

BOT2710 – Practical Plant Taxonomy

Fall 2018, 3 credits

I. Class Meeting Times

Lecture: Tuesday, Thursday	Period 2	8:30–9:20am	Bar 211
Lab: Thursday 0611 (11294)	Periods 6–8	12:50–3:50pm	Rolfs 105
Thursday 01BC (11293)	Periods 10–E1	5:10–8:10pm	Rolfs 105
Friday 1129 (11296)	Periods 2–4	8:30–11:30am	Rolfs 105
Friday 0613 (11295)	Periods 6–8	12:50–3:50pm	Rolfs 105

II. Instructors

Dr. Emily Sessa, Professor
Office: 521A Bartram Hall
Email: emilysessa@ufl.edu

Maria Cortez, TA
Office: Dickinson Hall
Email: mariacortez@ufl.edu

Ann Wagner, Lab Coordinator
Office: 111 Rolfs Hall
Email: amwagner@ufl.edu

Lindsey Riibe, TA
Office: 521 Bartram Hall
Email: la.riibe@ufl.edu

Jeffrey Hubbard, Greenhouse Manager
Office: 210 Bartram Hall
Email: raybot66@ufl.edu

ALL OFFICE HOURS ARE BY APPOINTMENT ONLY – SET UP IN ADVANCE VIA EMAIL

III. Course Communications

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 class.

IV. Course Description & Learning Objectives

Introduction to plant taxonomy and systematics including principles of systematic botany, nomenclature, and classification. We emphasize identification of major plant families and using keys. Students will learn to recognize major groups of ferns, lycophytes, gymnosperms, and flowering plants, using specimens that are present in the UF greenhouses or locally collected (with permission). We focus on traits needed to recognize these groups of plants anywhere in the world.

Learning outcomes:

- Understand principles of plant systematics, nomenclature, and classification.
- Become proficient in plant identification skills, including the use of technical keys.
- Learn to recognize major plant families in the field.
- Learn to understand and interpret phylogenetic trees.
- Gain a basic understanding of botanical vocabulary and terminology.
- Learn about major themes and trends in plant evolution.

V. Herbarium & Greenhouses

The herbarium is located in 379 Dickinson Hall. The herbarium library includes an extensive collection of useful books on plant systematics and identification and is open daily from 9am–5pm (closed during lunch). Request admittance the front desk of Dickinson.

The greenhouses are located behind and around Bartram and Carr Halls. Contact Jeff Hubbard (email provided above) for greenhouse access. They are normally open 9am–4pm on weekdays.

VI. Required Equipment & Texts

- Dissecting kit (including dissecting needles, single-edged razor blades, and forceps)
- Colored pencils
- 10x hand lens (optional, but may be helpful)

(1) Judd et al. (2015) *Plant Systematics: A phylogenetic approach, Fourth Edition*. Sinauer.

(2) Castner, J. (2004) *Photographic Atlas of Botany*. (Obtained through lab)

(3) Optional: Harris & Harris (2004) *Plant Identification Terminology*. Spring Lake.

VII. Assessments and Grading

Your grade is calculated out of a total of 635 points, as follows:

	Points		Points		Points
Exams (80 pts each)	160	A	572—635	C	445—469
Lab practical	80	A-	552—571	C-	425—444
Lecture attendance	75	B+	533—551	D+	206—424
Lab quizzes (10 pts each)	80	B	508—532	D	381—205
Lab activities (20 pts each)	240	B-	489—507	D-	362—380
Total	635	C+	470—488	E	361 and below

*Note that a “C-“ or lower are not qualifying grades 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). Note: a C- average is equivalent to a GPA of 1.67, and therefore, it 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>

Information about assessments:

- **Exams:** There are two exams, a midterm held in a regular course meeting period, and a final held at the university-assigned time during finals week. The final is NOT cumulative. Exams are a mix of multiple choice, short answer, matching, drawing, etc. Each exam is worth 80 points.
- **Lab practical:** The lab practical is held during the same two-hour period as the final exam; students take one and then the other (more information will be provided towards the end of

the semester). The practical involves identifying plants to family based on specimens provided. The practical is worth 80 points.

- **Lecture attendance:** Attendance is taken daily in lecture starting during the first full week of class. You are allowed TWO unexcused absences. Total possible points for perfect attendance is 75 points.
- **Lab quizzes:** Quizzes will be held weekly in lab starting during week 3, and can include material from any family covered previously in class. Think of these quizzes as practice for the lab practical at the end of the semester. Quizzes are worth 10 points each, and the lowest grade is dropped at the end of the semester.
- **Lab activities:** Each week in lab students are responsible for completing a worksheet with one or more activities. This must be handed in before you leave at the end of class that day. Labs are worth 20 points each and the lowest grade is dropped at the end of the semester.

VIII. UF Counseling Services

Resources are available on-campus for students having personal problems or struggling to define academic and/or career goals. These include:

- UF Counseling & Wellness Center, 3190 Radio Rd, 392-1575, provides psychological and psychiatric services, and can assist with stress & anxiety issues (<http://www.counsel.ufl.edu/>)
- 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/>.
- Career Resource Center, Reitz Union, 392-1601, career and job search services.

