 cr
- 5802 Second Language Instruction** (max 9 cr) (A-F only)
246747 1430-1625 MW, PeikH 215, Walker, 3 cr
- 5803 Second Language Research** (max 6 cr) (A-F only)
146748 1220-1415 TTh, PeikH 215, Tedick, 2 cr
- 5804 Clinical Experiences in Second Languages** (max 12 cr) (A-F only)
946749 1430-1615 TTh, PeikH 215, Tedick, 4 cr
- 8188 Information Sources and Research in Second Language Learning and Teaching** 643652 0900-1300 S, PeikH 215, Jorstad, 5 cr
- 8387 Research Seminar: Second Languages and Cultures Education** (max 9 cr; prereq 8188)
030767 1500-1800 M, PeikH 31, Jorstad, 3 cr
- 8801 Problems: Teaching Social Studies** (prereq 5150, 5152, 5156, 8104 or #)
730486 Avery, 3-9 cr
- 8871 Problems: Curriculum Construction** (prereq #)
926677 -1 Finley, ar cr
527184 -2 Gennaro, ar cr
827157 -3 Heller, ar cr
- 8893 Seminar: Advanced Topics in English-Language Arts Education** (max 9 cr; prereq #)
343645 1630-1915 Th, PeikH 25, Beach, 3 cr
- 8894 Problems: Second Languages and Cultures Education** (max 8 cr)
126619 -1 Jorstad, ar cr
128783 -2 Lange, ar cr
627841 -3 Paige, ar cr
633039 -4 Tedick, ar cr
443653 -5 Walker, ar cr
- 8895 Readings in English Education**
527623 -1 Beach, 1-3 cr
027268 -2 Graves, 1-3 cr
929482 -3 Keglér, 1-3 cr
- 8896 Problems: Teaching English**
930681 -1 Beach, ar cr
225994 -2 Graves, ar cr
931717 -3 Keglér, ar cr
- 8898 Readings in Second Languages and Cultures Education**
733887 -1 Jorstad, 1-3 cr
829152 -2 Lange, 1-3 cr
832746 -3 Paige, 1-3 cr
725773 -4 Tedick, 1-3 cr
243654 -5 Walker, 1-3 cr
- 8899 Seminar: Research in Science Education** (max 9 cr; prereq MA or PhD candidate, #)
130811 1630-1925 T, PeikH 365, Heller, 3 cr

SMALL ANIMAL CLINICAL SCIENCES (SACS)

Veterinary Medicine

- 5001 Clinical Small Animal Medicine** (prereq #) (S-N only)
125700 1-12 cr
- 5003 Clinical Small Animal Surgery** (prereq #) (S-N only)
628522 1-12 cr
- 5005 Clinical Small Animal Specialties** (prereq #) (S-N only)
732352 1-12 cr
- 5007 Clinical Anesthesiology** (prereq #) (S-N only)
327039 Raffé, Robinson E., 1-12 cr
- 5009 Clinical Radiology** (prereq #) (S-N only)
125494 Feeney, Johnston G., others, 1-12 cr
- 5170 Small Animal Medicine** (prereq #)
831600 0900-0950 MWTh, 0800-0850 T, VetTchHos A325, Hardy, others, 4 cr
- 5250 Small Animal Dermatology** (prereq regis 3rd or 4th yr vet med or grad or #)
132937 1700-1750 M, VetTchHos A325, McKeever, 1 cr
- 5256 Diseases of the Liver and Pancreas** (prereq regis 3rd or 4th yr vet med or grad or #)
328658 1300-1450 M, VetTchHos A325, Hardy, 2 cr
- 5260 The Problem Oriented Medical System** (prereq #) (A-F only)
831516 1100-1150 T, AnScVM 135, Osborne, 1 cr
- 5360 Small Animal Orthopedics** (prereq regis 3rd or 4th yr vet med or grad or #)
628052 1500-1650 M, AnScVM 135, Wallace, 2-3 cr
- 5398 Independent Research in Veterinary Anesthesiology** (prereq registered in veterinary medicine or grad or #)
929935 Robinson E., 1-6 cr
- 5451 Veterinary Radiology I** (prereq #) (A-F only)
232346 1100-1150 Th, VetTchHos A325, Vets 145, Walter, Rivers, 1 cr
- 85802 Residency in Veterinary Dermatology** (prereq #) (S-N only)
444298 Johnston S., McKeever, ar cr
- 5812 Companion Animal Oncology** (prereq DVM or equiv) (S-N only)
645983 2 cr
- 8180 Advanced Clinical Neurology** (prereq #)
630853 Hardy, ar cr
- 8190 Comparative Cardiovascular Diseases** (prereq grad)
029005 Ogburn, 3 cr
- 8191 Advanced Comparative Electrocardiology** (prereq grad, #)
531493 Ogburn, 3 cr
- 8192 Special Cardiology Clinics** (prereq grad, #)
926159 Ogburn, ar cr
- 8196 Internal Medicine in Small Companion Animals** (prereq grad, #)
129710 Osborne, others, 2 cr
- 8197 Advanced Dermatologic Clinics** (prereq grad, #) (A-F only)
233559 McKeever, 4 cr
- 8198 Problems in Veterinary Comparative Dermatology** (prereq grad, #)
125219 McKeever, ar cr
- 8200 Directed Studies in Veterinary Comparative Dermatology** (prereq grad, #) (A-F only)
427677 McKeever, 2 cr
- 8290 Advanced Veterinary Medicine** (prereq 5172, LACS 5162, #)
732481 Osborne, Polzin, ar cr
- 8291 Advanced Diagnosis and Therapeutics of Animal Diseases** (prereq 5172, LACS 5162, #)
132193 Hardy, Klausner, others, ar cr
- 8293 Medical Conference** (prereq 5172, LACS 5162, #)
533485 Osborne, Polzin, ar cr
- 8297 Advanced Clinical Veterinary Ophthalmology** (prereq grad or #)
030557 Bistner, 3 cr

- 8298 Research in Veterinary Ophthalmology** (prereq grad or #)
130699 Bistner, 3-5 cr
- 8299 Research in Veterinary Medicine**
025679 Osborne, others, ar cr
- 8390 Seminar: Veterinary Surgery** (prereq 5360, 5365 or equiv, #)
028758 Wallace, Lipowitz, others, ar cr
- 8391 Advanced Small Animal Surgery** (prereq CVM 5350 or equiv, #)
931703 -1 1100-1300 M, Wallace, Lipowitz, others, ar cr
132744 -2 Wallace, Lipowitz, others, ar cr
- 8394 Surgery of the Gastrointestinal System** (prereq LACS 5160 or #)
923892 Caywood, Lipowitz, ar cr
- 8398 Research in Veterinary Anesthesia** (prereq grad of professional veterinary curriculum, 8396, LACS 8397 or equiv, #) (A-F only)
827661 Raffé, Robinson E., 2-4 cr
- 8399 Seminar: Veterinary Anesthesia** (prereq grad of professional veterinary curriculum, 8396, LACS 8397 or equiv, #) (A-F only)
830785 Raffé, Robinson E., 1-4 cr
- 8410 Surgical Physiology** (prereq 8391, #)
824792 Wallace, Caywood, 2 cr
- 8420 Neurosurgery** (prereq 8391 or equiv, #) (A-F only)
424780 Wallace, 3 cr
- 8430 Thoracic and Cardiovascular Surgery** (prereq 8391, #)
629234 Caywood, Lipowitz, others, 3 cr
- 8471 Therapeutic Radiology** (max 2 cr; prereq 5452, #)
133957 Feeney, Johnston G., others, ar cr
- 8480 Seminar: Veterinary Radiology** (prereq 5452, #)
125048 0800-0850 T, VetTchHsp 282, Walter, Feeney, others, 1 cr
- 8490 Advanced Veterinary Radiology** (prereq 5450, 5451, 5452 or equiv, #) (A-F only)
125907 Walter, Feeney, others, 1-2 cr
- 8491 Fundamentals of Nuclear Medicine** (prereq #) (A-F only)
125950 Johnston G., Feeney, others, ar cr
- 8492 Radiation Biology** (max 3 cr; prereq grad, #) (A-F only)
529033 Feeney, Johnston G., others, 1-3 cr

SOCIAL AND ADMINISTRATIVE PHARMACY (SAPh)

Social, Administrative, and Hospital Pharmacy

- 8100 Seminar**
331785 -1 0800-1000 Th, HSUnitF 7193, Somani, 1 cr
827627 -2 1400-1600 Th, HSUnitF 7193, Hadsall, 1 cr
- 8200 Research Problems**
432006 ar cr
- 8280 Administrative Clerkship**
024290 ar cr
- 8290 Clinical Clerkship** (prereq 8270)
930972 Cloyd, 2-5 cr
- 8400 Special Clinical Problems**
633297 ar cr
- 8612 Research Seminar**
929353 2 cr
- 8703 Hospital Pharmacy Administration II** (A-F only)
024113 0800-1000 MW, HSUnitF 7193, Abramowitz, 3 cr
- 8777 Thesis Credits: Masters**
532708 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per crt)
429719 1-36 cr

SOCIAL AND PHILOSOPHICAL FOUNDATIONS OF EDUC (SPFE)
Educational Policy And Administration

Education
8777 Thesis Credits: Masters
 330801 1-16 cr

SOCIAL WORK (SW)
Human Ecology

- R3202 Interventions in Community and Social Policy**
 129383 0905-1100 TTh, FolH 104, Pandey, 4 cr
- 3970 Directed Studies**
 232623 1-15 cr
- 3990 Directed Research (prereq #)**
 131433 ar cr
- R5010 Seminar: Special Topics**
 733131 -1 0900-1130 M, HHCtr 25, Stevens, 3 cr (Financial Management in the Public and Nonprofit Sector) (§PA 5123)
 926467 -2 1115-1230 MW, BlegH 205, Bolan, 3 cr (Human Services Planning)
 327493 -3 0800-1100 T, FordH 175, Brookins, 3 cr (The Ecologies of Black Child Development) (§CPsy 5310)
 346092 -4 1615-1900 Th, FordH 349, 3 cr (Case Management: Trends and Practices in Serving Persons with Developmental Disabilities)
- R5013 Interdisciplinary Team Training in Health Services Delivery (§HSU 5001, PubH 5013)**
 231262 1745-2045 W, MoosT 2571, 2585, 3 cr
- R5024 Multidisciplinary Perspectives on Aging (§AdEd 5440, CPsy 5305, Educ 5440, HSU 5009, PA 5414, PubH 5520, PubH 5737, SAHP 5009, Soc 5960)**
 046094 1640-1825 MW, MoosT 2690, Quam, 4 cr
- 5111 Contemporary Policy and Programs in Social Welfare (prereq grad standing or 12 cr in social sciences)**
 131005 0905-1205 Th, FordH 175, Carter, 3-4 cr
- R5601 Ethno-Cultural Concepts in Social Work Practice**
 127827 0800-1100 T, FordH 170, Williams, 3-4 cr
- 8010 Field Instruction I (8010†; 4 cr or ar cr by #) (S-N only)**
 533616 Sullivan, ar cr
- 8020 Field Instruction II (8020†; 4 cr or ar cr by #; prereq 8010) (S-N only)**
 525306 Sullivan, ar cr
- 8030 Field Instruction in Social Work III (8030†; prereq 8020) (S-N only)**
 324044 Sullivan, ar cr
- R8130 Seminar: History of Social Work (§Hist 5821; prereq Hist 5349, #)**
 329776 1900-2100 M, BlegH 350, Quam, 4 cr
- R8180 Social Policy Formulation and Analysis (prereq doctoral student or #)**
 130637 1325-1625 T, FordH 70, Carter, 4 cr
- R8305 Community Development**
 125284 1220-1520 T, FordH 170, Wattenberg, 3 cr
- R8307 Human Services Management II**
 731394 0800-1100 M, FordH 175, Pandey, 3 cr
- R8402 Social Work Methods III (prereq 8010, 8400, 8401)**
 ★LECT 1315-1445 T, FordH 150
 830737 -1 REC 1500-1630 T, FordH 150, 3 cr
 827739 -2 REC 1500-1630 T, FordH 60, 3 cr
 429509 -3 REC 1500-1630 T, FordH 50, 3 cr
- R8406 Supervision and Consultation in Social Work Practice (prereq 8401, #)**
 524060 1535-1835 M, FordH 60, Bracht, 3 cr
- R8408 Direct Work with Children and Their Families (prereq 8121, 8402 or equiv)**
 526729 1220-1520 M, FordH 349, Gilgun, 3 cr
- R8450 Special Topics: Practice with Individuals, Families, and Groups: Issues in Health Settings (prereq 8401 or #)**
 833556 1220-1520 T, FordH 175, Bracht, 3 cr
- 8888 Thesis Credits: Doctoral (max 18 cr per qtr)**
 427808 1-36 cr
- R8901 Social Work Research Methods**
 730018 1220-1520 M, FordH 175, Jones, 3 cr
- R8902 Direct Practice Evaluation (prereq 8901 or equiv)**
 427436 0800-1100 Th, FordH 170, Gilgun, 3 cr

- 8970 Directed Study (prereq #)**
 132803 ar cr
- 8990 Research Projects (max 6 cr)**
 232766 ar cr

SOCIOLOGY (Soc)
Liberal Arts

- R1001 Introduction to Sociology**
 428599 -1 0800-0850 MWF, AndH 350, 4 cr
 733730 -2 0905-0955 MWF, FordH 115, 4 cr
 346755 -3 1010-1100 MWF, AndH 210, Hwang, 4 cr
 147762 -4 1245-1400 TTh, AndH 270, Nelson, 4 cr
- 1001H Honors Course: Introduction to Sociology**
 427758 1220-1310 MWF, BlegH 245, Spitzer, 4 cr
- R1003 Social Problems**
 343676 1115-1205 MWF, BlegH 150, Fulton, 4 cr
- R1651 Rural Sociology**
 124403 0830-0920 MWF, HckrH 100, Donohue, 4 cr (SIP)
- R3102 Introduction to Criminal Behavior and Social Control (§3103; prereq 3101)**
 033832 1245-1400 TTh, AndH 210, Kruttschnitt, 4 cr
- R3352 Sociology of Cultural Forms**
 146751 1415-1645 T, BlegH 115, Wisely, 4 cr
- R3401 Principles of Social Organization (prereq 1001, 3801)**
 ★LECT 1220-1310 MWF, AndH 230, Galaskiewicz
 032616 -1 LAB 0800-0955 M, BlegH 210, 5 cr
 724154 -2 LAB 1010-1205 M, BlegH 210, 5 cr
 033037 -3 LAB 0800-0955 W, BlegH 210, 5 cr
 231729 -4 LAB 1010-1205 W, BlegH 210, 5 cr
- R3457 Sweden: Social Structure, Social Change (§Scan 3457)**
 043678 1010-1100 MWF, BlegH 120, Cooperman, 4 cr
- R3477 Historical Sociology (prereq 1001 or #)**
 746753 1115-1230 TTh, BlegH 135, Aminzade, 4 cr
- R3501 The Family System (prereq 1001 or #)**
 928767 1115-1205 MWF, AndH 270, Reiss, 4 cr
- R3503 Sex, Romance, and Relationships (prereq 1001)**
 843679 1245-1400 TTh, BlegH 205, Laslett, 4 cr
- R3551 World Population Problems**
 946752 0945-1100 TTh, AndH 230, Fiola, 4 cr
- R3802 Sociological Methods II: Statistical Inference (prereq 3801)**
 ★LECT 0905-0955 MWF, BlegH 10, Bian
 724137 -1 LAB 0800-0850 MW, BlegH 90, 5 cr
 231018 -2 LAB 1010-1100 MW, BlegH 90, 5 cr
 730908 -3 LAB 1110-1200 MW, BlegH 90, 5 cr
 528383 -4 LAB 1210-1300 MW, BlegH 90, 5 cr
 246750 -5 LAB 1310-1400 MW, BlegH 90, 5 cr
- R3803 Sociological Methods III: Research Methods (prereq 3801, 3802 or equiv or #)**
 ★LECT 0815-0930 TTh, AndH 330, McTavish
 230001 -1 LAB 0800-0850 MW, BlegH 255, 5 cr
 932933 -2 LAB 0905-0955 MW, BlegH 255, 5 cr
 832620 -3 LAB 1010-1100 MW, BlegH 255, 5 cr
 543675 -4 LAB 0945-1035 TTh, BlegH 255, 5 cr
- R3803H Honors Course: Sociological Methods III: Research Methods (prereq 3802H or equiv or #)**
 ★LECT 0815-0930 TTh, AndH 330, McTavish
 232671 -80 LAB 1050-1140 TTh, BlegH 255, 5 cr
- R3937 Social Gerontology: Elders in American Society (prereq 1001 or #)**
 143680 0945-1100 TTh, BlegH 205, McTavish, 4 cr
- R3954 Sociological Perspectives on Race, Class, and Gender (§Afro 3954)**
 143677 0815-0930 TTh, AndH 230, Brewer, 4 cr
- R3966 Major Projects Seminar (prereq all other required Soc coursework, Comp 3014, Δ) (A-F only)**
 630173 -1 0945-1100 TTh, BlegH 245, Kruttschnitt, 4 cr
 529727 -2 0945-1100 TTh, SocSci 101, Nelson, 4 cr

- 3970 Directed Studies (prereq #, Δ, □)**
 532904 1-15 cr
- 3990 Sociology Honors Thesis (max 8 cr; prereq jr or sr sociology honors student, #, Δ, □)**
 925884 4-8 cr
- R5105 Contemporary Corrections (prereq 3101, 3102 or #...5161, 5162 rec)**
 143688 1115-1230 TTh, BlegH 120, Ward, 4 cr
- R5108 Current Issues in Crime Control (§CJS 5207; prereq 3102 or #)**
 026685 0815-0930 TTh, BlegH 230, Carlson, 4 cr
- R5162 Criminal Procedure in American Society (§CJS 5102)**
 133739 0945-1100 TTh, HHCtr 25, Samaha, 4 cr
- R5311 Sociology of Conflict (prereq 3401 or 5401 or equiv or #)**
 843682 1115-1230 TTh, BlegH 235, Leik, 4 cr
- R5411 Formal Organizations (prereq 3401 or 5401 or 8 cr in soc, anthropology, psychology, political sci or econ or #)**
 725918 1220-1310 MWF, BlegH 135, Knoke, 4 cr
- R5415 Comparative Social Structure (prereq 20 cr in sociology, economics or political science or #)**
 043681 1220-1310 MWF, BlegH 260, Cooperman, 4 cr
- R5505 Family Development (prereq 1001, 3201 or 5201, CPsy 1301 or #)**
 643683 0815-0930 TTh, BlegH 110, Leik, 5 cr
- R5703 Social Life and Cultural Change (prereq 8 cr in social science or #)**
 728902 1115-1205 MWF, BlegH 235, Donohue, 4 cr
- R5812 Content Analysis Methods (prereq 3803 or equiv or #)**
 146756 1245-1400 TTh, BlegH 210, McTavish, 4 cr
- R5953 Sociology of Education (§SPFE 5190; prereq 1001 or equiv or #)**
 943687 1535-1805 T, JonesH 10, Louis, 4 cr
- R5956 Sociology of Death (prereq jr or sr, 8 cr in sociology or #)**
 933130 1010-1100 MWF, AndH 270, Fulton, 4 cr
- R5960 Topics in Sociology: Killing (prereq 1001 or #)**
 443684 1430-1625 W, BlegH 220, Malmquist, 4 cr
- 5970 Directed Studies (prereq #, Δ, CLA approval)**
 730276 1-15 cr
- R8090 Topics in Sociology**
 032034 -1 ar cr (prereq #)
 529324 -2 1325-1600 W, Law 3, Reiss, 3 cr (Seminar: Social Issues and Social Policies)
- R8105 Seminar: Criminal Policy (§CJS 8207, 8003)**
 546754 1415-1645 Th, BlegH 105, Ward, 3 cr
- R8215 Theories of Social Psychology (prereq 1st yr sociology grad or #)**
 743691 1520-1700 MW, BlegH 210, Sykes, 4 cr
- 8777 Thesis Credits: Masters**
 526925 1-16 cr
- R8813 Data Analysis (prereq 8812 or #)**
 ★LECT 1325-1440 MW, BlegH 125, Marini, 4 cr
 833265 -1 LAB 1325-1440 F, BlegH 90
- R8818 Sociological Research Practicum (prereq 8817)**
 743688 1325-1630 M, SocSci 101, Anderson, 5 cr
- R8855 Health and Human Behavior (§PubH 8770; prereq 5855 or #)**
 543689 1115-1310 T, Mayo C396, Litman, 3 cr
- 8888 Thesis Credits: Doctoral (max 18 cr per qtr)**
 127732 1-36 cr
- R8955 Seminar: Teaching Sociology on the College Level (prereq 2nd or 3rd yr sociology grad student or #)**
 543692 1325-1600 F, BlegH 350, Spitzer, 3 cr

SOIL SCIENCE (Soil)
Agriculture

- R1282 Introduction to Meteorology**
 ★LECT 1010-1100 MWF, AndH 230, Baker, Skaggs, (Mpls)
 527265 -1 LAB 0830-0920 TTh, BorH 335, Baker, Skaggs, 4 cr
 229687 -2 LAB 0935-1025 TTh, BorH 335, Baker, Skaggs, 4 cr

- 3220 Soil Conservation and Land-Use Management** (prereq 1020/3125 or #) (A-F only) (course fee)
044376 1145-1235 MWF, BorH 375, Bell, 4 cr
- 5114 Special Problems in Soils** (max 10 cr; prereq 1122 or #)
428683 1-5 cr
- 5310 Soil Chemistry** (prereq Chem 3100 or #)
646339 1605-1655 MWF, BorH 375, Bloom, 3 cr
- 5311 Soil Chemistry Laboratory** (prereq 5310)
846341 1300-1700 Th, Soils S320, Bloom, 1 cr
- r5510 Field Study of Soils for Environmental Assessment** (prereq 1020/3125 or #) (course fee)
★LECT 0845-1000 TTh, Soils S415, Cooper, 4 cr
026816 -1 LAB 1300-1800 Th, BorH 243, Cooper, (field trip May)
- 5515 Soil Development, Classification and Geography** (prereq 3125 or #)
524592 1250-1340 MWF, Soils S415, Nater, 4 cr
(2 weekend field trips required)
- 5605 Microbial Ecology** (§MicB 5611; prereq MicB 5105 or Biol 5013 or Soil 5610, or #) (A-F only)
046340 1015-1130 TTh, BorH 375, Sadowsky, 3 cr
- r5710 Forest Soils** (prereq 1020 or 3125)
332743 1040-1130 MWF, BorH 375, Grigal, 3 cr
- 8111 Colloquia in Soil Science** (prereq maj or min or #)
930437 -1 1-4 cr
947495 -2 1-4 cr
- 8124 Research Problems in Soils**
426819 2-5 cr
- 8128 Seminar: Soils (S-N only)**
932009 1 cr
- 8632 Soil Microbiology** (prereq 5610 or #) (A-F only)
247493 0935-1025 TTh, Soils S521, Molina, 2 cr
- 8777 Thesis Credits: Masters**
426660 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
330734 1-36 cr

SOUTH ASIAN STUDIES (SoAS)

South Asian & Middle Eastern Studies

Liberal Arts

- 1506 Introduction to Contemporary South Asia** (§3506)
626351 1115-1205 MWF, BlegH 255, Schwartzberg, 5 cr
- r3413 Buddhism** (§5413, ReIS 3413, ReIS 5413)
446603 1115-1230 TTh, FolH 50, Junghare, 4 cr
- 3506 Introduction to Contemporary South Asia** (§1506)
324593 1115-1205 MWF, BlegH 255, Schwartzberg, 5 cr
- r5413 Buddhism** (§3413, ReIS 3413, ReIS 5413)
246604 1115-1230 TTh, FolH 50, Junghare, 4 cr
- 5970 Directed Studies**
828647 ar cr
- 5990 Directed Research**
728785 ar cr
- 8777 Thesis Credits: Masters**
732917 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
128007 1-36 cr

SPANISH (Span)

Spanish And Portuguese

Liberal Arts

- r1101 Beginning Spanish**
432488 -1 0800-0850 MTWThF, PeikH 155, 5 cr
631615 -2 1115-1205 MTWThF, AmundH 162, 5 cr

- r1102 Beginning Spanish** (prereq 1101)
430823 -1 0800-0850 MTWThF, AmundH 124, 5 cr
728205 -2 0905-0955 MTWThF, VinH 301, 5 cr
- r1103 Beginning Spanish** (prereq 1102)
923939 -1 0800-0850 MTWThF, AkerH 309, 5 cr
028050 -2 0800-0850 MTWThF, Arch 30, 5 cr
524494 -3 0905-0955 MTWThF, NichH 209, 5 cr
431745 -4 1010-1100 MTWThF, AmundH 120, 5 cr
328756 -5 1115-1205 MTWThF, JonesH 4, 5 cr
325260 -6 1220-1310 MTWThF, KoltH S134, 5 cr
923973 -7 1325-1415 MTWThF, VinH 20, 5 cr
- r1104 Intermediate Spanish** (prereq 1103 or 3 yrs high school Spanish)
029473 -1 0800-0850 MTWThF, Phys 236A, 5 cr
125423 -2 0905-0955 MTWThF, LindH 216, 5 cr
125325 -3 1115-1205 MTWThF, PeikH 225, 5 cr
629833 -4 1220-1310 MTWThF, CivMinE 212, 5 cr
829989 -5 1325-1415 MTWThF, KoltH S137, 5 cr
124384 -6 1430-1520 MTWThF, KoltH S134, 5 cr
- r1105 Intermediate Spanish** (prereq 1104 or 4 yrs high school Spanish)
132879 -1 0800-0850 MTWThF, AmundH 120, 5 cr
128671 -2 0905-0955 MTWThF, KoltH S135, 5 cr
227597 -3 1010-1100 MTWThF, Arch 20, 5 cr
732710 -4 1115-1205 MTWThF, Arch 20, 5 cr
824033 -5 1220-1310 MTWThF, KoltH S138, 5 cr
232511 -6 1220-1310 MTWThF, KoltH S136, 5 cr
233058 -7 1325-1415 MTWThF, Arch 15, 5 cr
146742 -8 1430-1520 MTWThF, KoltH S132, 5 cr
- r1106 Intermediate Spanish** (prereq 1105 or 5 yrs high school Spanish)
833461 -1 0815-0930 MWF, FordH 40, 5 cr
230936 -2 0815-0930 MWF, FolH 426, 5 cr
332340 -3 0815-0930 MWF, FolH 419, 5 cr
730696 -4 0945-1100 MWF, VinH 1, 5 cr
924394 -5 0945-1100 MWF, FolH 419, 5 cr
123980 -6 1115-1230 MWF, FordH 40, 5 cr
625121 -7 1115-1230 MWF, AmundH 120, 5 cr
824243 -8 1115-1230 MWF, AkerH 215, 5 cr
430739 -9 1245-1400 MWF, AkerH 215, 5 cr
129514 -10 1245-1400 MWF, FolH 134, 5 cr
832925 -11 1245-1400 MWF, FordH 285, 5 cr
- r1503 Culture, Civilization of Modern Latin America: Societies in Change**
030784 1220-1310 MWF, FolH 419, 4 cr
- r3002 Reading for Speed and Comprehension** (prereq 1106 or equiv)
228748 -1 0800-0850 MWF, FolH 334, 4 cr
329325 -2 0905-0955 MWF, ChDev 218, 4 cr
830379 -3 1115-1205 MWF, FolH 214, 4 cr
- r3004 Written Communication: Formal and Informal** (prereq 1106 or equiv)
130887 -1 0800-0850 MWF, FolH 218, 4 cr
132476 -2 1010-1100 MWF, FolH 134, 4 cr
134185 -3 1325-1415 MWF, FordH 150, 4 cr
443717 -4 1430-1520 MWF, NichH 201, 4 cr
- r3005 Oral Communication: Speaking and Listening** (prereq 1106 or equiv)
424343 -1 0800-0850 MTWThF, FolH 234, 4 cr
227437 -2 1115-1205 MTWThF, Arch 45, 4 cr
243718 -3 1220-1310 MTWThF, FolH 318, 4 cr
- r3021 Advanced Communication Skills** (prereq 10 cr from 3001-3005 series or #)
831502 0905-0955 MTWThF, NichH 109, 5 cr
- r3104 The Art of Reading Literary Texts** (§LAS 3104, Spn 3104; prereq 3002)
933001 -1 1010-1100 MWF, FolH 218, O'Connell, 4 cr
143719 -2 1325-1415 MWF, FolH 114, Sullivan, 4 cr
- r3211 Spanish Literature: Aspects of Prose and Fiction** (prereq 3104)
443720 1220-1310 MWF, FolH 214, Ramos, 4 cr
- r3211H Honors Course: Spanish Literature: Aspects of Prose and Fiction** (prereq 3104)
243721 1220-1310 MWF, FolH 214, Ramos, 4 cr
- r3253 Spanish American Literature: Aspects of Drama** (§LAS 3253; prereq 3104)
127438 1325-1415 MWF, FolH 104, Vidal, 4 cr
- r3253H Honors Course: Spanish-American Literature**
Aspects of Drama (prereq 3104, honors student or #)
426352 1325-1415 MWF, FolH 104, Vidal, 4 cr

- r3614 Don Quixote: Study of Lost Illusions**
143722 1115-1205 MWF, AkerH 211, Spadaccini, 4 cr
- r3730 Topics in Hispanic Linguistics** (prereq 3004 or #)
130873 1010-1100 MWF, FolH 240, Ocampo, 4 cr
- r3910 Topics in Spanish Peninsular Literature** (max 12 cr; prereq 3104 or #)
943723 0905-0955 MWF, FolH 134, Spadaccini, 4 cr
- r3910H Topics in Spanish Peninsular Literature** (max 12 cr; prereq 3104 or #)
743724 0905-0955 MWF, FolH 134, Spadaccini, 4 cr
- 3970 Directed Studies** (prereq #, Δ, □)
025133 1-5 cr
- 3973 Major Project** (prereq #) (A-F only)
933659 2 cr
- 5111 The Literature of the Spanish Crisis of the 20th Century** (prereq three 3xxx or 5xxx literature courses in Span or Port)
543725 1515-1800 W, FolH 214, Ramos, 4 cr
- r5711 The Structure of Modern Spanish: Phonology** (prereq 3701, Ling 5302 or #)
343726 Broner, 4 cr
- 5714 The Structure of Modern Spanish: Semantics** (prereq 5713)
143727 1515-1800 T, FolH 214, 4 cr
- 5930 Topics in Ibero-Romance Linguistics** (max 12 cr; prereq 10 cr from 3001-3005 series or Δ)
043728 1515-1800 Th, FolH 214, 4 cr
- 5970 Directed Readings** (max 15 cr; prereq #, Δ, CLA approval)
526116 1-5 cr
- 5990 Directed Research** (prereq #, Δ, CLA approval)
630481 1-5 cr
- 8300 The Construction of Spanish Literary History**
447461 1515-1800 F, FolH 218, Ramos, 4 cr
- 8504 Modern Forms of Narrativity after the Early Thirties**
843729 1515-1800 M, FolH 240, Sullivan, 4 cr
- 8777 Thesis Credits: Masters**
631548 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
224828 1-36 cr
- 8960 Advanced Research in Social Approaches to Spanish American Literary Texts**
143730 1515-1800 M, FolH 214, Vidal, 4 cr
- 8970 Directed Readings in Romance Languages** (prereq Δ)
032907 ar cr

