

**SYSTEMATICS OF VASCULAR PLANTS  
IB 168 & 168L**

**Instructor:**

**Text:** Simpson, M. G. 2006. *Plant Systematics*. Elsevier/Academic Press.

**Lecture times:** Tu/Th 1:10 - 2 PM, 3030 Valley Life Sciences Bldg.

**Lab times:** Tu/Th 9:10 AM – 12 PM (Ben); Tu/Th 2:10 - 5 PM (Tom), both in 3030 Valley Life Sciences Bldg.

**Grading Policy:**

Lecture and lab grades averaged (each 2.0 units/300 points) -- **enrollment in both lecture and lab is required**

**Lecture grade:**

(1) Two lecture exams (100 points each)

(2) Paper ( $\leq 5$  pages of text) on topic in plant systematics: 100 points (toward lecture grade). Details on this assignment will be given in lab.

**Lab grade:**

(1) Two lab practicals (100 points each)

(2) Four lab quizzes (25 points each)

**Course Schedule:**

Tues. Jan. 19

Lecture: Introduction/Plant diversity (Baldwin)

Lab: Overview

Thurs. Jan. 21

Lecture: Principles of plant systematics (Baldwin)

Lab: Review of vegetative structures and functions

Tues. Jan. 26

Lecture: Phylogenetics/Classification (Baldwin)

Lab: Review of reproductive structures and functions

Thurs. Jan. 28

Lecture: Lycophytes and eusporangiate ferns (Baldwin)

Lab: Lycophytes and eusporangiate ferns

Tues. Feb. 2

Lecture: Leptosporangiate ferns (Baldwin)

Lab: Leptosporangiate ferns 1

Thurs. Feb. 4

Lecture: Introduction to seed plants (Baldwin)

Lab: Leptosporangiate ferns 2

Tues. Feb. 9

Lecture: Conifers (Baldwin)

**Quiz 1/Conifers 1**

Thurs. Feb. 11

Lecture: Controversies over classification (Baldwin)

Lab: Conifers

Tues. Feb. 16

Lecture: Cycads, ginkgos, and gnetophytes (Baldwin)

Lab: Cycads, ginkgos, and gnetophytes

Thurs. Feb. 18

Lecture: Origin of flowering plants 1 (Baldwin)

Lab: **Quiz 2/"Basal" angiosperms 1**

Tues. Feb. 23

Lecture: Origin of flowering plants 2 (Baldwin)

Lab: "Basal" angiosperms/Ranunculales

Thurs. Feb. 25

Lecture: Caryophyllidae (Baldwin)

Lab: "Basal" eudicots/Caryophyllales 1

Tues. Mar. 2

Lecture: Species concepts (Mishler)

Lab: Caryophyllales 2

Thurs. Mar. 4

Lecture: Plant diversification (Mishler)

Lab: Botanical Garden/Review

Tues. Mar. 9  
Lecture: Pollination/Reproductive biology (Baldwin)  
Lab: **Lab practical 1**

Tues. Mar. 16  
Lecture: Biosystematics 1 (Baldwin)  
Lab: Rosidae 1

Tues. Mar. 23  
RECESS

Tues. Mar. 30  
Lecture: Molecular systematics 1 (Baldwin)  
Lab: Rosidae 3

Tues. Apr. 6  
Lecture: Asteridae 1 (Baldwin)  
Lab: Asteridae 2

Tues. Apr. 13  
Lecture: Compositae (Baldwin)  
Lab: Asteridae 4: Compositae

Tues. Apr. 20  
Lecture: "Graminoid" monocots (TBA)  
Lab: "Petaloid" monocots 2

Tues. Apr. 27  
Lecture: Plant geography 2 (Baldwin)  
Lab: Botanical Garden/Review

**Lecture Final**  
**Thurs. May 13: 3--6 PM in 3030 VL5B**

Thurs. Mar. 11  
Lecture: **Midterm**  
Lab: Herbaria tour

Thurs. Mar. 18  
Lecture: Biosystematics 2(Baldwin)  
Lab: Rosidae 2

Thurs. Mar. 25  
RECESS

Thurs. Apr. 1  
Lecture: Molecular systematics 2 (Baldwin)  
Lab: **Quiz 3**/ Asteridae 1

Thurs. Apr. 8  
Lecture: Asteridae 2 (Baldwin)  
Lab: Asteridae 3

Thurs. Apr. 15  
Lecture: "Petaloid" monocots (Baldwin)  
Lab: **Quiz 4**/"Petaloid" monocots 1

Thurs. Apr. 22  
Lecture: Plant geography 1 (Baldwin)  
Lab: Grasses/sedges/rushes

Thurs. Apr. 29  
Lecture: Systematics and conservation (Baldwin)  
Lab: **Lab Practical 2**