

I. Introduction to weed science lab.

A. Review of topics and activities for TPSS/PEPS 481

1. Review class list, and grading options, students' signup sheet filled in including new students.

2. List of handouts for Introduction to Weed Science Lab

a) Lab outline with grading system and field laboratory exercises.

(1) Discuss field projects, group assignments, class requirements (weed collections, single and group reports and oral seminar)

(2) List of required weeds to know students will be required to know: scientific families, genus/species as well as common names. Note date of weed I.D. quiz.

b) Specimen labels explain what these are for.

(1) Display herbarium specimen.

c) How to make a weed collection, total handouts = 4.

d) Show weed I.D. binders and Hawaiian weed book available.

e) Detailed list of handouts for discussed TPSS/PEPS 481 – 2011.

(1) Outline of lab topics with dates, point system and values for earned course grades.

(2) List of weeds required to know for weed I.D. test.

(3) Instructions on how to make a weed collection.

(4) Weed I.D. labels.

(5) Student signup sheet for names, student number and email

(6) Lab website: <http://www.ctahr.hawaii.edu/deFrankJ/>.

II. HOW TO PREPARE SPECIMENS FOR WEED COLLECTION

A. *Components of a good weed herbarium specimen.*

1. Each specimen should include those physical features that allow for accurate identification.
2. Large specimens should be cut up to include only those parts needed for identification.
3. With very thick roots cut in half or more to show outside morphology
4. With 3-D plants make them 2-D.
5. Press plants with both upper and lower portions of the leaf showing.
6. All weed specimens must include flower parts.
7. Each collection must contain members from at least 12 different families more are better. See Weeds to know list there are 19 families listed there.
8. Details of Weed I.D. collection grading:

a) Total points for the collection are 150, 25 weeds among 12 different families.

- (1) 1 point for correct spelling (any part of name misspelled =1pt.
- (2) 1 point for correct common name.
- (3) 1 point for correct family (i.e. the scientific family name).
- (4) 2 points for specimen quality, grading is subjective based on inclusion of identifying characteristics, mounting and general tidiness. Both good and not so good samples illustrated.
- (5) 25 points for **MASTER LIST, details of this list:**
 - (a) *Weeds numbered and alphabetized first by families, then by scientific names within families (genus has 1st priority, followed by species).*
 - (b) *Specimens in the collection are arranged in the same order as they are found in the Master List.*
- (6) **Weed collections due Nov. 30, 2011.** You will lose 5 points for every late day, including weekends.

Plant List

Amaranthaceae	1	<i>Althernanthera pungens</i> ✓	Khaki weed
	2	<i>Amaranthus spinosus</i> ✓	Spiny amaranth
Apiaceae	3	<i>Apium tenuifolium</i> ✓	Cut-leaf celery
Asteraceae	4	<i>Ageratum conyzoides</i> ✓	Ageratum
	5	<i>Conyza canadensis</i> ✓	Hairy horse weed
	6	<i>Emilia fosbergii</i> ✓	Flora's paintbrush
Brassicaceae	7	<i>Cardamine flexuosa</i> ✓	Bitter cress
Commelinaceae	8	<i>Commelina diffusa</i> ✓	Honohono
Cyperaceae	9	<i>Cyperus gracilis</i> ✓	Slender sedge
	10	<i>Kyllinga nemoralis</i> ✓	White kyllinga
Euphorbiaceae	11	<i>Chamaesyce hirta</i> ✓	Hairy spurge
	12	<i>Chamaesyce prostrata</i> ✓	Prostrate spurge
	13	<i>Phyllanthus debilis</i> ✓ <i>debilis</i> (-1)	Niruri
Fabaceae	14	<i>Indigofera spicata</i> ✓	Creeping indigo
Gramineae	15	<i>Chloris barbata</i> ✓	Swollen fingergrass
	16	<i>Cynodon dactylon</i> ✓	Bermuda grass
	17	<i>Eleusine indica</i> ✓	Goosegrass
	18	<i>Eragrostis pilosa</i> ✓	Indian lovegrass
	19	<i>Eragrostis tenella</i> ✓	Lovegrass
	20	<i>Paspalum dilatatum</i> ✓ <i>fimbriatum</i> (-2 T.P)	Dallis grass Panama paspalum
Malvaceae	21	<i>Malvastrum coromandelianum</i> ✓	False mallow
Oxalidaceae	22	<i>Oxalis corniculata</i> ✓	Yellow wood sorrel
Plantaginaceae	23	<i>Plantago major</i> ✓	Broad-leaf plantain
Portulacaceae	24	<i>Portulaca oleracea</i> ✓ <i>oleracea</i> (-1) <i>for medicinal plants</i>	Common purslane
Psilotaceae	25	<i>Psilotum nudum</i> ✓	Whisk fern