SPANISH-PORTUGUESE (SpPt)

Spanish And Portuguese

Liberal Arts

- 3980 Directed Instruction** (max 8 cr; prereq #, Δ, □) (S-N only)
027044 1-4 cr

SPEECH-COMMUNICATION

(Spch)

Liberal Arts

- r1101 Fundamentals of Speech-Communication: Oral Communication** (§1441)
625751 -1 0800-0955 MW, FolH 340, 4 cr
227969 -2 1010-1205 MW, FolH 344, 4 cr
725465 -3 1220-1415 MW, FolH 312, 4 cr
628066 -4 0800-0955 TTh, FolH 419, 4 cr
728222 -5 0800-0955 TTh, FolH 318, 4 cr
525337 -6 1010-1205 TTh, FolH 318, 4 cr
133733 -7 1010-1205 TTh, FolH 326, 4 cr
132817 -8 1010-1205 TTh, FolH 344, 4 cr
033572 -9 1220-1415 TTh, FolH 344, 4 cr
- r1102 Fundamentals of Speech-Communication: Communication Process**
125964 1115-1205 MWThF, NichH 211, 4 cr
- r1313 Analysis of Oral Argument**
227759 -1 1010-1205 MW, FolH 326, 4 cr
331382 -2 0800-0955 TTh, FolH 326, 4 cr
231911 -3 1010-1205 TTh, FolH 419, 4 cr
925190 -4 1220-1415 TTh, FolH 326, 4 cr

- r3111 Leadership Communication**
143744 1600-1800 MW, FolH 419, Shapiro, 4 cr
- 3193H Honors Course: Tutorial Seminar in Speech**
(prereq honors candidate in speech-communication, #, Δ)
133417 4 cr
- r3201 Introduction to Broadcasting Production**
025598 -1 0800-0955 MW, RarigC 610, 4 cr
425461 -2 1010-1205 MW, RarigC 610, 4 cr
127768 -3 0800-0955 TTh, RarigC 610, 4 cr
430417 -4 1010-1205 TTh, RarigC 610, 4 cr
- r3211 Determinants of Broadcast Programming**
927439 1010-1205 MW, FolH 306, Peck, 4 cr
- r3411 Small Group Communication Processes**
(\$3641; prereq 1101 or #)
632828 -1 0800-0955 MW, FolH 312, 4 cr
824985 -2 1010-1205 MW, FolH 312, 4 cr
632957 -3 0800-0955 TTh, FolH 312, 4 cr
926940 -4 1010-1205 TTh, FolH 312, 4 cr
129481 -5 1220-1415 TTh, FolH 312, 4 cr
- r3431 The Role of Persuasion in the Modern World**
(soph standing rec)
033622 0800-0955 MW, FolH 344, Scott, 4 cr
- r3441 Communicating in Organizations** (prereq 1102 or 1101 or equiv)
125891 0800-0955 TTh, FolH 344, 4 cr
- r3451 Intercultural Communication: Theory and Practice** (§UC 3701; prereq planning an intercultural experience)
030008 1010-1205 MW, FolH 318, 4 cr
- r3452 Communication and the Intercultural Reentry** (§UC 3703; prereq return from an intercultural experience)
326098 1325-1520 TTh, FolH 334, 4 cr
- r3601 Approaches to Public Discourse** (prereq 1101)
825859 1220-1415 TTh, Arch 50, Campbell, 4 cr
- r3605 Persuasive Speaking** (prereq 1101)
230094 -1 0800-0955 MW, FolH 318, 4 cr
428618 -2 1220-1415 TTh, FolH 419, 4 cr
- r3615 Argumentation** (prereq 1101 or 1101H or #)
843746 0800-0955 MW, FolH 326, Jensen, 4 cr
- 3970 Directed Studies** (no major program or for spch-comm maj; prereq at least one spch-comm course, #, Δ, □)
426870 ar cr
- 3980 Directed Instruction** (max 8 cr; no major program or for speech-communication maj; prereq #, Δ, □) (S-N only)
329633 1-4 cr
- r5232 International Broadcasting**
828387 0905-1100 MW, FolH 334, Browne, 4 cr
- r5261 Communicative Processes of Television**
(prereq 3211 or #)
443748 0905-1100 TTh, FolH 334, 4 cr
- r5404 Language, Culture, and Education** (§SeEd 5404; prereq 1102, 3401 or #)
546690 1325-1520 TTh, PeikH 40, Piche, 4 cr
- r5411 Small Group Communication Theory** (prereq 3411 or #)
632375 1325-1520 TTh, FolH 318, Bormann, 4 cr
- r5441 Communication in Human Organizations**
(prereq 3401 or 8 cr social science, 3441 or #)
124913 1600-1800 TTh, FolH 318, Shapiro, 4 cr
- r5452 Workshop in Intercultural Communication**
(prereq #...5451 rec) (S-N only)
230581 1730-2105 W, FolH 326, Albert, 4 cr
- r5615 Introduction to Rhetorical Criticism** (prereq 1101 or 1101H...3601 rec)
143753 1325-1520 MW, FolH 419, Scott, 4 cr
- 5617 History and Criticism of American Public Address** (prereq 1101 or 1101H, Psy 1001)
743755 1325-1520 MW, FolH 326, Bormann, 4 cr
- 5970 Directed Readings** (prereq nine 3xxx-5xxx speech-communication cr, #, Δ, CLA approval)
024046 ar cr
- 8110 Seminar: Advanced Speech Problems**
(prereq undergrad degree in spch-comm or equiv)
227440 1430-1730 M, FolH 312, Campbell, 3 cr
- 8210 Seminar: Selected Topics in American Broadcasting** (prereq 5211 or #)
631033 1430-1730 M, FolH 334, Peck, 3 cr

- 8452 Seminar: Facilitating Intercultural Communication** (prereq 5451 or #...8451 rec)
228930 1430-1730 M, FolH 318, Albert, 3 cr
- 8502 Quantitative Research in Speech-Communications** (prereq Jour 8001 or #... 8201 rec)
143758 1430-1730 T, FolH 419, Hewes, 3 cr
- 8777 Thesis Credits: Masters**
032017 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
629041 1-36 cr
- 8990 Research** (prereq #, Δ)
929823 ar cr

STATISTICS (Stat) Liberal Arts

NOTE: A \$35 microcomputer lab card may be required in the following statistics courses: 3012, 5021, 5161, 5162, 5163, 5301, 5302. Check with the instructor on the first day of class for more information.

- r1001 Introduction to Ideas of Statistics** (prereq high school algebra)
★LECT 0800-0850 MWF, FordH 115, Lele
928719 -1 LAB 0800-0850 T, VinH 206, 4 cr
731976 -2 LAB 0800-0850 Th, VinH 206, 4 cr
★LECT 1040-1130 MWF, ClaOff B45, Grund, (StP)
332385 -3 LAB 1040-1130 T, ClaOff B30, 4 cr (StP)
929952 -4 LAB 1040-1130 Th, ClaOff B30, 4 cr (StP)
★LECT 1220-1310 MWF, AkerH 225, Maitra
124765 -5 LAB 1220-1310 T, VinH 203, 4 cr
425850 -6 LAB 1220-1310 Th, VinH 203, 4 cr
- r3011 Statistical Analysis** (prereq college algebra)
★LECT 0905-0955 MWF, AkerH 225, Maitra
123891 -1 LAB 0905-0955 T, VinH 2, 4 cr
129562 -2 LAB 0905-0955 Th, VinH 2, 4 cr
★LECT 1115-1205 MWF, AkerH 309, Shen
129996 -3 LAB 1115-1205 T, VinH 203, 4 cr
733596 -4 LAB 1115-1205 Th, VinH 203, 4 cr
★LECT 1355-1445 MWF, ClaOff B25, He, (StP)
328899 -5 LAB 1355-1445 T, ClaOff B25, 4 cr (StP)
232850 -6 LAB 1355-1445 Th, ClaOff B25, 4 cr (StP)
- r3012 Statistical Analysis** (prereq 3011)
★LECT 0905-0955 MWF, Arch 45, Geyer
832388 -1 LAB 0905-0955 T, VinH 203, 4 cr
224909 -2 LAB 0905-0955 Th, VinH 203, 4 cr
★LECT 1040-1130 MWF, BioSci 70, He, (StP)
932186 -3 LAB 1040-1130 T, ClaOff B22, 4 cr (StP)
130291 -4 LAB 1145-1235 Th, ClaOff B22, 4 cr (StP)
- r3091 Introduction to Probability and Statistics**
(§5121, 5131; prereq differential, integral calculus)
★LECT 0800-0850 MWF, Arch 10, Shen
233691 -1 LAB 0800-0850 T, VinH 203, 4 cr
732058 -2 LAB 0800-0850 Th, VinH 203, 4 cr
★LECT 1010-1100 MWF, MechE 212, Lele
430692 -3 LAB 1010-1100 T, MechE 102, 4 cr
632764 -4 LAB 1010-1100 Th, MechE 102, 4 cr
★LECT 1325-1415 MWF, AkerH 309, Lindgren
832312 -5 LAB 1325-1415 T, VinH 203, 4 cr
329146 -6 LAB 1325-1415 Th, VinH 203, 4 cr
- r5021 Statistical Analysis** (§3012; prereq college algebra)
★LECT 1140-1240 MWF, ClaOff B45, Bingham, (StP)
926033 -1 LAB 0825-0925 T, ClaOff B22, 5 cr (StP)
827126 -2 LAB 0930-1030 T, ClaOff B22, 5 cr (StP)
- r5122 Theory of Statistics** (prereq 5121)
★LECT 0900-1000 MWF, Phys 170, Dickey
124538 -1 REC 0900-1000 T, Phys 170, 5 cr
731220 -2 REC 0900-1000 Th, Phys 170, 5 cr
- r5133 Theory of Statistics** (prereq 5132)
725160 -1 0905-0955 MWF, VinH 203, Lindgren, 4 cr
830513 -2 1010-1100 MWF, VinH 203, Pruitt, 4 cr
- r5162 Applied Statistical Methods** (§5201, 5301, 5302, 5421; prereq 5161, grad stu in stat or #) (A-F only)
533261 1245-1345 MWF, ClaOff B42, Chaloner, 4 cr (StP)
- r5163 Applied Statistical Methods** (§5201, 5301, 5302, 5421; prereq 5162, grad stu in stat or #) (A-F only)
824811 1400-1500 MWF, ClaOff B22, Oehlert, 4 cr (StP)
- r5201 Sampling Methodology in Finite Populations**
(prereq 5021 or 5121 or 3091 or #)
524642 0900-1030 MW, BioSci 12, Martin, 4 cr (StP)
- r5301 Designing Experiments** (§5163; prereq 3012 or 5021 or 5133 or #)
★LECT 1245-1345 MWF, ClaOff B35, Grund, (StP)
827031 -1 LAB 0825-0925 Th, ClaOff B22, 5 cr (StP)
033751 -2 LAB 0930-1030 Th, ClaOff B22, 5 cr (StP)
- r5302 Applied Regression Analysis** (§5161; prereq 3012 or 5021 or 5133 or #)
★LECT 1140-1240 MWF, ClaOff B35, Weisberg, (StP)
130503 -1 LAB 1035-1135 Th, ClaOff 135, 5 cr (StP)
731783 -2 LAB 1140-1240 Th, ClaOff 135, 5 cr (StP)
- 5890 Senior Paper** (prereq sr in statistics) (A-F only)
830429 2 cr
- 5900 Tutorial Course** (prereq #)
024127 ar cr
- 8153 Mathematical Statistics** (prereq 8152)
127861 1110-1230 MWF, VinH 203, Tierney, 4 cr
- 8162 Computational Statistical Methods** (prereq 8312, programming experience)
928834 1310-1420 MWF, VinH 203, Tierney, 4 cr
- 8401 Topics in Multivariate Methods** (prereq 8312)
843763 1400-1515 TTh, ClaOff B22, Lamitz, 3 cr (StP)
- 8777 Thesis Credits: Masters**
129643 1-16 cr
- 8801 Statistical Consulting** (prereq statistics maj or #) (S-N only)
624910 Hawkins, 1-3 cr (StP)
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
528285 1-36 cr
- 8900 Student Seminar** (prereq statistics maj or #) (S-N only)
126614 1 cr
- 8901 Directed Readings and Research** (prereq #)
126622 1-3 cr
- 8931 Advanced Topics in Statistics: Abstract Gambling Theory and Stochastic Games**
(prereq #)
646759 Sudderth, 3 cr
- 8932 Advanced Topics in Statistics** (prereq #)
846758 Fedorov, 3 cr

SURGERY (Surg) Medical School

- 5500 Externship: Surgery at the University and Affiliated Hospitals** (prereq regis med)
128838 Cerra, ar cr
- 5502 Externship in the Surgical Intensive Care Unit** (prereq regis med)
032048 Cerra, 6-9 cr
- 5503 Research Problems in Surgery** (prereq regis med) (S-N only)
631534 Sutherland, 1-18 cr
- 5504 Hospital Base Nutrition** (prereq medical stu year 3 and 4)
224165 Cerra, 4.5-9 cr
- 5510 Advanced Surgery Externship: Subinternship** (prereq 3rd or 4th yr medical student, 5500)
132696 Najarian, 4.5-9 cr
- r5511 Emergency Medicine - St. Paul Ramsey Medical Center** (prereq 5500, 3 or 4 yr medical student)
724932 Cerra, 6-9 cr

- 5523 Externship in Colon and Rectal Surgery: Veterans Administration Hospital** (prereq regis med)
929949 Goldberg, ar cr
- 5526 Clinical Nutrition Seminar** (prereq acceptance to master's prog in nutr support dietetics or Kellogg MD fellowship prog) (S-N only)
330877 Shronts, 1 cr
- 5527 Hospital Nutrition Support** (prereq acceptance to the master's program in nutrition support dietetics) (S-N only)
226935 Shronts, 9 cr
- 8200 Clinical Surgical Problems in Management**
533602 Najarian, 5 cr
- 8201 Surgical-Roentgenological Conference**
429462 0900-1300 S, Mayo C231, Najarian, 1 cr (Todd Amph)
- 8202 Surgical Research**
326036 Najarian, 5 cr
- 8203 Surgery Complications and Research Conference**
628651 1600-1800 T, PWB 11157, Najarian, 1 cr
- 8207 Transplantation, Bone Marrow Conference**
128797 1630-1730 W, PWB 11157, Najarian, 1 cr
- 8777 Thesis Credits: Masters**
731007 1-16 cr
- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
928896 1-36 cr

SWEDISH (Swed) Scandinavian Studies Liberal Arts

- r1103 Beginning Swedish** (prereq 1102)
825747 -1 0800-0850 MTWThF, BuH 125, 5 cr
931586 -2 1115-1205 MTWThF, AmundH 104, 5 cr
- r1106 Intermediate Swedish** (prereq 1105 or equiv)
630089 -1 1010-1100 MTWThF, KoltH S134, Thander, 5 cr
228426 -2 1220-1310 MTWThF, Arch 30, Johnson, 5 cr
- r3670 Readings in Swedish Literary Texts** (max 28 cr; prereq 1106 or equiv)
125026 1245-1400 TTh, FolH 104, Grimstad, 4 cr

TEXTILES AND CLOTHING (TexC)

Design, Housing, And Apparel Human Ecology

- r1641 Introduction to Merchandising** (prereq 11642)
446858 1325-1520 MW, WullH 230, Peterson, 3 cr
- r1642 Seminar: Orientation to Retail Merchandising** (prereq 11641) (S-N only)
246859 1325-1520 MW, WullH 230, Peterson, 1 cr
- r1643 Apparel Industries** (prereq Econ 1002 or AgEc 1030)
943771 0830-0920 MWF, McNH 33, Evenson, 4 cr
- 3003 Cooperative Education Program** (prereq soph, HE 1003, #) (S-N only)
531784 1-3 cr
- r3603 Ready-to-Wear Analysis** (prereq 3621)
226675 0935-1050 MW, McNH 316, Sieben, 3 cr
- r3604 Flat Pattern Design** (prereq soph, 1603, 3662 or Dsgn 1525 or Δ)
633137 1355-1550 MWF, McNH 212, 216, 3 cr
- r3621 Textiles** (prereq soph, Chem 1002, 1003 or 1005 or #)
★LECT 0935-1025 MWF, McNH 33, Bye, (1 hr ar)
128791 -1 LAB 0935-1130 MW, McNH 322, 5 cr
727183 -2 LAB 1250-1445 MW, McNH 322, 5 cr
- r3622 Textiles for Interiors** (prereq 3621, #)
433012 1355-1620 MWF, McNH 340, Bye, 3 cr
- r3644 Retail Experience Seminar I** (prereq 3rd qtr soph, 1641, 1642, 300 hrs approved selling experience) (S-N only)
743772 0935-1130 T, McNH 316, Kusters, 2 cr
- r3645 Retail Experience Seminar II** (prereq 3643 or 1, 3644, 500 hrs approved selling experience) (S-N only)
130623 0935-1130 Th, McNH 316, Kusters, 2 cr

- 5003 Cooperative Education Program**
(5003-5004†; prereq sr, 15004, #, minimum GPA of 2.50) (S-N only)
929806 -1 4-8 cr (retail merchandising students)
228524 -2 4-8 cr (textiles and clothing students)
- 5004 Cooperative Education Integrative Paper**
(5003-5004†, no grad cr; prereq sr, 15003, #) (A-F only)
925898 -1 2-4 cr (retail merchandising students)
029778 -2 2-4 cr (textiles and clothing students)
- r5622 Issues and Trends in Textile Consumer Protection**
132243 1250-1420 MW, McNH 33, Sieben, 3 cr
- r5661 Clothing and Human Behavior** (prereq sr, Soc 1001, Psy 1001 or #)
930339 1040-1235 MW, McNH 197, Eicher, 4 cr
- r5668 Ethnic Dress** (prereq 3661, Anth 1102, Soc 1001 or #)
247767 1250-1335 TTh, McNH 316, 3 cr
- 5685 International Trade in Textiles and Apparel**
(prereq 1643, Econ 1002)
226546 0830-1020 MW, McNH 180, Williams, 4 cr
- 8661 Readings in Clothing** (prereq min 12 cr in textiles and clothing courses, #)
127804 Williams, others, 1-3 cr
- 8663 Problems: Clothing and Textiles** (max 9 cr; prereq #)
529842 Williams, others, 3-9 cr
- r8681 Integrative Seminar** (S-N only)
143775 1605-1655 W, McNH 316, Williams, 1 cr

THEATRE ARTS (Th) Liberal Arts

- r1101 Introduction to the Theatre**
632246 -1 0905-1100 MW, RarigC 190, Nolte, 4 cr
833136 -2 0905-1100 TTh, RarigC 185, Norwood, 4 cr
- r1301 Beginning Acting for Non-Theatre Majors**
(prereq 1101 or ♪)
243802 -1 0905-1100 MW, RarigC 90, Dukes, 4 cr
943804 -2 0905-1100 TTh, RarigC 90, Beck, 4 cr
143817 -3 0905-1100 TTh, RarigC 190, Ellison, 4 cr
- r1321 Beginning Acting** (prereq 1101, 1504)
328952 -1 1325-1520 MW, RarigC 20, Matthys, 4 cr
027335 -2 1325-1520 TTh, RarigC 20, Cabot, 4 cr
- r1326 Beginning Movement for Actors** (prereq 1321)
527783 1325-1520 MW, RarigC 10, Raymond, 4 cr
- r1502 Makeup for the Actor** (prereq 1504, clean-shaven face)
924976 0800-0955 TTh, RarigC 45, Olson, 2 cr
- r1504 Elements of Technical Theatre** (prereq 1101 or ♪)
328109 1115-1205 TTh, RarigC 190, Egan, 4 cr (lab ar)
- r1805 American Ethnic Literature in Performance**
143946 1325-1520 MW, RarigC 90, Motoyama, 4 cr
- 3173 History of the Theatre: Naturalism to the Present** (prereq 1101, theatre arts maj)
524608 1010-1205 TTh, BlegH 215, Kobialka, 4 cr
- r3311 Beginning Voice Production** (prereq 1321 or ♪) (A-F only)
126961 0800-0850 MTWTh, RarigC 20, Guldry, 4 cr
- r3321 Intermediate Acting** (prereq 1326)
343810 1010-1205 MW, RarigC 210, Werner, 4 cr
- r3323 Advanced Acting: Period Styles** (prereq 3321-3322, #)
133151 -1 1115-1205 MWF, RarigC 10, Moulton, 3 cr (registration in sec 2 is also required)
547712 -2 1535-1730 TTh, RarigC 210, Norwood, 3 cr (registration in sec 1 is also required)
- 3412H Honors Course: Tutorial Seminar in Theatre Arts** (prereq candidate for honors in theatre arts, Δ)
927442 0-3 cr
- r3515 Technical Theatre Production II** (prereq 1504)
027626 1115-1205 MW, 1010-1205 F, RarigC 190, Montgomery, Egan, 5 cr
- r3701 Introduction to Directing** (prereq 1101, 1301, or 1321, or maj or min) (A-F only)
930342 1325-1520 TTh, RarigC 185, Christenson, 4 cr
- r3711 Beginning Stage Direction** (prereq 1504, 3701, jr or sr) (A-F only)
525399 1010-1205 TTh, RarigC 210, Adey, 4 cr
- r3801 Performing Fiction**
128757 1535-1730 MW, RarigC 210, Davis, 4 cr
- r3803 Platform Performance** (prereq Management maj)
632926 -1 1325-1520 MW, BlegH 150, Piper, 4 cr
130878 -2 1325-1520 MW, RarigC 810, Scott, 4 cr
033586 -3 1325-1520 TTh, BlegH 250, Bickle, 4 cr
126801 -4 1325-1520 TTh, RarigC 610, Laube, 4 cr
- r3901 Theatre Arts/Dance Senior Seminar** (prereq sr, theatre or dance maj) (A-F only)
526410 1010-1205 MW, BlegH 260, Adey, Shapiro, 4 cr
- r5100 Theatre Practicum** (prereq written permission, #, Δ) (A-F only)
523992 -1 1-6 cr
128290 -2 1-6 cr
- r5110 Theatre Performance** (max 9 cr; prereq written permission after casting and/or assignment to a production) (S-N only)
427601 Montgomery, 1 cr
- r5116 Advanced Playwriting II** (prereq 5115, #)
333293 0905-1205 F, RarigC 210, Nolte, 4 cr
- r5173 History of Theatre**
143811 1325-1520 MW, BlegH 135, Gadberry, 4 cr
- r5510 Drawing and Rendering for Theatre Designers** (prereq 3513 or 3515 or grad student, #)
529503 0905-1100 TTh, RarigC 275, Brockman, 2 cr
- r5516 Advanced Problems in Stage Lighting Design** (prereq 3515, 3711 or #)
043812 1325-1520 MW, RarigC 275, Montgomery, 4 cr
- r5519 Sound for the Theatre** (prereq 1504, #)
332175 1535-1730 MW, RarigC 275, Gwinup, 2 cr
- r5540 Scene Painting Techniques** (prereq 3513 or #)
127611 0905-1205 MW, RarigC 130, Brockman, 2-4 cr
- r5711 Stage Direction/Avant Garde Drama** (prereq grad stu or #)
628388 1325-1520 MW, RarigC 185, Kanee, 4 cr
- r5720 Plays in Production and Performance** (max 6 cr for undergrads; prereq 5712, #, written permission)
132503 2-4 cr
- r5760 Advanced Stage Management** (max 6 cr for undergrads; prereq 5716 or ♪, #, written permission)
027772 Gwinup, 1-3 cr
- r5823 Interpreting Shakespeare** (prereq sr or grad stu or #)
643814 1115-1205 MTWTh, RarigC 75, Nash, 4 cr
- r5940 Topics in Theatre** (max 12 cr)
131330 1325-1520 TTh, RarigC 210, Balk, 4 cr
- 5970 Directed Readings** (prereq 9 cr in theatre, #, Δ, CLA approval)
032664 -1 1-6 cr
133912 -2 1-6 cr
- r8116 History/Theory of Western Theatre: Romanticism through Naturalism**
243816 1325-1520 TTh, BlegH 240, Gadberry, 4 cr
- r8323 Problems in Acting** (prereq first yr MFA actor or by audition and written instr perm)
432426 1325-1520 MW, RarigC 210, Reid, Balk, 4 cr
- r8336 Performance Theory and Technique** (prereq M.F.A. in acting program) (A-F only)
943818 -1 LECT Reid, 7 cr
♦743819 -1 LAB 0845-0925 MTWTh, RarigC 10, Nash, (Energizing)

- ◆ 943821 -2 LAB 0930-1020 MTWTh, RarigC 20, Nash, (Voice I)
- ◆ 743822 -3 LAB 1025-1115 MTWTh, RarigC 10, (Movement I)
- ◆ 343824 -4 LAB 0930-1020 MTWTh, RarigC 10, (Movement II)
- ◆ 143825 -5 LAB 1025-1115 MTWTh, RarigC 20, Nash, (Voice II)
- ◆ 043826 -6 LAB 1125-1215 MTWTh, RarigC 20, Norwood, (Text: Post Realism)
- ◆ 643828 -7 LAB 1535-1730 MTWTh, RarigC 185, Balk, Kanee, (Studio I)

8777 **Thesis Credits: Masters**
629105 1-16 cr

8888 **Thesis Credits: Doctoral** (max 18 cr per qtr)
125650 1-36 cr

8990 **Research** (prereq #, Δ)
043809 ar cr

THERAPEUTIC RADIOLOGY (TRad)

Medical School

- 5172 **Radiation Biology** (§Rad 5172, BPhy 5172; prereq 5170 or #)
631582 1615-1745 WF, Song, others, 3 cr
- 5174 **Physics of Diagnostic Radiology** (§Rad 5174, BPhy 5174; prereq 5170 or #)
929160 1600-1700 M, Giese, others, 3 cr
- 5340 **Special Problems in Radiation Therapy**
433320 ar cr
- 5505 **Externship in Radiation Therapy** (prereq regis med)
325811 Levitt, others, ar cr
- 5507 **Advanced Externship in Radiation Therapy** (prereq regis med)
526021 ar cr
- 5508 **Special Problems in Radiation Biology**
431714 ar cr
- r5509 **Radiobiological Basis of Radiotherapy** (prereq medical school sr)
729015 Song, others, 9 cr
- 5512 **Dosimetry of Internal and External Radiation Emitters**
925240 1200-1300 M, UHosp 1243, Khan, others, 1 cr
- 5540 **Special Problems in Radiological Physics** (prereq regis med)
925318 Khan, others, ar cr
- 5800 **Radiation Oncology-Pathology**
831130 ar cr
- 8300 **Radiation Therapy**
124806 ar cr
- 8310 **Fundamentals of Radiation Therapy**
931524 1600-1730 M, UHosp 1243, 1 cr (except 1st M of month, 1700-1800)
- 8315 **Radiation Therapy Pathology**
933824 1 cr
- 8320 **Radiation Therapy Treatment Planning Problems**
733467 1 cr
- 8325 **Radiation Therapy Pediatrics Oncology**
823934 1 cr
- 8350 **Research in Radiation Therapy**
924413 ar cr
- 8410 **Seminar: Radiation Biology** (prereq #)
129584 Song, others, 1 cr
- 8450 **Research in Radiation Biology**
129593 Song, others, ar cr
- 8550 **Research of Radiation Physics**
924847 Khan, others, ar cr
- 8777 **Thesis Credits: Masters**
228829 1-16 cr

THERIOGENOLOGY (Tgen)

8777 **Thesis Credits: Masters**
927733 1-16 cr

8888 **Thesis Credits: Doctoral** (max 18 cr per qtr)
226188 1-36 cr

TOXICOLOGY (Txcl) Veterinary Medicine

5165 **Veterinary Toxicology** (§VDI 5165; prereq VB 5401 or #)
243833 1100-1150 M, VetTchHos A325, 1100-1150 Th, AnScVM 135, Murphy, 2 cr

8777 **Thesis Credits: Masters**
243914 1-16 cr

8800 **Directed Research** (S-N only)
647930 ar cr

8888 **Thesis Credits: Doctoral** (max 18 cr per qtr)
943916 1-36 cr

URBAN STUDIES (UrbS)

Liberal Arts

- r3103 **Urban Studies Colloquia** (prereq Δ) (A-F only)
129092 1325-1520 Th, Law 3, DeMontille, 2 cr
- r3104 **Introduction to Urban Studies**
943835 1115-1230 TTh, BlegH 225, Martin, 4 cr
- r3301 **American Cities: Settings for Cultural Pluralism** (A-F only)
828390 1245-1400 TTh, AndH 370, Meier, 4 cr
- r3500 **Workshops** (prereq jr or sr, #)
027674 1730-2030 Th, Law 1, Cummings, 4 cr
- r3900 **Internship** (max 12 cr; prereq jr, sr, #) (A-F only)
125812 1800-2000 T, Law 1, DeMontille, 1-6 cr
- r3970 **Directed Studies** (prereq #, Δ, □)
623904 Martin, 2-6 cr

URDU (Urdu)

South Asian & Middle Eastern Languages & Cultures

Liberal Arts

- 1103 **Beginning Urdu** (§Hndi 1103, 5103; prereq 1102)
331592 1010-1100 MTWThF, KlaCt 190, Barker, 5 cr
- 5133 **Intermediate Urdu** (§3033; prereq 5132)
132882 1115-1205 MWF, KlaCt 190, Barker, 5 cr
- 5163 **Advanced Urdu** (prereq 5162)
932821 1220-1310 MWF, KlaCt 190, Barker, 4 cr

UROLOGICAL SURGERY (Urol)

Medical School

- 5180 **Externship in Urology** (prereq regis med)
033023 ar cr
- 8250 **Urological Surgery**
328661 0800-1200 MWF, Fraley, 4 cr (Mayo OR Room H)
- 8251 **Cystoscopy and Urological Diagnosis**
025973 0800-1200 MTWThF, Fraley, 4 cr (Cysto Suite)
- 8252 **Urological Conference**
529551 0800-0900 S, Fraley, 4 cr (Sta 57 Conf Room)
- 8253 **Research in Urology**
725191 Fraley, 4 cr
- 8254 **Urological Seminar**
929076 1300-1400 MWF, Mayo A503, Fraley, 3 cr
- 8255 **Urological Radiological Conference**
524284 1300-1400 MTWThF, Mayo A503, Fraley, 3 cr
- 8256 **Urological Pathological Conference**
532062 1600-1700 W, Mayo A503, 3 cr
- 8257 **Selected Topics on the Genitourinary System** (prereq MD or PhD degree, PhD with #)
524057 0900-1000 S, Mayo A503, Li, 2 cr
- 8777 **Thesis Credits: Masters**
733310 1-16 cr

VETERINARY BIOLOGY (VB) Veterinary Medicine

5110 **Cytogenetic Evaluation of Animal Diseases** (prereq regis 3rd or 4th yr vet med or grad student or #)
033961 1500-1650 M, AnScVM 343, Weber, 1 cr (1st 5 weeks)