IX. Attendance and Conduct in Class

Students are expected to be on time for class, and attendance in all class periods is **mandatory**. Please contact the instructor at least one week in advance if you must be absent. **This includes excused absences for religious or athletic reasons.**

Note that attendance is taken in lecture in this course. If you are late to class it is YOUR RESPONSIBILITY to approach the instructor after class to make sure your attendance is recorded. Failure to do so may result in loss of attendance points.

The policies for allowable absences and make-up work follow the university attendance policies: <https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>. The student is responsible for scheduling any make-up work with the instructor.

Approved electronic devices may be used in class. Approved electronic devices include laptop computers (when used to take notes or otherwise participate in classroom activities) and voice recording devices. Unapproved electronic devices include cell phones, MP3 players, etc.

X. Accommodations for Students with Disabilities

Students who require accommodations for a disability must contact the Dean of Students Office of Disability Resources, in Peabody 202 (phone: 352-392-1261). Please see the DRC website (<http://>

www.dso.ufl.edu/drc/) for more information. Students must provide documentation of accommodation requirements to the primary course instructor (NOT a TA) **by the second week of classes**. It is the policy of the University of Florida that the student, not the instructor, is responsible for arranging accommodations when needed. Once notification is complete, the Dean of Students Office of Disability Resources will work with the instructor to accommodate the student.

XI. 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>.

XII. Lecture & Lab Schedule (subject to change)

Week	Lec #	Date	Topic	Readings
1	—	23-Aug	NO LECTURE TODAY	
	Lab 1		Lab: Vegetative characters, keying	
2	1	28-Aug	Intro to Green Plants (Viridiplantae)	ch. 6, 158-176
	2	30-Aug	Lycophytes & Ferns	ch. 7, 194-216
	Lab 2		Lab: Lycophytes, ferns	
3	3	4-Sep	Gymnosperms I	ch. 7, 216-222, 230-232
	4	6-Sep	Gymnosperms II	ch. 7, 222-230
	Lab 3		Lab: Gymnosperms (quiz 1)	
4	5	11-Sep	Phylogenetics, molecular systematics	ch. 2
	6	13-Sep	Angiosperm overview, pollination syndromes	ch. 8, 237-244; ch. 4, 79-85
	Lab 4		Lab: Flowers, fruits, inflorescences (quiz 2)	ch. 4, 73-79, 85-94
5	7	18-Sep	Field techniques, meet the TAs	
	8	20-Sep	ANA grade	ch. 8, 244-299
	Lab 5		Lab: Herbarium module	
6	9	25-Sep	Magnoliids	ch. 8, 250-262
	10	27-Sep	Monocots I	ch. 8, 263-276
	Lab 6		Lab: ANA families, Magnoliids (quiz 3)	
7	11	2-Oct	Monocots II	ch. 8, 276-291
	12	4-Oct	Monocots III	ch. 8, 293-296, 300-317
	Lab 7		Lab: Monocots (quiz 4)	
8	13	9-Oct	Ranunculales, Saxifragales, Vitales	ch. 8, 323-343
	14	11-Oct	Rosids I: Malpighiales, Fabales, Cucurbitales	ch. 8, 348-375; 393-397
	Lab 8		Lab: Ranunculales, Vitales, Malpighiales (quiz 5)	
9	—	16-Oct	EXAM I (on material through lecture 13; NOT lecture 14)	
	15	18-Oct	Rosids II: Fagales	ch. 8, 397-409
	Lab 9		Lab: Fabales, Cucurbitales, Fagales	

10	16	23-Oct	Rosids III: Rosales	ch. 8, 375-393
	17	25-Oct	Rosids IV: Myrtales, Brassicales	ch. 8, 409-424
	Lab 10		Lab: Rosales, Myrtales, Brassicales (quiz 6)	
11	18	30-Oct	Rosids V: Sapindales, Malvales	ch. 8, 424-442
	19	1-Nov	In-class review session	
	—		NO LABS – HOMECOMING	
12	20	6-Nov	Santalales, Caryophyllales	ch. 8, 442-465
	21	8-Nov	Caryophyllales, cont.	ch. 8, 442-461
	Lab 11		Lab: Sapindales, Malvales, Santalales, Caryophyllales (quiz 7)	
13	22	13-Nov	Asterids I: Cornales, Ericales	ch. 8, 465-486
	23	15-Nov	Asterids II: Gentianales, Solanales	ch. 8, 487-503
	Lab 12		Lab: Ericales, Gentianales, Solanales (quiz 8)	
14	24	20-Nov	Asterids III: Lamiales	ch. 8, 503-523
	—	—	NO LECTURE – THANKSGIVING	
	—	—	NO LABS – THANKSGIVING	
15	25	27-Nov	Asterids IV: Apiales, Aquifoliales, Dipsacales	ch. 8, 523-537
	26	29-Nov	Asterids V: Asterales	ch. 8, 537-549
	Lab 13		Lab: Lamiales, Apiales, Aquifoliales, Asterales (quiz 9)	
16	27	4-Dec	Carnivorous plants	
		TBD	Final Exam (lectures 14–27) and Lab Practical	