

# BIO 301 – PLANT BIOLOGY LAB – SYLLABUS Spring 2021

Supervising Professor:  
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Zoom ID: 819 3793 7837 Password: 760571

<https://csuohio.zoom.us/j/81937937837?pwd=RExVc2tpVThmRHVpcHZtOHh2NlFhMQT09>

**Tamar Atwell**

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Zoom ID: 851 8010 0871 <https://csuohio.zoom.us/j/85180100871>

To contact by phone: leave a message with the department at 216-687-2440

## Lab meets:

section 1	- Wed. 12:15 – 2:05 PM	Room SI 226
section 2	- Wed. 10:15AM-12:05 PM	Room SI 226
section 3	- Wed. 2:15 – 4:05 PM	Room SI 226

Lab Manual: Evert, R. F., and Eichhorn, S. E. 2012. LABORATORY TOPICS IN BOTANY  
(PDFs of instructions, links and handouts available on Blackboard)

## Course objectives:

This lab class is designed to complement the material given in Bio 300 lectures. By the end of the course, in addition to the objectives of Bio 300, students should be able to:

1. Describe the complexity of plant cell structure and function.
2. Describe the anatomy and function of plant structures, including tissues, roots, stems & leaves.
3. Compare and contrast the structure and function of different groups of plants.
4. Select and operate microscopes and other basic laboratory equipment.
5. Demonstrate knowledge of laboratory skills required for gathering, analyzing and interpreting data in a scientific manner.

## Course Grading:

Quizzes (top 10 @ 15 points each)	150 pts (30%)
Homework assignments (top 10 @ 20 points each)	200 pts (40%)
Experiment write-up	100 pts (20%)
In-Lab Final Open-Book Exam/Writing assignment	<u>50 pts (10%)</u>
	500 pts (100%)

Final letter grades will be assigned by these % ranges:

A= 93-100%	B= 83-86%	C= 65-76%
A-= 90-92%	B-= 80-82%	D= 50-64%
B+= 87-89%	C+= 77-79%	F = <50%

- The scores associated with letter grade categories, as outlined above, are tentative. Actual letter-grade categories will be assigned after consideration of the final distribution of overall scores. However, the cutoff scores will never be greater than the traditional values listed above.

## Course Policies & Procedures:

- The lab syllabus is tentative & subject to change.
  - Course policies in this course are set by Dr. Corbett. The TAs are not authorized to modify or make exceptions to these policies. If you have questions or concerns about any policy, you are completely welcome to discuss it with Dr. Corbett.
  
- ATTENDANCE
  - You are expected to attend all lab sessions in person or online, as scheduled.
    - Due to Covid-19 social distancing requirements, YOU MUST attend the lab section in which you are enrolled and the Group A or B week to which you are assigned. There will not be seats available for extra students in most sections and you cannot attend a section/group that is not your own without advance permission from Dr. Corbett.
    - Certain in-person labs may be attended remotely by calling in via Zoom or BB Collaborate. You must have a documented reason to do so, and you must obtain advance permission from Dr. Corbett.
    - In the weeks you are scheduled for online labs, you must be available to take the quiz at the time your lab section begins. Other online activities may be done with more flexible timing, but you are encouraged to do your work during the actual lab period, because the TAs will be more accessible to you.
  - **If you are absent from more than two (2) labs for any reason, you must contact Dr. Corbett as soon as possible to make arrangements to avoid failing the course**
    - If you are absent from lab without a documented excuse, your quiz and/or homework score will be zero.
    - If you are absent WITH a documented excuse, please contact Dr. Corbett with the excuse as soon as you can, to see if make-ups or deadline extensions are possible.
  - Do not assume that you can pass if you skip classes. If you do miss a lab, you often will not be able to make up the activities you missed. If you have any doubts about your responsibilities, please ask.
  
- QUIZZES
  - Weekly pre-lab quizzes will be online in Blackboard
    - Quizzes will be available at the beginning of your scheduled lab period for 15 minutes. Once you start the quiz, you have 10 minutes to complete it.
    - They will be a mix of multiple choice, true-false and fill-in-the-blank questions for a total of 15 points
    - They will be based on the “pre-lab” instructions and powerpoint content posted to Blackboard for that week’s activity
    - If you are kicked out of a quiz, the timer will keep running – log back in as soon as possible to complete the quiz. Email Dr. Corbett right away if you are kicked out and cannot get back in.
  - Make-up quizzes for in-person labs cannot be given and quizzes for online labs will not be made available after the 2 hour lab session has passed.
  - You are expected to take the online quizzes using no other materials – so no looking at other web pages, other devices, printed notes etc. Referring to any material outside of the quiz is considered cheating and a violation of Student Code of Conduct
    - You may use a blank piece of paper and a pencil for any calculations that may be needed during a quiz.
  - Missed quizzes earn a score of zero. Your 2 lowest scores on the weekly pre-lab quizzes will be dropped at the end of the semester and the top 10 quizzes will count for 30% of your final grade.