5126 **Veterinary Anatomy II** (prereq 5100 or #) (A-F only)
★LECT 1300-1350 TW, AnScVM 135, Cox, Benson, others, 5 cr
031109 -1 LAB 1400-1650 TWTh, AnScVM 40

5140 **Vertebrate Microanatomy** (prereq 5120 or #)
027660 1-6 cr

5149 **Topics of Organology** (prereq 5104, #)
127298 1-5 cr

5308 **Animal Physiology** (prereq regis vet med or #) (A-F only)

★LECT 0800-0850 MWF, AnScVM 125, O'Grady, Duke, others, 5 cr
★REC 1300-1450 W, AnScVM 125, O'Grady
226174 -1 LAB 1300-1650 M, AnScVM 125, 164, 168, 169, 173, O'Grady, Duke, others

5402 **Veterinary Pharmacology and Therapeutics III** (prereq 5401 or #) (A-F only)
429073 0900-1050 T, 1300-1350 Th, VetTchHos A325, Kannan, 3 cr

5444 **Muscle Contraction** (§MdBc 5444, NSc 5444, Phsl 5444; prereq undergrad courses in biochemistry or physiology, #)
825439 1515-1645 TF, OwreH 4218, Louis, Thomas, others, 3 cr (Mpls)

5920 **Independent Research in Veterinary Biology** (prereq #)
025813 ar cr

5950 **Directed Studies** (prereq #, Δ)
825392 1-5 cr

8111 **Histologic and Ultrastructural Techniques** (prereq 5106, #)
929594 3 cr

8112 **Research Propositions in Morphology** (prereq #)
832598 2 cr

8113 **Research Propositions in Morphology** (prereq #)
026847 2 cr

8114 **Research Propositions in Morphology** (prereq #)
125888 2 cr

8134 **Comparative Veterinary Neurology** (prereq 5100, #)
929451 4 cr

8135 **Comparative Veterinary Neurology** (prereq 5100, #)
532742 4 cr

8136 **Experimental Comparative Veterinary Neurology** (§NSc 8136; prereq 8135, #)
529839 3 cr

8150 **Research Problems in Veterinary Anatomy** (prereq 8149, #)
030168 1-5 cr

8349 **Research in Physiology** (prereq #)
824386 ar cr

8448 **Problems in Veterinary Pharmacology** (prereq 5401, #)
428635 Larson A., ar cr

8450 **Drug-Receptor Interactions** (prereq 5400, 5401 or equiv, calc through diff equations, Chem 5520, Chem 5521 or equiv) (A-F only)
226465 2 cr

8550 **Seminar: Veterinary Biology** (prereq #) (A-F only)
325307 1 cr

8777 **Thesis Credits: Masters**
925092 1-16 cr

8888 **Thesis Credits: Doctoral** (max 18 cr per qtr)
231410 1-36 cr

VETERINARY DIAGNOSTIC MEDICINE (VDM)

Veterinary Medicine

- 5165 **Veterinary Toxicology** (prereq VB 5401 or #) (A-F only)
646342 1100-1150 M, VetTchHos A325, 1100-1150 Th, AnScVM 135, Murphy, 2 cr
- 5503 **Diagnostic Pathology** (prereq VPB 5502 or #) (A-F only)
446343 1000-1050 MTTh, AnScVM 135, Werdin, others, 3 cr
- 5521 **Surgical Pathology** (prereq #) (A-F only)
246344 Barnes D., 3 cr
- 5522 **Diagnostic Pathology** (prereq #) (A-F only)
146345 Barnes D., 5 cr
- 5524 **Problems in Diagnostic Pathology** (prereq #) (A-F only)
946346 1-4 cr
- 5622 **Problems in Diagnostic Virology** (prereq #) (A-F only)
746347 Goyal, 1-4 cr
- 8503 **Advanced Diagnostic Pathology** (prereq VPB 8501 or Path 5101, #)
546348 1000-1050 MTTh, AnScVM 135, Werdin, others, 4 cr

VETERINARY MEDICINE (CVM)

Veterinary Medicine

- 3100 **Perspectives: Interrelationship of People and Animals in Society Today**
327574 1600-1740 T, AnScVM 125, Robinson R., 2 cr
- 5200 **Clinical Virology, Immunology, Parasitology, and Toxicology** (prereq VDI 5164, VPB 5601, VPB 5602, VPB 5701, VPB 5702, VPB 5703, #, VDI 5165) (S-N only)
632991 1300-1550 W, VetS 145, 225, 227, 229, Ames, Molitor, Murphy, others, 1 cr
- 5800 **Problems in Veterinary Research** (prereq #) (A-F only)
130380 5 cr
- 5801 **Veterinary Research Survey Seminar** (prereq #) (A-F only)
128483 Pijoan, 1 cr

VETERINARY MEDICINE, GRADUATE (VMed)

- 8777 **Thesis Credits: Masters**
430126 1-16 cr
- 8888 **Thesis Credits: Doctoral** (max 18 cr per qtr)
132848 1-36 cr

VETERINARY MICROBIOLOGY (VMic)

- 8777 **Thesis Credits: Masters**
226997 1-16 cr
- 8888 **Thesis Credits: Doctoral** (max 18 cr per qtr)
425248 1-36 cr

VETERINARY PARASITOLOGY (VPar)

- 8777 **Thesis Credits: Masters**
627211 1-16 cr
- 8888 **Thesis Credits: Doctoral** (max 18 cr per qtr)
324237 1-36 cr

VETERINARY PATHOBIOLOGY (VPB)

Veterinary Medicine

- 83103 **General Microbiology** (not open to vet med students; prereq 10 cr chemistry, 4 cr biological sciences)
★LECT 1300-1350 MWF, ABLMS 125, Maheswaran, 5 cr
025763 -1 LAB 1400-1550 MWF, VetS 325

- 130808 -2 LAB 1400-1550 MWF, VetS 325, (pharmacy stu only)
147480 -2 LECT 1300-1350 MWF, ABLMS 125, Maheswaran, 3 cr (prenursing stu only)

- 5180 **Applied Immunology** (prereq regis vet med, grad or #) (A-F only)
825876 0900-0950 T, AnScVM 135, Shope, 1 cr
- 5501 **Basic Veterinary Pathology** (prereq #)
★LECT 1100-1150 M, 1300-1350 TTh, VetS 145, Hayden, Johnson K.H., others, 5 cr (pre nursing stu only)
827093 -1 LAB 1400-1650 TTh, VetS 215, 225, 229, Hayden, Johnson K.H., others
- 5524 **Pathology of Spontaneous Diseases of Poultry** (prereq #)
931359 Walser, 3 cr
- 5533 **Directed Studies in Veterinary Pathobiology** (prereq regis vet med, 4th yr, #)
723828 Johnson K.H., Hayden, others, ar cr
- 5701 **Advanced Veterinary Microbiology, Immunology** (prereq 3103, 1st year vet med, #) (A-F only)
626026 0900-0950 MWF, AnScVM 125, Bey, Loken, others, 3 cr
- 5748 **Problems in Veterinary Microbiology and Public Health** (prereq 5703 or equiv, #)
030042 ar cr
- 8501 **Advanced Veterinary Basic Pathology** (prereq #)
★LECT 1100-1150 M, 1300-1350 TTh, VetS 145, Hayden, Johnson K.H., others
027934 -1 LAB 1400-1650 TTh, VetS 215, 225, 229, Hayden, Johnson K.H., others, 4-6 cr
- 8504 **Seminar: Advanced Veterinary Histopathology** (prereq 5502, 5503, #)
126703 1600-1700 M, VetS 215, Hayden, 1 cr
- 8531 **Hospital Pathology** (prereq 5501, 5502, 5503, #)
123848 O'Leary, Hayden, others, 1-2 cr
- 8533 **Problems: Pathology** (prereq #)
331429 Johnson K.H., Hayden, others, ar cr
- 8534 **Problems: Clinical Pathology** (prereq #)
526018 Perman, Weiss, ar cr
- 8700 **Seminar: Veterinary Microbiology** (prereq #)
332855 Sharma, 1 cr
- 8720 **Advanced Veterinary Microbiology** (prereq #)
930678 ar cr

VETERINARY PATHOLOGY (Vpth)

- 8777 **Thesis Credits: Masters**
032776 1-16 cr
- 8888 **Thesis Credits: Doctoral** (max 18 cr per qtr)
326926 1-36 cr

VETERINARY SURGERY, RADIOLOGY, AND ANESTHESIOLOGY (VSRA)

- 8777 **Thesis Credits: Masters**
123963 1-16 cr
- 8888 **Thesis Credits: Doctoral** (max 18 cr per qtr)
124829 1-36 cr

VOCATIONAL EDUCATION (VoEd)

Vocational And Technical Education Education

- 5500 **Introduction to Vocational Education Administration** (A-F only)
243847 1605-1830 M, VoTech R380, Wardlow, 3 cr
- 85760 **Organization Development in Industry and Business** (A-F only)
127902 1830-2205 M, VoTech R280, McLean, 4 cr

- r5762 **Management of Conflict** (A-F only)
443846 1830-2010 W, VoTech 220, Smith M.A., 2 cr
- 5780 **Internship: Training and Development** (max 15 cr; prereq 5750) (S-N optional)
331897 McLean, ar cr
- r5790 **Strategic Planning: Training and Development** (prereq 5750 or 5760) (A-F only)
929014 1830-2205 Th, VoTech 220, Swanson R., 4 cr
- 5800 **Working with Special Needs Students** (A-F only)
129116 1605-1850 W, VoTech R280, Brown J., 3 cr
- r8130 **Critical Issues in Vocational Education** (prereq admission to doctoral prog in educ, 5300 or 8110 or #)
733713 -1 1605-1850 W, VoTech R385, 3 cr
826378 -2 1605-1850 W, VoTech R380, Moss, 3 cr
- 8810 **Internship in Vocational Education** (prereq Δ) (S-N only)
025794 1-15 cr
- 8888 **Thesis Credits: Doctoral** (max 18 cr per qtr)
024516 1-36 cr
- r8920 **Interpretive and Critical Science Research in Vocational Education** (prereq 5900 or equiv, 8110 or equiv)
127875 1605-1850 Th, VoTech R380, Copa, 3 cr

WOMEN'S STUDIES (WoSt)

Liberal Arts

- r1003 **Women in World Cultures**
544244 1615-1845 T, FordH 155, Geiger, 4 cr
- r3100 **Topics in Women's Studies: Black Feminism** (max 12 cr)
943866 1245-1400 TTh, FordH 115, Brewer, 4 cr
- r3104 **Feminist Expository Writing** (§Comp 3051; prereq fulfillment of writing prac requirement, jr, WoSt maj or min or Δ)
743867 1015-1130 MW, FordH 120, 4 cr
- r3902 **Senior Seminar** (prereq 3901, jr or sr WoSt maj)
446150 1230-1500 M, FordH 70, Maynes, 4 cr
- 3960 **Field Learning in Women's Studies** (max 8 cr; prereq 1005, 1006, one 3000 level course, Δ)
031403 1400-1530 Th, FordH 170, Faunce, 4 cr
- 3970 **Directed Studies** (prereq #, Δ, □)
933368 1-15 cr
- 3980 **Directed Instruction** (prereq #, Δ, □)
928462 1-5 cr
- r5100 **Topics in Women's Studies: Statistics of Gender Discrimination** (max 12 cr)
443880 1015-1130 MW, FordH 285, Striebel, 4 cr
- r5103 **Feminist Pedagogy** (prereq 8 cr in women's studies or #)
543868 0930-1200 M, FordH 70, Mittlefehldt, 4 cr
- r5400 **Topics in Women's Studies** (max 12 cr)
246148 -1 0945-1100 TTh, FordH 285, Schmidlechner, 4 cr
146149 -2 0945-1100 TTh, FordH 290E, Goodwin-Tomar, 4 cr
- 5970 **Directed Studies** (max 12 cr; prereq #, Δ, CLA approval)
427131 1-5 cr
- r8610 **Topics in Feminist Studies: SIGNS Seminar** (prereq 8 cr grad level WoSt or substantial work in topic area or #)
329339 1330-1600 W, FordH 175, Joeres, 4 cr
- r8910 **Feminist Writing Seminar** (prereq 8511, passed prelims in degree-granting program, #)
627452 1330-1600 Th, FordH 70, Bridwell-Bowles, 4 cr
- 8970 **Directed Study** (prereq completion of courses approved by faculty supervisor and director of grad studies)
430031 1-8 cr

**YOUTH DEVELOPMENT AND RESEARCH (YoSt)
Human Ecology**

- n5120 Independent Study in Youth Studies** (max 12 cr; prereq #)
823903 Baizerman, Beker, others, ar cr
- 5132 Experiential Learning** (prereq CPsy 5303 or #)
031384 1830-2100 T, McNH 386A, 3 cr
- n5203 Youthwork Practice: Internship and Seminar** (prereq 5202)
725563 1250-1445 T, McNH 386, Burnison, 4 cr

- n5711 Introduction to Consultation in Youthwork** (prereq at least two courses in soc or anth, maj in human serv prof, exp in human serv org)
226689 1615-1830 M, HSUnitF 2130, Baizerman, 3 cr (Mpls)
- 8003 Advanced Seminar in Youth Studies** (prereq #)
433754 Baizerman, Beker, others, 3 cr

**ZOOLOGY (Zool)
Biological Sciences**

- 8777 Thesis Credits: Masters**
028212 1-16 cr

- 8888 Thesis Credits: Doctoral** (max 18 cr per qtr)
930941 1-36 cr
- 8970 Seminar**
524429 0 cr
- 8980 Special Research**
728642 ar cr
- 8990 Research**
133005 ar cr

COURSES OPEN TO EXTENSION STUDENTS

General Information—The following two lists indicate those day school courses which are open to Extension students. You should use these lists with the course listings which start on page 31.

- Currently enrolled day school students may not register through Extension for day school courses.
- Extension students must meet the same prerequisites as day school students.
- No 8000-level courses are available under this program.
- Occasionally, courses not on these lists are also open to Extension students with written permission from the instructor and the department offering the course.

Registration—If you wish to enroll in these courses through Extension Classes, you must follow the steps outlined in the brochure "A Guide for Registering Through Extension for Day School Classes" or the section on registration procedures in the 1991-92 *Extension Classes Bulletin*. Call 624-2388 for a bulletin, registration forms, and permission slips. The general Extension Classes information number is 625-3333. Information on counseling and program advising is available at 625-2500.

A few spaces are available without written permission in any of the courses listed below which are limited. (Limited-enrollment courses have R before the course number in Section 3 of this Class Schedule.) After those spaces are taken, written permission from the instructor is required. Courses which are not limited require written permission only after the first week. Call 626-1883 if you have any questions about permission requirements.

Aerospace Studies: All courses
 Afro-American Studies: All courses
 Agricultural and Applied Economics: All courses
 Agricultural Education: All courses *except* 3031, 5090, 5095
 Agronomy and Plant Genetics: All courses
 American Indian Studies: All courses
 Ancient Near Eastern: All courses *except* 3790, 3970, 5790, 5970
 Animal Science: All courses
 Anthropology: All courses
 Arabic: All courses
 Astronomy: All 1000-level courses
 Biochemistry: All courses
 Biology: 1008, 1009, 1101 (See other list also.)
 Business and Marketing Education: All courses *except* 5600, 5603, 5604, 5605, 5606, 5900
 Chicano Studies: All courses
 Chinese: All courses
 Classics: All courses *except* 3790, 3970, 5790, 5794, 5970
 Comparative Literature: All courses
 Dance: All courses *except* 3901
 Danish: All courses
 Dutch: All courses

East Asian Studies: All courses
 Ecology, Evolution, and Behavior: All courses
 Economics: All courses *except* 3021, 3031, 3041, 3101, 3102, 3103, 3105, 3501, 3601, 3701, 3801, 5021, 5031, 5041, 5301, 5307, 5331, 5337, 5401, 5429, 5531, 5631, 5701, 5721, 5821
 Educational Policy and Administration: All courses
 English Language & Literature: All courses *except* 3960 and all courses reserved for English majors only (See other list also.)
 Entomology: All courses
 Family Practice and Community Health: 5516, 5585
 Family Social Science: All courses *except* 5210, 5231, 5240H, 5249
 Finnish: All courses
 Fisheries and Wildlife: All courses
 Food Science and Nutrition: All courses
 Forest Resources: All courses *except* those offered at Cloquet or Itasca
 French: All courses
 French and Italian: All courses
 Geography: All courses
 German: All courses
 Greek: All courses *except* 3790, 3970, 5790, 5970
 Hebrew: All courses *except* 3790, 3970, 5790, 5970
 History: All courses *except* 3955, 3961, 5500 and above
 History of Medicine: All courses
 Home Economics Education: All courses *except* 5320, 5406, 5600
 Humanities: All courses
 Industrial Education: 1110, 1120, 1130, 5300, 5301, 5303, 5330, 5360
 Industrial Engineering/Operations Research: All 3000-level courses (See other list for 5000-level courses.)
 Italian: All courses
 Japanese: All courses
 Jewish Studies: All courses *except* 3790, 3970, 5790, 5970

Landscape Architecture: 3002, 5119
 Latin: All courses *except* 3790, 3970, 5790, 5970
 Latin American Studies: All courses
 Learning and Academic Skills: All courses
 Linguistics: All courses
 Mechanical Engineering: All 3000-level courses (See other list for 5000-level courses.)
 Microbiology: All courses
 Middle Eastern Studies: All courses
 Military Science: All courses
 Modern Greek: All courses *except* 3790, 3970, 5790, 5970
 Naval Science: All courses
 Norwegian: All courses
 Persian: All courses
 Philosophy: All courses
 Plant Pathology: All courses
 Polish: All courses
 Political Science: All courses
 Portuguese: All courses *except* 3970 and above
 Psychology: All courses *except* 1004, 1005, and all Honors courses
 Religious Studies: All courses
 Russian: All courses
 Scandinavian: All courses
 Serbian: All courses
 Slavic: All courses
 Social Work: All courses *except* 5601
 South Asian Studies: All courses
 Spanish: All courses *except* 3970 and above
 Spanish-Portuguese: All courses *except* 3801 and above
 Statistics: All courses
 Swedish: All courses
 Theatre Arts: All courses *except* 5100
 Turkish: All courses
 Urban Studies: All courses
 Vocational Education: All courses *except* 5750, 5760, 5790.

A Joint Day/Extension Special Permission slip, signed by the instructor and department office, is required in any of the courses listed below which are limited. (Limited-enrollment courses have R before the course number in Section 3 of this Class Schedule.) Courses which are not limited require written permission only after the first week. Call 626-1883 if you have any questions about permission requirements.

Aerospace Engineering and Mechanics: All courses
 American Studies: All courses
 Architecture: All courses *except* 3060-3066, 3081-3083, 3091-3093, 3511, 5111-5113, 5121-5123, 5800 and above

Art History: All courses
 Biology: All courses *except* 1008, 1009, 1101 (See other list for 1008, 1009, 1101.)
 Civil Engineering: All courses
 Clinical Laboratory Science: All courses
 Communication Disorders: All courses
 Comparative Studies in Discourse and Society: All courses
 Design: 5509, 5515, 5518
 English Creative and Professional Writing: All 5000-level courses
 English Language and Literature: 3960 and all courses reserved for English majors only (See other list also.)
 General College: All courses *except* 0615-0618, 0643, 1042, 1043, 1045, 1051, 1086, 1133, 1422, 1454, 1464, 1511, 1534
 Genetics and Cell Biology: All courses *except* 3008
 Geology: All courses
 Horticultural Science: All courses

Industrial Engineering/Operations Research: All 5000-level courses (See other list for 3000-level courses.)
 International Relations: All courses *except* 3981
 Journalism and Mass Communication: 3776, 5601
 Mathematics: All courses
 Mechanical Engineering: All 5000-level courses (See other list for 3000-level courses.)
 Music: All courses (Does not include Applied Music courses.)
 Music Education: All courses
 Plant Biology: All courses
 Public Affairs: All courses *except* 5012, 5022
 Public Health: All courses *except* 5150, 5607, 5621, 5649, 5703, 5704, 5707, 5723, 5738, 5739, 5754, 5761, 5796, 5906
 Rhetoric: All courses
 Sociology: All courses *except* 1003, 3551, 3966, 3803, 5126
 Speech-Communication: All courses
 Youth Development and Research: 5120, 5132

FINAL EXAMINATION SCHEDULES

To find when the final exam for each of your courses is scheduled, do the following:

1. Determine the **college through which each of your courses is offered**. (To determine the college, see the last line under the department heading in the course offerings). Remember: It is the college offering the course that is important, not your college of enrollment. Schedule A, on this page, is for all courses offered through Education, Liberal Arts, Health Sciences, Dentistry, and Public Affairs. All other courses use Schedule B, on the next page.
2. Determine the **beginning time** for each of your courses using the following guidelines:
 - Use the lecture beginning time for your course rather than the lab or recitation times.
 - Each range of beginning times (0800-0859, 0900-0959, etc.) is subdivided into MWF and TTh exam times. Use MWF if your course meets for more than three days per week or if it meets on unusual days. For example, courses that meet MWThF or TWTh or TF would all follow the MWF exam time.
 - If your course meets at different times on different

days, use the day earliest in the week. A course meeting 0905-1100 T, 0800-0850 Th, for example, would follow the 0900-0959 TTh exam time.

3. Read across to find the time and day for your final examination using the beginning time for the course and the correct schedule (A or B).
4. Check the list of common exams on the next page to see if any of your courses are listed there. Common examination times *always* take precedence over schedules A and B.
5. Ask your instructor for confirmation of your exam time. Instructors may schedule 3-hour examinations for courses meeting four or more days a week. Instructors may also, with college approval in a very limited number of circumstances, request a change in exam time. See Examination Conflicts, on the next page, for information on conflicts in your final exam schedule.

NOTE: These final examination schedules do not apply to courses offered primarily to students registered in the colleges of Dentistry, Pharmacy, and Veterinary Medicine, Law School, and Medical School, or to 8000-level courses that have no regularly scheduled classrooms.

SPRING QUARTER EXAMS

SCHEDULE A: Spring 1992

Courses offered in Colleges of Education and Liberal Arts, *Health Sciences, *Dentistry, and Public Affairs

CLASS BEGINS:	EXAM TIME:	CLASS BEGINS:	EXAM TIME:
0800-0859 MWF	0800-1000 Friday, June 12	1200-1259 TTh	1600-1800 Tuesday, June 9
0800-0859 TTh	1030-1230 Friday, June 12	1300-1359 MWF	1600-1800 Friday, June 12
0900-0959 MWF	1030-1230 Tuesday, June 9	1300-1359 TTh	1030-1230 Wednesday, June 10
0900-0959 TTh	1330-1530 Thursday, June 11	1400-1459 MWF	1030-1230 Saturday, June 13
1000-1059 MWF	1600-1800 Wednesday, June 10	1400-1459 TTh	0800-1000 Saturday, June 13
1000-1059 TTh	0800-1000 Wednesday, June 10	1500-1559 MWF	1600-1800 Saturday, June 13
1100-1159 MWF	1030-1230 Thursday, June 11	1500-1559 TTh	1330-1530 Saturday, June 13
1100-1159 TTh	1600-1800 Thursday, June 11	0800-0859 S	0800-1000 Saturday, June 13
1200-1259 MWF	1330-1530 Tuesday, June 9	1000-1059 S	1030-1230 Saturday, June 13

*Courses offered primarily to students other than medical or dental students.

Courses which begin anytime from 1730 to 1800 will start at 1815 during exam week.

SCHEDULE B: Spring 1992
Courses offered in Colleges of Agriculture, Architecture and Landscape
Architecture, Biological Sciences, Human Ecology, and Natural Resources, General
College, Carlson School of Management, and Institute of Technology

CLASS BEGINS:	EXAM TIME:	CLASS BEGINS:	EXAM TIME:
0800-0859 MWF	0800-1000 Friday, June 12	1200-1259 TTh	1600-1800 Tuesday, June 9
0800-0859 TTh	1030-1230 Friday, June 12	1300-1359 MWF	1330-1530 Friday, June 12
0900-0959 MWF	0800-1000 Tuesday, June 9	1300-1359 TTh	1030-1230 Wednesday, June 10
0900-0959 TTh	1330-1530 Thursday, June 11	1400-1459 MWF	1030-1230 Saturday, June 13
1000-1059 MWF	1330-1530 Wednesday, June 10	1400-1459 TTh	0800-1000 Saturday, June 13
1000-1059 TTh	0800-1000 Wednesday, June 10	1500-1559 MWF	1600-1800 Saturday, June 13
1100-1159 MWF	0800-1000 Thursday, June 11	1500-1559 TTh	1330-1530 Saturday, June 13
1100-1159 TTh	1600-1800 Thursday, June 11	0800-0859 S	0800-1000 Saturday, June 13
1200-1259 MWF	1330-1530 Tuesday, June 9	1000-1059 S	1030-1230 Saturday, June 13

Courses which begin anytime from 1730 to 1800 will start at 1815 during exam week.

Spring Common Examinations—All sections of the following courses are examined together at the time indicated.

Monday, June 8

Acct 1050—1030-1230
 BFin 3000—1030-1230
 Biol 1009, 1009H, 1101—1030-1230
 BLaw 3058—0800-1000
 GC 0611, 0615, 0616, 0617, 0618, 0621, 0625, 0631, 0641,
 0643—1030-1230
 IDSc 1010, 3030—0800-1000
 Math 1008—1330-1530
 Math 1111, 1131, 1142, 1201, 1211, 1221, 1241, 1431H,
 3211, 3212, 3213, 3221, 3311, 3321, 3331, 3511H,
 3521H, 3531H—1330-1630
 Psy 1001—1900-2100
 PubH 3001—1830-2130

Tuesday, June 9

CSci 3101, 3102—1830-2130
 Econ 1101, 1101H—1830-2130

Wednesday, June 10

Econ 1102, 1102H—1830-2130
 Ger 1101, 1102, 1103—1830-2030
 Span 1101, 1102, 1103, 1104, 1105, 1106—1830-2030

Rooms—Examinations except common examinations are given in the regularly scheduled classroom unless your instructor arranges for and announces a different room. Note to instructors: See Regulations Regarding Examinations, on page 112.

Examination Scheduling Conflicts—You are required to take final examinations at the times shown. However, if you have examination conflicts or three exams within a 16-hour period, you may request adjustment with your college office and with your instructor. Such a request must be presented at least two weeks before the examination period begins.

If you miss a final, an I, an F, or an N is recorded, depending upon your standing at the time. To make up the exam, you must obtain the instructor's permission.

FALL QUARTER EXAMS

SCHEDULE A: Fall 1992

**Courses offered in Colleges of Education and Liberal Arts, *Health Sciences,
*Dentistry, and Public Affairs**

CLASS BEGINS:	EXAM TIME:	CLASS BEGINS:	EXAM TIME:
0800-0859 MWF	1600-1800 Saturday, December 12	1200-1259 TTh	0800-1000 Wednesday, December 9
0800-0859 TTh	1330-1530 Saturday, December 12	1300-1359 MWF	0800-1000 Saturday, December 12
0900-0959 MWF	1330-1530 Wednesday, December 9	1300-1359 TTh	1330-1530 Thursday, December 10
0900-0959 TTh	1030-1230 Friday, December 11	1400-1459 MWF	1330-1530 Tuesday, December 8
1000-1059 MWF	0800-1000 Thursday, December 10	1400-1459 TTh	1600-1800 Tuesday, December 8
1000-1059 TTh	1600-1800 Thursday, December 10	1500-1559 MWF	0800-1000 Tuesday, December 8
1100-1159 MWF	1330-1530 Friday, December 11	1500-1559 TTh	1030-1230 Tuesday, December 8
1100-1159 TTh	0800-1000 Friday, December 11	0800-0859 S	0800-1000 Saturday, December 12
1200-1259 MWF	1030-1230 Wednesday, December 9	1000-1059 S	1030-1230 Saturday, December 12

*Courses offered primarily to students other than medical or dental students.

Courses which begin anytime from 1730 to 1800 will start at 1815 during exam week.

SCHEDULE B: Fall 1992

**Courses offered in Colleges of Agriculture, Architecture and Landscape
Architecture, Biological Sciences, Human Ecology, and Natural Resources, General
College, Carlson School of Management, and Institute of Technology**

CLASS BEGINS:	EXAM TIME:	CLASS BEGINS:	EXAM TIME:
0800-0859 MWF	1600-1800 Saturday, December 12	1200-1259 TTh	0800-1000 Wednesday, December 9
0800-0859 TTh	1330-1530 Saturday, December 12	1300-1359 MWF	1030-1230 Saturday, December 12
0900-0959 MWF	1600-1800 Wednesday, December 9	1300-1359 TTh	1330-1530 Thursday, December 10
0900-0959 TTh	1030-1230 Friday, December 11	1400-1459 MWF	1330-1530 Tuesday, December 8
1000-1059 MWF	1030-1230 Thursday, December 10	1400-1459 TTh	1600-1800 Tuesday, December 8
1000-1059 TTh	1600-1800 Thursday, December 10	1500-1559 MWF	0800-1000 Tuesday, December 8
1100-1159 MWF	1600-1800 Friday, December 11	1500-1559 TTh	1030-1230 Tuesday, December 8
1100-1159 TTh	0800-1000 Friday, December 11	0800-0859 S	0800-1000 Saturday, December 12
1200-1259 MWF	1030-1230 Wednesday, December 9	1000-1059 S	1030-1230 Saturday, December 12

Courses which begin anytime from 1730 to 1800 will start at 1815 during exam week.

Fall Common Examinations—All sections of the following courses are examined together at the time indicated.

Monday, December 7

Acct 1050—1030-1230

BFin 3000—1030-1230

Biol 1009, 1009H, 1101—1030-1230

BLaw 3058—0800-1000

GC 0611, 0615, 0616, 0617, 0618, 0621, 0625, 0631, 0641, 0643—1030-1230

IDSc 1010, 3030—0800-1000

Math 1008—1330-1530

Math 1111, 1131, 1142, 1201, 1211, 1221, 1241, 1411H,

3213, 3221, 3311, 3321, 3331, 3511H, 3521H—1330-1630

Psy 1001—1900-2100

PubH 3001, 3003, 3004, 5003, 5022, 5023—1830-2130

Tuesday, December 8

Econ 1102, 1102H—1830-2130

Ger 1101, 1102, 1103—1830-2030

Span 1101, 1102, 1103, 1104, 1105, 1106—1830-2030

Wednesday, December 9

CSci 3101, 3102—1830-2130

Econ 1101, 1101H—1830-2130

SCHEDULE COMMITTEE REGULATIONS REGARDING EXAMINATIONS

1. There shall be no variations from the University final examination schedule except by concurrence of the dean of the college and the director of scheduling. **This prohibition also precludes moving a final examination from a scheduled time to study day or to the last or earlier meetings of the class,** except laboratory final examinations which cannot be held in accordance with the regular final examination schedule.

All department requests for adjustment of final examination hours should be made on Form A163 by May 15 to permit publication of the change and orderly consideration of hardships. Additional common examinations may be requested on the same form, which is available in department offices.

