

BOT2010C Introductory Botany

Fall 2018 - 3 credits

Lecture: Tuesdays and Thursdays, period 5 (11:45 – 12:35), Room 103 Fine Arts B (FAB), off SW 13th Street

“Lecture” Instructors

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Laboratory Coordinator

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The course has three main sections:

Part 1: How plants meet their water and nutrient needs (Exam 1).

Part 2: How plants grow and reproduce (Exam 2).

Part 3: Plant genetics, evolution, and diversity (Exam 3).

Throughout our studies in these core areas, we will gain experience with:

- The scientific method;
- Evaluating different types of science communications (research articles, reviews, perspectives);
- The modern societal relevance of core botanical topics;
- Evaluating social issues such as transgenic crops and climate change;
- Working as part of a team to solve problems;
- Presenting your work orally and in written forms.

Texts and Supplies

1. Berg, Linda R. 2008. *Introductory Botany: Plants, People, and the Environment*. 2nd edition. Belmont, Thomson Brooks/Cole.
2. *Laboratory manual for Introductory Botany (BOT2010C), Fall 2018*. Will soon be available at Target Copy on University Avenue across from UF's Main Library.

Additional reading and in-class exercises printed from the Canvas e-learning site for the course.

Software: WORD or equivalent word-processing software.

Course grades will be determined as follows:

Quizzes on assigned reading	= 16%
In-class and at-home exercises	= 16%
Lecture exams	= 30%
Laboratory	= 38%

Lecture readings and assignments: All lecture readings and assignments should be completed prior to coming to lecture (a copy of the textbook is on reserve in Marston Science Library, if you haven't already obtained a copy). For example, before coming to class on August 20th, you should have already read Chapter 1 of your text book. Please take into serious consideration the expectation that for each hour in class (i.e., "lecture") you are supposed to spend 2 hours working on your own. Your taking a portion of this 2 hours to read about a topic BEFORE coming to class will allow us to avoid using lecture periods as information dump sessions and instead to concentrate on learning. As motivation for you to read before class (and as a way to assess what portions of the reading gave you trouble), a substantial portion of your grade in this course will be based on your having successfully completed a series of on-line chapter quizzes that are due before class starts.

Laboratory: Your laboratory grade will be based on pre-lab questions, post-lab quizzes and assignments, and your lab project and its presentation in a course symposium. Please consult your lab instructor for details concerning preparation for the lab quizzes and completing assignments. Details regarding the lab project and symposium will be provided as the time approaches. Pre-lab questions and the previous week's post-lab assignments and quizzes will be due at the beginning of your lab section unless otherwise stated.

Course attendance, curves, and make up policy: Attendance is required and essential for success in this course. If you have a **valid documented excuse and notify us in advance**, you will be permitted to make up missed assignments for the full point value.

Grades: Your grade will be calculated as follows:

93-100% A; 90-92% A-; 87-89% B+; 83-86% B; 80-82% B-; 77-79% C+;

73-76% C; 70-72% C-; 67-69% D+; 63-66% D; 60-62% D-; 0-59% E

Grades will be rounded to the nearest whole point (e.g. 89.5 = 90, 89.49 = 89)

Information on current UF grading policies for assigning grade points can be found at:

<https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

Remember that the time to improve your grade is during the semester, not after final grades are calculated. Grades will only be changed at the end of the semester if there were calculation errors.

Career Resources:

Ecological Society of America – Ecology jobs, internships, graduate school positions, etc. If you're looking for summer or post-graduate opportunities in ecology or evolutionary biology, it's a great idea to sign up for this listserve, or occasionally check the archives. Working as an ecological intern is a great way to travel, contribute toward novel research, network, and build new skills (and a stronger resume).

<https://listserv.umd.edu/archives/ecolog-l.html>

<http://www.conservationjobboard.com> is another excellent place to look for similar opportunities.

If you need help developing your application materials (cover letters, resume, CV, etc), the UF Career Resource Center, Reitz Union, 392-1601, is a great place to start.

