

BOT 2710: Practical Plant Taxonomy

Fall, 2019

Course Syllabus and Information

Class Location & Time:

Lecture: Tuesday & Thursday 2nd period (8:30-9:20 AM), Bartram 211

Laboratory: 4 sections (Thurs. per. 6-8; Thurs. per. 10-12; 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 & psoltis@flmnh.ufl.edu

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

Teaching Assistants: *Anthony Melton* (aemelton@ufl.edu); *Maria Beatriz de Souza Cortez* (mariabiacortez@gmail.com)

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://elearning.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. (2015) *Plant Systematics: A phylogenetic approach, Fourth Edition*. Sinauer Associates; Third Edition is also fine.
(2) Laboratory Manual, available as a pdf on course website.
(3) **Optional:** Castner, J. 2004. *Photographic Atlas of Botany*. (can also be obtained through lab, usually more cheaply)
(4) **Optional:** Harris, J. G. and M. W. Harris. 2001. *Plant Identification Terminology: An Illustrated Glossary*. Spring Lake Publ.

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

Grading: Grade based on total of 600 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)

2 assignments (50 points each; details to come later)

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; *movie nights*; *other opportunities*)

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

Grading Scale:	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:

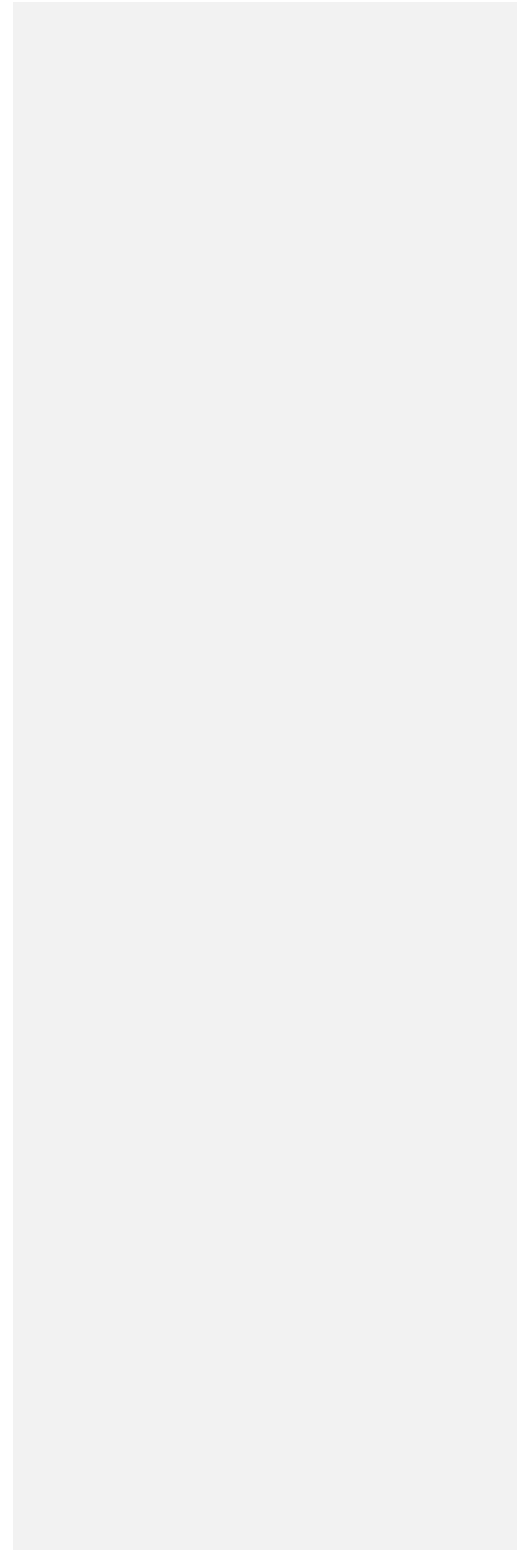
- All students registered at the University of Florida have agreed to comply with the following statement: “I understand that the University of Florida expects its students to be honest in all their academic work. I agree to adhere to this commitment to academic honesty and understand that my failure 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 20	Introduction to systematics (Ch. 1)
August 22	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)
August 27	Principles of systematics, phylogenetics continued (Ch. 2)
August 29	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 3	Molecular systematics (Ch. 5)
September 5	Introduction to the green plants (Viridiplantae) (Ch. 7)
Lab 3	Intro to georeferencing and use of georeferenced collection data; Molecular sequence alignment
September 10	Embryophytes, vascular plants, and seed plants: overview (Ch. 7)
September 12	Lycophytes (Ch. 8)
Lab 4	Vegetative characters (Ch. 4; Lab 2 of lab book); Alternation of generations; Intro to embryophyte clades
September 17	Ferns (Ch. 8)
September 19	Gymnosperms: cycads, <i>Ginkgo</i> , Gnetales (Ch. 8)
Lab 5	Lycophytes, ferns; use and construction of keys (Lab 5 of lab book)
September 24	Gymnosperms: conifers (Ch. 8)
September 26	Angiosperms: overview and basal lineages (Ch. 9, appropriate sections)
Lab 6	Gymnosperms; key practice (Ch. 8; Lab 6 of lab book)
October 1	Test 1 (through gymnosperms)
October 3	<i>First Flower</i> NO LAB: HOMECOMING
October 8	Angiosperms: magnoliids (throughout rest of semester: read corresponding sections from Ch. 9)
October 10	Eudicot angiosperms: Overview; Ranunculales, Saxifragales
Lab 7	Floral characters (Ch. 4, Lab 3 of lab book); Fruit characters (Ch. 4, Lab 4 of lab book)
October 15	Eudicot angiosperms (rosids): Malpighiales, Cucurbitales
October 17	WeDigBio International Transcription Event
Lab 8	Basal angiosperms, magnoliids, Ranunculales, Saxifragales, Malpighiales, Cucurbitales

Commented [MOU1]: Use one tree one planet app in one of these early labs

October 22 Eudicot angiosperms (rosids): Rosales, Fabales
October 24 Eudicot angiosperms (rosids): Fagales, Myrtales, Brassicales
Lab 9 Rosales, Fabales, Fagales, Myrtales, Brassicales

October 29 Eudicot angiosperms (rosids): Malvales, Sapindales
October 31 Eudicot angiosperms: Santalales, Caryophyllales
Lab 10 Malvales, Sapindales, Santalales, Caryophyllales

November 5 **Test 2** (through rosids)
November 7 Eudicot angiosperms (asterids): Cornales, Ericales
Lab 11 Cornales, Ericales, Solanales

November 12 Eudicot angiosperms (asterids): Solanales, Gentianales
November 14 Eudicot angiosperms (asterids): Lamiales, Apiales
Lab 11 Gentianales, Lamiales, Apiales, Asterales

November 19 Eudicot angiosperms (asterids): Asterales
November 21 Angiosperms: monocots Thanksgiving
Lab 12 Asterales (cont.), monocots

November 26 Angiosperms: monocots
November 28 Thanksgiving
NO LAB: Thanksgiving

December 3 Angiosperms: monocots

FINAL EXAM: Tuesday, Dec. 12, 7:30-9:30 am, place to be announced

LAB WEBSITE: e-learning; <http://elearning.ufl.edu/>
Log in with your gatorlink userID and password

Commented [MOU2]: WI trip—show movie that day? Or test