

BIOL 110L: Principles Of Biology I Lab

Location:	Evening
Address:	1001 Rogers Street Columbia, MO 65216
Section:	19FALL2/BIOL/110L/AEV
Semester Credit Hours:	2
Class Day(s) and Time(s):	Monday, Wednesday 7:45 PM - 10:25 PM from October 21, 2019 to December 14, 2019

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📘 Course Information

Catalog Description

Laboratory experiences to complement BIOL 110. Additional lab fee applicable to main campus day offerings.

Prerequisite: BIOL 110 or concurrent enrollment. BIOL 110 must be completed before BIOL 110L can be used as G.E. credit. Students majoring in Biology must earn a grade of C or higher. G.E.

Additional Notes

Class will not meet on Wednesday November 27th. Class will meet on Friday November 22nd to make-up day missed for Thanksgiving Break.

📖 Textbooks

As part of TruitionSM, students will receive their course materials automatically as described below.

📖 Karin Knisely. (2017). *A Student Handbook for Writing in Biology* (5th). W.H. Freeman & Company. eText

📖 Sylvia S. Mader. (2019). *Biology: Laboratory Manual* (13th). McGraw Hill. Physical Book

Bookstore Information

Visit <https://www.ccis.edu/bookstore.aspx> for details.

eText Information

If a course uses an eText, (see textbook information above) the book will be available directly in Desire2Learn (D2L) seven

days before the session begins, if registered for courses prior to that date. Upon first login to VitalSource, students should use their CougarMail email address; alternate email addresses cannot be used. More information about how to use the VitalSource platform, including offline access to eTexts, can be found in D2L.

Physical Course Materials Information

Students enrolled in courses that require physical materials will receive these materials automatically at the shipping address on file with Columbia College. Delivery date of physical materials is dependent on registration date and shipping location. Please refer to confirmation emails sent from Columbia College for more details on shipping status.

Returns: Students who drop a class are responsible for returning any physical course materials that were shipped. To initiate a return, visit [Ingram Returns](#) to generate a pre-paid return label. Materials from dropped courses must be returned within 30-days of receipt. **Failure to return physical items from a dropped course will result in a charge to the student account for all unreturned items.**

Note: Students who opt-out of having their books provided as part of [TuitionSM](#) are responsible for purchasing their own course materials.

Technology Requirements

THIS IS A TECHNOLOGY-ENRICHED COURSE WHICH COMBINES IN-SEAT INSTRUCTION WITH ONLINE LEARNING.

Participation in this course will require the basic technology for all classes at Columbia College:

- A computer with reliable internet access
- A web browser
- Acrobat Reader
- Microsoft Office or another word processor such as Open Office

For more information, see [technical requirements](#).

Course Learning Outcomes

1. Apply the scientific method.
2. Demonstrate basic laboratory techniques of experimentation and measurement

Grading

Grading Scale

Grade	Points	Percent
A	900 - 1000	90-100%
B	800 - 899	80-89%
C	700 - 799	70-79%
D	600 - 699	60-69%
F	0 - 599	0-59%

Grade Weights

Assignment Category	Points	Percent
Lab Assignments	490	49%
Exams	400	40%
Quizzes	60	6%
Formal Lab Report	50	5%
Total	1000	100%

Schedule of Due Dates

Week 1		
Assignment	Points	Due
Lab 1	35	First meeting of week
Lab 2	35	Second meeting of week
Week 2		
Assignment	Points	Due
Lab 3	35	First meeting of week
Lab 4	35	Second meeting of week
Week 3		
Assignment	Points	Due
Quiz 1	20	First meeting of week
Lab 5	35	First meeting of week
Lab 6	35	Second meeting of week
Week 4		
Assignment	Points	Due
Lab Safety Quiz	20	First meeting of week
Lab 7	35	First meeting of week
Lab 8	35	Second meeting of week
Week 5		
Assignment	Points	Due
Exam 1	200	First meeting of week
Lab 9	35	Second meeting of week
Lab 10	35	Third meeting of week
Week 6		
Assignment	Points	Due
Lab 11	35	First meeting of week
Week 7		
Assignment	Points	Due
Quiz 2	20	First meeting of week
Lab 12	35	First meeting of week
Lab 13	35	Second meeting of week
Week 8		
Assignment	Points	Due
Lab 14	35	First meeting of week
Formal Lab Report	50	Second meeting of week
Exam 2	200	Second meeting of week
Total Points: 1000		