## ▪ HOMEWORK ASSIGNMENTS

- Every week there will be a homework assignment that will be some combination of questions based on what you actually do during the lab period and work you are asked to do outside of lab period.
  - You are expected to write answers in your own words and sketch your own drawings
  - When including information from other sources, you **may not use direct quotes** – you must use the scientific writing style of paraphrasing material and citing the source of your information.
  - Your answers must be in a separate file created by you – do not just add them to the original question file. The report must be prepared using a word processor and submitted as either a single MS-Word or PDF file.
- Each report will be due electronically through Blackboard, due at 11:30pm the Tuesday after your lab. It is your responsibility to make sure the assignment is correctly submitted. The report must be prepared using a word processor and submitted as either a single MS-Word or PDF file.
- Your 2 lowest scores on the reports will be dropped at the end of the semester and the top 10 homework assignments will count for 40% of your final grade.
- Although students may work together on lab exercises during their lab period, and are welcome to discuss outside of lab, all report answers, including associated graphs, drawings, and tables, **must be your own work**. **Ensure that you know what plagiarism is and be very careful not to commit plagiarism in your reports.** If 2 or more students submit reports with overly similar written answers or overly similar graphs or drawings, all students involved will be assigned plagiarism penalties for that report.

## ▪ EXPERIMENT WRITE-UP & IN-LAB FINAL

- More details on these requirements will be made available in lab and on Blackboard later in the semester

## ▪ Extra credit opportunities, if any, will be posted as announcements on Blackboard.

## ▪ ACADEMIC HONESTY

- Students are expected to abide by all CSU Academic Regulations and Procedures. **Any form of academic misconduct will not be tolerated.** Cheating on quizzes, tests or exams, or plagiarism in writing assignments will be dealt with to the fullest extent possible.
  - "Cheating" includes copying or receiving help from another student on quizzes, copying on assignments, as well as allowing another student to copy from your work. Receiving or giving help on a quiz from someone else by using an electronic device, such as a mobile phone or Apple Watch, constitutes cheating. Copying another student's work, or allowing someone else to do your work for you or to copy from your work, is also considered cheating.
  - **Plagiarism** is a form of cheating where you present someone else's writing as your own. It is up to each student to review the materials provided in class and on Blackboard that define plagiarism and advise you on how to avoid it.
    - If minor plagiarism occurs on a homework or other assignment, you may get zero on the question or zero on the report. Repeated occurrences of minor plagiarism will be considered major plagiarism.
    - If major plagiarism or cheating occurs on a quiz or report, the student will receive a grade of 0 for that component of the course. If a student cheats a second time during the course after receiving a warning and/or consequence, the student will receive an **F for the course**. Any cheating activity may be reported to the department or Dean's office for further action.
  - Information regarding the official CSU policy regarding cheating and plagiarism can be found in the CSU Code of Student Conduct at <https://www.csuohio.edu/sites/default/files/StudentCodeOfConduct.pdf> The above list is not intended to be exhaustive. All students are responsible for behaving ethically and adhering to the Student Code of Conduct.

- GENERAL LAB SAFETY
    - Federal *OSHA* regulations prohibit bringing food or drink into the lab, or placing anything in your mouth. The regulations also affect what you may wear in lab.
      - Since the regulation is that ***no one may bring food or drink into the lab***, if the TA can see that you have brought food or drink into the lab, the TA must request that you remove the item(s) from the lab and you **must** do so. This means, for example:
        - You may not enter lab with a water bottle visible in an outside mesh pocket of your backpack.
        - You also may not walk into lab carrying a water bottle, or food item, and then place it into your pack.
        - Food wrappers, empty drink containers, used gum, etc., may not be discarded in any waste basket inside the lab. (Guess where *OSHA* inspectors look when they carry out a spot-inspection?)
        - Similarly, in lab you may not open your bag, remove and drink from a bottle, and then return the bottle to your bag.
        - If you feel it necessary to drink during the lab period, you must leave your drink in the hallway outside the lab and go outside the lab to drink.
      - DRESS CODE - Regulations also what is safe to wear in a lab. The general rule is dress protectively. This means:
        - Long pants or full-length skirts only, so **no** shorts, capris, skirts above the ankle, jeans with worn holes, etc.;
        - Long sleeves only so **no** sleeveless or short-sleeve tops, no off-the-shoulder tops, no bare midribs and no see-through materials;
          - In addition, no pants, shirts, sleeves or scarves that are loose or draped in such a way that they could catch on equipment or drag through chemicals
        - Closed shoes only so **no** flip-flops, sandals, slippers, etc. (your shoes must cover your instep).
        - Long hair must be secured in a hair elastic or equivalent.
      - If you are not dressed to match the above dress code, you will not be allowed to attend lab.
      - Ignoring the *OSHA* regulations is a violation of the lab safety agreement you must sign in order to take this course.
    - You are expected to follow all laboratory procedures given in the lab instructions, including any directions of the Teaching Assistants.
    - You are expected to clean & wipe down your lab table, seat and any equipment used at the completion of the lab and push in the chairs. Cleaning must comply with COVID-19 sanitizing measures required by the university.
- COVID-19 HEALTH & SAFETY (Required Statement approved by Faculty Senate on 07/15/2020)
  - The COVID-19 pandemic is still present and serious. Before entering class, you should have completed your daily health assessment. While you are in class on campus, you are required to: sit in your designated seat, maintain physical distance, wear your facial covering (e.g., masks or face shields), always cough or sneeze into your elbow or tissue, use the materials provided to clean your desk and chair before and after use, and adhere to other public safety protocols and directives for your specific classroom/lab/studio.
  - Students who do not follow these health and safety requirements will be instructed to leave class immediately. Students who violate this protocol will need to leave the classroom and MAY be marked absent. Repeated violations of these health-saving protocols may lead to sanctions under the [Student Code of Conduct \(3344-83-04 \[E\] and \[Z\]\)](#) up to and including suspension or expulsion. The CSU community thanks you for your cooperation!
  - So, for Bio 301 lab, this means that each time you come to an in-person lab, you will:
    - Arrive for lab having already completed daily health assessment, wearing mask.
      - Also following lab safety rules for appropriate clothing, shoes and hair
      - If you accidentally forget a mask, there will be some extras that can be given out – however, TAs will be required to track who has been given masks during a lab.
    - Wait for TA to open/unlock door, with social distancing