2. Instructors requesting any variation from the official examination schedule must agree to give a special make-up examination to any student having examination conflicts or three examinations in one calendar day because of the change in hours.
3. Arranged examinations and authorized variations in published hours shall conform with the hour-periods shown in the examination schedules.
4. **No variations from the University final examination schedule will be considered official until published in the Official Daily Bulletin in the *Minnesota Daily*.**
5. Each college shall assume responsibility for making arrangements to spread out examinations for students who have more than two examinations scheduled in one day.

6. Since providing adequate seating for final examinations is a continuing problem, departments are encouraged to limit final examinations to 2 hours. Courses meeting four or more days a week may give 3-hour examinations, however, *provided the instructor notifies the Scheduling Office* of her or his intention to do so on an A123 form. For spring quarter, three hour examinations will be scheduled on the respective day the examinations would be given: June 9 (0830-1130; 1330-1630), June 10 (1330-1630), June 11 (0830-1130), June 12, (0830-1130; 1330-1630), June 13 (0830-1130; 1330-1630).

Departments are also encouraged to request alternate seating only when it is necessary for proper administration of the exam. Requests for rooms for alternate seating must be submitted by the department office on an A123 form.

Exam times and rooms for courses which begin from 0700-0759 or anytime after 1600 will not be scheduled unless they are requested on an A123 form.

All A123 forms must be received in the Scheduling Office (150 Williamson Hall for Minneapolis rooms, 130 Coffey Hall for St. Paul rooms) on or before May 1. Notification of room assignments for all A123 forms received by May 1 will be sent to departments on or before May 27.

7. University Senate policy decrees that no extracurricular events which *require* the participation of students may be scheduled from the beginning of study day to the end of finals week. Exceptions to this policy may be granted by the Senate Committee on Educational Policy. The Senate advises all faculty members that students who are unable to complete course requirements during finals week shall be provided an alternative and timely opportunity to do so.

SPRING QUARTER GRADES

Academic Staff—Grades are due in the Office of the Registrar, 150 Williamson Hall (130 Coffey Hall for St. Paul units), within 72 hours after the examination. Grades for this quarter are due beginning Thursday, June 11; the grades for the last examinations are due by 8:30 a.m. on Wednesday, June 17. Messenger service is provided in Minneapolis. Please call 625-9864 when grades are ready. *Do not send grades by mail.*

Students—In late June—early July, spring quarter grades (in transcript form) will be mailed to you at your current address. Included in this annual mailing will be information on the 1992-93 academic year. If you will be moving or will not be on campus during the summer, you should submit an address change to 150 Williamson Hall, 202 Fraser Hall, or 130 Coffey Hall.

GRADUATION

Most colleges expect their students to apply for graduation at least two quarters before graduation. Check with your college office for college deadlines.

For spring quarter graduation, most undergraduates and students in professional programs (e.g., MEd.) must submit an Application for Degree form to the Student Relations Unit, 150 Williamson Hall (130 Coffey Hall for St. Paul students) by April 8. Your application *must* include a \$25 graduation fee (check or money order only). If you fail to apply by April 8, you will not be able to graduate until the following quarter.

For information on Graduate School graduation application and commencement deadlines, see page 8.

GRADING POLICIES AND PRACTICES

1. There are two grading systems, A-B-C-D-F and S-N. Each college (meaning also each separate school or institute) will determine to what extent and under what conditions each system may be available to its students and faculty. Any college may specify what courses or what proportion of courses taken by its students or by its prospective students must be on a particular grading system.
2. The S-N system represents a self-contained alternative to the A-B-C-D-F system, and the two may not be combined for a particular student in a particular course. Students may receive symbols only from the grading system under which they are registered.
3. When the two grading systems are available, students must declare a choice of systems as part of their initial registration. The choice may not be changed after the end of the second week of classes (first week in summer session).
4. The following symbols, as defined, may be used on the University's official transcript, the chronological quarterly record of the student's registrations, after the end of the second week of classes (end of first five days of classes

for summer sessions). The official transcript is released by the University only at the student's request and is certified and signed by the University Registrar.

- A**—Represents achievement that is outstanding relative to the level necessary to meet course requirements.
 - B**—Represents achievement that is significantly above the level necessary to meet course requirements.
 - C**—Represents achievement that meets the basic course requirements in every respect.
 - D**—Represents achievement that is worthy of credit even though it does not fully meet the basic course requirements in every respect.
 - F**—Represents performance that fails to meet basic course requirements and is unworthy of credit.
 - S**—Represents achievement that is deemed by the instructor to be satisfactory for the course in which the student is registered. This definition is intended to imply that the standards for S may vary from one course to another.
 - N**—Assigned when the student does not earn an S and is not assigned an I. It stands for no credit.
 - W**—Entered by the Office of the Registrar when a student officially withdraws from a course, in accordance with procedures established by the student's college.
 - I**—Assigned by an instructor to indicate Incomplete, in accordance with provisions announced in class at the beginning of the quarter, when in the instructor's opinion there is a reasonable expectation that the student can complete successfully the work of the course. An I that is not made up by the end of the next quarter of residence becomes an F if the course was taken under the A-F grading system or an N if the course was taken under the S-N grading system. Instructors may set dates within the quarter for make-up examinations. In the Graduate School, in master's degree programs in undergraduate colleges, and in the doctor of medicine programs, an I remains until changed by the instructor. When an I is changed to another symbol, the I is removed from the record.
 - X**—Reported to indicate that a student may continue in a sequence course in which a grade cannot be determined until the full sequence of quarters is completed. The instructor will submit a grade for each X when the student has completed the sequence.
- In connection with all achievement symbols, but especially in connection with S, the instructor is obligated to define to a class as explicitly as possible in its early meetings the performance that will be necessary to earn each.
- V**—Indicates registration as an auditor or visitor, a no credit, no grade registration.
 - T**—Posted (in front of the original grade, if any) to indicate credits transferred from another institution. Credits and grades for courses transferred from another institution are *not* included in the calculation of the

University grade point average. On occasion, credits transferred from one campus or college of the University to another may be placed in parenthesis—such bracketing indicates the course is not included in the calculation of the grade point average.

In the doctor of medicine program, O (Outstanding) and E (Excellent) may be used with S-N. In the doctor of veterinary medicine program, O (Outstanding) may be used with S-N.

5. If a student is permitted by the college to repeat a course, all grades are reported on the official transcript.
6. Any college may set special scholastic or other standards for registration in a particular course, for scholastic probation, for admission, for honors, for continued residence, for degrees, etc.
7. The grading system described here became effective fall quarter 1986, thereby replacing all previous University systems, but its definitions and provisions may not be applied retroactively to any grades or symbols recorded before that time.
8. Each transcript will be clearly identified as to the procedures under which it was produced and will be maintained and released under policies in effect during the time of registration.
9. The Assembly Committee on Student Academic Services has authority to grant to individual colleges permission to use experimental grading methods outside the provisions of this official University system, for a specified period, provided that the proposals do not interfere significantly with the registration options of students from other colleges and programs. Such experimental systems shall be reported for information to the Twin Cities Campus Assembly as soon as permitted and, after the specified

period, shall be re-evaluated, to be either extended, discontinued, or, with Assembly approval, made a regular system for the unit concerned.

10. The Assembly Committee on Student Academic Services is charged with resolving disputes between and among colleges should procedures developed under this grading system result in unacceptable complications for students registering across college lines. The committee may bring to the Assembly issues it is unable to resolve informally through negotiation, with recommendations for resolution.

ACCESS TO STUDENT EDUCATIONAL RECORDS

In accordance with regent's policy on access to student records, information about you generally may not be released to a third party without your permission. (Exceptions under the law include state and federal educational and financial aid institutions.) The regent's policy also permits you to review your educational records and to challenge the contents of those records.

Some student information—name, address, telephone number, dates of enrollment and enrollment termination, college and class, major, adviser, academic awards and honors, and degrees earned—is considered public or directory information. You may prevent release of public information outside the University only during your terms of enrollment. To do so, you must notify the records office on your campus.

Students are advised that disciplinary action will be taken if academic records are forged or altered.

The regent's policy, including a directory of student records, is available for review at the information center in Williamson Hall, Minneapolis, and at records offices on other campuses of the University. Questions may be directed to the Office of the Registrar, 150 Williamson Hall (612/625-5333).

section 5 codes, maps, forms

TWIN CITIES COURSE DESIGNATORS

A

Acct Accounting
 AdEd Adult and Teacher Education
 AdPy Adult Psychiatry
 AEM Aerospace Engineering and Mechanics
 Afro Afro-American Studies
 AgEc Agricultural and Applied Economics
 AgEd Agricultural Education
 AgEn Agricultural Engineering
 AgET Agricultural Engineering Technology
 Agri Agriculture
 Agro Agronomy and Plant Genetics
 AIM Agricultural Industries and Marketing
 Air Aerospace Studies
 Akka Akkadian
 Amln American Indian Studies
 AmSt American Studies
 ANE Ancient Near Eastern
 Anes Anesthesiology
 AnPh Animal Physiology
 AnPl Animal and Plant Systems
 AnSc Animal Science
 AnSt Ancient Studies
 Anth Anthropology
 Arab Arabic
 Arch Architecture
 ArEd Art Education
 Arm Aramaic
 ArtH Art History
 ArtS Studio Arts
 Ast Astronomy

B

BA Business Administration
 Ben Bengali
 BFin Finance
 BGS Business, Government, and Society
 BioC Biochemistry (College of Biological Sciences)
 Biol Biology
 BLaw Business Law
 BME Business and Marketing Education
 BMEB Biomedical Engineering
 BMSc Biomedical Science
 BPhy Biophysical Sciences

C

CAPS Clinical and Population Sciences
 CAPy Child and Adolescent Psychiatry
 CBio Conservation Biology
 CBN Cell Biology and Neuroanatomy
 CDB Cell and Developmental Biology
 CDis Communication Disorders
 CE Civil Engineering
 CgSc Cognitive Science

Chem Chemistry
 ChEn Chemical Engineering
 Chic Chicano Studies
 Chn Chinese
 ChPh Chemical Physics
 CIE Interfacial Engineering, Center for
 CISy Curriculum and Instructional Systems
 Clas Classics
 ClCv Classical Civilization
 CLit Comparative Literature
 CLS Clinical Laboratory Science
 Comp Composition and Communication
 Copt Coptic
 CPsy Child Psychology
 CSci Computer Science
 CSDS Comparative Studies in Discourse and Society
 CSDy Control Science and Dynamical Systems
 CVM Veterinary Medicine

D

Dan Danish
 Dent Dentistry
 Derm Dermatology
 DH Dental Hygiene
 DHA Design, Housing, and Apparel
 Dnce Dance
 Dsgn Design
 Dtch Dutch

E

EAS East Asian Studies
 Econ Economics
 EdAd Educational Administration
 EdPA Educational Policy and Administration
 Educ Education
 EE Electrical Engineering
 EEB Ecology, Evolution, and Behavior
 EEur East European Studies
 Elem Elementary Education
 Endo Endodontics
 Engl English Language and Literature
 EngW English: Creative and Professional Writing
 Ent Entomology
 Entr Entrepreneurship
 EPsy Educational Psychology
 ESL English as a Second Language

F

Fin Finnish
 FMe Fluid Mechanics
 ForP Forest Products
 Fors Forestry

FoSt Foreign Study
 FPAd Family Planning Administration
 FPCH Family Practice and Community Health
 FR Forest Resources
 Fren French
 Frit French and Italian
 FScN Food Science and Nutrition
 FSMg Foreign Studies Management
 FSoS Family Social Science
 FSSP Foreign Study—SPAN
 FW Fisheries and Wildlife

G

GC General College
 GCB Genetics and Cell Biology
 Gene Genetics
 Geo Geology and Geophysics
 GeoE Geo-Engineering
 Geog Geography
 Ger German
 GPhl Germanic Philology
 Grad Graduate School
 Grk Greek

H

HCol Honors Colloquia
 HE Home Economics
 Hebr Hebrew
 HEEEd Home Economics Education
 HInf Health Informatics
 Hist History
 Hlth School Health Education
 HMed History of Medicine
 Hindi Hindi
 Hort Horticultural Science
 HSci History of Science and Technology
 HSem Honors Seminar
 Hsg Housing
 HSU Health Science Units
 Hum Humanities

I

ID Interdepartmental Study
 IDSc Information and Decision Science
 IEOR Industrial Engineering/Operations Research
 Ind Industrial Education
 InMd Interdisciplinary Medicine
 Ins Insurance
 IntR International Relations
 IoT Institute of Technology
 IR Industrial Relations
 Ital Italian

J

Jour Journalism and Mass Communication
 Jpn Japanese
 JwSt Jewish Studies

K

Kin Kinesiology

L

LA Landscape Architecture
 LaMP Laboratory Medicine and Pathology
 LAS Latin American Studies
 LASk Learning and Academic Skills
 Lat Latin
 Law Law School
 Ling Linguistics
 LM Logistics Management

M

Mar Marathi
 Math Mathematics
 MatS Materials Science
 MBA Master of Business Administration
 MChm Medicinal Chemistry, Undergraduate
 MdBc Biochemistry (Medical School)
 MdGk Modern Greek
 ME Mechanical Engineering
 Med Medicine
 MedC Medicinal Chemistry
 MedT Medical Technology
 MeSt Medieval Studies
 MetE Metallurgical Engineering
 Mgmt Management
 MicB Microbiology
 MicE Microbial Engineering
 MidE Middle Eastern Studies
 Mil Military Science
 MinE Mining Engineering
 Mktg Marketing
 Mort Mortuary Science
 MSt Museum Studies
 MthE Mathematics Education
 MuEd Music Education
 Mus Music
 MusA Music Applied

N

Nav Naval Science
 Neur Neurology
 Nor Norwegian
 NRES Natural Resources and Environmental Studies
 NSc Neuroscience
 NSu Neurosurgery
 Nurs School of Nursing
 Nutr Nutrition

O

OBio Oral Biology
 Obst Obstetrics and Gynecology
 OCS Off-Campus Study
 OMS Operations and Management Science
 OPat Oral Pathology
 Oph Ophthalmology
 ORad Oral Radiology
 OrSu Orthopaedic Surgery
 OSur Oral and Maxillofacial Surgery
 Otho Orthodontics
 Otol Otolaryngology

P

PA Public Affairs
 Path Pathobiology
 PBio Plant Biology
 PE Physical Education
 Ped Pediatrics
 Pedo Pediatric Dentistry
 Per Persian
 Pero Periodontics
 Phar Pharmacy Practice
 Phcg Pharmacognosy
 Phcl Pharmacology
 Phil Philosophy
 Phm Pharmaceutics
 Phmc Pharmaceutics, Undergraduate
 Phsl Physiology
 Phys Physics
 PlBr Plant Breeding
 PlPa Plant Pathology
 PlPh Plant Physiology
 Plsh Polish
 PMed Physical Medicine and Rehabilitation
 Pol Political Science
 Port Portuguese
 Pros Prosthodontics
 Psy Psychology
 PubH Public Health

R

Rad Radiology
 Rec Recreation, Park, and Leisure Studies
 RelS Religious Studies
 Rhet Rhetoric
 Russ Russian

S

SACS Small Animal Clinical Sciences
 SALL South Asian Languages and Literature
 SAPH Social and Administrative Pharmacy
 ScAg Science in Agriculture
 Scan Scandinavian
 SCAS Soviet Central Asian Studies

SciC Scientific Computation
 SeEd Secondary Education
 Serb Serbo-Croatian
 Skt Sanskrit
 Slav Slavic
 SoAS South Asian Studies
 Soc Sociology
 Soil Soil Science
 Span Spanish
 Spch Speech-Communication
 SPFE Social and Philosophical Foundations of Education
 SpPt Spanish-Portuguese
 Stat Statistics
 Sum Sumerian
 Surg Surgery
 SW Social Work
 Swed Swedish

T

TexC Textiles and Clothing
 Tgen Theriogenology
 Th Theatre Arts
 TRad Therapeutic Radiology
 Turk Turkish
 Txcl Toxicology

U

UC University College
 UrbS Urban Studies
 Urdu Urdu
 Urol Urologic Surgery

V

VB Veterinary Biology
 VDM Veterinary Diagnostic Medicine
 VMed Veterinary Medicine, Graduate
 VMic Veterinary Microbiology
 VoEd Vocational Education
 VPar Veterinary Parasitology
 VPB Veterinary Pathobiology
 VPth Veterinary Pathology
 VSRA Veterinary Surgery, Radiology, and Anesthesiology

W

WRes Water Resources
 WoSt Women's Studies

Y

YoSt Youth Development and Research

Z

Zool Zoology

DIRECTORY FOR DEPARTMENT OFFICES

A

Adult and Teacher Education PeikH 175 (625-5524)
 Aerospace Engineering and Mechanics AkerH 107 (625-8000)
 Aerospace Studies Armory 3 (624-2884)
 Afro-American Studies SocSci 808 (624-9847)
 Agricultural and Applied Economics ClaOff 231 (625-1222)
 Agricultural Education VoTech 320 (624-2221)
 Agricultural Engineering AgEng 213 (625-7733)
 Agronomy BorH 411 (625-7773)
 American Indian Studies ScottH 102 (624-1338)
 American Studies ScottH 104 (624-4190)
 Anesthesiology Mayo B515 (624-9990)
 Animal Science PetH 120 (624-2722)
 Anthropology FordH 215 (625-3400)
 Architecture Arch 110 (624-7866)
 Art Education WullH 135 (625-8021)
 Art History JonesH 107 (624-4500)
 Astronomy Phys 356 (624-0211)

B

Biochemistry (BioC) GortL 140 (624-7755)
 Biochemistry (Med) MlrD 4-225 (625-6100)
 Biological Sciences SnH 123 (624-9717)
 Biology KoltH P180 (625-6636)
 Business and Marketing Education VoTech 420 (624-7799)

C

Cell Biology and Neuroanatomy JacH 4-135 (624-1123)
 Chemical Engineering and Materials
 Science AmundH 151 (625-1313)
 Chemistry SmithH 115 (624-0026)
 Chicano Studies ScottH 102 (624-6309)
 Child Psychology ChDev 104 (624-1891)
 Civil and Mineral Engineering CivMinE 122 (625-5522)
 Classical and Near Eastern Studies FolH 331 (625-5353)
 Clinical and Population Sciences VetTchHos 225 (625-7755)
 Communication Disorders ShevH 115 (624-3322)
 Comparative Literature FolH 350 (624-8099)
 Composition and Communication LindH 209 (625-2888)
 Computer Science EE/CSci 4-192 (625-4002)
 Curriculum and Instruction PeikH 125 (625-6372)

D

Dance NorrisH 106 (624-5060)
 Dental Hygiene MoosT 5-164 (625-9121)
 Dentistry MoosT 15-209 (625-9982)
 Dermatology PWB 4-240 (625-8625)
 Design, Housing, and Apparel McNH 240 (624-9700)

E

East Asian Studies FolH 105 (624-0007)
 Ecology, Evolution, and Behavior Zoology 109 (625-4466)
 Economics Mgmt/Econ 1035 (625-6353)
 Educational Administration PeikH 275 (624-1006)
 Educational Psychology BuH 202 (624-3543)
 Electrical Engineering EE/CSci 4-178 (625-3300)
 Elementary Education PeikH 125 (625-6372)
 English LindH 207 (625-3363)
 Entomology HodsonH 219 (624-3636)

F

Family Practice, Community Health PWB 6-240 (624-2622)
 Family Social Science McNH 290 (625-1900)
 Fisheries and Wildlife HodsonH 200 (624-3600)
 Food Science and Nutrition FScN 225 (624-1290)
 Forest Products KaufL 203 (624-9219)
 Forest Resources GrnH 115 (624-3400)
 French and Italian FolH 260 (624-4308)

G

General College ApH 41 (625-3339)
 Genetics and Cell Biology BioSci 250 (624-3003)
 Geography SocSci 414 (625-6080)
 Geology and Geophysics PillsH 106 (624-1333)
 German FolH 231 (625-2080)

H

Higher Education PeikH 275 (624-1006)
 History SocSci 614 (624-2800)
 History of Medicine DieH 510 (624-4416)
 History of Science & Technology Phys 342E (624-7069)
 Home Economics McNH 32 (624-1717)
 Home Economics Education VoTech 325 (624-3010)
 Horticultural Science AlderH 305 (624-5300)
 Humanities FordH 314 (624-5553)

I

Industrial Education VoTech 425 (624-3004)
 Interdepartmental Study (CLA) JohH 225 (624-5701)
 International Relations SocSci 214 (624-9007)

J

Journalism, Mass Communication MurH 15 (625-9824)

L

Laboratory Medicine Mayo D242 (625-9171)
 Landscape Architecture NorH 212 (625-8285)
 Latin American Studies SocSci 232 (624-8543)
 Law School Law 285 (625-1000)
 Linguistics KiaCt 142 (624-3528)

M

Management, Carlson School of HHHctr 290 (624-3313)
 Mathematics VinH 127 (625-4848)
 Mathematics Education PeikH 125 (625-6372)
 MBA Program, Carlson School HHH 295 (624-0006)
 Mechanical Engineering MechE 125 (625-0705)
 Medical Technology PWB 15-170 (625-9490)
 Medicine PWB 14-110 (625-3220)
 Microbiology Mayo 1460 (624-6190)
 Middle Eastern Studies KICt 192 (624-7802)
 Military Science Armory 108 (624-7300)
 Mining Engineering CivMinE 122 (625-5522)
 Mortuary Science Mayo A275 (624-6464)
 Music FergH 100 (624-5740)
 Music Education FergH 100 (624-0071)

N

Naval Science Armory 203 (625-6677)
 Neurology PWB 12-100 (625-9900)
 Nursing HSUnitF 5-140 (624-9600)

O

Obstetrics and Gynecology MoosT 12-211 (626-3111)
 Ophthalmology PWB 9th floor (625-4400)
 Otolaryngology PWB 8-240 (625-3200)

P

Pediatrics PWB 13-107 (624-4477)
 Pharmacology MirdH 3-260 (625-9997)
 Pharmacy HSUnitF 5-110 (624-9490)
 Philosophy FordH 355 (625-6563)
 Physical Education CookeH 224 (625-1007)
 Physical Medicine and Rehabilitation Mayo 860 (626-5961)
 Physics Phys 148 (624-7375)
 Physiology MirdH 6-255 (625-5902)
 Plant Biology BioSci 220 (625-1234)
 Plant Pathology StakH 304 (625-8299)
 Plant Physiology BioSci 220 (625-4222)
 Political Science SocSci 1414 (624-4144)
 Psychiatry Mayo A605 (626-5400)
 Psychology EltH 106 (625-4394)
 Public Affairs HHHctr 154 (625-9505)
 Public Health Mayo A302 (624-6669)

R

Radiology Mayo B238 (626-5529)
 Recreation, Park, and Leisure Studies CookeH 203 (625-5300)
 Rhetoric HckrH 202 (624-3445)
 Russian & East European Studies EltH 253 (625-9870)

S

Scandinavian Studies FolH 200 (625-9887)
 Secondary Education PeikH 125 (625-6372)
 Small Animal Clinical Sciences VetTchHos C339 (625-7744)
 Social, Philosophical Foundations
 of Education PeikH 275 (624-1006)
 Social Work FordH 400 (624-5888)
 Sociology SocSci 909 (624-4300)
 Soil Science BorH 439 (625-1244)
 South Asian Studies KICt 192 (624-7802)
 Spanish and Portuguese FolH 34 (625-5858)
 Speech-Communication FolH 460 (624-5800)
 Statistics VinH 270 (625-8046)
 Studio Arts ArtB 208 (625-8096)
 Surgery PWB 11-100 (625-1400)

T

Theatre Arts MdbH 208 (625-6699)

U

University College
 Intercollege Program (ICP) WullH 7 (624-2004)
 Program for Individualized Learning WesH 201 (624-4020)

V

Veterinary Biology AnScVM 295K (624-2700)
 Veterinary Pathobiology VetS 205g (625-5255)
 Vocational and Technical Education VoTech 210 (624-1221)

W

Women's Studies FordH 492 (624-6006)

Y

Youth Development and Research McNH 386 (624-3700)

UNDERGRADUATE ADVISING OFFICES

Agriculture, College of CofH 277 (624-3009)
 Architecture and Landscape Architecture,
 College of Arch 110 (626-1000)
 Biological Sciences, College of SnH 223 (624-9717)
 (Please call ahead for an appointment.)
 Education, College of 1425 Univ SE (625-6501)
 General College ApH 25 (625-2333)
 Human Ecology, College of McNH 32 (624-1717)
 Liberal Arts, College of
 Premajor Offices:
 CLA major & preprofessional. JohH B18 (624-9585)
 Pre-health sciences JohH 30 (624-9006)
 Upper Division College Offices:
 East bank departments, adult special,
 interdepartmental JohH 114 (624-4545)
 West bank departments ... SocSci 122 (624-5848)
 Honors Program JohH 115 ((624-5522)
 Martin Luther King Program JohH 19 (625-2300)

Management, Carlson
 School of HHHctr 290 (624-3313)
 Natural Resources,
 College of NatResAd 135 (624-6768)
 Nursing, School of HSUnitF 5-140G (624-7111)
 Pharmacy, College of HSUnitF 5-110 (624-9490)
 Technology, Institute of
 Student Affairs Office LindH 105 (624-8504)
 Project Technology Power WaLib 339 (625-0219)
 University College
 Individualized Learning,
 Program for WesH 201 (624-4020)
 Intercollege Program
 (ICP) WullH 7 (624-2004)

BUILDING ABBREVIATIONS AND BUILDING ACCESSIBILITY INFORMATION

MINNEAPOLIS

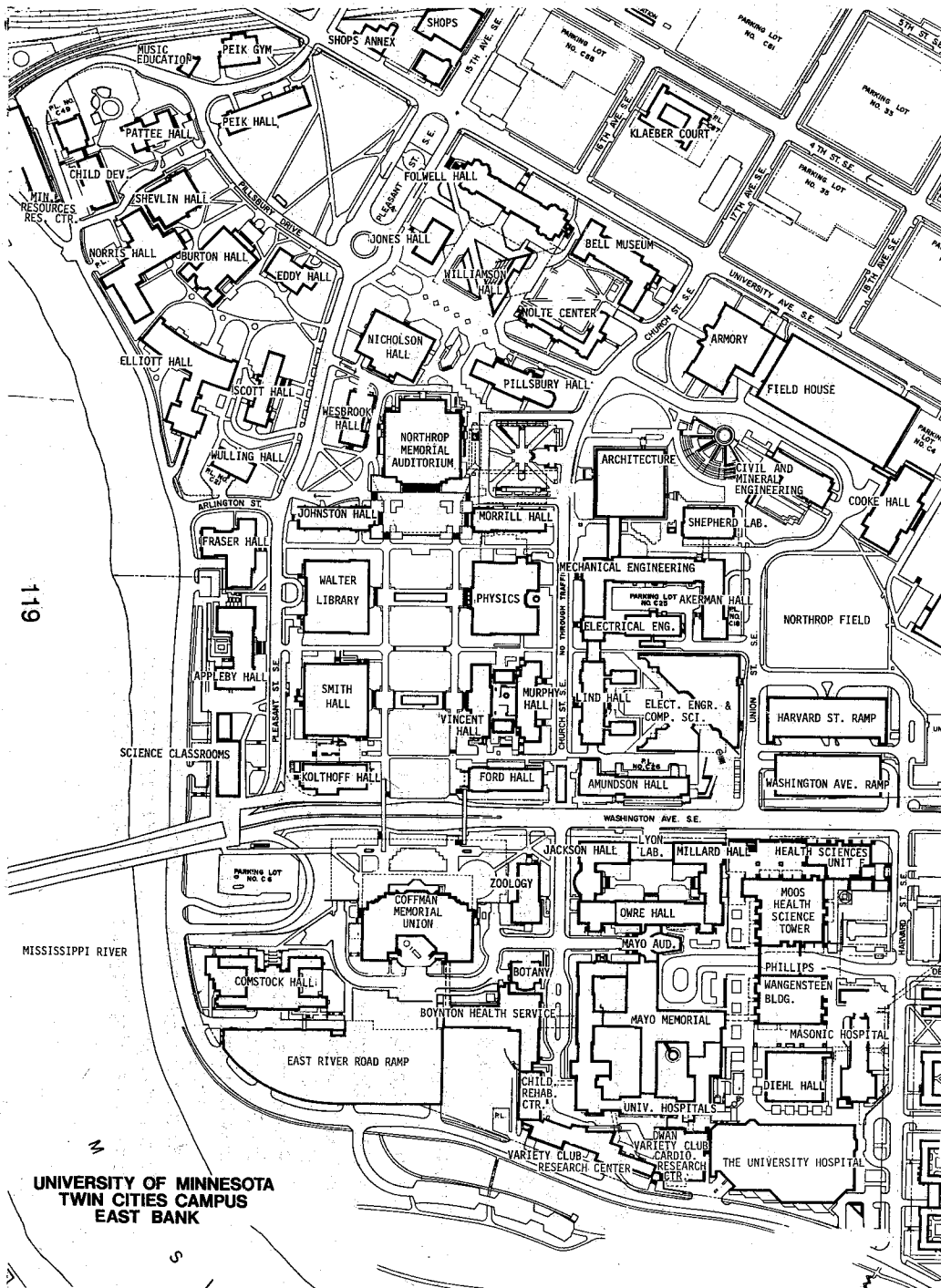
East Bank

- AkerH, Akerman Hall □
 AmundH, Amundson Hall ʃ * L
 ApH, Appleby Hall ʃ *
 Arch, Architecture ʃ * L
 Armory □
 BellMus, Museum of Natural History ʃ * L
 BFAB, Bierman Field Athletic Building ʃ * L
 Botany ■
 BoynHS, Boynton Health Service ʃ * L
 BuH, Burton Hall ʃ * L
 CenH, Centennial Hall □
 ChDev, Child Development ʃ *
 ChRC, Children's Rehabilitation Center ʃ * L
 CivMinE, Civil and Mineral Engineering ʃ * L
 CMU, Coffman Memorial Union ʃ * L
 ComH, Comstock Hall □
 CookeH, Cooke Hall □
 DiehH, Diehl Hall ʃ *
 DVCCRC, Dwan Variety Club Cardiovascular Research Center ʃ * L
 EddyH, Eddy Hall ■
 EdHan, Eddy Hall Annex ■
 EE/CSci, Electrical Engineering/Computer Science Building ʃ * L
 ElectE, Electrical Engineering □
 Elth, Elliott Hall ʃ * L
 FieldHse, University Field House ʃ
 FolH, Folwell Hall ʃ * L
 FordH, Ford Hall ʃ * L
 FraserH, Fraser Hall □
 FronH, Frontier Hall ■ *
 HL, St. Anthony Falls Hydraulic Laboratory (Hennepin Island)
 HSUnitF, Health Sciences Unit F ʃ * L
 Jach, Jackson Hall ʃ *
 JOAd, Jackson-Owre Addition ʃ *
 JohH, Johnston Hall □ * L
 JonesH, Jones Hall ■
 KlaCt, Klaeber Court ʃ
 Kolth, Kolthoff Hall ʃ * L
 LindH, Lind Hall ʃ * L
 LyonL, Lyon Laboratories ʃ
 Mayo, Mayo Memorial ʃ * L
 MechE, Mechanical Engineering □
 MirdH, Millard Hall ʃ *
 MMA, Mayo Memorial Auditorium □
 MoosT, Moos Health Sciences Tower ʃ * L
 MorH, Morrill Hall □ * L
 MurH, Murphy Hall ʃ
 MusEd, Music Education ■
 NichH, Nicholson Hall ʃ * L
 NMA, Northrop Memorial Auditorium ʃ * L
 NorrisH, Norris Hall ʃ L
 OwreH, Owre Hall ʃ * L
 PeikG, Peik Gym □
 PeikH, Peik Hall □ *
 Phys, Tate Laboratory of Physics ʃ *
 PiH, Pioneer Hall ■
 PillsH, Pillsbury Hall ■
 Pth, Pattee ʃ *
 PWB, Phillips Wangensteen Building ʃ * L
 SaH, Sanford Hall ʃ
 SciCB, Science Classroom Building □ *
 ScottH, Scott Hall ■
 ShepLab, Shepherd Laboratories ʃ *
 ShevH, Shevlin Hall ʃ *
 SmithH, Smith Hall ʃ * L
 Stad, Stadium □ L
 TerH, Territorial Hall ■
 UAqCtr, University Aquatic Center ʃ
 UHosp, University Hospital ʃ * L
 VinH, Vincent Hall ʃ *
 WaLib, Walter Library ʃ * L
 WesH, Westbrook Hall ʃ
 WmsA, Williams Arena □ L
 WmsonH, Williamson Hall ʃ * L
 WullH, Wulling Hall ■ *
 Zoology ʃ * L

