

Introduction to Biology Lab Syllabus

BIO 1311

Course Information

Course Description

The TEL Library Introduction to Biology Lab course provides a comprehensive introduction to the laboratory study of life. In this class, students will learn about lab safety and explore topics like the metric system using the microscope and the scientific method. Students will learn how cells grow and divide, obtain and use energy, and pass genetic information to the next generation. Finally, students will learn the importance of biodiversity in ensuring the survival of a species. Students will complete 10 mastery assignments with lab activities including a formal lab report. This course can be taken either after or with a three-hour biology lecture course.

Course Outcomes

- Determine and evaluate the appropriate elements of a scientific experiment.
 - Execute the steps of an experiment, and evaluate and explain the findings.
 - Analyze the results of an experiment to determine if the steps of the scientific process or any scientific assumptions have been violated.
 - Write a lab report explaining your findings in an experiment.
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Course Materials

All reading necessary to complete required exercises are provided within the course platform. Links to additional, optional resources on external websites are also provided for each lesson in the Lesson Toolbox.

Required Lab Materials

1. Timer to measure seconds
2. 1 unsalted saltine cracker
3. Small Russet Potato

4. Hydrogen Peroxide
 5. Baking Soda
 6. Vinegar
 7. Water
 8. Metric Ruler
 9. 3 glasses, test tubes, or similar shaped clear plasticware or glassware
 10. Safety Goggles
 11. Gloves
 12. Apron
 13. A way to measure height and weight
 14. 3-4 balloons
 15. Yeast (like the kind for cooking)
 16. Sugar
 17. 2 empty soda or plastic water bottles
 18. Funnel
 19. Fabric Measuring tape
 20. Kitchen scale
 21. 50ml liquid dish detergent
 22. 2 teaspoons table salt
 23. Kiwifruit
 24. Strawberries
 25. Either plastic bags or a mortar and pestle
 26. Cheesecloth and a funnel or tea baskets
 27. 2 thin-walled glass containers
 28. 2 large bowls or ice buckets, full of ice
 29. Ice-cold rubbing alcohol (put it in the freezer **a few days in advance**)
 30. Thin twine or string
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Course Length

This is a self-paced course allowing students to learn according to their personal schedules. Overall, it is estimated that the course will take approximately 65 hours to complete.

It is recommended that students work through the course at a comfortable pace that allows regular, incremental (daily and/or weekly) progress. If assistance is needed with scheduling time in this course, students may refer to the pacing guide provided in the course documents, located on the course page. Please note, there is no penalty for late assignments as this is a self-paced course. However, if a student is enrolled in a TEL course through a school or institution, s/he is required to finish the course according to the academic calendar of the respective school or institution.

Prerequisite(s)

1303 Introduction to Biology - Can be taken simultaneously with this course.

Earning Credit

Minimum Passing Grade

To earn college credit for this course, students must earn a minimum average grade of 70% or higher. If a high school student receives less than 70% in this course, it is up to the school offering the course to grant high school credit for its completion.

Grading Policies

Grade Weighting

Assignment Category	Number	Grade Percentage
Check Your Knowledge Quizzes	16	5%
Module Quizzes	6	15%
Mastery Assignments	10	50%
Course Exam 1	1	15%
Course Exam 2	1	15%

Grading Scale

A	90.0 – 100.0%
B	80.0 – 89.9%
C	70.0 – 79.9%
D	60.0 – 69.9%

F	59.9% or below
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Assignment Grading Descriptions

Assignment Category	Description
Check Your Knowledge (CYK) Quizzes	Multiple-choice quizzes that are autograded. Students may take these as many times as desired to practice for module quizzes. Students receive full credit for attempting each CYK quiz but must complete it at least once to earn participation credit.
Module Quizzes	Multiple-choice quizzes that are auto-graded. Students may use notes and refer back to lessons and labs using a separate browser or the printable versions of lessons. Quizzes are not timed. Students may take these only once. Students will have quizzes in modules 1, 3, 5, 8, 9, and 10.
Mastery-Assignments	Rubric-based lab assignments that allow students to apply concepts in the course. Assignments are peer- and expert-graded to provide students with ample feedback. Students are also asked to peer-review other students' work to critically reflect on and evaluate skills learned in the course. Students receive a grade and feedback from instructional staff as well as feedback from their peers.
Course Exam 1	Proctored, multiple-choice exam that is auto-graded. Students may take this only once.
Course Exam 2	Proctored, multiple-choice exam that is auto-graded. Students may take this only once.

Course Policies

Academic Integrity Policy

TEL students are expected to practice academic integrity. If it is determined that a student has failed to comply with the Academic Integrity Policy, the issue(s) in question will be addressed by TEL, and subsequent action will be taken.

