

# **BOT 2710: Practical Plant Taxonomy**

## **Fall, 2015**

### **Course Syllabus and Information**

#### **Class Location & Time:**

**Lecture:** Tuesday & Thursday 2<sup>nd</sup> period (8:30-9:20 AM), Bartram 211

**Laboratory:** 4 sections (Thurs. per. 6-8; Thurs. per. 10-E1; Fri. per. 2-4; Fri. per. 6-8);  
Rolfs 105

**Instructors:** Drs. Doug Soltis & Pam Soltis, 301 Dickinson Hall; 273-1963 & 273-1964;  
E-mail addresses: [dsoltis@ufl.edu](mailto:dsoltis@ufl.edu) & [psoltis@flmnh.ufl.edu](mailto:psoltis@flmnh.ufl.edu)

**Office Hours:** Wednesday 10:00 - 11:00 AM or by appointment

**Teaching Assistants:** Rebecca Stubbs ([stubbsrl@ufl.edu](mailto:stubbsrl@ufl.edu)); Iwan Molgo ([imolgo@ufl.edu](mailto:imolgo@ufl.edu))

**Herbarium:** 379 Dickinson Hall. Herbarium library has useful books on plant systematics and identification and is open from 9:00 AM - 5:00 pm (closed during lunch). Request admittance at Front Desk of Dickinson.

**Course Website:** Course materials and related information will be posted on the course E-Learning (Canvas) website at <http://lss.at.ufl.edu>. You are responsible for all announcements made in class and/or posted on the course website for this course. Log in with your gatorlink userID and password.

**Textbooks:** (1) Judd et al. (2007) *Plant Systematics: A phylogenetic approach, Third Edition*. Sinauer Associates.  
(2) Laboratory Manual, available as a pdf from your instructors.  
(3) **Optional:** Castner, J. *Photographic Atlas of Botany*. (obtained through lab)

**Required equipment:** Two dissecting needles, single-edged razor blades, forceps.  
A 10X hand lens is optional.

**Grading:** Grade based on total of 500 points:

- 2 tests (100 points each)
- 10 lab quizzes (10 points each)
- lab notebook (50 points; due weekly)
- lab practical (50 points)
- final exam (100 points)
- optional extra credit projects (*keying* - 15 points; plant collection - 15 points, based on a collection of 15 plants, pressed, dried, and identified, with labels, due on Monday of final exam week; see Appendix 2 of text for details of how to identify plants and prepare a herbarium specimen; *FloraGator website*; *other opportunities*)

**All test questions come from information presented in lecture and lab, but READ YOUR BOOKS for context and further information.**

<b>Grading Scale:</b>	90% or above	A, A-
	80-89%	B+, B, B-
	70-79%	C+, C, C-
	60-69%	D+, D
	59% & below	E, failing

Letter grades will be assigned following assessment of the distribution of scores, so these values are approximate.

Note that a C- will not be a qualifying grade for critical tracking courses. In order to graduate, students must have an overall GPA and an upper-division GPA of 2.0 or better (C or better). A C- average is equivalent to a GPA of 1.67, and it therefore does not satisfy this graduation requirement. For more information on grades and grading policies, please visit:

<http://www.registrar.ufl.edu/catalog/policies/regulationgrades.html>.

### **UF Counseling Services:**

- Resources are available on-campus for students having personal problems or lacking clear career and academic goals. The resources include:
  - UF Counseling & Wellness Center, 3190 Radio Rd, 392-1575, psychological and psychiatric services.
  - Career Resource Center, Reitz Union, 392-1601, career and job search services.
- Many students experience test anxiety and other stress related problems. "A Self Help Guide for Students" is available through the Counseling Center (301 Peabody Hall, 392-1575) and at their web site: <http://www.counsel.ufl.edu/>.

### **Honesty Policy:**

- All students registered at the University of Florida have agreed to comply with the following statement: "I understand that the University of Florida expects its students to be honest in all their academic work. I agree to adhere to this commitment to academic honesty and understand that my failure to comply with this commitment may result in disciplinary action up to and including expulsion from the University."
- In addition, on all work submitted for credit the following pledge is either required or implied: *"On my honor I have neither given nor received unauthorized aid in doing this assignment."*
- If you witness any instances of academic dishonesty in this class, please notify the instructor or contact the Student Honor Court (392-1631) or Cheating Hotline (392-6999). For additional information on Academic Honesty, please refer to the University of Florida Academic Honesty Guidelines at: <http://www.dso.ufl.edu/judicial/procedures/academicguide.html>.