CODES:

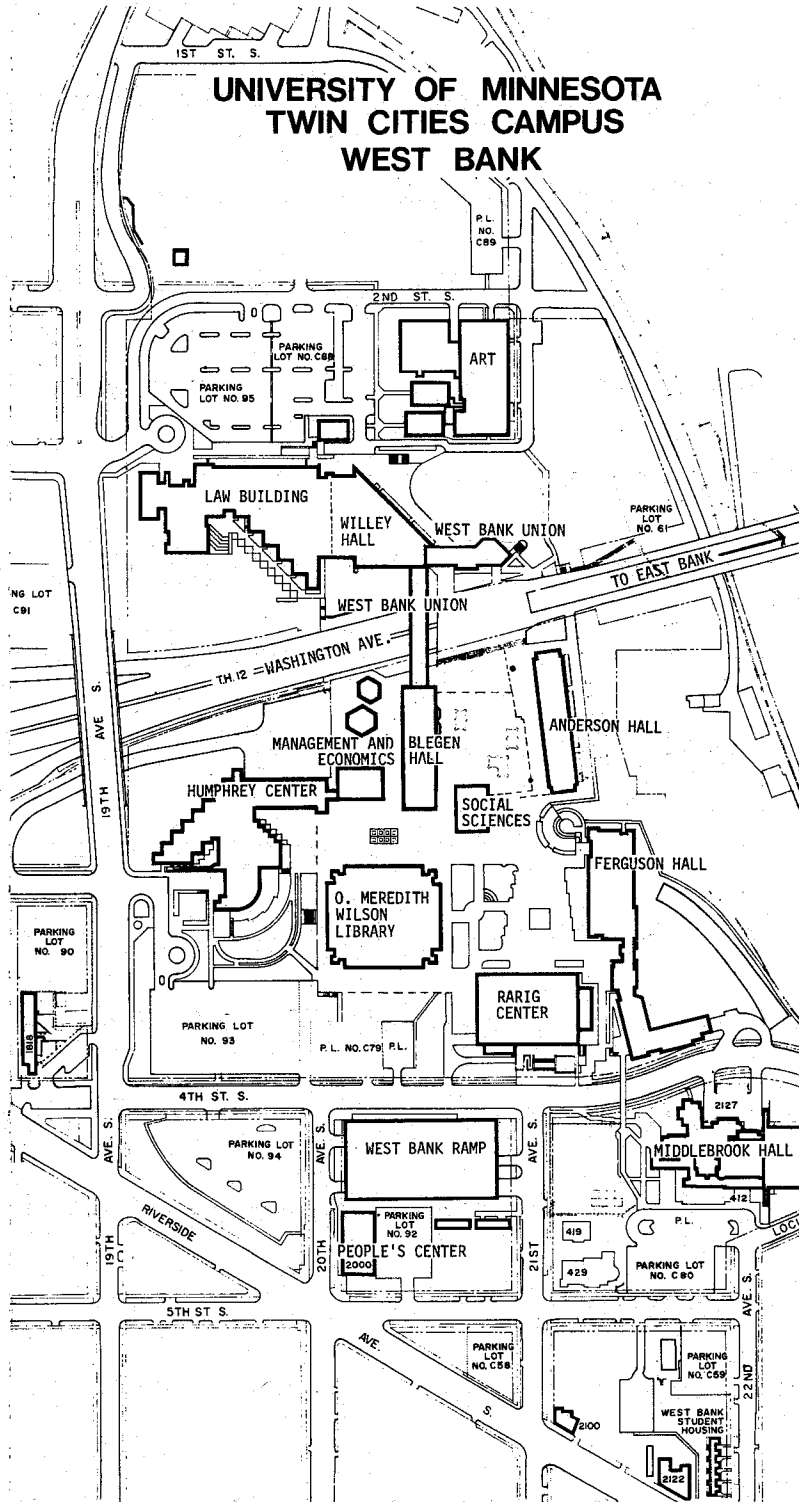
- ʃ = accessible building
 □ = partially accessible
 ■ = inaccessible building
 * = elevator
 L = adapted restroom

For a map, *Guide for the Handicapped*, and further information, contact the Office for Students with Disabilities at 624-4037.



UNIVERSITY OF MINNESOTA
TWIN CITIES CAMPUS
EAST BANK

UNIVERSITY OF MINNESOTA
TWIN CITIES CAMPUS
WEST BANK



**BUILDING ABBREVIATIONS AND
BUILDING ACCESSIBILITY INFORMATION**

**MINNEAPOLIS
West Bank**

- AndH, Anderson Hall □ *
- ArtB, Art Building (2020 Washington Ave S) □
- BlegH, Blegen Hall ⌘ * L
- FergH, Ferguson Hall ⌘ * L
- HHH Ctr, Humphrey Center ⌘ * L
- Law, Law Building ⌘ * L
- MdbH, Middlebrook Hall ⌘ * L
- Mgmt/Econ, Management/Economics Building ⌘ *
- OMWL, O Meredith Wilson Library ⌘ * L
- RarigC, Rarig Center ⌘ * L
- SocSci, Social Sciences Building ⌘ *
- WBU, West Bank Union ⌘ L
- WilleyH, Willey Hall ⌘ * L

CODES:

- ⌘ = accessible building
- = partially accessible
- = inaccessible building
- * = elevator
- L = adapted restroom

For a map, *Campus Accessibility Guide*, and further information, contact the Office for Students with Disabilities at 624-4037.

BUILDING ABBREVIATIONS AND BUILDING ACCESSIBILITY INFORMATION

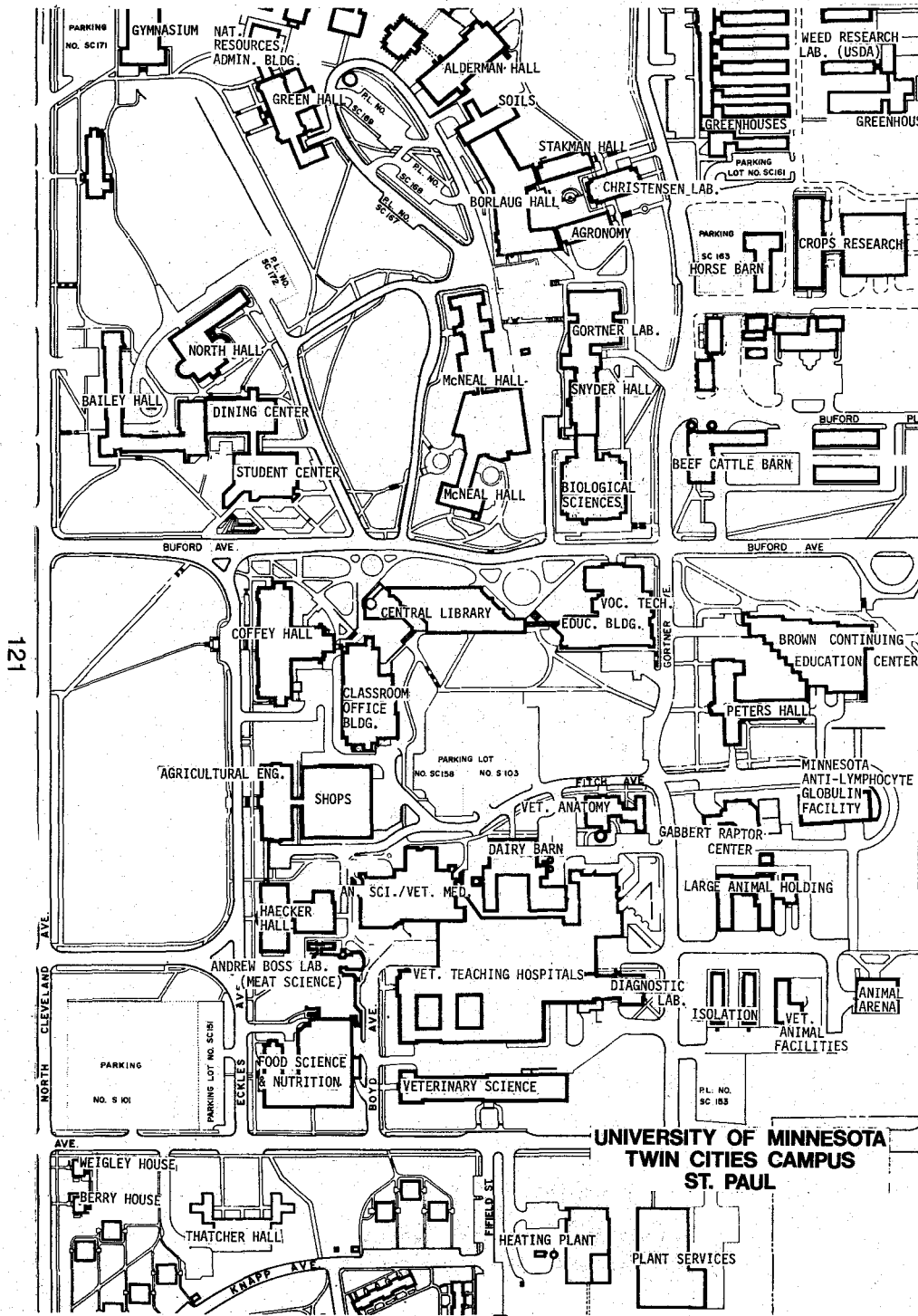
ST PAUL

- ABLMS, Andrew Boss Laboratory-Meat Science ☞ *
 AgEng, Agricultural Engineering ☞ *
 AgEngShop, Agriculture Engineering Shop ☞
 Agr, Agronomy ☞
 AgGhCl, Agronomy Greenhouse Classroom ☞
 AgrPGGh, Agronomy/Plant Genetics Greenhouse
 AlderH, Alderman Hall ☞ *
 AnAren, Animal Arena
 AnScVM, Animal Science, Veterinary Medicine ☞ *
 BCB, Beef Cattle Barn ☞
 Berry, Berry House (1304 Cleveland Ave N) ☞
 BioSci, Biological Sciences Center ☞ *
 BorH, Borlaug Hall ☞ * L
 CentLib, St. Paul Campus Central Library ☞ *
 ClaOff, Classroom Office Bldg ☞ *
 CoffH, Coffey Hall ☞ *
 DinC, Dining Center ☞ *
 EBCEC, Earle Brown Continuing Education Center ☞ * L
 FScN, Food Science and Nutrition ☞ *
 GorL, Gortner Laboratory of Biochemistry ☞ *
 GrnH, Green Hall ☞ * L
 Gym, Gymnasium ☞
 HckrH, Haecker Hall ☞
 HodsonH, Hodson Hall ☞ *
 HrG, Horticulture Greenhouse
 Kaufl, Kaufert Laboratory ☞ *
 McNH, McNeal Hall ☞ * L
 NatResAd, Natural Resources Administration Building ☞ * L
 NorH, North Hall ☞
 PetH, Peters Hall ☞
 PISci, Plant Sciences ☞
 SnH, Snyder Hall ☞
 Soils ☞
 StakH, Stakman Hall of Plant Pathology ☞
 StCen, Student Center ☞ * L
 VetA, Veterinary Anatomy ☞
 VetDL, Veterinary Diagnostic Laboratories ☞
 VetS, Veterinary Science ☞
 VetTchHos, Veterinary Teaching Hospitals ☞
 VoTech, Vocational-Technical Education ☞ *
 Weigley, Weigley House (1316 Cleveland Ave N)

CODES:

- ☞ = accessible building
 ☞ = partially accessible
 ■ = inaccessible building
 * = elevator
 L = adapted restroom

For a map, *Guide for the Handicapped*, and further information, contact the Office for Students with Disabilities at 624-4037.



COMPLETING YOUR COURSE REQUEST FORM

① Student, Chris H. 1234567 <small>Print name (last, first, middle) and ID number or Social Security number.</small>				UNIVERSITY OF MINNESOTA COURSE REQUEST					
② College of enrollment CLA			④ Street address 4312 Main Street			Telephone number 373-4343			
③ Major Anthropology			City St. Paul			State MN	Zip code 55111		
⑤ Term and year <input type="checkbox"/> Fall <input type="checkbox"/> Winter <input checked="" type="checkbox"/> Spring <input type="checkbox"/> Summer session I <input type="checkbox"/> Summer session II 19 92									
⑥ <input type="checkbox"/> Registration: number of credits 14 <input type="checkbox"/> Cancel/add: number of credits after change _____ <input type="checkbox"/> Complete cancellation									
Note: Fill in VARIABLE CREDITS only if credits are listed as "ar cr" in the Class Schedule. Fill in GRADE OPTION if mandatory grading is not listed in the Class Schedule. To change grade option or variable credits, list course as both cancellation and addition.									
COURSE(S)--First choice (original registration)				COURSE(S)--Second choice (or cancel/add additions)				CANCELLATIONS	
⑦ CALL NUMBER A	GRADE OPTION B	VARIABLE CREDITS C	DESIGNATOR, COURSE NUMBER, AND SECTION D	⑧ CALL NUMBER	GRADE OPTION	VARIABLE CREDITS	DESIGNATOR, COURSE NUMBER, AND SECTION	⑨ CALL NUMBER	DESIGNATOR, COURSE NUMBER, AND SECTION
938747			Anth 518	436587	S-N		West 3400-2		
724412		2	Engl 5970	136406			Anth 5131		
132941			West 5300						
541392			Anth 5960-2						
MPIRG (optional) Minnesota Public Interest Research Group is described in the Class Schedule. The MPIRG fee is \$2.50 per quarter (or \$1.25 per summer term) for those who pay the student services fee. Payment is refundable through MPIRG. If you choose NOT to pay, initial here →				ADVISER APPROVAL (if needed) 				ADDITIONAL APPROVAL (if needed)	
⑩				⑪				⑫	

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- ① Print your name and student ID number (or Social Security Number).
- ② Print the college in which you are enrolled.
- ③ Print your major.
- ④ Print your complete address and phone number.
- ⑤ Indicate the term (fall, winter, spring, summer I, or summer II) and year for which you are registering.
- ⑥ Check the box for registration if this is your first registration for the quarter or term and fill in the number of credits for which you are registering. If you are making changes in your original registration (cancel/adding), check the cancel/add box and fill in the number of credits you will have after completing those changes. Check the "Complete Cancel" box if you are cancelling all courses.
- ⑦ This section is for your first choice course requests:
 - A Print the six digit call number. (The call number is to the left of each course listing or each section of a course.)
 - B Mark the grading system you are requesting, only if the course is offered for both A-F and S-N. See example above and read the paragraph on Grading Option on page 28 of this Class Schedule for further information.
 - C Print the number of credits only if you are registering for a variable credit course (i.e., 1-4 cr) or an arranged credit course (ar cr). See example above.
 - D Print the designator (department abbreviation—e.g., Acct, Elem, Hist), course number, and section number for each course.
- ⑧ This section is for your second choice course requests. **Plan alternatives for all parts of the course (e.g., lecture, lab, recitation) in case your first choice requests are closed or otherwise unavailable.** If you are cancel/adding, list any course additions here.
- ⑨ Provide the call number, designator, course, and section numbers for any courses you are cancelling. Remember to indicate your credit total in section 6.
- ⑩ MPIRG—see instructions on form. The Minnesota Public Interest Research Group (MPIRG) is a nonprofit, nonpartisan, student-run organization funded at the Twin Cities campus by an optional quarterly fee of \$2.50. A statewide advocacy group, MPIRG gives the students the opportunity to speak out on public issues and work for social change. The fee supports a professional staff for lobbying, litigation, organizing, and research.
- ⑪ College, department, and/or adviser approval, as required.
- ⑫ Additional approval, as required.

UNIVERSITY OF MINNESOTA

COURSE REQUEST

Print name (last, first, middle) and ID number or Social Security number.

College of enrollment				Street address				Telephone number	
Major				City		State		Zip code	
Term and year <input type="checkbox"/> Fall <input type="checkbox"/> Winter <input type="checkbox"/> Spring <input type="checkbox"/> Summer session I <input type="checkbox"/> Summer session II 19__									
<input type="checkbox"/> Registration: number of credits _____ <input type="checkbox"/> Cancel/add: number of credits after change _____ <input type="checkbox"/> Complete cancellation									
Note: Fill in VARIABLE CREDITS only if credits are listed as "ar or" in the Class Schedule. Fill in GRADE OPTION if mandatory grading is not listed in the Class Schedule. To change grade option or variable credits, list course as both cancellation and addition.									
COURSE(S)--First choice (original registration)				COURSE(S)--Second choice (or cancel/add additions)				CANCELLATIONS	
CALL NUMBER	GRADE OPTION	VARIABLE CREDITS	DESIGNATOR, COURSE NUMBER, AND SECTION	CALL NUMBER	GRADE OPTION	VARIABLE CREDITS	DESIGNATOR, COURSE NUMBER, AND SECTION	CALL NUMBER	DESIGNATOR, COURSE NUMBER, AND SECTION
MPIRG (optional) Minnesota Public Interest Research Group is described in the Class Schedule. The MPIRG fee is \$2.50 per quarter (or \$1.25 per summer term) for those who pay the student services fee. Payment is refundable through MPIRG. If you choose NOT to pay, initial here →				ADVISER APPROVAL (if needed)				ADDITIONAL APPROVAL (if needed)	

A22-otr 12/91



UNIVERSITY OF MINNESOTA

COURSE REQUEST

Print name (last, first, middle) and ID number or Social Security number.

College of enrollment				Street address				Telephone number	
Major				City		State		Zip code	
Term and year <input type="checkbox"/> Fall <input type="checkbox"/> Winter <input type="checkbox"/> Spring <input type="checkbox"/> Summer session I <input type="checkbox"/> Summer session II 19__									
<input type="checkbox"/> Registration: number of credits _____ <input type="checkbox"/> Cancel/add: number of credits after change _____ <input type="checkbox"/> Complete cancellation									
Note: Fill in VARIABLE CREDITS only if credits are listed as "ar or" in the Class Schedule. Fill in GRADE OPTION if mandatory grading is not listed in the Class Schedule. To change grade option or variable credits, list course as both cancellation and addition.									
COURSE(S)--First choice (original registration)				COURSE(S)--Second choice (or cancel/add additions)				CANCELLATIONS	
CALL NUMBER	GRADE OPTION	VARIABLE CREDITS	DESIGNATOR, COURSE NUMBER, AND SECTION	CALL NUMBER	GRADE OPTION	VARIABLE CREDITS	DESIGNATOR, COURSE NUMBER, AND SECTION	CALL NUMBER	DESIGNATOR, COURSE NUMBER, AND SECTION
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A22-otr 12/91



STUDENT HOSPITALIZATION INSURANCE
University of Minnesota

<input type="checkbox"/> Fall Quarter	<input type="checkbox"/> Winter Quarter	<input type="checkbox"/> Spring Quarter
<input type="checkbox"/> Fall Semester	<input type="checkbox"/> Spring Semester	
Student Name (last, first, middle initial)		Student ID Number
<p>If you are taking 6 or more credits, you will automatically be charged for University-sponsored hospitalization insurance unless you check the first box below, fill in the name of your insurance company and policy number, and sign the bottom of this form. (If you are taking 6 or more credits and do not have hospitalization insurance, you do not have to fill out this card.)</p> <p><input type="checkbox"/> I am adequately covered by the hospitalization insurance indicated below. (If you do not provide complete information, you will be charged for insurance.) You may receive a full refund by returning to the Registration Center with your insurance information by the end of the first week of classes.</p>		
Name of Insurance Company or HMO		Policy Number
<p><input type="checkbox"/> Although I am taking fewer than 6 credits, I would like to purchase University-sponsored hospitalization insurance. I understand that I will also be charged the entire student services fee.</p>		
Signature		Date

A290-otr 8/90



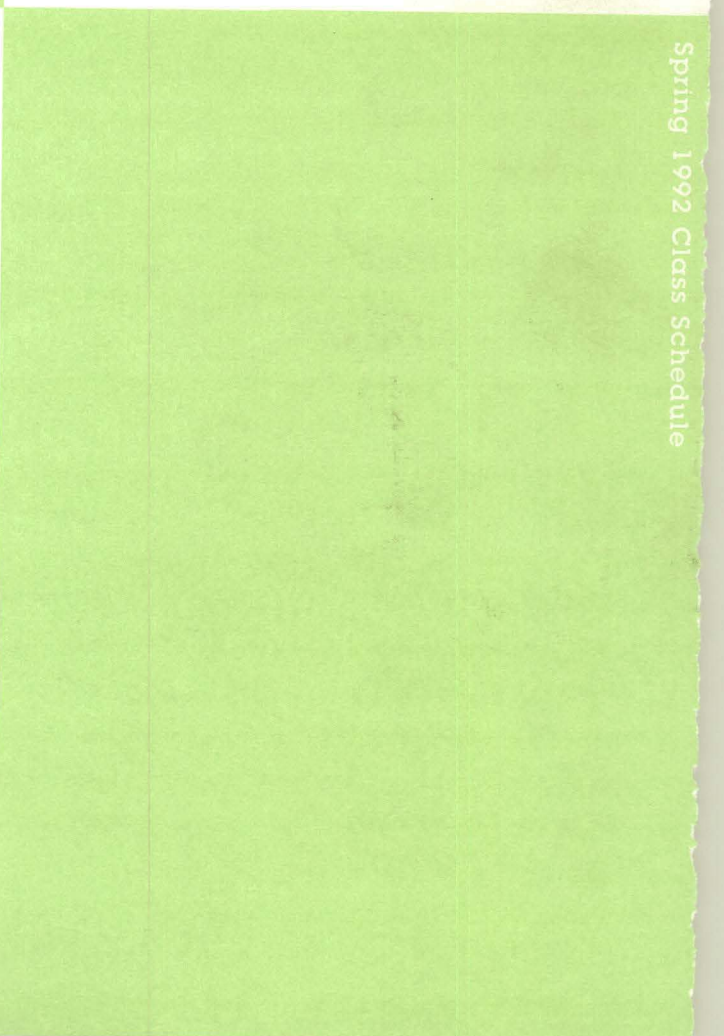
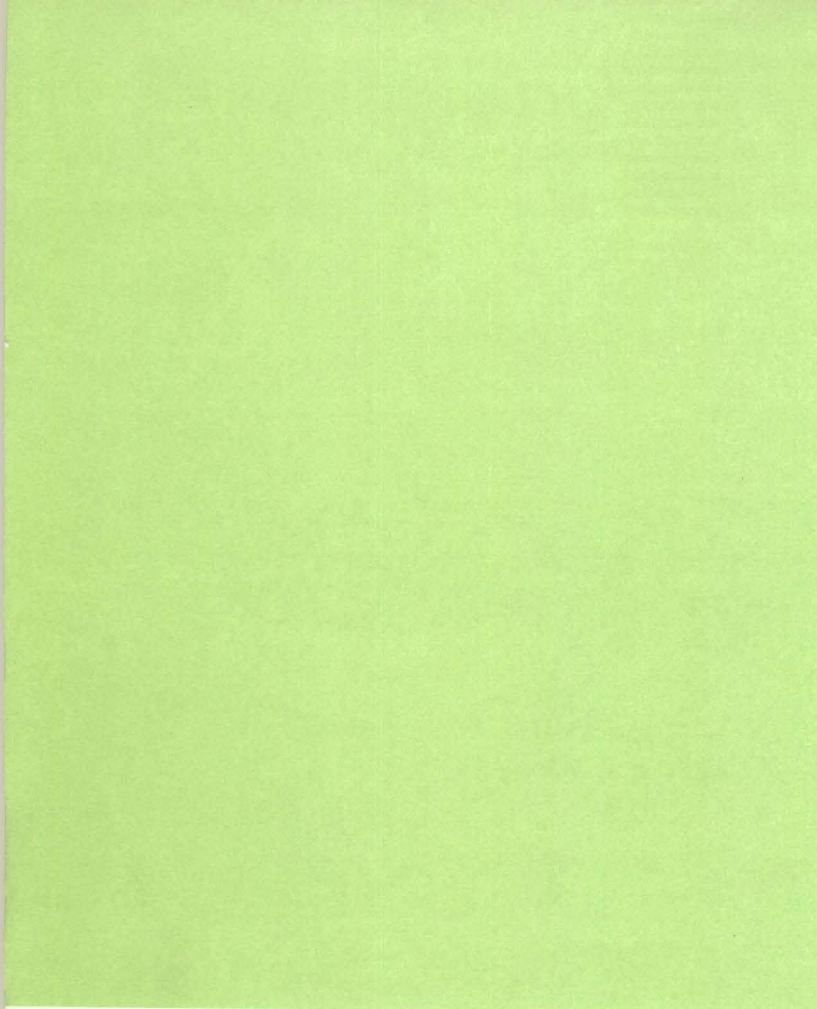
STUDENT HOSPITALIZATION INSURANCE
University of Minnesota

<input type="checkbox"/> Fall Quarter	<input type="checkbox"/> Winter Quarter	<input type="checkbox"/> Spring Quarter
<input type="checkbox"/> Fall Semester	<input type="checkbox"/> Spring Semester	
Student Name (last, first, middle initial)		Student ID Number
<p>If you are taking 6 or more credits, you will automatically be charged for University-sponsored hospitalization insurance unless you check the first box below, fill in the name of your insurance company and policy number, and sign the bottom of this form. (If you are taking 6 or more credits and do not have hospitalization insurance, you do not have to fill out this card.)</p> <p><input type="checkbox"/> I am adequately covered by the hospitalization insurance indicated below. (If you do not provide complete information, you will be charged for insurance.) You may receive a full refund by returning to the Registration Center with your insurance information by the end of the first week of classes.</p>		
Name of Insurance Company or HMO		Policy Number
<p><input type="checkbox"/> Although I am taking fewer than 6 credits, I would like to purchase University-sponsored hospitalization insurance. I understand that I will also be charged the entire student services fee.</p>		
Signature		Date

A290-otr 8/90

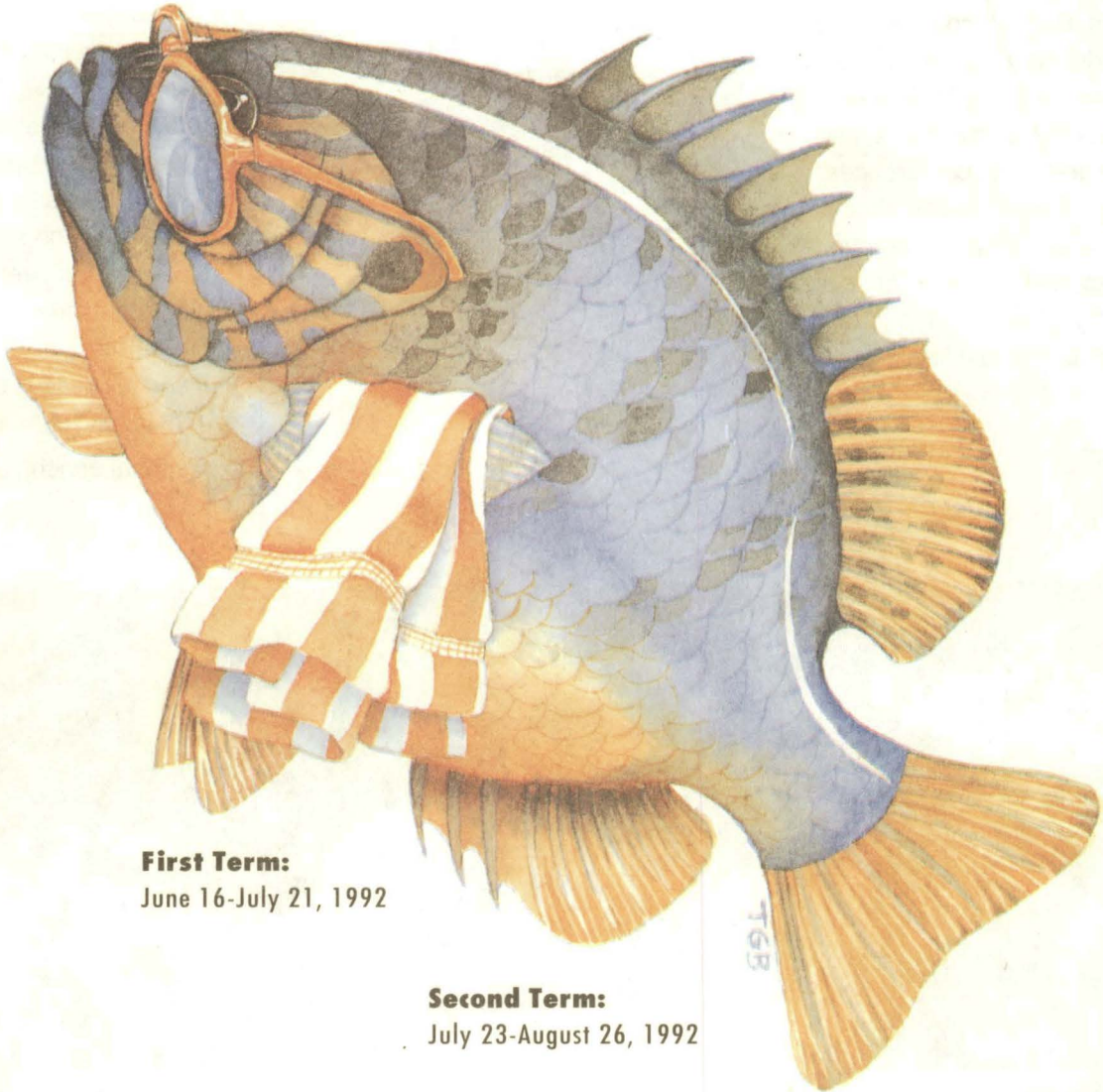
University of Minnesota Twin Cities

Spring 1992 Class Schedule



Preliminary Schedule of Courses Twin Cities Campus

S U M M E R S E S S I O N 1 9 9 2



First Term:
June 16-July 21, 1992

Second Term:
July 23-August 26, 1992

University of Minnesota Summer Session

No better time... no better place

The University of Minnesota, Twin Cities, conducts the largest Summer Session in the nation. Each summer students and visitors from throughout the world take advantage of the University's outstanding curriculum, faculty and facilities. Regular courses, normally taught during five-or ten-week sessions, are complemented by evening extension classes, institutes, workshops, conferences, lectures, films, concerts, theatre productions, campus recreational activities, and hundreds of special programs which give the campus a vibrancy unlike that found at any other time of year.

