



EAST TENNESSEE STATE  
UNIVERSITY

College of Arts and Sciences

Department of Biological Sciences

## BIOL 1111 - Biology for Science Majors I Lab

- Fall 2022

### Course Information:

BIOLOGY 1111

### Time

Brown Hall 210

### Instructor Information

Name

email

Office hrs:

Lab supervisor: Trevor Chapman, [chapmanti@etsu.edu](mailto:chapmanti@etsu.edu), Office: Brown 310

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. An excused absence only means that you can submit the work that you missed. You are still

**SAMPLE SYLLABUS, OFFICIAL SYLLABUS WILL BE PROVIDED DURING THE COURSE**

not allowed to miss more than two lab classes. If you miss a lab class, it is your responsibility to contact your instructor and lab partners to see what you have missed.

**Assignments:**

*There are three types of assignments in this course:*

1. Lab Reports- Three lab reports will be completed. Please follow the instructions posted on D2L for specific instructions for each lab report
2. Quizzes- Your TA may give occasional **announced** quizzes, particularly around midterm
3. Final Lab Exam- There will be final, cumulative lab exam the last week of the semester. It will consist of multiple choice questions and essay/experimental design.

**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.**

Late assignments will not be accepted (unless with a valid ETSU excuse). Computer difficulties will not be accepted as an excuse. 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 2021:**

Week of	Topic	Lab Report Due (see your Lab D2L Dropbox page for specific date and time)
August 22	How to write a lab report, hypothesis testing	
August 29	Science Literacy Skills	
September 5	Labor Day – No labs	
September 12	Membrane Transport	Assign Report 1
September 19	Membrane Transport/ Data Analysis	
September 26	Enzyme Kinetics I	
October 3	Enzyme Kinetics II	Report 1 due, assign Report 2
October 10	Fall Break-No Lab	
October 17	NO LABS	
October 24	Cellular Energetics (Yeast Experiment)	Report 2 due
October 31	Cellular Energetics (Photosynthesis)	Assign Report 3
November 7	No Labs Veterans Day	
November 14	Lab Review	Report 3 due
November 21	No Labs - Thanksgiving Break	
November 28	<b>LAB FINAL (100 pts)</b>	

**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/Quizzes	15% of Course Grade
Final Exam	10% of Course Grade
<b>TOTAL</b>	<b>25% of Course Grade</b>

**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 D2L for detailed information about plagiarism.

In short this includes:

1. Emailing your lab report to another student and using their work or looking at another students' lab report
2. 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.
3. 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:

1. Talk to your instructor first \_\_\_\_\_, if you are not satisfied with their response
2. Contact Trevor Chapman (contact info above) 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.