### **Accommodation for Students with Disabilities:**

- Students who will require a classroom accommodation for a disability must contact the Dean of Students Office of Disability Resources, in Peabody 202 (phone: 352-392-1261). Please see the University of Florida Disability Resources website for more information at: <http://www.dso.ufl.edu/drp/services/>.
- It is the policy of the University of Florida that the student, not the instructor, is responsible for arranging accommodations when needed. After notification, the Dean of Students Office of Disability Resources will work with the instructor to accommodate the student.

## Outline of Topics

<i>Date</i>	<i>Topic</i>
August 25	Introduction to systematics (Ch. 1)
August 27	Nomenclature; principles of systematics; phylogenetics (Ch. 2, 3; Appendix 1)
Lab 1	Intro to lab; Field techniques; tools of plant identification; keying; Boltaceae; keys, floras, monographs (Appendix 2; Lab 1 and pp 8-10 of lab book)
September 1	Principles of systematics, phylogenetics continued (Ch. 2)
September 3	Species and speciation; hybridization and polyploidy (Ch. 6)
Lab 2	Herbarium tour (pp 8-10 of lab book, from Lab 2); Databases; Phylogeny reconstruction
September 8	Molecular systematics (Ch. 5)
September 10	Introduction to the green plants (Viridiplantae) (Ch. 7)
Lab 3	Intro to georeferencing and use of georeferenced collection data; Molecular sequence alignment
September 15	Embryophytes, vascular plants, and seed plants: overview (Ch. 7)
September 17	Lycophytes (Ch. 8)
Lab 4	Vegetative characters (Ch. 4; Lab 2 of lab book); Alternation of generations; Intro to embryophyte clades
September 22	Ferns (Ch. 8)
September 24	Gymnosperms: cycads, <i>Ginkgo</i> , Gnetales (Ch. 8)
Lab 5	Lycophytes, ferns; use and construction of keys (Lab 5 of lab book)
September 29	Gymnosperms: conifers (Ch. 8)
October 1	Angiosperms: overview and basal lineages (Ch. 9, appropriate sections)
Lab 6	Gymnosperms; key practice (Ch. 8; Lab 6 of lab book)
October 6	<b>Test 1</b> (through gymnosperms)
October 8	<i>First Flower</i>
Lab 7	Floral characters (Ch. 4, Lab 3 of lab book); Fruit characters (Ch. 4, Lab 4 of lab book)
October 13	Angiosperms: magnoliids (throughout rest of semester: read corresponding sections from Ch. 9)
October 15	Eudicot angiosperms: Overview; Ranunculales, Saxifragales
Lab 8	Basal angiosperms, magnoliids, Ranunculales, Saxifragales
October 20	Eudicot angiosperms (rosids): Malpighiales, Cucurbitales
October 22	WeDigBio International Transcription Event
Lab 9	Malpighiales, Cucurbitales

October 27 Eudicot angiosperms (rosids): Rosales, Fabales  
October 29 Eudicot angiosperms (rosids): Fagales, Myrtales, Brassicales  
Lab 10 Rosales, Fabales, Fagales, Myrtales, Brassicales

November 3 Eudicot angiosperms (rosids): Malvales, Sapindales  
November 5 **Test 2** (through rosids)  
NO LAB: Homecoming

November 10 Eudicot angiosperms: Santalales, Caryophyllales  
November 12 Eudicot angiosperms (asterids): Cornales, Ericales  
Lab 11 Malvales, Sapindales, Santalales, Caryophyllales, Cornales, Ericales

November 17 Eudicot angiosperms (asterids): Solanales, Gentianales  
November 19 Eudicot angiosperms (asterids): Lamiales, Apiales  
Lab 12 Solanales, Gentianales, Lamiales, Apiales

November 24 Eudicot angiosperms (asterids): Asterales  
November 26 Thanksgiving  
NO LAB: Thanksgiving

December 1 Angiosperms: monocots  
December 3 Angiosperms: monocots  
Lab 13 Asterales, monocots

December 8 Angiosperms: monocots

**FINAL EXAM:** Tuesday, Dec. 13, 7:30-9:30 am, place to be announced

**LAB WEBSITE:** e-learning; <https://lss.at.ufl.edu/>  
Log in with your gatorlink userID and password