Why Summer Session at the "U"

- Make up credits
- Accelerate progress toward your degree or stay on schedule
- Take courses which are difficult to fit in during the academic year
- Smaller classes
- A more relaxed and informal atmosphere
- Easier parking
- Most classes meet in the mornings and your afternoons are free

The University in summer has something for you—

- If you're a continuing University student
- If you're a visiting student for the summer
- If you're an incoming Freshman
- If you're a professional who needs to keep up on developments in your field
- If you're a high school student (over twenty different academic programs)
- If you're an adult of any age who is interested in personal enrichment



To find out more, watch for the complete 1992 Summer Session Bulletin, available in February, or call our office at (612) 624-3555

For information,
call...

Summer Session 624-3555
*Office hours: Monday-Friday
8:00 a.m.-4:30 p.m. From Monday, April 6
to Monday, June 22, the office will stay
open until 6:00 p.m.*

**University
Information Service** 625-5000

Advisers
College of Liberal Arts
visiting students 624-9585

College of Education 625-6501

Extension and Summer
Session counseling 625-2500

Admissions
Adult special, advanced
standing, transfer students
within the University 625-2008

New students for
Fall 1991 625-2008

Bookstores
Minnesota Book Center,
East Bank 625-6000

H. D. Smith Bookstore,
West Bank 625-3000

Books Underground,
St. Paul 624-9200

Bulletin requests
Graduate School 625-3014
Evening classes 624-2388

Summer Session
day classes 624-3555

Other college bulletins 625-2008

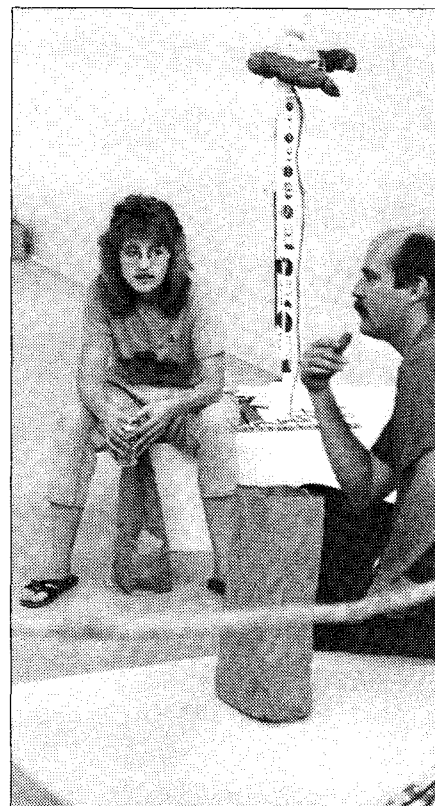
Financial Aid 624-1665
High School Students 624-1666
Housing 624-2994
Student Employment 624-8070
Student Accounts
Receivable 625-8500
Transcripts 625-5333
Veteran's Information 625-8076

Calendar 1992

- May 14** Advance registration for Term I and Term II begins for continuing academic year students
- May 18** Early Fall registration begins and advance summer registration continues
- May 22** Visiting students begin registration; other registration continues
- June 16** Term I classes begin
- July 3** Independence Day holiday
- July 21** Last class meeting of Term I
- July 23** Term II classes begin
- Aug 26** Last class meeting of Term II

This listing of Summer Session courses is preliminary, and may change before the final bulletin is available in mid-February, 1992.

Most of the courses listed here will be offered; however, a few courses may be added and a few may be canceled. The Summer Session bulletin will contain full course descriptions and scheduling information. It will also list all courses offered by the professional schools, classes for graduate students, and all courses that are "arranged."



Courses in eleven languages to be offered in 1992



CHINESE (Chn)

Summer I
1011,2,3 **Beginning Modern Chinese**
(10-week intensive)

DUTCH (Dtch)

Summer I
1101,2,3, **Beginning Dutch**
(10-week intensive)

FRENCH (Fren)

Summer I
1101 **Beginning French**
1102 **Beginning French**
1103 **Beginning French**
1101,2,3 **Beginning French**
 (10-week intensive)
1104 **Intermediate French**
1104, 5,6 **Intermediate French**
 (10-week intensive)
1106 **Intermediate French**
3015 **French Composition**
 and Conversation
3016 **Advanced French**
 Composition and
 Conversation

Summer II

1102 **Beginning French**
1103 **Beginning French**
1105 **Intermediate French**
3016 **Advanced French**
 Composition and
 Conversation

GERMAN (Ger)

Summer I
1101 **Beginning German**
1101,2, 3 **Beginning German**
 (10-week intensive)
1104 **Intermediate German**
1105 **Intermediate German**
3011 **Conversation and**
 Composition

Summer II

1102 **Beginning German**
1106 **Intermediate German**
3012 **Conversation and**
 Composition

ITALIAN (Ital)

Summer I
1104 **Intermediate Italian**
1101,2, **Beginning Italian**
 (10-week intensive)

Summer II

1105 **Intermediate Italian**

JAPANESE (Jpn)

Summer I
1011,2,3 **Beginning Japanese**
 (10-week intensive)

LATIN (Lat)

Summer I
3001 **Beginning Latin**
 (5-week intensive)

NORWEGIAN (Nor)

Summer I
1101,2,3 **Beginning Norwegian**
 (10-week intensive)

PORTUGUESE (Port)

Summer I
1001,2,3 **Beginning Portuguese**
 (10-week intensive)

RUSSIAN (Russ)

Summer I
1101,2,3 **Beginning Russian**
 (10-week intensive)
1104,5,6 **Intermediate Russian**
 (10-week intensive)

SPANISH (Span)

Summer I
1101 **Beginning Spanish**
1102 **Beginning Spanish**
1103 **Beginning Spanish**
1101,2,3 **Beginning Spanish**
 (10-week intensive)
1104 **Intermediate Spanish**
1105 **Intermediate Spanish**
1106 **Intermediate Spanish**
1104,5,6 **Intermediate Spanish**
 (10-week intensive)

Summer II

1102 **Beginning Spanish**
1103 **Beginning Spanish**
1104 **Intermediate Spanish**
1105 **Intermediate Spanish**
1106 **Intermediate Spanish**
3002 **Reading for Speed**
 and Comprehension

College of Liberal Arts Multicultural Curriculum Development Program

These courses provide an opportunity for teachers to develop innovative curriculum for the classroom with other educators while studying a subject area in great depth.

Courses tentatively scheduled for Summer 1992 include:

Gender and Culture (WoSt 5100) - offered by professor Jacquelyn Zita will look at the significance of race, class, creativity, gender, ethnicity, and historical contexts impact on how we look at the world, read its literature, understand social meaning, express our creativity and experience our daily lives. This course will take a multimedia, multidisciplinary approach.

Harlem Renaissance: African-American Art and Culture in the 1920s (Afro 5597 or Engl 5597) taught by professor John Wright will take an interdisciplinary look at the decade of the New Negro. Students of history, literature and the arts may have studied this period in other courses but this course focuses on the perspective of the explosion of new urban black popular culture and investigates its impact on today.

Multicultural Literature (Engl 5920) is the course for teachers of literature who would like to be exposed to authors from around the world, particularly those countries that relate to American minority culture. Professor Charles Sugnet runs this course as a collaborative workshop where secondary teachers are involved in the discussion about how best to present this literature in their classroom.

The Flowering Tree: Traditional and Contemporary American Indian Literature and Culture (Amin 5960) will be offered by Carol Miller, professor in General College and Department of American Indian Studies. Participants will integrate the cultural and aesthetic qualities of texts such as *Black Elk Speaks*, *Storyteller* and *Tracks* to illustrate the reflowering and connectedness of traditional Native expression within contemporary American Indian Literature.

Please call the University of Minnesota Summer Session office for more information, 624-9898.

Minnesota History Workshop

July 27 - August 7,
1992

Two Centuries of the Fur Trade in Minnesota

From 1650 to 1850 Minnesota became a destination for European traders and entrepreneurs from eastern parts of the Continent, and for indigenous hunters, trappers, and traders from the vast North American interior. A robust new economy emerged from the intersection of these two entirely unique and hitherto independent cultures.

Within this span of history is a wealth of topics on which to build curriculum units for classroom use: character studies of intrepid explorers, aristocratic business tycoons, swaggering couriers du bois, or multi-talented Indian and metis women; wintering stations, and strongholds; comparisons of gender roles in white and Indian communities; the vast network of trade routes and the variety of methods by which it was navigated; the comparative economics of furs, wild rice, cloth, and metal; or specific episodes in the drama of cultural contact playing across immense geographical distances and changing forever the settlement of North America.

Individual research in primary sources, activity modeling, guest lecturers, two field trips and ongoing discussions make up the curriculum. Students work in teams directed toward the goal of creating a unit of study or a classroom activity.

This 5-credit workshop will meet at the new Minnesota Historical Society building in downtown St. Paul. Students should register for this course through the registration center on the Twin Cities campus. Those registering for the first time should register for Hist 5831; repeaters should register for History 5970, Section 2. For further information call the Summer Session office at 612-624-3555.

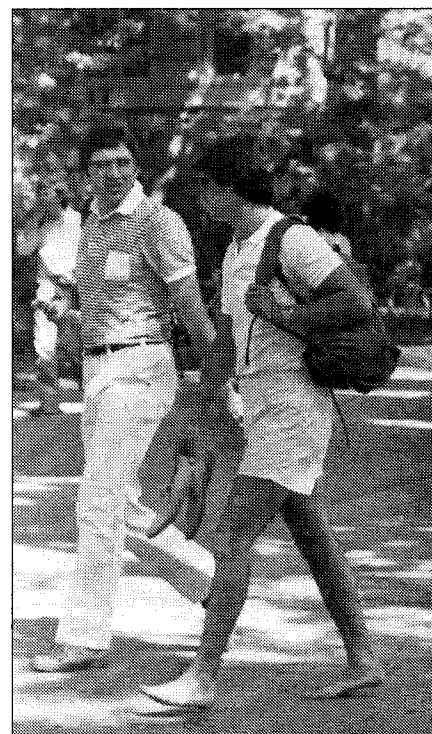


Nankai Institute in China

The 1992 Nankai Institute in Chinese Language, an intensive language program in Chinese held at Nankai University, Tianjin, China, June 15 through August 20, 1992, offers courses in standard Chinese at second year, third year and advanced levels. It also provides students with a rare opportunity to experience Chinese culture firsthand through contact with Chinese students.

Applications must be made by February 28, 1992. There is an optional post-Institute tour August 20-August 27 that includes visits to cities such as Xi'an, Nanjing, and Shanghai.

For information and application forms please telephone or write: Minnesota-Nankai Institute, East Asian Studies Department, 1134 Folwell Hall, (612) 624-0386, or 624-0007.



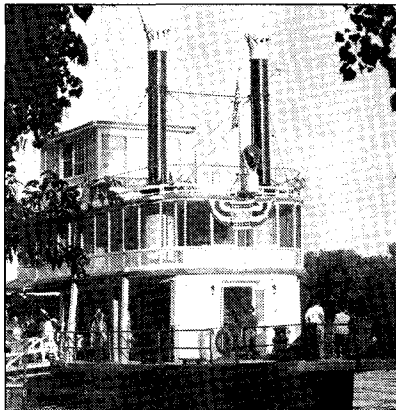
Special programs for high school scholars

SUMMER HONORS COLLEGE

University of Minnesota-Twin Cities
June 15 - July 2, 1992

Summer Honors College gives high ability high school students a chance to briefly experience the intellectual, cultural and social environment of a university campus. Students live in a residence hall and study with some of the finest University faculty, selecting two of the many specially designed courses from such areas as English, studio arts, political science, geography and forest resources.

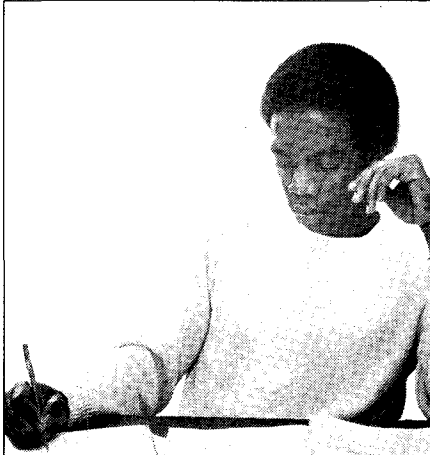
Cost is \$500, including room, board, tuition and social and cultural activities.



HONORS INSTITUTE IN THEATRE

University of Minnesota - Twin Cities
June 21 - July 18, 1992

The Honors Institute in Theatre is a four-week residential program for high school students who have shown an interest and talent in theatre. It is designed as a special challenge for students seeking an experimental and formal exploration of the elements of stage: text, process and performance. For students who make it a part of their summer, the Honors Institute in Theatre promises unique opportunities to grow. Cost is \$735, including room, board, tuition and attendance at Twin Cities theatre's performances.



ITASCA FIELD BIOLOGY ENRICHMENT PROGRAM

Lake Itasca Forestry and Biological Station, University of Minnesota
June 17 - July 2, 1992

The Itasca Field Biology Enrichment Program is a residential program held at the Lake Itasca Forestry and Biological Station in Itasca State Park. Students will be housed in on-site cabins during the two-week program. The goal of the program is to introduce students to a wide range of experiences in the field of biology in general, and more specifically, to involve them in the methods of science. Students will have a wide variety of "hands-on" experiences with plants and animals in a field setting that is possible only at a facility such as the Itasca Station.



SUMMER SCHOLARS PROGRAM

University of Minnesota-Morris
July 5 - July 17, 1992

Academically motivated high school students may select one of two interdisciplinary courses offered especially for them on the Morris campus in western Minnesota. "Biotechnology and Human Reproduction: Tinkering with Nature" focuses on the biological, philosophical and historic issues associated with genetic alteration. The other course, "Growing Up American," examines—through literature, history and film—the experience of growing up in twentieth century America. Cost is \$300.



Housing in Campus Residence Halls

MINNEAPOLIS CAMPUS

Housing is available for 1992 Summer Session students in two residence halls on the Minneapolis campus, Middlebrook Hall is a coeducational, air-conditioned residence on the West Bank. Nearly all rooms are doubles (very limited number of singles). Comstock Hall is a coeducational, air-conditioned residence on the East Bank. Both single and double rooms are available at Comstock.

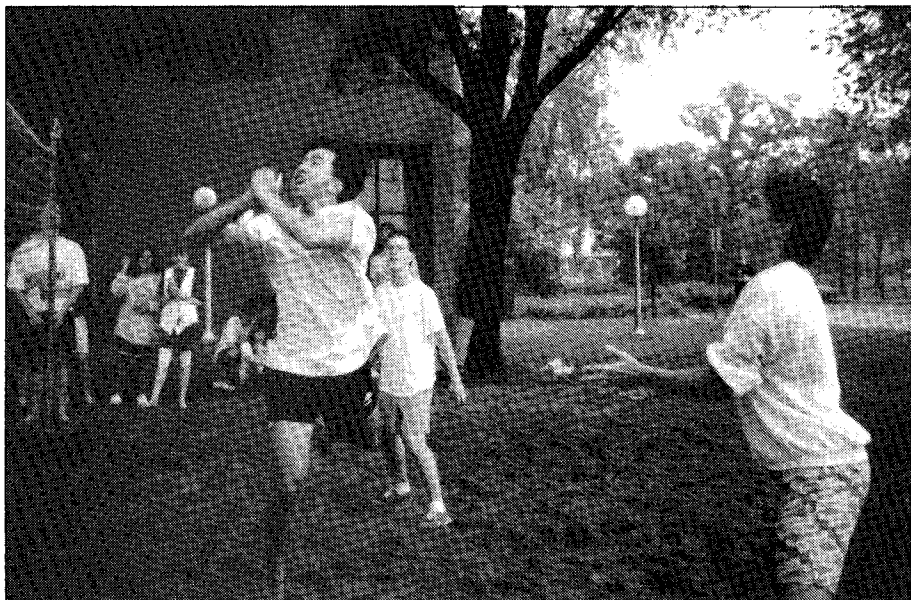
A seven-day per-week (21 meals) food service program is part of the summer session contract. Nutritious, well-balanced meals are planned, prepared and served under the supervision of food specialists in dining areas located within the halls. All meals are served on an all-you-can-eat basis (except for some special menu items).

ST. PAUL CAMPUS

A limited number of spaces for Summer Session students are available in Bailey Hall. Bailey accommodations are in air-conditioned double rooms. It has not been determined at this time if a food service will be offered as part of application-contracts for Bailey Hall.

APPLICATION FOR HOUSING

Applications forms will be sent upon request. They are contained in an informational brochure that provides detailed information about policies, procedures and specific halls. The summer housing contract is not available until early April each year. Prior to April, all applicants requesting the contract are placed on a mailing list and the contract is sent when available.



Workshops and short courses for teachers

ADULT AND TEACHER EDUCATION (AdEd)

5401 Adult Learning and Development through the Lifespan (June 16-July 21)

AEROSPACE ENGINEERING AND MECHANICS (AEM)

5001 Workshop: Elementary and Secondary Teachers (June 22-July 2) and (July 6-17)

5002 Advanced Workshop: Elementary and Secondary Teachers (July 20-31)

AGRICULTURAL EDUCATION (AgEd)

5082 Current Issues in Agricultural Education (June 16-19, 23-26) and (July 20-23, 27-30)

ART EDUCATION (ArEd)

5302 Curriculum Innovations in Art Education (June 16-26)
5316 Intercultural Education through Art (July 23-August 7)
5389 Applications of Aesthetic Theory in Education (July 27-August 14))

BIOLOGY (Bio)

5810 Topics in Environmental Education for Teachers (July 6-17)(Itasca)

BUSINESS AND MARKETING EDUCATION (BME)

5353 Curriculum Construction in Business and Marketing Education (June 6-17)
5361 Business Observation and Seminar (June 22-26)
5390 Special Topics in Technical Updating:MSDOS and Windows (August 3-7)

CHILD PSYCHOLOGY (CPsy)

3331 Introduction to Social Development (June 16-29)
5303 Adolescent Psychology (July 23-August 19)
5310 Topics in Child Psychology: Early Adolescent Development (June 16-26)
5311 Introduction to Developmental Psychopathology (July 23-August 12, and August 17)
5329 Genetics, Ethology and Development (June 16-29)

CURRICULUM AND INSTRUCTIONAL SYSTEMS (CISy)

5006 Introduction to Instructional Computer Programming (June 17-July 20)
5206 Microcomputer Uses in Elementary Classrooms (June 17-July 17)
5600 Introduction to Curriculum Systems June 16-July 2) and (July 23-August 13)

EDUCATIONAL POLICY AND ADMINISTRATION (EdPA)

5128 Workshop: Educational Administration
Sec 1, Managing the At-Risk School, (June 22-July 2) and (July 25-August 7)
Sec 2, Outcome Based Education, (June 22-July 2)
Sec 3, Shared Decisionmaking in Schools, (June 16-July 9)
Sec 4, School Based Management

- 5141 Critical Issues in Contemporary Education (June 17-July 12)
5200 Design and Management of Education Services (July 6-21)

EDUCATIONAL PSYCHOLOGY (EPSY)

- 5114 Psychology of Student Learning (June 17,19,22,24) and (July 24-August 14)
5115 Psychology of Adult Learning (July 24-August 14)
5135 Workshop on Human Relations (June 16 and July 6-17)
5151 Structuring Learning: Social Psychological Approaches (June 17-July 2, and July 17)
5220 Educational Measurement in the Classroom (July 27-31)
5229 Classroom Assessment Methods (June 16-29) and August 3-14)
5400 Workshop: Counseling Psychology:
Sec 1: Clinical Supervision in Human Services (June 19-21)
Sec 2: Leadership for Career Development :Skills, Programs, Resources (July 6-10)
5608 Parent and Professional Planning for Handicapped Students (July 23-August 7)
5609 Family-Professional Planning for Persons with Severe Handicaps (July 23-August 7)
5612 Education of Learning-Disabled Children (June 16-July 17)
5624 Biomedical Aspects of Physical Impairments (June 22-July 2)
5641 Models of Service Delivery to Students with Hearing Impairments (July 20-24)
5646 Reading and Instructional Practices with Hearing-Impaired Students (July 6-10)
5647 Aural and Speech Programming for Children with Hearing Impairments (July 13-17)
5656 Educational Needs of Students with Emotional Disturbances or

- Behavioral Disorders (June 16-July 2)
5657 Educational Interventions for Students with Emotional Disturbance or Behavioral Disorders (July 6-21)
5670 Introduction to Education of Visually Handicapped Children (June 16-26)
5674 Orientation and Mobility Techniques for Visually Impaired Students (July 7-16)
5675 Structure and Function of the Eye: Educational Implications (July 28-August 6)
5702 Workshop: Special Education *Sec 1, Collaboration for Inclusion: Strategies for Educating Students with Disabilities in General Education (June 22-26)*
5710 Contemporary Services for Persons with Developmental Disabilities (July 6-17)

ELEMENTARY EDUCATION (Elem)

- 5100 Elementary School Curriculum (July 2-20) and (July 23-August 7)
5101 Workshop: Programs and Procedures of Curricular Development--Classroom Management and Discipline (August 3-14)
5107 Diagnosis and Treatment of Learning Difficulties (June 16-July 1) and (July 23-August 7)
5140 Microcomputer Uses in Elementary Classrooms (June 17-July 20)
5145 Classroom Management (June 16-July 2)
5xxx Multicultural Education (June 16-July 20)
5227 Teaching About the Newspaper in the Classroom (June 11-July 2) and (July 23-August 7)

- 5316 Teaching and Supervision of English in the Elementary Schools (June 16-July 1)
5318 Creative Writing for and by Children (June 16-July 1)
5319 Teaching Second Languages and Cultures in Elementary Schools June 16-29)
5331 Teaching and Supervision of Reading in the Elementary School (July 23-August 7)
5334 Reading Difficulties (July 23-August 7)
5338 Teaching Reading in the Intermediate Grades (July 23-August 7)
5350 Elementary School Science: Materials and Resources (June 16-July 1)
5376 Current Trends in Early Childhood Education (June 16-July 2)

GEOLOGY AND GEOPHYSICS (Geo)

- 5051 Physical Geology for Teachers

HOME ECONOMICS EDUCATION (HEED)

- 5100 Special Topics: Planning for Outcome Based Education (June 16-19)
5310 Methods in Teaching Home Economics: Attitudes, Values, and Knowledge (June 16-26)
5320 Adult Education in Home Economics (June 29-July 10)
5404 Introduction to Early Childhood Family Programs (July 19)
5405 Child Development and Parent Education (July 27-August 7)
5406 Special Topics in Parent and Family Education: Home and School Collaboration (June 29-July 10)
5407 Family Life Education (June 16-26)
5409 Group Methods for Parent and Family Education (July 13-17)
5510 Orientation to Teaching Home Economics (July 27-August 17)

INDUSTRIAL EDUCATION (Ind)

- 5306 Industrial Education Workshop: Recent Technological Innovations (June 16-26)
5306 Industrial Education Workshop
Sec 1, Implementing Technology Education (July 18-25)
Sec 2, Technical Training in Industry (July 18-30)

KINESIOLOGY (Kin)

- 3111 Mechanics of Movement (July 23-August 19)



- 3115 Physiological Application to Sports (July 23-August 19)
 3143 Organization and Management of Sport (July 23-August 19)
 5102 Practicum: Developmental Adapted Physical Education (June 16-July 6)
 5141 Nutrition for Exercise and Physical Performance (July 23-August 19)
 5371 Sociology of Sport (July 23-August 19)
 5460 Foundations of Sport Management (July 23-August 19)
 5522 Pedagogy in Physical Education (July 23-August 19)
 5720 Topics in Kinesiology
Sec 1, Early Childhood Adapted Physical Education
Sec 1, Systematic Observation in Physical Education (July 23-August 19)
Sec 2, Human Factors Physiology (July 23-August 19)
Sec 2, Technology Applications in Sport and Physical Education (June 16-26)
Sec 3, Issues in Youth Sports

MATHEMATICS EDUCATION (MthE)

- 5101 Workshop: Elementary School Mathematics (July 23-31; August 10-17)
 5xxx Teaching Probability and Statistics (June 17-July 17)
 5152 Geometry for Primary Grades (July 23-29)
 5153 Geometry in the Intermediate Grades (July 30-31, August 10-17)
 5332 Current Trends and Issues in Secondary School Mathematics Instruction (June 17-July 17)

MUSIC EDUCATION

- 3850 Field Experiences: Music Therapy (June 16-29)
 5214 Psychological Foundations (June 24-July 8)
 5217 Historical Foundations of Music Therapy (July 23-August 12)
 5657 Techniques and Materials: Instrumental Conducting (July 18-31)
 5750 Workshop: Music Education
Sec 1, The Influence of Music on Youth Behavior (July 18-31)
Sec 2, Music Therapy Procedures for At-Risk Preschoolers (July 18-August 7)

PHYSICAL EDUCATION (PE)

All undergraduate, graduate and professional licensure courses for physical education, adapted physical education and athletic coaching are listed under Kinesiology (Kin)

PHYSICS (Phys)

- 5940 Physics for High School Teachers: Experimental Foundations of Electromagnetism and Optics (June 24-July 19)

RECREATION, PARK AND LEISURE (Rec)

- 5900 Workshop: Contemporary Issues in Leisure Services: Legal Aspects of Sport and Physical Activity
 5460 Foundations of Sport Management (July 18-August 2)

SECONDARY EDUCATION (SeEd)

- 5186 Alternatives in Second Language Education (June 11-28)
 5191 Workshop: Teaching of Second Languages and Cultures Materials Development for Elementary-School Second Languages
 5227 Teaching about the Newspaper in the Classroom (June 17-July 2)
 5322 Teaching Writing (June 11-July 9)
 5323 Diagnosing and Assessing Writing in Secondary Schools (June 11-July 9)
 5390 Current Developments in Secondary School Science Teaching (June 17-July 2)
 5394 Workshop: Science Education: Development of Curricular Materials for the Science Museum (June 17-28)
 5395 School Based Projects in Science Education
 5404 Language, Culture, and Education
 5659 School-Related Projects in Language Arts
 5145 Classroom Management (August 5-21)
 5151 School Based Projects in Social Studies Education
 5153 New Perspectives in the Social Studies: Gender-Fair Curriculum (July 19-August 16)
 5185 School and Professional Based Experiences in Second Languages and Cultures
 5344 Teaching Reading in Content Areas (July 22-August 10)
 5350 Current Developments in English Education (July 23-August 15)
 5659 School Related Projects in Language Arts

SOCIAL WORK (SW)

- 5010 Seminar: Special Topics
Sec 1 Physical Abuse of Women (June 17-21)

Sec 2 Social Work Practice with the Elderly (June 24-28)
Sec 3 Issues and Interventions in Child Sexual Abuse (July 8-12)

VOCATIONAL EDUCATION (VoEd)

- 5100 Special Topics in Instruction: At Risk Youth, Critical Issues (June 11-21)
 5400 Education for Work (June 17-20 and 25-28)
 5750 Training in Industry and Business (June 11-21)
 5900 Using Vocational Educational Research (June 17-20, 25-28)
 5100 Special Topics in Instruction
Sec 1, Vocational Classroom-Based Inquiry to Improve Instruction (July 16-26)
Sec 2, Teaching for Thinking (July 30-August 15)
 5101 Special Topics in Curriculum: Vocational Education in the Developing World (July 16-26)
 5102 Special Topics in Administration: Student Retention in Vocational Education: Issues, Barriers, and Intervention Strategies (July 16-26)
 5300 Philosophy and Practice of Vocational Education (August 5-15)
 5330 Coordination Techniques in Cooperative Education (August 5-15)
 5760 Organization Development in Industry and Business (August 5-15)

WOMEN'S STUDIES (WoSt)

- 5100 Gender and Culture (June 17-28)

Preliminary List of Courses

A

ACCOUNTING (Acct) Management

Summer I (Special Term: June 16-August 7)

- 1050 Introduction to Financial Reporting
- 3001 Managerial Accounting
- 3101 Intermediate Financial Reporting
- 5102 Advanced Financial Reporting
- 5125 Auditing Principles and Procedures
- 5135 Income Tax Accounting
- 5160 Financial Statement Analysis (10-week course June 16-August 26)
- 5180 Advanced Financial Reporting

ADULT AND TEACHER EDUCATION (AdEd) Education

Summer I

- 5205 Field Experience in Adult Education
- 5401 Adult Learning and Development Through the Life Span (June 18-July 21)

Summer II

- 5205 Field Experience in Adult Education

AEROSPACE ENGINEERING AND MECHANICS (AEM) Institute of Technology

Summer I

- 1015 Statics
- 3036 Dynamics
- 5001 Workshop:Elementary and Secondary Teachers (June 22-July 2, and July 6-17)

Summer II

- 3016 Deformable Body Mechanics
- 5002 Advanced Workshop:Elementary and Secondary Teachers (July 20-31)

AFRO-AMERICAN, AFRICAN STUDIES (Afro) Liberal Arts

Summer I

- 3002 Introduction to West African History;1800 to Present

- 3601 Introduction to African Literature
- 5597 Harlem Renaissance: Afro-American Art and Culture in the 1920s.