Cheating

TEL students are expected to refrain from acts of cheating. Examples of cheating include, but are not limited to the following:

- Accessing or attempting to access unauthorized course material
- Providing or attempting to provide unauthorized course material(s) to another person
- Using or attempting to use study aids during an academic exercise or examination
- Copying or attempting to copy another person's work
- Allowing another person to copy or attempt to copy your work
- Allowing someone else to complete your work
- Completing or attempting to complete someone else's work

Plagiarism

TEL students are expected to produce original work and refrain from acts of plagiarism. Examples of plagiarism include, but are not limited to the following:

- Copying someone else's work word-for-word
- Adopting someone else's ideas and presenting them as your own
- Using someone else's original work without acknowledging or citing the source

TEL instructors and instructional staff will use plagiarism detection software to check writing assignments for plagiarism.

Appropriate Use of Technology

TEL students are expected to use technology appropriately. Examples of the misuse of technology include, but are not limited to the following:

- Bypassing or attempting to bypass proctoring services
- Using or attempting to use unauthorized technology devices for examinations
- Providing or attempting to provide system credentials to an unauthorized person

Action in Response to Academic Misconduct

Students who knowingly and willingly engage in academic misconduct will be subjected to disciplinary action. Issues brought to or discovered by TEL will be evaluated on a case-by-case basis. Action stemming from the result of an inquiry may include, but is not limited to the following:

- Issuance of an Academic Integrity Warning
 - A grade reduction for the assignment or examination in question
 - A zero for the assignment or examination in question
 - Dismissal from the course
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Grade Discrepancies

Grades are awarded for a student's individual academic work during each semester based upon the student's mastery of the content. Disagreeing with a grader's score of the student's work does not qualify for a grade appeal. Moreover, students caught violating the Academic Integrity Policy must file an appeal if they disagree with the assessment of the student's actions.

Students who wish to appeal a grade to the Learning Experience Team must [submit this form](#) to start the appeals process. Upon the receipt of the appeal, the following process will be enacted:

1. Grade appeals will be submitted to an alternative, qualified member of our instructional staff. Specific grade discrepancies will be escalated to the office of TEL's Academic Dean for the re-evaluation of the assignment, rubric, and correct answers. At the Dean's request, TEL's Learning Experience Team will conduct a thorough investigation using all evidence provided from the rubric, assignment instructions, notes from the original instructional staff member, and other relevant outsourced information. Academic integrity appeals will be submitted to the Appeal Committee, consisting of TEL's Academic Dean, Director of Curriculum, and Director of Instructional Support.
 2. The Appeal Committee will evaluate the appeal and all documented evidence. In the case of grade discrepancies, an evaluation of the student's awarded grade will be determined in accordance with the proper policies/standards outlined in the course syllabus.
 3. The Learning Experience Team will receive the Appeal Committee's assessment and forward this information to the student.
 - a. Once the Learning Experience Team provides a response to the disputed grade, the student will have the option to accept or to decline. If the student chooses to decline the response, the student's original grade will stand. If the student accepts the response, the grade will be changed, provided that the grade is different from the original grade.
 - a. In the case of an academic integrity appeal, the student can either accept the assessment and subsequent action or they can restart the course.
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Exams

In this course, students will take their midterm and final examinations online. These exams are proctored through MonitorEDU. This service provides live online exam proctoring and support.



This service records the student's computer webcam, speakers, and desktop during the exam. **Students must use TEL's exam-proctoring solution, or have exams proctored by a school official (approved by TEL), to receive credit for the course.**

A Student Quick-Guide will be provided on how to use this service in the exam modules.

Technical Requirements

This course is delivered 100% online, and students are required to have access to a computer, laptop, or web-capable mobile device — along with consistent access to the Internet — to access course material and complete assignments.

Required technology:

- Desktop or portable computer, including Windows PC, Macintosh OS, or Chromebook (tablets, cell phones, and iPads are not supported)
- [Google Chrome Browser](#), with pop-up blocker disabled
- Working built-in or external webcam, speakers, and microphone
- Internet speed must be at least 2 Mbps download and 2 Mbps upload. Hot spots are not recommended. Test Internet speed at: <http://www.speedtest.net>.

To access detailed information about the minimum hardware requirements necessary to take full advantage of TEL courses, visit the course home page.

Disability Services Statement

TEL is committed to providing equitable student access to course content and materials by providing reasonable accommodations for all persons with disabilities. TEL also complies with Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990. Students who need special accommodations must make their requests by contacting the TEL Support Team to coordinate reasonable accommodations upon registration and before the course begins. Students over the age of 18 taking college-level courses require a 504 for special accommodations.

Any student seeking to request academic accommodations on the basis of a documented disability should contact the TEL Support Team at disabilityservices@tellibrary.org to coordinate reasonable accommodations.



Course and Technical Support

Questions about course requirements, technical issues, or other issues while taking this course can be directed to the TEL Support Team via the Red Question Mark Widget button at the bottom right of each course page. The TEL Support Team will prioritize the request and respond accordingly.