



EAST TENNESSEE STATE
UNIVERSITY

College of Arts and Sciences

Department of Biological Sciences

BIOL 1111- Biology for Science Majors I Laboratory- Fall 2020

Course Information:

BIOLOGY 1111

Time:

Zoom Link: See you 1111 D2L page under the zoom tab

Instructor Information

Name

email

office hrs:

In this course we will study living systems at the cellular and molecular levels through scientific experimentation.

Students will:

1. Develop critical thinking and problem solving skills
2. Connect laboratory experiments to concepts taught in lecture
3. Develop basic scientific skill sets:
 - a. Describe hypothesis-driven and evidence-based research.
 - b. Identify accurate and reliable sources of information.
 - c. Apply rigorous experimental design and data collection.
 - d. Evaluate scientific results in context of methods or protocols used.
 - e. Construct appropriate and testable hypotheses and derive predictions.
 - f. Use effective representations and visualizations for biological data.
 - g. Articulate methods and knowledge in written and oral forms.
 - h. Apply statistical and tools to analyze and interpret data.
 - i. Apply biological research to address societal problems.

For each lab you should be able to answer these general questions

- *What is the general biological principle being tested in the experiment?*
- *How does this relate to what I am learning in lecture?*
- *What is the purpose of the experiment?*
- *What is/are my hypotheses?*
- *What general methods are being used to test my hypothesis?*
- *What are the variables being tested? What are my controls?*
- *What do I expect to happen? And why?*

Attendance:

ATTENDANCE IS MANDATORY. If you have MORE THAN TWO absences, you will receive zero (0) points for this class toward your BIOL 1111 final grade! For example, if you miss 3 classes you will receive a zero. An excused absence is as listed in the ETSU Undergraduate Catalog. These include University sponsored events or hospitalizations, death of immediate family member. If you are having ANY trouble in the class and need to miss for ANY REASON PLEASE let your TA know immediately and we will work with you.

Assignments:

There are three types of assignments in this course:

1. Lab Reports/Assignments- Two reports will be completed. Please follow the instructions posted in your lab manual (posted in TopHat) for specific instructions for each lab report.
2. Online Labster Quizzes/Questions. As you complete the online labs there will be a series of questions to answer. Completion of the online lab and questions are due by the following lab period. You will be given

time during your scheduled lab period to complete the lab but if you do not finish it will be your responsibility to complete by the following lab class.

- Final Lab Exam- There will be final, cumulative lab exam. It will consist of Essay questions on experimental design and the labs completed during the semester.

If you miss a lab and do not provide a valid excuse (hospital/doctor's note, obituary, etc) you will not be allowed to submit any missed assignments.

If dropbox is not working at the time you are submitting your work, you should IMMEDIATELY email your instructor the assignment. Be sure that you send the correct assignment. Failure to do so will result in a zero on that assignment.

Schedule for Fall 2020:

Week of	Topic	Assignments Due
August 24	No Lab	
August 31	Scientific Literacy Skills	
September 7	Lab 4 - Enzyme Kinetics	
September 14	Lab 4 - Enzyme Kinetics (Data Analysis)	Enzyme Kinetics Questions via Labster*
September 21	No Lab	Lab Report Due (Enzymes)
September 28	Lab 7/8 - Biotechnology	
October 5	Lab 3- Membrane Transport	Biotechnology Questions via Labster*
October 12	Lab 6- Cellular Respiration	Membrane Transport Questions via Labster*
October 19	Lab 6- Electron Transport Chain	Cellular Respiration Questions via Labster*
October 26	Lab 6- Pigment Extraction	Electron Transport Questions via Labster*
November 2	No Lab (Optional Review Session)	Lab Report Due (Cellular Respiration, ETC, Pigment)
November 9	LAB FINAL (100 pts)	

***Online labs are due by the following lab class.**

Grading:

Make sure you understand that you will NOT receive a grade for this course. The points you acquire during this lab will be added as 25% of the final grade for the lecture course (BIOL 1110).

Assignment	Total Points
Lab Reports	10% of Course Grade
Labster Questions/Assignments	5% of Course Grade
Final Exam	10% of Course Grade
TOTAL	25% of Course Grade

Cheating:

Any student found cheating (plagiarism or lab reports, sharing answers on quizzes and exams) will receive an F on the assignment and your entire course grade lowered by one letter grade. A second offense will receive an F in the BIO 1110 course (both lecture and lab as these classes bundled together). Please see your lab manual for detailed information about plagiarism.

In short this includes:

- Emailing your lab report to another student and using their work or looking at another students' lab report
- Under no circumstance should you email your lab report to another student. If you need to share data, please send the raw numbers from your lab manual.
- Students are to work separately on the lab reports. Although your partner is listed you are to construct your own tables, figures, and results. No two students should have the same wording and formatted figures.

If at any time during the semester you have questions concerning the laboratory, make sure you follow these steps:

- Talk to your instructor first _____, if you are not satisfied with their response
- Contact Dr. Foster fosterc@mail.etsu.edu and request a meeting.

Lab Safety:

Despite the fact that a biology lab has potentially hazardous materials, the careful and correct use of chemicals usually circumvents these hazards. Therefore, certain safety precautions will be taken in this lab throughout the semester. Familiarize yourself with the Department of Biological Sciences safety rules, as you will be expected to strictly adhere to them. If you are found in violation of any one of these safety rules, the instructor or laboratory coordinator will dismiss you from the laboratory and all work that day will receive a grade of zero. No excuses will be accepted or tolerated.

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