Assignment Overview

Assignments

Completion of lab assignments: Assigned lab exercises are completed for each lab topic as outlined in the course schedule. You may sometimes work in small groups or pairs to complete the tasks, but you should answer the questions and understand all of the information independently for preparation and completion of the quiz or exam. These lab exercises are to be finished

during the lab period assigned.

If needed, you may have TWO absences for any reason and these absences will be treated as excused absences. If you miss class more than twice you will lose the completion points for each additional absence. Missed labs cannot be made-up. If you miss a laboratory session it is your responsibility to get the lab notes from a classmate.

Formal Lab Report:

Select a lab chapter. Write a formal laboratory report covering all of the experiments completed in the lab chapter. Type the report. The report should have the following information.

1. Introduction, Background information, Purpose(s), Hypothesis/Hypotheses
2. Materials and Methods (step by step instructions)
3. Results
4. Discussion/Conclusions
5. Literature Cited: At least two references are required. One of the references may be your lab manual. Proper format is expected. You may use APA or MLA format for citations.

The report is due by the last scheduled class period. **Late papers will not be accepted.** I will evaluate the content, grammar, organization and the proper format of citations.

There is no extra credit available in the course.

Examinations

Quizzes: There are three quizzes. Two of the quizzes cover lab material in previous class periods since the last quiz or exam. One of the quizzes is over lab safety. Quizzes are a combination of multiple-choice, true/false and short answer.

Exams: There are two exams, covering material presented in the weeks prior to the exam date. The exams are primarily multiple-choice and practical (identification). I may occasionally use short answer.

No make-up exams will be given unless the instructor feels that the absence was justified. The student must arrange a make-up time for missed quizzes or exams with the instructor.

Course Outline

Click on each week to view details about the activities scheduled for that week.

Week 1: Introduction; Metric Measurement; Microscopy

Lab 1

Introduction/Metric Measurement; Lab Chapters 1/2 and Handout

Lab 2

Microscopy; Lab Chapter 2 and Handout

Week 2: Chemical Composition of Cells

Lab 3

Chemical Composition of Cells: Lab Chapter 3

Lab 4

Chemical Composition of Cells Part II; Lab Chapter 3

Week 3: Lab Quiz One; Cell Structure and Function; How Enzymes Function

Quiz 1

Quiz 1 first meeting of week over material covered in the first four lab classes.

Lab 5

Cell Structure and Function; Lab Chapter 4

Lab 6

How Enzymes Function; Lab Chapter 5 and Handout

Week 4: Lab Safety Quiz; Uses of Enzymes; Cellular Respiration/Photosynthesis

Lab Safety Quiz

Quiz first meeting of week over lab safety procedures/concepts.

Lab 7

Uses of Enzymes; Handout

Lab 8

Cellular Respiration/Photosynthesis; Lab Chapters 7 and 6

Week 5: Exam One; DNA; Protein Synthesis; Electrophoresis; Mitosis and Meiosis

Exam 1

Exam One first meeting of week will be over all previous material covered.

Lab 9

DNA: Protein Synthesis; Electrophoresis; Lab Chapter 12 and handouts

Lab 10

Mitosis and Meiosis; Lab Chapters 8 and 9

Week 6: Reproduction in Plants

Lab 11

Reproduction in Plants; Lab Chapters 18 and 22

Week 7: Lab Quiz 2; Genetics

Quiz 2

Quiz 2 first meeting of week over material covered since the first exam.

