

**BOT 5725**  
**Taxonomy of Vascular Plants**  
**Spring 2015**

**Instructors:**

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**Teaching Assistant:** Nicolás Garcia (Dickinson, come to lobby; e-mail: nicogarcia@ufl.edu)

**Office Hours:** By appointment.

**Credits:** 4

**Herbarium:** 379 Dickinson Hall; phone: 273-1990. Library is open between 9:00 am and 5:00 pm, but plant collection usage restricted to faculty (or graduate students with approved systematic research projects).

**Lecture and Laboratory:** Monday & Thursday, periods 6-9 (12:50-4:55pm); Rolfs Hall room 105. In general, the first hour or hour and a half are used for lecture, and the remaining time for laboratory, with one inside laboratory and one field trip per week.

**Textbook (required):** Judd et al., 2008. *Plant Systematics—A Phylogenetic Approach*, 3<sup>rd</sup> ed. Plus additional readings to be provided as PDFs on Canvas.

**Laboratory tools:** 2 dissecting needles, package of razor blades (or scalpel), tweezers, 10X hand-lens.

**Grading:** About 60% from lecture and 40% from laboratory. Three hourly tests (ca. 70 points each), 5 or 6 quizzes in lab (10 points each), lab practical (ca. 60 points). Grade based on total number of points, with 90% or above an “A”, 89-80% “B”, 79-70% “C”, 69-60% “D”, and below failing; plus grades will be used. Tests will be based on lecture and laboratory material.

**Outline of lectures and labs  
Spring 2015**

<b>Week 1:</b>		
8 Jan	PS	Introduction: What is taxonomy? Basic principles LAB: Field and herbarium methods; identification and introduction to nomenclature; herbarium tour.
<b>Week 2:</b>		
12 Jan	NC	Species concepts, speciation LAB: Characters: vegetative morphology, anatomy, and secondary chemistry.
15 Jan	PS	Phylogenetics LAB: Characters: floral morphology
<b>Week 3:</b>		
19 Jan		UF closed in observance of MLK, Jr. day. No class.
22 Jan	PS	Phylogenetics, cont. LAB: Characters: fruit morphology
<b>Week 4:</b>		
26 Jan	ES	Hybridization, polyploidy, and apomixis LAB: Use of keys
29 Jan	ES	Characteristics of vascular plants: a brief evolutionary history, seed plant relationships LAB: How to write a morphological description; use of molecular data
<b>Week 5:</b>		
2 Feb	ES	Lycophytes and Monilophytes: Equisetales, Psilotales, “eusporangiate ferns”, and Polypodiales—leptosporangiate ferns LAB: Lycophytes and Monilophytes
5 Feb	ES	Cycads and Ginkgo LAB: Practice in classification construction
<b>Week 6:</b>		
9 Feb	ES	Conifers and Gnetophytes LAB: Extant Gymnosperms (Cycads, <i>Ginkgo</i> , Conifers, and Gnetophytes)
12 Feb	DS	Introduction to flowering plants and phylogenetic relationships of major clades LAB: <b>Exam #1</b> Field trip -- Review of characters and species concepts

<b>Week 7:</b>		
16 Feb	ES	Magnoliid clades LAB: ANITA grade, Magnoliids
19 Feb	PS	Monocots I LAB: keying practice
<b>Week 8:</b>		
23 Feb	PS	Monocots II LAB: Monocots
26 Feb	PS	Monocots III LAB: Monocots
		Spring Break
<b>Week 9:</b>		
9 Mar	DS	Ranunculales, Proteales, Saxifragales LAB: Field trip
12 Mar	DS	Saxifragales (in part), Oxalidales, Malpighiales (axile taxa) LAB: Ranunculales, Proteales, Saxifragales, Oxalidales
<b>Week 10:</b>		
16 Mar	DS	Malpighiales (parietal taxa), Fabales, Rosales (basal families) LAB: Field trip
19 Mar	DS	Rosales (former Urticales), Fagales LAB: Malpighiales, Fabales, Rosales, Fagales
<b>Week 11:</b>		
23 Mar	DS	Cucurbitales, Myrtales LAB: <b>Exam #2</b> Field trip
26 Mar	DS	Brassicales, Malvales LAB: Cucurbitales, Myrtales, Brassicales, Malvales
<b>Week 12:</b>		
30 Mar	DS	Sapindales, Introduction to Superasterids LAB: Field trip
2 Apr	PS	Caryophyllales, Santalales LAB: Sapindales, Caryophyllales, Santalales

<b>Week 13:</b>		
6 Apr	PS	Cornales, Ericales LAB: Field trip
9 Apr	NC	Lamiids, part I LAB: Cornales, Ericales, Solanales, Gentianales, Lamiales
<b>Week 14:</b>		
13 Apr	NC	Lamiids, part II LAB: Field trip
16 Apr	NC	Campanulids, part I LAB: Apiales, Aquifoliales, Dipsacales, Asterales
<b>Week 15:</b>		
20 Apr	NC	Campanulids, part II LAB: Field trip
Time TBD		<b>Lab Practical</b>
29 Apr		<b>Final exam: 12:30-2:30pm, Rolfs 105</b>