UF Counseling 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/>.

Your well-being is important to the University of Florida. The U Matter, We Care initiative is committed to creating a culture of care on our campus by encouraging members of our community to look out for one another and to reach out for help if a member of our community is in need. If you or a friend is in distress, please contact umatter@ufl.edu so that the U Matter, We Care Team can reach out to the student in distress. A nighttime and weekend crisis counselor is available by phone at 352-392-1575. The U Matter, We Care Team can help connect students to the many other helping resources available including, but not limited to, Victim Advocates, Housing staff, and the Counseling and Wellness Center (UF Counseling & Wellness Center, 3190 Radio Rd, 392-1575). Please remember that asking for help is a sign of strength. In case of emergency, call 9-1-1.

Academic 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: <https://catalog.ufl.edu/ugrad/current/advising/info/student-honor-code.aspx#honesty>.

Plagiarism is a serious violation of the Student Honor Code that includes:

- Submitting all or part of someone else's work as if it is your own
- "Borrowing" ideas or prose without crediting the source
- Submitting duplicate assignments
- Collaboration on assignment when such collaboration is not part of the work
- Failing to cite sources, or citing them improperly

Consequences of plagiarism:

- Failing grade on assignment AND
- Course grade penalty of one letter grade AND
- Report to the Office of the Dean of Students.

Please review plagiarism and how to avoid it:

http://www.uflib.ufl.edu/msl/subjects/images/plagiarism_26_guidelines.pdf

Accommodations 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 UF Disability Resources website at: <http://www.dso.ufl.edu/drc/>. Note that the student should provide documentation of a requirement for accommodation by the second week of classes. No accommodations are available to students who lack this documentation. It is UF's policy that the student, not the instructor, is responsible for arranging accommodations when needed. Once notification is complete, the Dean will work with the instructor to accommodate the student.

Course schedule

Day	Date	Lecture Topic and Readings	T or W Lab	Notes on Lab
T	Aug 20	Introduction & data graphing, Ch 1	No lab	
R	22	Chemistry of life, mostly water, Ch 2		
T	27	Photosynthesis, Ch 4	1. Introduction to plants and the growth experiment	
R	29	Energy & carbon, Ch 4		
T	Sept 3	Respiration; topic selection for plant growth project	2. Photosynthesis & respiration	
R	5	Carbon cycle		
T	10	Water	3. Plant growth project - set up experiment	
R	12	Water, wood, & SPAC, Ch 10		
T	17	Leaves, Ch 8	4. Water	
R	19	Flowers & fruits, Ch 9		
T	24	Exam 1	5. Plant interactions	Go to NATL
R	26	Plant Cells, Ch 3		
T	Oct 1	Primary & secondary growth, Ch 5-7	6. Plant growth experiment data collection	Bring your laptop
R	3	Biomechanics		
T	8	TBA	7. Biomechanics	Bring plant material to test (N>15)
R	10	Nitrogen		
T	15	Enzymes, p. 36-38	8. Plant diversity, flowers and fruits	
R	18	TBA		
T	22	Nitrogen Cycle, p. 532-534	9. Plant growth experiment statistics workshop	Bring formatted data and laptop
R	24	Exam 2		
T	29-Jen	DNA & protein synthesis, Ch 12-14	10. Genetics (fern)	
R	31-Jen	Genotype to phenotype, Ch 14		
T	Nov 5-Jen	Genetic frontiers, Ch 15	11. Genotype to phenotype with mutants (under development)	Take home data, submit report next lab
R	7-Jen	Evolution through natural selection, Ch 16		
T	12	Speciation & diversity, Ch 17	12. Mitosis and meiosis	Bring plant materials to test (n > 15)
R	14	Ecology of Florida, Ch 26		
T	19	TBA	Review of drafts of posters	
R	21	Exam 3		
T	Dec 3	Poster symposium (Appendix III)	Poster Symposium	