AGRICULTURAL EDUCATION (AgEd) *Vocational and Agricultural Education*

Summer I

- 3001 Experiential Learning:Production Agriculture
- 3002 Experiential Learning: Agricultural Business
- 5082 Current Issues in Agricultural Education (June 16-19, 23-26)

Summer II

- 3001 Experiential Learning:Production Agriculture
- 3002 Experiential Education:Business Agriculture
- 5082 Current Issues in Agricultural Education (July 20-23, 27-30)

AGRICULTURAL ENGINEERING TECHNOLOGY (AgET) Institute of Technology

Summer I

- 5031 Agricultural Machinery and Mechanization

Summer II

- 5032 Electrical Power and Processing

AGRONOMY AND PLANT GENETICS (Agro) Agriculture

Summer I

- 1020 Special Problems
- 5001 Problems in Agronomy for Advanced Students
- 5310 Orientation to Field Crop Breeding (10-week)

Summer II

- 1020 Special Problems
- 5001 Problems in Agronomy for Advanced Students

AMERICAN INDIAN STUDIES (Amln) Liberal Arts

Summer I

- 3036 Dakota Culture and History

- 3810 Field Practice: Indian Studies

Summer II

- 3810 Field Practice: Indian Studies

AMERICAN STUDIES (AmSt) Liberal Arts

Summer I

- 1001 American Culture
- 3113 American Cultural Diversity

Summer II

- 1003 American Culture
- 3111 Creative Americans and Their Worlds: 1920s to the present

ANCIENT NEAR EASTERN AND JEWISH STUDIES (ANE) Liberal Arts

Summer I

- 1001 The Bible: Narrative Texts
- 3001 The Bible: Narrative Texts

ANTHROPOLOGY (Anth) Liberal Arts

Summer I

- 1101 Human Origins
- 1102 Introduction to Social and Cultural Anthropology
- 3131 Religion and Culture
- 3201 Approaches in Cultural Anthropology
- 5910 Topics in Anthropology: Ethnographic Field Research

Summer II

- 1102 Introduction to Social and Cultural Anthropology
- 3293 Peoples and Cultures of the Pacific Islands
- 5141 Culture and Personality

ARABIC (Arab)

Afro-American & African Studies
Liberal Arts

Summer I

- 3303 Arabic Drama in Translation
- 5303 Arabic Drama

ARCHITECTURE (Arch) College of Architecture and Landscape Architecture

Summer I

- 1010 Introduction to Architecture Drawing
- 1021 History of Architecture
- 3062 Building Systems
- 5961 Computer-Aided Architectural Design

Summer II

- 1023 History of Cities

ART EDUCATION (ArEd) Education

Summer I

- 5302 Curriculum Innovations in Art Education (June 15-26)

Summer II

- 5001 Art Media Techniques:Computer Use in the Art Class
- 5316 Intercultural Education Through Art (July 23-August 7)
- 5389 Applications of Aesthetic Theory in Education (July 27-August 14)

ART HISTORY (ArtH) Liberal Arts

Summer I

- 3009 History of Medieval Art
- 3011 History of Renaissance and Baroque Art
- 3013 Introduction to Far Eastern Art
- 5120 Field Research in Archaeology

Summer II

- 3008 History of Ancient Art
- 3012 History of 19th-and 20th Century Art

ART, STUDIO (Arts) Liberal Arts

Summer I

- 1101 Drawing I
- 1301 Sculpture
- 1302 Sculpture
- 1510 Printmaking: Intaglio
- 1701 Photo Medium
- 1812 Ceramics: Wheelthrowing
- 3105 Introduction to Painting
- 3110 Drawing
- 3304 Sculpture: Wood and Stone

- 3430 Paper: Pulp to Plastic Expression
 3540 Printmaking: Screen
 5110 Drawing
 5190 Advanced Entry: Drawing and Painting
 5340 Sculpture: Wood and Stone
 5390 Advanced Entry: Sculpture
 5430 Paper: Pulp to Plastic Expression
 5540 Printmaking: Screen
 5590 Advanced Entry: Printmaking
 5890 Advanced Entry: Ceramics/Glass

Summer II

- 1101 Drawing I
 1102 Drawing II
 1404 Color
 1701 Photo Medium
 1811 Ceramics: Handbuilding
 3120 Painting
 3131 The Nature of Abstraction
 3160 Watercolor
 5120 Painting
 5160 Watercolor
 5190 Advanced Entry: Drawing and Painting
 5890 Advanced Entry: Ceramics/Glass

ASTRONOMY (Ast)

Institute of Technology

Summer I

- 1011 Descriptive Astronomy
 1015 Descriptive Astronomy Lab

Summer II

- 1011 Descriptive Astronomy
 1015 Descriptive Astronomy Lab

B**BIOLOGY (Biol)**

Biological Sciences

Summer I

- 1009 General Biology
 1103 General Botany
 3011 Animal Biology
 3012 Plant Biology
 3111 Animal Biology
 5001 Biochemistry
 5003 Genetics
 5041 Ecology (Itasca)
 5810 Topics in Environmental Education for Teachers (July 6-17)(Itasca)

- 5816 Field Biology Photography (June 16-July 4) (Itasca)
 5850 Special Topics (Itasca)
Sec 1, Measurement of Plant Environments, (June 16-29)
Sec 2, Wetlands, (June 16-July 3)
Sec 3, Mammalogy, (June 16-July 17)
Sec 4, Advanced Field Biology Photography, (July 8-18)
 5890 Research Problems at Itasca
 5950 Special Topics: Microbial Ecology (offered in July at Gray Freshwater Biological Institute)

Summer II

- 1008 Introductory Biology: An Evolutionary Approach
 3812 Plant Biology (July 23-August 26) (Itasca)
 5004 Cell Biology
 5841 Ecology (July 23-August 26) (Itasca)
 5850 Special Topics (Itasca)
Sec 5, Ecological Genetics, (July 23-August 24)
Sec 6, Behavior/Telemetry (July 23-August 10)
Sec 7, Conservation Biology, (July 23-August 26)
 5890 Research Problems at Itasca

BUSINESS AND MARKETING EDUCATION (BME)
Education**Summer I**

- 3260 Professional Sales Education
 5353 Curriculum Construction in Business and Marketing Education (July 6-17)
 5359 Occupational Experience
 5361 Business Observation and Seminar (June 22-26)
 5600 Field Based Projects in Business and Marketing Education

Summer II

- 5253 Supervisory Training
 5390 Special Topics in Technical Updating: MSDOS and Windows (August 3-7)

BUSINESS, GOVERNMENT AND SOCIETY (BGS)

Management

Summer I

- 3004 International Business

BUSINESS LAW (BLaw)

Management

Summer I

- 3058 Introduction to Law, the Law of Contracts and Sales Contracts

C**CHEMISTRY (Chem)**

Institute of Technology

Summer I

- 1004 General Principles of Chemistry
 1006 Principles of Solution Chemistry
 1014 Concepts of Chemistry
 3100 Quantitative Analysis Lecture
 3101 Quantitative Analysis Lab
 3301 Elementary Organic Chemistry I
 3303 Elementary Organic Chemistry III
 3305 Elementary Organic Chemistry Lab I
 5520 Elementary Physical Chemistry

Summer II

- 1005 General Principles of Chemistry
 3302 Elementary Organic Chemistry II
 3306 Elementary Organic Chemistry Lab II
 5521 Elementary Physical Chemistry

CHICANO STUDIES (Chic)

Liberal Arts

Summer I

- 3106 Introduction to Chicano Studies: Mexico and the United States
 3213 Chicano Music and Art

Summer II

- 3105 Introduction to Chicano Studies: The Beginnings

CHILD PSYCHOLOGY (CPsy)
Education**Summer I**

- 1301 Introductory Child Psychology
 3308 Research Methods in Child Psychology
 3309 Introductory Child Psychology for the Social Sciences
 3313 Psychology of Atypical Children
 3331 Introduction to Social Development (June 16-29)
 3343 Introduction to Cognitive Development
 5310 Topics in Child Psychology: Early Adolescent Development—Perspectives from Current Research (June 16-26)
 5313 Psychology of Atypical Children
 5329 Genetics, Ethology, and Development (June 16-29)
 5343 Cognitive Development

Summer II

- 3308 Research Methods in Child Psychology
 5302 Infancy
 5303 Adolescent Psychology (July 23-August 19)
 5311 Introduction to Developmental Psychopathology (July 23 - August 12, August 17)
 5336 Development and Interpersonal Relations

CHINESE (Chn)*East Asian Studies*
Liberal Arts**Summer I**

- 1011, 1012, 1013 Intensive Beginning Modern Chinese (10-week)
 3161 Chinese Poetry in English Translation

Summer II

- 1202 Heritage of China: Medieval to Modern

CLASSICS (Clas)*Classical and Near Eastern Studies*
Liberal Arts**Summer I**

- 1042 Greek and Roman Mythology

Preliminary List of Courses

- 1045 Basic Program in Technical Terminology and Word Study
 1048 Greek and Latin Terminology in the Medical and Biological Sciences
 1141 Greek and Latin Terminology for Nursing
 3046 Advanced Etymology: Vocabulary of the Sciences and Humanities
 3072 The New Testament
 5072 The New Testament
 5080 The New Testament Proseminar: Jesus and the Gospel Tradition
 5120 Field Research in Archaeology

Summer II

- 1045 Basic Program in Technical Terminology and Word Study
 1048 Greek and Latin Terminology in the Medical and Biological Sciences
 1141 Greek and Latin Terminology for Nursing
 3008 History of Ancient Art
 3011 The World of Greece
 3046 Advanced Etymology: Vocabulary of the Sciences and Humanities
 5011 The World of Greece
 5120 Field Research in Archaeology

COMMUNICATION DISORDERS (CDIs)

Liberal Arts

Summer I

- 3100 Clinical and Research Observation
 5303 Phonetics Laboratory
 5900 Topics in Communication Disorders

Summer II

- 5704 Noise and Humankind

COMPARATIVE LITERATURE (CLit)

Liberal Arts

Summer I

- 3910 Issues in the Study of Literature: Contemporary Literature and Criticism Readings
 3979 Issues in Cultural Pluralism
 5910 Issues in the Study of Literature: Contemporary Literature and Criticism Readings

Summer II

- 3910 Issues in the Study of Literature: Contemporary Literature and Criticism Readings
 5910 Issues in the Study of Literature: Contemporary Literature and Criticism Readings

COMPOSITION AND COMMUNICATION (Comp)

Liberal Arts

Summer I

- 1011 Writing Practice I
 1027 Intermediate Expository Writing
 3011 Writing About Literature
 3012 Writing in the Humanities
 3013 Writing for Arts
 3014 Writing for the Social Sciences
 3015 Writing About Science
 3022 Critical Reading and Writing for Management
 3027 Advanced Expository Writing
 3031 Technical Writing for Engineers
 3032 Preprofessional Writing for Business
 3033 Writing in the Health Sciences

Summer II

- 1011 Writing Practice I
 3014 Writing in the Social Sciences
 3022 Critical Reading and Writing for Management
 3027 Advanced Expository Writing
 3031 Technical Writing for Engineers
 3032 Preprofessional Writing for Business
 3033 Writing in the Health Sciences

COMPUTER SCIENCE (CSci)

Institute of Technology

Summer I

- 3101 A FORTRAN Introduction to Computer Programming
 3113 Introduction to Programming In C
 3311 Discrete Structures of Computer Science
 3316 The Structure of Computer Programming I
 3327 Introduction to the Organization of Computer Systems
 5106 Structure of High Level Languages

- 5301 Numerical Analysis

Summer II

- 3102 Introduction to Pascal Programming
 3121 Survey of Data Structures and Algorithms
 3317 The Structure of Computer Programming II
 3321 Algorithms and Data Structures I

CURRICULUM AND INSTRUCTIONAL SYSTEMS (CISy)

Education

Summer I

- 5006 Introduction to Instructional Computer Programming (June 17-July 20)
 5206 Microcomputer Uses in Elementary Classrooms (June 17-July 17)
 5208 Computer-Based Tools for Teachers
 5600 Introduction to Curriculum Systems (June 16-July 2)

Summer II

- 5600 Introduction to Curriculum Systems (July 23-August 13)

D

DANCE (Dnce)Theatre Arts and Dance
Liberal Arts**Summer I**

- 1110 Topics in Dance Theory
Sec 1, Beginning Modern Technique
Sec 2, Tap
Sec 3, Beginning Jazz Technique
 3330 Topics in Dance Theory
Sec 1, Intermediate Modern Technique
Sec 2, Intermediate Jazz Technique
 Jazz
 5910 Topics in Dance
Sec 1, Choreographic and Dance Practicum in Musical Theatre

DESIGN (Dsgn)

Home Economics

Summer I

- 3584 Field Experience in Design
 5571 Special Topics in Applied Design: Graphics

- Programming and Design Automation
 5582 Field Experience Abroad (June 15-July 6)

Summer II

- 3584 Field Experience in Design

DUTCH (Dtch)German
Liberal Arts**Summer I**

- 1101, 1102, 1103, Beginning Dutch (10-week)

E

EAST ASIAN STUDIES (EAS)East Asian Studies
Liberal Arts**Summer I**

- 3468 People's Republic of China: The Communist Revolution, 1900 to Present

Summer II

- 3471 20th-Century Japan

ECOLOGY, EVOLUTION AND BEHAVIOR (EBB)

Biological Sciences

Summer I

- 3001 Introduction to Ecology
 5834 Field Ornithology (Itasca)

Summer II

- 5817 Vertebrate Ecology (Itasca)

ECONOMICS (Econ)

Liberal Arts

Summer I

- 1101 Principles of Microeconomics
 1102 Principles of Macroeconomics
 3101 Microeconomic Theory
 3102 Macroeconomic Theory
 3103 Welfare Economics
 3601 Industrial Organization and Antitrust Policy
 3701 Money and Banking
 3751 Financial Economics I
 5301 Economic Development
 5331 Economic Development
 5401 International Economics
 5431 International Trade
 5631 Industrial Organization and Antitrust Policy
 5721 Money and Banking

5731 Macroeconomic Policy
5831 Cost-Benefit Analysis

Summer II

1101 Principles of Microeconomics
1102 Principles of Macroeconomics
3101 Microeconomic Theory
3101 Microeconomic Theory, sec 2 (special term: August 19-September 20)
3102 Macroeconomic Theory
3103 Welfare Economics
3701 Money and Banking
3751 Financial Economics
3801 Elements of Public Finance
5307 Comparative Economic Systems
5337 Comparative Economic Systems
5401 International Economics
5432 International Finance
5821 Elements of Public Finance

EDUCATIONAL POLICY AND ADMINISTRATION (EdPA)

Education

Summer I

5090 School and Society
5128 Workshop: Educational Administration
Sec 1, Managing the At-Risk School, (June 22-July 2)
Sec 2, Outcome Based Education, (June 22-July 2)
Sec 3, Human Resource Management in Higher Education (June 16-July 9)
Sec 4, Professional Ethics
5141 Critical Issues in Contemporary Education (June 17-July 12)
5142 Minorities in Higher Education
5200 Design and Management of Education Services (July 6-21)
5201 Formal Organizations in Education
5202 Politics of Education
5204 Financing Elementary and Secondary Schools
5215 The Elementary School Principalship
5227 Public School Personnel Programs
5250 American Higher Education

Summer II

5090 School and Society
5128 Workshop: Educational Administration
Sec 1, Facilitating School Change (July 27-August 7)
Sec 2, Computers in Educational Administration
5130 Leadership Development Seminar
5139 Laboratory in Decision Making
5212 School Budgeting
5213 Financial Resource Management
5214 School Management Information Systems (July 18-August 14)
5216 Recent Research in Elementary School Administration (July 27-August 11)

EDUCATIONAL PSYCHOLOGY (EPSY)

Education

Summer I

5114 Psychology of Student Learning (June 17, 19, 22, 24)
5119 Learning and Cognitive Foundations of Education
5135 Workshop in Human Relations (June 16 and July 6-17)
5139 Interpersonal and Personality Effects on Learning
5151 Structuring Learning: Social Psychological Approaches (June 17-July 2 and July 17)
5229 Classroom Assessment Methods (June 16-29)
5240 Principles and Methods of Evaluation
5260 Introductory Statistical Methods
5400 Workshop: Counseling Psychology:
Sec 1: Clinical Supervision in Human Services (June 19-21)
Sec 2: Leadership for Career Development: Skills, Programs, Resources (July 6-10)
5601 Education of Exceptional Children
5612 Education of Learning-Disabled Children (June 16-July 17)

5624 Biomedical Aspects of Physical Impairments (June 16-24)

5641 Models of Service Delivery to Students with Hearing Impairments (July 20-24)

5646 Reading and Instructional Practices with Hearing-Impaired Students (July 6-10)

5647 Aural and Speech Programming for Children with Hearing Impairments (July 13-17)

5656 Educational Needs of Students with Emotional Disturbances or Behavioral Disorders (June 16-July 2)

5657 Educational Interventions for Students with Emotional Disturbance or Behavioral Disorders (July 6-21)

5670 Introduction to Education of Visually Handicapped Children (June 16-26)

5674 Orientation and Mobility Techniques for Visually Impaired Students (July 7-16)

5702 Workshop: Special Education
Sec 1, Collaboration for Inclusion: Strategies for Educating Students with Disabilities in General Education (June 22-26)
5710 Contemporary Services for Persons with Developmental Disabilities (July 6-17)

Summer II

5114 Psychology of Student Learning (July 24-August 14)
5115 Psychology of Adult Learning (July 24-August 14)
5119 Learning and Cognitive Foundations of Education
5139 Interpersonal and Personality Effects on Learning
5220 Educational Measurement in the Classroom (July 27-31)
5229 Classroom Assessment Methods (August 3-14)
5260 Introductory Statistical Methods
5401 Counseling Procedures
5608 Parent and Professional Planning for Handi-

capped Students (July 23-August 7)

5609 Family-Professional Planning for Persons with Severe Handicaps (July 23-August 7)

5615 Educational Interventions for Learning Disabilities
5675 Structure and Function of the Eye: Educational Implications (July 28-August 6)

5700 Assessment and Decision Making in Special Education

ELECTRICAL ENGINEERING (EE)

Institute of Technology

Summer I

1400 Circuits Laboratory
3003 Circuits and Electronics (10-week)
3004 Circuits and Electronics Laboratory (10-week)
3009 Linear Circuits I
3012 System Design (10-week)
3062 Analog and Digital Electronics (10-week)
3111 Electromagnetic Waves (10-week)
3351 Introduction to Logic Design (10-week)
3402 Junior Electrical Engineering Laboratory (10-week)
3476 Industrial Assignment I (10-week)
3477 Industrial Assignment II (10-week)
5002 Digital Signal Processing (10-week)
5003 Digital Signal Processing Laboratory (10-week)
5450 Senior Design Project (10-week)
5478 Industrial Assignment III (10-week)
5479 Industrial Assignment IV (10 week)

Summer II

1400 Circuits Laboratory
3010 Linear Circuits II

ELEMENTARY EDUCATION (Elem)

Education

Summer I

3300 Children's Literature
3604 Student Teaching in the Nursery School
5100 Elementary School Curriculum (July 2-20)
5107 Diagnosis and Treatment

Preliminary List of Courses

- | | | | |
|---|--|---|--|
| <p>of Learning Difficulties (June 16-July 1)</p> <p>5140 Microcomputer Uses in Elementary Classrooms (June 17-July 17)</p> <p>5145 Classroom Management (June 16-July 2)</p> <p>5xxx Multicultural Education (June 17-July 20)</p> <p>5300 Literature for the Elementary School</p> <p>5316 Teaching and Supervision of English in the Elementary Schools (June 16-July 1)</p> <p>5318 Creative Writing for and by Children (June 16-July 1)</p> <p>5319 Teaching Second Languages and Cultures in Elementary Schools (June 16-29)</p> <p>5335 Clinical Diagnosis of Reading Difficulties</p> <p>5336 Clinical Practice in Remedial Teaching</p> <p>5350 Elementary School Science: Materials and Resources (June 16-July 1)</p> <p>5361 Teaching Social Studies in the Elementary School</p> <p>5376 Current Trends in Early Childhood Education (June 16-July 2)</p> <p>Summer II</p> <p>5100 Elementary School Curriculum (July 23-August 7)</p> <p>5101 Workshop: Programs and Procedures of Curricular Development: Classroom Management and Discipline (August 3-14)</p> <p>5107 Diagnosis and Treatment of Learning Difficulties (July 23-August 7)</p> <p>5227 Teaching About the Newspaper in the Classroom (July 27-August 7)</p> <p>5331 Teaching and Supervision of Reading in the Elementary School (July 23-August 7)</p> <p>5334 Reading Difficulties (July 23-August 7)</p> <p>5338 Teaching Reading in the Intermediate Grades (July 23-August 7)</p> <p>ENGLISH LANGUAGE AND LITERATURE (Engl)
Liberal Arts</p> <p>Summer I</p> <p>1005 Introduction to Literature</p> | <p>1016 Introduction to American Literature</p> <p>1591 Literature of American Minorities</p> <p>1671 The Short Story</p> <p>3008 Techniques of Literary Study</p> <p>3116 The Renaissance</p> <p>3241 Shakespeare</p> <p>3242 Shakespeare</p> <p>3455 American Short Story</p> <p>3851 The English Language</p> <p>5134 20th-Century British Poetry</p> <p>5152 19th-Century English Novel</p> <p>5221 Chaucer: The Canterbury Tales</p> <p>5261 Milton</p> <p>5451 American Novel: Through the 19th-Century</p> <p>Summer II</p> <p>1005 Introduction to Literature</p> <p>1013 Famous English and American Poems</p> <p>1019 Introduction to Modern Drama</p> <p>1591 Literature of American Minorities</p> <p>1621 Introduction to Women Writers</p> <p>3412 Survey of American Literature: 1850-1900</p> <p>3851 The English Language</p> <p>5151 18th-Century English Novel</p> <p>5432 American Poetry</p> <p>ENTOMOLOGY (Ent)
Agriculture</p> <p>Summer I</p> <p>5910 Special Problems in Entomology</p> <p>F</p> <p>FAMILY SOCIAL SCIENCE (FSoS)
Human Ecology</p> <p>Summer I</p> <p>1001 Dynamics of Family Relationships</p> <p>1025 Parenthood</p> <p>3260 Family Resource Management</p> <p>3600 Family Issues Across the Lifespan</p> <p>5220 Family Economics</p> <p>5251 Aging Families</p> | <p>Summer II</p> <p>5200 Family Relationships</p> <p>5202 Social Psychology of Close Relationships</p> <p>5500 Racial and Ethnic Minority Families</p> <p>FINANCE (BFin)
Management</p> <p>Summer I</p> <p>3000 Finance Fundamentals</p> <p>3300 Investment Management and Financial Markets</p> <p>Summer II</p> <p>3000 Finance Fundamentals</p> <p>FISHERIES AND WILDLIFE (FW)
Natural Resources</p> <p>Summer II</p> <p>3600 Fisheries and Wildlife Field Techniques (August 23-September 16) (Offered at Itasca)</p> <p>FOOD SCIENCE AND NUTRITION (FScN)
Home Economics/Agriculture</p> <p>Summer I</p> <p>1612 Principles of Nutrition</p> <p>5404 Current Issues in Food and Nutrition (June 29-July 13)</p> <p>FOREST RESOURCES (FR)
Natural Resources</p> <p>Summer II</p> <p>3100 Minnesota Plants (August 26-September 19) (Itasca)</p> <p>3101 Field Forest Ecology (August 26-September 19) (Itasca)</p> <p>3106 Important Plants: Fisheries and Wildlife Habitats (August 26-September 19) (Itasca)</p> <p>3201 Field Forest Measurements (August 26-September 19) (Itasca)</p> <p>5160 Practicum in Forest Biology and Measurements (August 26-September 19) (Itasca)</p> <p>FRENCH (Fren)
<i>French and Italian</i>
Liberal Arts</p> <p>Summer I</p> <p>1101 Beginning French</p> <p>1102 Beginning French</p> | <p>1103 Beginning French</p> <p>1101,1102,1103 Beginning French (10-week)</p> <p>1104 Intermediate French</p> <p>1104,1105,1106 Intermediate French (10-week)</p> <p>1106 Intermediate French</p> <p>3015 French Composition and Conversation</p> <p>3016 Advanced French Composition and Conversation</p> <p>3101 Introduction to French Literary Texts: Poetry</p> <p>3103 Introduction to French Literary Texts: Prose</p> <p>3259 Topics in 18th-Century French Literature</p> <p>Summer II</p> <p>1102 Beginning French</p> <p>1103 Beginning French</p> <p>1105 Intermediate French</p> <p>3016 Advanced French Composition and Conversation</p> <p>3017 Stylistics Through Translation</p> <p>3601 Literature in English Translation</p> <p>FRENCH AND ITALIAN (Frit)
<i>French and Italian</i>
Liberal Arts</p> <p>Summer I</p> <p>3608 New Wave Cinemas</p> <p>G</p> <p>GENERAL COLLEGE (GC)
General College</p> <p>Summer I</p> <p>0621 Elementary Algebra (June 16-August 7)</p> <p>0625 Algebra Review (June 16-August 7)</p> <p>0631 Intermediate Algebra (June 16-August 7)</p> <p>0643 Basic Mathematics: Programmed Study (June 16-August 7)</p> <p>1132 Biological Science: The Human Body</p> <p>1221 Minnesota History (June 22-July 28)</p> <p>1235 United States: Law in Society (June 22-July 28)</p> <p>1284 Behavior Problems of Children (July 6-21)</p> <p>1285 Cultural Anthropology (June 16-July 2)</p> <p>1311 General Arts (June 16-July 2)</p> |
|---|--|---|--|

- 1374 The Movies: An Introductory Course
 1421 Writing Laboratory: Basic Writing
 1456 Functions and Problems of Logic
 1461 Oral Communication: Speaking and Creative Thinking
 1513 Principles of Small Business Operation
 1557 Business and Society: Field Experience (June 29-July 21)

Summer II

- 1112 Science in Context: Human Uses of the Environment (July 23-August 7)
 1166 Physical Science: Principles of Chemistry
 1422 Writing Laboratory: Communicating in Society

GENETICS AND CELL BIOLOGY (GCB)

Biological Science

Summer I

- 3022 Genetics
 5022 Genetics

GEOGRAPHY (Geog)

Liberal Arts

Summer I

- 1401 Introduction to Physical Geography
 3121 Latin America
 3161 Europe
 3511 Introduction to Cartography

Summer II

- 1301 Human Geography
 3101 Geography of the United States and Canada
 3181 Soviet Union
 3381 Population Geography
 5900 Topics in Geography: Human and Physical Geography of the Western Great Lakes Region (July 20-August 22)

GEOLOGY AND GEOPHYSICS (Geo)

Institute of Technology

Summer I

- 1001 The Dynamic Earth: an Introduction to Geology
 1021 Introduction to Geology Lab: Geology of Minnesota
 5051 Physical Geology for Teachers

- 5111 Field Geology (June 16-July 28)

Summer II

- 5980 Seminar: Current Topics in Geology and Geophysics—Geology of the Interior of the North American Continent (July 20-August 22) (concurrent registration in Geog 5900 required)

GERMAN (Ger)

Liberal Arts

Summer I

- 1101 Beginning German
 1101,1102,1103 Beginning German (10-week)
 1104 Intermediate German
 1105 Intermediate German
 1106 Intermediate German
 3011 Conversation and Composition
 3104 Reading and Analysis of Prose
 3501 Contemporary Germany: The Federal Republic
 3610 German Authors in Translation: Franz Kafka

Summer II

- 1102 Beginning German
 1105 Intermediate German
 1106 Intermediate German
 3011 Conversation and Composition
 3105 Reading and Analysis of Drama and Poetry
 3610 German Topics in Translation: Literature of the German Democratic Republic

H**HEALTH SCIENCE UNITS (HSU)**

Health Sciences

Summer I

- 5210 Terminology of the Health Sciences

Summer II

- 5210 Terminology of the Health Sciences

HEBREW (Hebr)

Classical and Near Eastern Studies

Liberal Arts

Summer I

- 1101,1102,1103 Beginning Hebrew

HIGHER EDUCATION (HIED)Educational Policy and Administration
Education*See EdPA for course listings in Higher Education***HISTORY (Hist)**

Liberal Arts

Summer I

- 1002 Introduction to Modern European History Since the Middle Ages
 1002H Honors Course: Introduction to Modern European History Since the Middle Ages
 1051 Ancient Civilization
 1101 Introduction to Medieval History
 1301 American History
 1301H Honors Course: American History
 3002 Introduction to Modern European History Since the Middle Ages
 3051 Ancient Civilization
 3245 History of Eastern Europe: 19th and 20th Centuries
 3422 The World and the West
 3427 History of Cuba and Puerto Rico
 3468 People's Republic of China: The Communist Revolution, 1900 to Present
 3505 Survey of the Middle East
 3624 France From the Renaissance to Richelieu
 3637 Russian History from Peter the Great to the Present
 3748 The Austrian Republic from World War I to Present
 3822 United States in the 20th Century 1932-1960
 3882 History of American Foreign Relations
 5285 Diplomatic History of Europe 1900-1945
 5468 People's Republic of China: The Communist Revolution: 1900 to Present
 5871 Intellectual History of the United States in the 19th- and 20th-Centuries

Summer II

- 1001 Introduction to Modern European History Since the Middle Ages

- 1001H Honors Course: Introduction to Modern European History Since the Middle Ages

- 1052 Ancient Civilization
 1302 American History
 1302H Honors Course: American History
 1305 Cultural Pluralism in American History
 3001 Introduction to Modern European History Since the Middle Ages
 3052 Ancient Civilization
 3424 History of Mexico: Pre-Columbian Period Through Independence
 3432 History of Africa: 1800-Present
 3471 20th-Century Japan
 3722 Europe in the Era of World War II
 3823 United States in the 20th Century: 1960 to present
 5381 Minnesota History Workshop: Topics in Minnesota History: Two Centuries of the Fur Trade in Minnesota (July 22-August 2)

HOME ECONOMICS EDUCATION (HEEd)Vocational and Technical Education
Education**Summer I**

- 5001 Special Topics: Planning for Outcome Based Education (June 16-19 and June 26)
 5310 Methods in Teaching Home Economics: Attitudes, Values, and Knowledge (June 16-26)
 5320 Adult Education in Home Economics (June 29-July 10)
 5404 Introduction to Early Childhood Family Programs (June 29)
 5406 Special Topics in Parent and Family Education: Home and School Collaboration (June 29-July 10)
 5407 Family Life Education (July 16-26)
 5409 Group Methods for Parent and Family Education (July 13-17)

Summer II

- 5405 Child Development and Parent Education (July 27-August 7)

Preliminary List of Courses

5510 Orientation to Teaching Home Economics (July 27-August 17)

HONORS SEMINAR (HSem)
Honors Program
Liberal Arts

Summer I

3010 The Changing Nature of Revolutionary Change

HUMANITIES (Hum)
Liberal Arts

Summer I

1001 Humanities in the Modern World I
1003 Humanities in the Modern World III
1005 Humanities in the Modern World V
1301 Discourse and Society: Introduction to Methods in the Humanities
3458 The Body and the Politics of Representation

Summer II

1113 European Heritage: Rome
1302 Text and Context
1303 Knowledge, Persuasion, and Power
3176 Cinematic Discourse and Cultural Politics
3701 Comedy: Text and Theory

I

INDUSTRIAL EDUCATION (Ind)
Vocational and Technical Education
Education

Summer I

3200 Technical Development: Advanced
5000 Occupational Experience
5200 Technical Development: Specialized
5306 Industrial Education Workshop: Recent Technological Innovations (June 16-26)
5330 Industrial Course Construction (June 16 and ar)
5900 School-Based Project in Industrial Education

Summer II

5306 Industrial Education Workshop

Sec 1, Trends in Industrial Education: Implications for Curriculum (August 18 and ar)
Sec 2, Technical Training in Industry (July 18-30)

5900 School-Based Project in Industrial Education

INDUSTRIAL ENGINEERING/ OPERATIONS RESEARCH (IEOR)

Mechanical Engineering
Institute of Technology

Summer I

3000 Introduction to Industrial Engineering Analysis
5040 Introduction to Operations Research
5180 Applied Industrial Engineering (10-week)

Summer II

5020 Engineering Cost Accounting, Analysis and Control
5050 Engineering Economic Analysis

INDUSTRIAL RELATIONS (IR)
Management

Summer I

3002 Personnel and Industrial Relations

Summer II

3002 Personnel and Industrial Relations

INFORMATION AND DECISION SCIENCES (IDSc)
Management

Summer I

1010 Fundamentals of Information Development and Use (10-week)

INSURANCE (Ins)
Management

Summer I

5100 Risk Management and Insurance

INTERNATIONAL RELATIONS (IntR)
Liberal Arts

Summer I

3840 French Language Text books in International Relations
3900 Topics in International

Relations

Sec 1, Peace Studies: Western Europe
Sec 2, Peace Studies: The Middle East

Summer II

3900 Topics in International Relations: Peace Studies: The Gender Dimension

ITALIAN (Ital)

