

Botany 122
Santa Barbara City College

Flowering Plant Identification
Spring 2005

Instructor: Eric Wise Office: EBS 305
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Office hours: T/Th 10:00 – 10:50, 3:30-4:20, F 10:00-11:00

Lecture	#4884	M 9-10:50
Lab	#4885	W 8-10:50

Text: Hickman ed. The Jepson Manual. University of California Press, Berkeley

Course material: 10 power hand lens, dissection needles, fine forceps, razor blade, pencil holder.

Welcome to Flowering Plant Identification. In this class we will learn how to identify several flowering plant families by sight and use taxonomic keys to determine a plant's identity.

You will need to spend at least 5 hours outside of class time keying plants out.

Course Objectives: By the end of the course, successful students will be able to:

1. Utilize techniques to identify flowering plants using standard keys,
2. Recognize and select plant materials appropriate for identification,
3. Identify plants using the appropriate reference key,
4. Classify flowering plants using the basic taxonomy of flowering plants,
5. Demonstrate an understanding of terminology of plant parts, and
6. Sight identification of 37 flowering plant families.

Grading

Grades will depend on a midterm and final in lecture and lab. The lecture portion of the class will cover the process and history of plant taxonomy and the major family characteristics and the lab will cover plant family characteristics and keying plants.

A = 90-100%
B = 80-89%
C = 65-79%
D = 50-64%
F = 0-49%

Flowering Plant Families

Dicotyledoneae

Aizoaceae
Anacardiaceae
Apiaceae
Asteraceae
Boraginaceae
Brassicaceae
Cactaceae
Campanulaceae
Caryophyllaceae
Chenopodiaceae
Crassuaceae
Cucurbitaceae
Ericaceae
Euphorbiaceae
Fabaceae
Fagaceae
Geraniaceae
Hydrophyllaceae
Lamiaceae
Malvaceae
Onagraceae
Papaveraceae
Plantaginaceae
Polemoneaceae
Polygonaceae
Ranunculaceae
Rhamnaceae
Rosaceae
Salicaceae
Scrophulariaceae
Solanaceae

Monocots

Cyperaceae
Iridaceae
Juncaceae
Liliaceae
Orchidaceae
Poaceae

Lecture Schedule

January

24 – Introduction to Systematics

31- Introduction to Flowering Plants – Review of Plant Parts

February

7 – Intro to Plant Families - **Ranunculales**, Ranunculaceae, Papaveraceae

14 **Caryophyllales**, Polygonaceae, Caryophyllaceae, Aizoaceae, Cactaceae
Chenopodiaceae (Amaranthaceae)

21 – Holiday – Washington’s Birthday

28 – **Saxifragales**, Crassulaceae; **Geraniales**: Geraniaceae; **Myrtales**; Onagraceae

March

7 – **Malpighiales**, Euphorbiaceae, Salicaceae; **Fabales**, Fabaceae

14 – Midterm exam

21 – **Rosales**, Rosaceae, Rhamnaceae; **Cucurbitales**, Cucurbitaceae

28 – Spring Break

April

4 – **Brassicales**, Brassicaceae; **Malvales**, Malvaceae; **Sapindales**, Anacardiaceae

11 – **Ericales**, Polemoneaceae, Ericaceae; **Lamiales**, Lamiaceae, Scrophulariaceae,
Plantaginaceae

18 - **Apiales**, Apiaceae; **Asterales**, Asteraceae, Campanulaceae

25 - **Solanales**, Solanaceae; **Unplaced Taxa**, Boraginaceae, Hydrophyllaceae

May

2 – **Liliales**, Liliaceae; **Asparagales**, Agavaceae, Orchidaceae, Iridaceae, Amaryllidaceae

9 – **Poales**, Poaceae, Cyperaceae, Juncaceae; **Arecales**, Arecaceae (Palmae)

18 10-12:00 Final Exam

Lab Schedule

January

26 – Introduction to lab, herbarium, plant preservation

February

2 – Use of Plant Keys

9 – Family recognition and keying

16 – Family recognition and keying

23 – Family recognition and keying

March

3 – Family recognition and keying

9 – Family recognition and keying

16 – Family recognition and keying

23 – Midterm exam

30 – Spring Break

April

6 – Family recognition and keying

13 – Family recognition and keying

20 – Family recognition and keying

27 – Family recognition and keying

May

4 – Family recognition and keying

11 – Final Exam