- Enter the room 1 at a time, with social distancing
  - Remember – absolutely no food or drink, *including water bottles*, in the lab room
- Use hand sanitizer on your way in
- Wipe the seat & table with alcohol/paper towel before sit down
- Sit in only your assigned seat
- Get out only the materials that you need for the lab – leave everything else in your backpack
- Maintain social distancing while in the lab room and keep your mask on at all times
- Wipe down, wash or clean shared lab materials as instructed by the TA
- Clean up all lab materials before you leave, as instructed by the TA
- Wipe the seat & table with alcohol /paper towel before you leave

▪ STUDENTS WITH DISABILITIES

- Educational access is the provision of classroom accommodations, auxiliary aids and services to ensure equal educational opportunities for all students regardless of their disability. Any student who feels he or she may need an accommodation based on the impact of a disability should contact the Office of Disability Services at (216)687-2015. The Office is located in BH 147. Accommodations need to be requested in advance and will not be granted retroactively. Students with accommodations for extended time on exams must make arrangements to take exams at the testing center at least 48 hours in advance of the test. Contact the Office of Disability Services for additional details and instructions concerning this process.

## **BIO 301 – PLANT BIOLOGY LAB – Tentative Schedule Spring 2021**

Week	Date	Group A topic	Group B topic
1	Jan 20	Introduction & Syllabus quiz Remote via Zoom	Introduction & Syllabus quiz Remote via Zoom
2	Jan 27	F2F Ex01 - Experiment design & set-up	OL Ex01 – Informatics Exercise
3	Feb 3	OL Ex01 – Informatics Exercise	F2F Ex01 - Experiment design & set-up
4	Feb 10	F2F Ex02 – Anatomy Part I	OL Ex02 – Anatomy Part II
5	Feb 17	OL Ex02 – Anatomy Part II	F2F Ex02 – Anatomy Part I
6	Feb 24	F2F Ex03 – Anatomy Part III	OL Ex03 – Anatomy Part IV
7	Mar 3	OL Ex03 – Anatomy Part IV	F2F Ex03 – Anatomy Part III
8	Mar 10	READING DAY – No Class	READING DAY – No Class
9	Mar 17	F2F Ex04 – Diversity Part I	OL Ex04 – Diversity Part II
10	Mar 24	OL Ex04 – Diversity Part II	F2F Ex04 – Diversity Part I
11	Mar 31	F2F Ex05 – Diversity Part III	OL Ex05 – Diversity Part IV
12	Apr 7	OL Ex05 – Diversity Part IV	F2F Ex05 – Diversity Part III
13	Apr 14	Experiment harvest – part F2F, part OL Details TBA	Experiment harvest – part F2F, part OL Details TBA
14	Apr 21	Tree Scavenger Hunt – Outside on CSU campus (rain or shine)	Tree Scavenger Hunt – Outside on CSU campus (rain or shine)
15	Apr 28	Final Paper Due Zoom/OL Assignment within lab period	Final Paper Due Zoom/OL Assignment within lab period
16	May 5	EXAM WEEK - No Lab	EXAM WEEK - No Lab

NOTE: IT IS **STRONGLY** RECOMMENDED THAT YOU TAKE BOTH BIO 300 & BIO 301 IN THE SAME SEMESTER. THE COURSES ARE DESIGNED TO SUPPORT & COMPLEMENT EACH OTHER