French and Italian
Liberal Arts

Summer I

1104 Intermediate Italian
1101, 1102, 1103 Beginning Italian (10-week)

Summer II

1105 Intermediate Italian

J

JAPANESE (Jpn)
East Asian Studies
Liberal Arts

Summer I

1011, 1012, 1013 Beginning Japanese (10-week)

JEWISH STUDIES (JwSt)
Classical and Near Eastern Studies
Liberal Arts

Summer I

1034 Introduction to Judaism
3034 Introduction to Judaism

JOURNALISM AND MASS COMMUNICATION (Jour)
Liberal Arts

Summer I

3003 Producing Mass Media Messages (10-week)
3003H Producing Mass Media Messages (10-week)
3008 Mass Communication Processes and Structure
3173 Magazine Writing
5251 Psychology of Advertising
5501 Communication and Public Opinion
5801 International Communication

Summer II

1001 Introduction to Mass Communication

3101 Reporting
5741 Minorities and Mass Media
5970H Advanced Projects in Journalism

K

KINESIOLOGY (Kin)
School of Kinesiology and Leisure Studies

Summer I

3110 Human Anatomy
3327 Teaching Physical Education in Elementary School
3625 Supervised Practical Experience
5102 Practicum: Developmental Adapted Physical Education (June 6-July 6)
5521 Pedagogy in Physical Education
5720 Topics in Kinesiology *Sec 1, Early Childhood Adapted Physical Education*
Sec 2, Technology Applications in Sport and Physical Education (June 16-26)
Sec 3, Issues in Youth Sports
5740 Workshop: Coaching of Individual, Dual, or Team Sports: Volleyball (June 16-July 6)
5860 Legal Aspects of Sport and Physical Activity

Summer II

3111 Mechanics of Movement (July 23-August 19)
3115 Physiological Application to Sports (July 23-August 19)
3143 Organization and Management of Sport (July 23-August 19)
5141 Nutrition for Exercise and Physical Performance (July 23-August 19)
5371 Sociology of Sport (July 23-August 19)
5460 Foundations of Sport Management (July 23-August 19)
5522 Pedagogy in Physical Education (July 23-August 19)
5720 Topics in Kinesiology *Sec 1, Systematic Observation in Physical Education, (July 23-August 19)*

Sec 2, Human Factors
Physiology (July 23-August 19)

L

LATIN (Lat)

Classical and Near Eastern Studies
Liberal Arts

Summer I

3001 Beginning Latin: Intensive

Summer II

3002 Latin Readings

LINGUISTICS (Ling)

Liberal Arts

Summer I

3001 Introduction to Linguistics

5001 Introduction to Linguistics

5731 A Contrastive Approach to Modern English

Summer II

5732 A Contrastive Approach to Modern English

LOGISTICS MANAGEMENT (LM)

Management

Summer I

3000 Introduction to Logistics Management

M

MANAGEMENT (Mgmt)

Management

Summer I

3001 Fundamentals of Management

5101 Managerial Communications

Summer II

3001 Fundamentals of Management

3004 Business Policy: Strategy Formulation and Implementation

MARKETING (Mktg)

Management

Summer I

3000 Principles of Marketing

3010 Buyer Behavior and Marketing Analysis

Summer II

3020 Marketing Operations Management

MASTER OF BUSINESS ADMINISTRATION

Management

Summer I

5100 Management Topics (June 16-July 18)

MATERIALS SCIENCE (Mats)

Chemical Engineering and Materials Science
Institute of Technology

Summer I

3400 Mechanical Properties of Materials

5481,5482,5483 Special Problems in Physical Metallurgy and Materials Science

Summer II

5481,5482,5483 Special Problems in Physical Metallurgy and Materials Science

MATHEMATICS (Math)

Institute of Technology

Summer I

1005 Introduction to Elementary Mathematics

1008 Trigonometry
1111 College Algebra and Analytical Geometry

1131 Finite Mathematics

1142 Short Calculus

1201 Pre-Calculus

1211 Calculus I

1221 Calculus II

1241 Linear and Nonlinear Multivariable Analysis I

1251 One Variable Differential and Integral Calculus I

1252 One Variable Differential and Integral Calculus II

1261 The Algebraic Geometry of Euclidean Space

3142 Introduction to Linear Algebra

3311 Linear and Nonlinear Multivariable Analysis II

3321 Differential Equations and General Vector Spaces

3331 Infinite Sequences and Series: Vector Integral Calculus

5082 Fundamentals of Algebra

5242 Linear Algebra with Applications

5245 Introduction to Modern Algebra I

5457 Methods of Applied Mathematics

5512 Differential Equations with Applications I

5567 Fourier Series and Boundary Value Problems

5606 Advanced Calculus: A Rigorous Approach

Summer II

1008 Trigonometry

1111 College Algebra and Analytic Geometry

1142 Short Calculus

1201 Pre-Calculus

1211 Calculus I

1221 Calculus II

1241 Linear and Nonlinear Multivariable Analysis I

1251 One Variable Differential and Integral Calculus I

1252 One Variable Differential and Integral Calculus II

1261 The Algebraic Geometry of Euclidean Space

3311 Linear and Nonlinear Multivariable Analysis II

3321 Differential Equations and General Vector Spaces

3331 Infinite Sequences and Series: Vector Integral Calculus

5243 Linear Algebra with Applications

5246 Introduction to Modern Algebra II

5458 Methods of Applied Mathematics

5607 Advanced Calculus: A Rigorous Approach

5679 Probability

MATHEMATICS EDUCATION (MthE)

Curriculum and Instruction Education

Summer I

5082 Teaching Algebra

5xxx Teaching Probability and Statistics (June 17-July 17)

5331 Current Developments in Elementary School Mathematics Instruction (June 17-July 17)

5332 Current Trends and Issues in Secondary School Mathematics Instruction (June 17-July 17)

5355 Mathematics for Slow-Learning Children

Summer II

5101 Workshop: Elementary School Mathematics - (July 23-31 and August 8-17)

5152 Geometry for Primary Grades (July 23-29)

5153 Geometry in the Intermediate Grades (July 30-31, August 10-17)

MECHANICAL ENGINEERING (ME)

Institute of Technology

Summer I

3201 Mechanical Engineering Systems Analysis

3301 Thermodynamics

3702 Basic Measurements Laboratory

3741 Industrial Assignment (10-week)

3742 Industrial Assignment (10-week)

3743 Industrial Assignments (10-week)

5190 Advanced Engineering Problems (10-week)

5460 Internal Combustion Engines (10-week)

Summer II

3205 Engineering Systems Design

3303 Applied Thermodynamics

5260 Engineering Materials and Processing

5342 Heat Transfer

MIDDLE EASTERN STUDIES (MidE)

South Asian and Middle Eastern Studies

Liberal Arts

(see also *Religious Studies*)

Summer I

3505 Survey: The Middle East

5505 Survey: The Middle East

Summer II

1536 The Religion of Islam

3036 The Religion of Islam

Preliminary List of Courses

MUSIC (Mus)

Music
Liberal Arts

Summer I

- 1001 Fundamentals of Music
1051 Piano Class for Non - Music Majors
1160 Voice: Class Lessons
3xxx Vocal Literature
5330 Concerto Grosso Ensemble
5371 Diction for Singers
5375 Vocal Pedagogy I
5384 Choral Conducting
5399 Performance in Conducting
5490 Chamber Singers
5532 Analysis of 20th-Century Music
5644 Studies in Twentieth-Century American Music
5804 Folk and Traditional Music: Cross-Cultural Survey

Summer II

- 1001 Fundamentals of Music
1021 Introduction to Music
5645 18th-Century European Music
5666 Stravinsky

MUSIC EDUCATION

Liberal Arts

Summer I

- 1801 Introduction to Music Therapy
3011 Teaching Music in the Elementary School
3850 Field Experiences: Music Therapy (June 16-29)
5750 Workshop: Music Education
Sec 1, Techniques for Middle School/Junior High School Choirs (June 16-26)
Sec 2, Ethnic Music for Teachers (June 16-26)
5313 *Sec 1, The Influence of Music on Youth Behavior (June 29-July 14)*
Sec 3, Percussion Techniques (July 13-21)

Summer II

- 5217 Historical Foundations of Music Therapy (July 23-August 12)
5666 Stravinsky
5750 Workshop: Music Education
Sec 1, Movement-Based Methods for Music Education (July 23-August 12)

N

NEUROSCIENCE (NSci)

Graduate School

Summer I

- 5100 Introductory Neurobiology Laboratory at Itasca (June 16-July 3)

Summer II

- 5550 Itasca Cell and Molecular Neurobiology Laboratory Course (July 27-August 28, Itasca)

NORWEGIAN (Nor)

Scandinavian

- 1101, 1102, 1103 Beginning Norwegian (10-week course)

NURSING (Nurs)

Nursing

Summer I

- 5240 Core Concepts in Critical Care
5450 Introduction to Community Health
5820 Decision Making in Health Care
5947 Pharmacotherapeutics for the Elderly

O

OPERATIONS AND MANAGEMENT SCIENCES (OMS)

Management

Summer I

- 1020 Data Analysis and Statistical Inference for Managers (10-week)
3000 Introduction to Operations Management

Summer II

- 3000 Introduction to Operations Management

P

PHILOSOPHY (Phil)

Liberal Arts

Summer I

- 1001 Introduction to Logic
1002 Introduction to Philosophy
3001 General History of Western Philosophy

- 3302 Moral Problems of Contemporary Society

Summer II

- 1001 Introduction to Logic
1003 Introduction to Ethics
3305 Medical Ethics
3311 Introduction to Ethical Theory
3502 Introduction to Aesthetics

PHYSICAL EDUCATION (PE)

Physical Education and Recreation
Education

All undergraduate, graduate and professional licensure courses for physical education, adapted physical education and athletic coaching are listed under Kinesiology (Kin)

Summer I

- 1007 Swimming
1014 Conditioning
1015 Weight Training
1038 Tennis
1048 Bowling
1050 Golf
1074 Volleyball
1107 Swimming

Summer II

- 1007 Swimming (July 23-August 19)
1014 Conditioning (July 23-August 19)
1015 Weight Training (July 23-August 19)
1038 Tennis (July 23-August 19)
1041 Cycling (July 23-August 19)
1050 Golf (July 23 August 19)
1067 Basketball (July 23-August 19)
1107 Swimming (July 23-August 19)
1138 Tennis (July 23-August 19)
1205 Scuba and Skin Diving

PHYSICS (Phys)

Institute of Technology

Summer I

- 1041 Introductory Physics
1045 Introductory Physics Lab
1251 General Physics (10-week)
1252 General Physics (10-week)
1253 General Physics (10-week)

- 5940 Physics for High School Teachers: Experimental Foundations and Historical Perspectives (June 24-July 19)

Summer II

- 1042 Introductory Physics
1046 Introductory Physics Lab

PLANT PATHOLOGY (PIP)

Agriculture

Summer I

- 5102 Fungal Ecology (June 12-July 17)
5650 Field Plant Pathology (10-week)

POLITICAL SCIENCE (Pol)

Liberal Arts

Summer I

- 1001 American Government and Politics
1026 American Foreign Policy
3331 Minnesota Government and Politics
3661 Democratic Theory
3739 Politics of Ethnic Communities
3835 The International System
5479 Latin American Government and Politics
5610 Topics in Political Theory

Summer II

- 1025 World Politics
1061 Introduction to Political Thought
3051 Introduction to Political Analysis
3309 Judicial Process
3323 Civil Liberties in America
3477 Political Development
3836 Foreign Policy Decision Making

PORTUGUESE (Port)

Spanish and Portuguese
Liberal Arts

Summer I

- 1001, 1002, 1003 Beginning Portuguese (10-week)

PSYCHOLOGY (Psy)

Liberal Arts

Summer I

- 1001 Introduction to Psychology
1004 Introductory Laboratory Psychology
3011 Introduction to Psychology of Learning

Preliminary List of Courses

- 3051 Introduction to Cognitive Psychology
 3061 Introduction to Physiological Psychology
 3101 Introduction to Personality
 3604 Introduction to Abnormal Psychology
 3617 Introduction to Clinical Psychology
 3801 Introduction to Statistical Methods
 5205 Applied Social Psychology

Summer II

- 1001 Introduction to Psychology
 1005 Introductory Lab Psychology
 3201 Introduction to Social Psychology
 3607 Survey of Clinical Intervention Methods
 3801 Introduction to Applied Statistical Methods
 5054 Psychology of Language
 5202 Attitudes and Social Behavior

PUBLIC AFFAIRS (PA)

Humphrey Institute of Public Affairs

Summer I

- 3101 Microeconomic Theory, sec 2 (August 19-September 20)

PUBLIC HEALTH (PubH)

Public Health

Summer I

- 3001 Personal and Community Health
 3003 Fundamentals of Alcohol and Drug Abuse
 3004 Basic Concepts in Personal and Community Health
 3034 Topics in Alcohol and Drug Problems
 5003 Fundamentals of Alcohol and Drug Abuse
 5022 Personal and Community Health
 5023 Basic Concepts in Personal and Community Health
 5150 Topics: Environmental and Occupational Health
 5155 Issues in Environmental and Occupational Health
 5166 Employee Health Services and Cost Containment
 5197 Topics: Injury Prevention

- in the Workplace, Community and Home
 5326 Research in Animal/Human Health
 5330 Epidemiology I
 5391 Introduction to Behavioral Epidemiology
 5450 Biostatistics I
 5470 Topics in Biostatistics
 5510 Research Methodology in Public Health Nursing
 5649 Topics: Maternal and Child Health
 5739 Topics: Public Health Administration
 5758 Hospital and Other Health Care Organizations Financial Statement Analysis (June 22-July 10)
 5770 Topics: Hospital and Health Care Administration (June 22-July 10)
 5774 Administrative and Professional Relationships within Ambulatory Care Facility (July 13-24)
 5776 Administrative and Professional Relationships within the Ambulatory Care Facility (July 13-24)
 5779 Managing Multiple Forces: Internal and External Aspects of Patient Care (July 13-24)
 5786 Administrative and Professional Relationships with Mental Health Related Organizations (July 13-24)
 5933 Nutrition and Health/Disease Relationships (June 16-July 2)

Summer II

- 3034 Topics in Alcohol and Drug Problems
 5150 Topics: Environmental and Occupational Health
 5470 Topics in Biometry
 5510 Research Methodology in Public Health Nursing
 5597 Topics: Injury Prevention in the Workplace, Community, and Home
 5649 Topics: Maternal and Child Health
 5739 Topics: Public Health Administration
 5770 Topics: Hospital and Health Care Administration

- 5773 Management and Organization within the Ambulatory Care Facility (July 19-31)
 5775 Management and Organization in Hospital and Health Care Facilities (July 19-31)
 5777 External Forces Affecting Health Care Delivery (August 10-21)
 5778 Patient Care Management and Organization within the Hospital and Health Care Organization (July 19-31)
 5785 Management and Organization within Mental Health Related Organizations (July 19-31)
 5936 Management and Organization of Nutrition Programs (July 19-31)
 5937 Forces Affecting Nutrition Program Administration (July 6-17)

R**RECREATION, PARK AND LEISURE (Rec)**

School of Kinesiology and Leisure Studies

Summer I

- 5860 Legal Aspects of Sport and Physical Activity

Summer II

- 5460 Foundations of Sport Management (July 23-August 7)

RELIGIOUS STUDIES (RelS)

Liberal Arts

(see also *Middle Eastern Studies*)

Summer I

- 1001 Introduction to Religious Studies
 1031 Introduction to the Religions of South Asia
 1034 Introduction to Judaism
 3034 Introduction to Judaism
 3072 The New Testament
 3201 The Bible: Narrative Texts
 5072 The New Testament

Summer II

- 1036 The Religion of Islam
 3036 The Religion of Islam
 3413 Buddhism
 5413 Buddhism

RHETORIC (Rhet)

Agriculture

Summer I

- 1104 Library Research Methods
 1151 Writing in Your Major
 1222 Public Speaking
 3266 Communication, Discussion in Small-Group Decision-Making
 3374 Special Problems in Humanities
 3562 Writing in Your Profession
 5100 Technical Communication: Special Problems

Summer II

- 1104 Library Research Methods
 1222 Public Speaking
 3374 Special Problems in Humanities
 3562 Writing in Your Profession
 5100 Technical Communication: Special Problems
 5160 College Reading

RUSSIAN (Russ)

Russian and East European Studies

Liberal Arts

Summer I

- 1101, 1102, 1103 Beginning Intensive Russian (10-week)
 1104, 1105, 1106 Intermediate Intensive Russian (10-week)

S**SCANDINAVIAN (Scan)**

Scandinavian Languages
 Liberal Arts

Summer I

- 3601 Great Literary Works of Scandinavia

SECONDARY EDUCATION

(SeEd)

Curriculum and Instruction
 Education

Summer I

- 5151 School-Based Projects in Social Studies Education
 5176 Classroom Research in English Education and Reading

Preliminary List of Courses

5179	Foundations of Teaching English	Summer II 5210 Terminology of the Health Sciences	3401 Principles of Social Organization	SPEECH-COMMUNICATION (Spch) Liberal Arts
5185	School and Professional Based Experiences in Second Language and Cultures	SOCIAL AND PHILOSOPHICAL FOUNDATIONS OF EDUCATION (SPFE) <i>Educational Policy and Administration</i> Education	3501 Family System	Summer I
5186	Alternatives in Second Language Education (June 11-July 2)	<i>For course listings see EdPA</i>	3551 World Population Problems	1101 Fundamentals of Speech-Communication: Oral Communication
5191	Workshop: Teaching of Second Languages and Cultures: Sec 1, Instructional Design for Cross-Cultural Learning (June 16-July 9) Sec 2, Integrating the Elementary Classroom for Second Language Acquisition (July 6-21)	SOCIAL WORK (SW) Human Ecology	3960 Topics in Sociology: Contemporary Conflicts	1313 Analysis of Oral Argument
5XXX	Multicultural Education (June 17-July 20)	Summer I	SOUTH ASIAN STUDIES (SoAS) <i>South Asian and Middle Eastern Studies</i> Liberal Arts	3201 Introduction to Broadcasting Production
5350	Current Developments in English Education	5010 Seminar: Special Topics <i>Sec 1, Life-Cycle Therapy (June 23-29)</i> <i>Sec 2, Social Work Practice in the American Indian Community (June 30-July 7)</i> <i>Sec 3, Issues and Interventions in Child Sexual Abuse (July 8-12)</i> <i>Sec 4, Physical Assault of Women</i>	Summer I	3401 Theories of Person to Person Communication
5382	Second Language Testing, Assessment, and Evaluation (June 16-29)	5026 Seminar: Special Topics-Mediation and Conflict Resolution (June 16-22)	1504 Introduction to the Religions of South Asia	3411 Small Group Communication Process
5390	Current Developments in Secondary School Science Teaching (June 16-July 1)	Summer II	3414 Comparative Religions of South Asia	3451 Intercultural Communication: Theory and Practice
5395	School Based Projects in Science Education	5010 Seminar: Special Topics <i>Sec 1, Social Work Practice: Psychopathology and Intervention</i> <i>Sec 2, Social Group Work</i> <i>Sec 3, Supervision and Consultation in Social Work Practice</i> <i>Sec 4, Social Work Practice with the Elderly</i>	3501 The Heritage of India	3601 Approaches to Public Discourse
5659	School-Related Projects in Language Arts	SOCIOLOGY (Soc) Liberal Arts	5414 Comparative Religions of South Asia	5403 Theory Construction and Analysis in Communication
5151	School Based Projects in Social Studies Education	Summer I	Summer II	5411 Small Group Communication Theory
5185	School and Professional Based Experiences in Second Languages and Cultures	1001 Introduction to Sociology	3413 Buddhism	5412 Group and Organizational Communication
5227	Teaching About the Newspaper in the Classroom (June 27-August 7)	3101 Introduction to American Criminal Justice	5413 Buddhism	5414 Authority and Power in Task-Oriented Communication (June 16-28)
5322	Teaching Writing (July 23-August 18)	3405 Inequality: Introduction to Stratification	SPANISH (Span) <i>Spanish and Portuguese</i> Liberal Arts	Summer II
5323	Diagnosing and Assessing Writing in Secondary Schools (July 23-August 18)	5162 Criminal Procedure in American Society	Summer I	1101 Fundamentals of Speech Communication: Oral Communication
5350	Current Developments in English Education	5705 Backgrounds of Modern Social Thought	1101 Beginning Spanish	1102 Fundamentals of Speech-Communication Process
5659	School Related Projects in Language Arts	5960 Topics in Sociology: Qualitative Methods in Life Course Research	1102 Beginning Spanish	1313 Analysis of Oral Argument
SOCIAL, ADMINISTRATIVE AND HOSPITAL PHARMACY (SAHP) Pharmacy		Summer II	1103 Beginning Spanish	3211 Determinants of Broadcast Programming
Summer I		1001 Introduction to Sociology	1104 Intermediate Spanish	3411 Small Group Communication Process
5210 Terminology of the Health Sciences		3101 Introduction to Criminal Behavior and Social Control	1105 Intermediate Spanish	3441 Communicating in Organizations
			1106 Intermediate Spanish	3451 Intercultural Communication: Theory and Practice
			3002 Reading for Speed and Comprehension	5405 Nonverbal Communication: Theory and Research (July 23-August 7)
			3104 The Art of Reading Literary Texts	5441 Communication in Human Organizations
			5950 Figures in Spanish-American Literature	STATISTICS (Stat) Liberal Arts
				Summer I
				3011 Statistical Analysis
				3091 Introduction to Probability and Statistics
				5021 Statistical Analysis
				5121 Theory of Statistics

5302 Applied Regression Analysis

Summer II

1001 Introduction to Ideas of Statistics
3012 Statistical Analysis
3091 Introduction to Probability and Statistics
5122 Theory of Statistics
5301 Designing Experiments

T

TEXTILES AND CLOTHING (TexC)

Design, Housing, and Apparel Home Economics

Summer I

3621 Textiles

THEATRE ARTS (Th)

Liberal Arts

Summer I

1101 Introduction to the Theatre
1102 Drama and Media
1321 Beginning Acting
3515 Technical Theatre Production II
3803 Platform Performance
5100 Theatre Practicum
5110 Theatre Performance
5540 Scene Painting Techniques
5720 Plays in Production and Performance
5760 Advanced Stage Management

Summer II

3711 Beginning Stage Direction
5950 Art, Entertainment and Popular Culture in Victorian United States

UVW

URBAN STUDIES (UrbS)

Liberal Arts

Summer II

3900 Internship

VOCATIONAL EDUCATION (VoEd)

Vocational and Technical Education

Summer I

5100 Special Topics in Instruction: Teaching for Thinking (June 16-26)
5101 Special Topics in Curriculum: School to Work-Instructional Strategies (June 16-26)
5750 Training in Industry and Business (June 16-26)
5770 Training and Development: Quality and Productivity Theory and Practices
5790 Strategic Planning: Training and Development
5900 Using Vocational Educational Research (June 16-19, 23-26)

Summer II

5101 Special Topics in Curriculum
Sec 1, Vocational Education in the Developing World (July 20-30)
5102 Special Topics in Administration: Student Retention in Vocational Education: Issues, Barriers, and Intervention Strategies (July 20-30)
5300 Philosophy and Practice of Vocational Education (August 3-13)
5330 Coordination Techniques in Cooperative Education (August 3-13)
5760 Organization Development in Industry and Business (July 27-August 7)
5762 Management of Conflict (August 1, 8, 15, 22)

WOMEN'S STUDIES (WoSt)
Liberal Arts

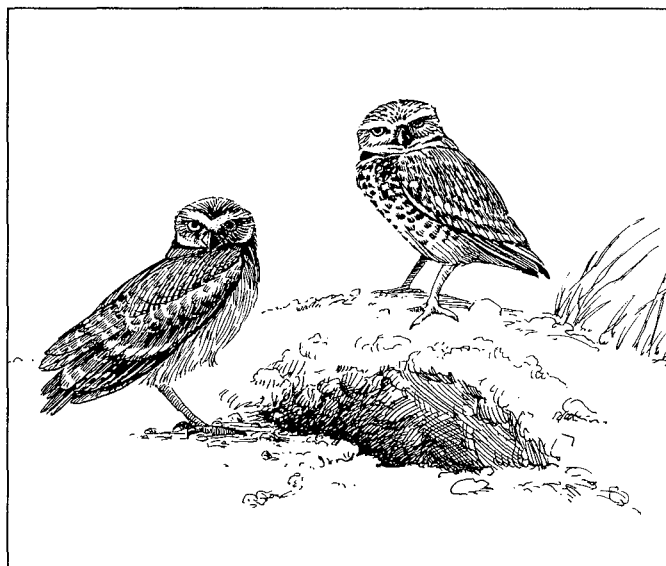
Summer I

1001 Introduction to Women's Studies
3308 Women Writers of Africa and Latin America
5100 Gender and Culture
5103 Feminist Pedagogy

Summer II

3307 Modern Feminist Novel
3400 Women and Popular American Culture

Lake Itasca FieldBiology Program



Term I-June 16-July 21
Term II-July 23-August 26

The following classes are all held at the University of Minnesota's Lake Itasca Biological Station within Itasca State Park.

TERM I CLASSES

Field Biology Photography-June 16-July 4. Offered for 3 credits; prereq: course in beginning biology.

Field photography techniques for documentation of insects, vertebrates, aquatic organisms, and habitats of the Itasca area. Emphasis on general photographic principles and applied advanced techniques using flash, reversed lenses, and infra-red photoelectric tripping devices. On-site processing of color slides and black and white films. No previous processing experience required.

Advanced Field Biology Photography-July 8-July 18. Offered for 2 credits; prereq: Field Biology Photography.

Designed to introduce students to more advanced photographic application, including high resolution black and white photomacrography, ultraviolet photography, and infra-red technology for remote documentation.

Measurements of Plant Environments-June 16-June 29. Offered for 3 credits; prereq: course in ecology.

A field course designed to introduce students to techniques for the measurement of plant microclimate, leaf radiant energy balance, water relations, and photosynthetic gas exchange. Emphasis will be on plant response to the environment in the field, with special attention devoted to plant physiological and ecological responses to currently projected global climate changes caused by human activity.

Preliminary List of Courses

Field Studies in Mammalogy-June 16-July 17. Offered for 5 credits.

A field course emphasizing techniques in study of small mammals. Lectures and field projects will emphasize identification distributions, community interactions, ecophysiology, and population ecology.

Peatland Ecosystems and Climate Change-July 3-July 21. Offered for 3 credits.

This course covers boreal peatland ecology, peatland change related to past climate change, and species of peatland plants. The Itasca area has a large diversity of boreal peatlands within easy reach. The course will include morning lectures, half-day and full-day field trips to peatlands, and the study of the peatland flora, (field characteristics and laboratory identification techniques), peatland ecosystem gradients, such as hydrology and water chemistry, and past peat deposition as a guide to environmental change.

Topics in Environmental Education for Elementary Teachers-July 6-July 17. Offered for 5 credits.

An intensive two-week Environmental Education Institute to instruct elementary teachers in several areas of ecology and environmental concerns. Using ecosystem concepts as a basis for study, the emphasis will be on integrating these concepts in to the elementary school curriculum.

Special Topics in Entomology—Aquatic Insects-June 16-July 3. Offered for 3 credits; prereq introductory biology.

Emphasizes the taxonomy and natural history of aquatic insects, including their importance in aquatic ecology, water resource management, recreation, and conservation. Morning lectures are followed by afternoon field trips to local standing and running water habitats. Emphasis is on family-level identification. A collection is required.

Fungal Ecology-June 16-July 6. Offered for 3 credits; prereq 5 credits of botany or permission of the instructor.

Emphasis on ecological studies and identification of fungi. Lectures include topics on fungal symbioses, morphology, coevolution and applicable ecological theory. Student teams will determine species richness in an aquatic, grassland, and forest habitat.

Field Ornithology-June 16-July 21. Offered for 5 credits; prereq course in general biology, including study of zoology.

Emphasis on the breeding season, biology, and behavioral ecology of birds in the Itasca Park region. Field trips to a variety of habitats to learn bird identification and to observe and practice techniques for conducting field studies. Laboratory sessions investigate family distinctions and species identification. Individual class projects. Classes often begin at 5:00 a.m., with a break in the day.

Plains and Boreal Flora-June 16-July 21. Offered for 5 credits; prereq course in taxonomy.

Survey of the summer flowering plants and ferns of the state with particular reference to local flora. Identification by technical keys; important plant families; field recognition of common species; habitat preferences; collecting methods; literature; taxonomic methods.

TERM II CLASSES

Behavior Telemetry-July 23-August 10. Offered for 3 credits.

Use of radio-telemetry to study animal behavior, especially movements and the use of space. Basic features of radiotransmission, transmitters, and receivers relevant to bio-telemetry; safe and humane methods for capture and immobilization of animals for radio-tagging; techniques for attachment of transmitters, locating radio-tagged animals; processing data from radio-fixes; telemetry of further behavioral and physiological information.

Ecological Genetics-July 23-August 24. Offered for 5 credits.

Introduction to basic population and quantitative genetics; variation in natural populations; electrophoretic analysis of field samples; reconstructing phylogeny; genetic studies of population structure, and introduction to mitochondrial DNA analysis.

Conservation Biology-July 23-August 26. Offered for 5 credits.

Introduction to basic concepts of Conservation Biology including island biogeography, habitat fragmentation, metapopulations, biotic reserves, stochastic threats to small populations, and conservation genetics. Case studies emphasize critically-threatened species. Field projects designed to reinforce conservation biology principles. Laboratory projects utilize computer population simulation to model demographic, genetic, and environmental factors affecting small populations.

Plant Biology-July 23-August 26. Offered for 5 credits; prereq general courses in biology and chemistry.

Plant diversity and evolution; structure and function of the plant cell and of the whole organism; growth and development of plants. This course satisfies the plant biology requirement for University of Minnesota majors.

Ecology-July 23-August 26. Offered for 5 credits; prereq course in calculus, course in plant biology and/or animal biology.

Growth, structure and evolution of populations. Pairwise biotic interactions between species and their effect on the diversity and structure of natural communities. Nutrient dynamics, function, productivity, and temporal stability of ecosystems.

Plant Community Ecology-July 23-August 26. Offered for 5 credits; prereq: course in ecology.

Communities represented in Itasca Park and vicinity, with emphasis on vegetation. Patterns of distribution of the communities, their interaction with the environment, and their dynamic relationships. Methods of community description and analysis.

Vertebrate Ecology 23-August 26. Offered for 5 credits; prereq: course in ecology.

Field studies on vertebrate populations and their relationships to local environments; habitat analysis and ecological research methods. Students working individually or in teams investigate behavioral and ecological aspects of selected vertebrates. This is a research-oriented course supplemented with lectures and field trips.

Cover art by Terri Becker

**University of Minnesota
135 Johnston Hall
101 Pleasant Street S.E.
Summer Session
Minneapolis, MN 55455**

(612) 624-3555

**Summer Session
office hours:
7:45 a.m. - 4:30 p.m.
Monday - Friday**

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**Preliminary Schedule
of Courses for
Summer Session 1992**

Twin Cities Campus

**S U M M E R
S E S S I O N**

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