

BOT 1010L: Introductory Botany Lab Syllabus – Spring 2017

Department of Biological Sciences, Florida International University—modified 1/16

Instructors/Teaching Assistants (TA): Wendy Villavicencio (Head TA), Jaeson Clayborn

TA office and office hours: provided by your TA

TA e-mails: jclay010@fiu.edu, wvill009@fiu.edu

Instructor of record: John Cozza, jcozza@fiu.edu (please give me any and all feedback about the lab, but contact your TA first about lab-specific concerns or questions)

Lab sections:

<u>Section</u>	<u>Day</u>	<u>Time</u>	<u>Lab Room</u>	<u>Teaching Assistant</u>
U01	T	8:00-10:50 am	OE 169	Jaeson Clayborn
U02	T	11:00-1:50 pm	OE 169	Jaeson Clayborn
U03	T	2:00-4:50 pm	OE 169	Wendy Villavicencio

Learning goals: By the end of this lab experience, you will be able to

- Grow plants indoors and outdoors from seed, and describe their growth and development.
- Design, perform, and interpret the results of basic botanical lab experiments.
- Describe and compare major features of plants, and identify local plants using a key.

Lab Manual: Lab activities will be available on Blackboard, and should be printed out and read before coming to class.

Reading Assignments: Every student is required to read each lab assignment **before** the lab period. This is essential for you to fully understand the procedures, be able to complete the tasks in the time available, and answer the questions for each assignment. Weekly quizzes will include questions about the assigned readings for the previous week, and also the current week's activities. Bring your lab manual and notebook to class each week.

Grading Scale:

A = 93-100%; A- = 90-92%; B+ = 87-89%; B = 83-86%; B- = 80-82%; C+ = 77-79%;
C = 70-76%; D = 60-69%; F = 0-59%

Quizzes and homework	100 pts (11 assignments/drop lowest grade)
Pot-luck presentation	50 pts
Final:	100 pts
Lab Portfolios:	100 pts
<u>Lab Participation:</u>	<u>50 pts</u>
Total:	400 pts

No unearned points will be added to anyone's grade. Grades will be rounded up or down to the nearest 1%.

Lab is experiential learning, so attendance is mandatory! If you miss more than 2 labs you will receive an F as your lab grade, regardless of excuse. You must be registered for the

section that you attend, and you must attend ALL of the labs. If this is a problem, you should drop this course. We will have much to do each week, so expect to stay the full 2 hours and 50 minutes. Do NOT schedule any conflicting appointments during lab time. Some labs will take place outdoors, so dress appropriately for the weather and the activity, and bring water.

Lab Notebook: Please use a 3-ring binder notebook to use for your lab notebook (your TA has an example). You will use this notebook to hold your print-outs of the lab exercises and to write your observations and results from both indoor and outdoor experiments, activities, and field trips. **Bring your notebook to every lab period.**

Lab portfolio: Creating a laboratory portfolio will assist you in making observations, and processing data and experiences. It also will allow your TA to evaluate your “formative learning,” or learning-in-progress. Your portfolio is a collection of your own original scientific observations, hypotheses, results, figures, and other information, put together in a meaningful way. Knowledge gained in the laboratory should be incorporated into your portfolio, and will help you prepare for quizzes and exams. You are expected to do your own original work. When lab work is done in teams, then data and results should be shared (and so credited) within and among teams (as specified by your TA), but written summaries and answers to questions must be done individually. Video and digital images may be included, as appropriate.

You will submit your portfolio to your lab instructor twice: once at midterm time, and again at the end of the lab course. The last lab portfolio will be due by 5 pm the Friday before the final exam. Submissions will be in a digital format such as Powerpoint slides. Your TA will explain how to do well; see chapter 1 of your lab manual for more detailed instructions.

Participation in the laboratory will be evaluated by your preparedness, work ethic, and technique, as well as your contribution to group activities, and your demonstrated respect for others, e.g. lab clean up.

Quizzes: Expect there to be a quiz every class meeting. Quizzes will be right at the start of the lab period. Each quiz will cover what you did and learned in the previous lab, and also what you will do in lab that day, so make sure that you carefully read that day's lab material before coming to class. You will receive a grade of **0** if you arrive in lab after the quiz has been handed out. **There will be no make-up quizzes given.**

Practical Exam: There will be a final practical exam during the last lab meeting of the semester. **There will be no make-up exams given.**

Course Policies: You must be right on time to class, and stay the full lab period. You must maintain high standards of academic honesty and integrity. Any student in violation of these standards will earn an automatic F for the assignment, and will be reported to the Deans Office for serious offenses—no exceptions made. As stated in the FIU Academic Affairs Policies and Procedures Manual (<http://academic.fiu.edu/polman/sec2web.htm#two-forty-four>), students shall not submit the academic work of another as their own. We may use *turn-it-in.com* or other tools to ensure originality. See the Manual of Student Conduct (<http://conduct.fiu.edu/code/>).

This syllabus information, and the lab schedule below, are subject to change. Check Blackboard for the most up-to-date version.

Schedule of Lab Activities

Week	Date	Topic and lab manual chapter(s)
1	Jan 10	1-Introduction to botany lab. Resource: "Glossary." Indoors and outdoors.
2	Jan 17	2-Planting for growth experiments. Planning the outdoor garden and testing seed viability. Basic plant morphology. Indoors and outdoors.
3	Jan 24	3-Plants at FIU: introduction to plants on campus; 4-Vegetable gardening: planting the outdoor garden. Outdoors.
4	Jan 31	5-Scientific method. 6-Growth of duckweed experiment: make hypotheses and set up today; collect data for the next 4 weeks.
5	Feb 7	7-Roots, stems, and leaves: general vascular plant morphology and adaptations. Indoors and outdoors.
6	Feb 14	8-Introduction to the microscope: biology of periphyton; observations of plant cells and tissues. Demo of lichens. Indoors.
7	Feb 21	9-Native and introduced plants of South Florida. Resource: "Common trees on the FIU campus and Miami" (look over before lab, but do not print out--copies are available in lab) for use of dichotomous keys. See also "FIU campus tree guide" and "Nature Preserve guide." Outdoors.
8	Feb 28	10-Plant kingdom: general campus and conservatory tour featuring major groups of plants. Duckweed experiment: final measurements and analysis of data. Indoors, outdoors and conservatory.
9	Mar 7	11-Visit to Fairchild Tropical Botanic Garden featuring plant form and function, adaptations, and communities. Outdoors; carpool and meet at Fairchild (free). <i>Portfolios due by 5 pm Friday.</i>
	Mar 14	<i>Spring break – No lab</i>
10	Mar 21	12-Plant growth and hormones: growth regulation and apical dominance. Indoors, outdoors, and greenhouse.
12	Mar 28	13-Supermarket botany. 14-Flowers and fruits. Collect data from hormone experiment. Indoors and greenhouse.
13	Apr 4	15-Visit to the Everglades (Shark Valley). Outdoors; carpool and meet at Shark Valley entrance (free).
14	Apr 11	16-Botanical pot-luck with your presentation of plants used. Indoors. <i>Portfolios due by 5 pm Friday.</i>
15	Apr 18	Final lab practical exam