Lab 12

Genetics; Lab Chapter 10

Lab 13

Genetics; Lab Chapter 11

Week 8: Human Genetics Disorders; Formal Lab Report; Exam 2

Lab 14

Human Genetics Disorders: Handouts; (We will meet in Buchanan Hall on this night-room 104 or 107; I will let you know closer to the date).

Formal Lab Report

Formal Lab Report due; Turn in on campus.

Exam 2

Exam 2 second meeting of week will be over material covered since Exam 1.

+ Additional Resources

Online databases are available at library.ccis.edu. You may access them using your CougarTrack login and password when prompted.

Technical Support

If you have problems accessing the course or posting your assignments, contact your instructor, the Columbia College Technology Solutions Center, or the D2L Helpdesk for assistance. If you have technical problems with the VitalSource eText reader, please contact VitalSource. Contact information is also available within the online course environment.

- Columbia College Technology Solutions Center: CCHelpDesk@ccis.edu, 800-231-2391 ex. 4357
- D2L Helpdesk: helpdesk@d2l.com, 877-325-7778
- VitalSource: support@vitalsource.com, 1-855-200-4146

Online Tutoring

Smarthinking is a free online tutoring service available to all Columbia College students. Smarthinking provides real-time online tutoring and homework help for Math, English, and Writing. Smarthinking also provides access to live tutorials in writing and math, as well as a full range of study resources, including writing manuals, sample problems, and study skills manuals. You can access the service from wherever you have a connection to the Internet. I encourage you to take advantage of this free service provided by the college.

Access Smarthinking through CougarTrack at [Students -> Academics -> Resources](#).

! Columbia College Policies and Procedures

The policies set forth in the [Policy Library](#) are the current official versions of College policies and supersede and replace any other existing or conflicting policies covering the same subject matter. For more information on policies applicable to students, see [Student Policies](#). For more information on policies applicable to the entire Columbia College community, see [College-Wide Policies](#).

Students are expected to read and abide by the College policies. Policies of particular interest to students include, but not limited to the following:

- Graduate Grading Policy
- Undergraduate Grading Policy

- Registration Policy and Procedures
- Withdrawal Policy
- Alcohol and Other Drugs Policy
- Family Educational Rights and Privacy Act (FERPA)

Additional Policies:

Academic Integrity and Plagiarism

Academic integrity is a cumulative process that begins with the first college learning opportunity. Students are responsible for knowing and abiding by the [Academic Integrity Policy and Procedures](#) and may not use ignorance of either as an excuse for academic misconduct. Additionally, all required papers may be submitted for textual similarity review to Turnitin.com for the detection of plagiarism. All submitted papers may be included in the Turnitin.com reference database for the purpose of detecting plagiarism. This service is subject to the Terms and Conditions of Use posted on the Turnitin.com site.

Disability Resources

If you have a disability that requires an accommodation, please speak with the instructor and consult the [Student Accessibility Resources](#) office. Student Accessibility Resources staff will determine appropriate accommodations and will work with your instructor to make sure these are available to you. To find additional information, see our [ADA and Section 504 Policy for Students](#).

Notice of Non-Discrimination and Equal Opportunity:

The College has a process through which students, faculty, staff and community members who have experienced or witnessed incidents of discrimination, harassment, or retaliation on the basis of protected status, can report their experiences to a College official. For more information, see our [Non-Discrimination and Equal Opportunity Policy and Complaint Resolution Procedure](#).

Title IX and Sexual Misconduct

The College is committed to addressing the issues of discrimination, harassment and sexual misconduct in the educational and workplace landscape and will continue to modify policies, procedures and prevention efforts as needed. For more information, see the College's [Title IX and Sexual Misconduct Policy](#).

Course Policies and Procedures:

Attendance Policy

Columbia College students are expected to attend all classes and laboratory periods for which they are enrolled.

For classes with an online component, attendance for a week includes submitting any assigned online activity. Assigned activities are scheduled prior to the course commencing. Assigned activity due dates are subject to change based on actual course progression and will be adjusted as necessary. Attendance for the week is based upon the date work is submitted. A class week is defined as the period of time between Monday and Sunday (except for week 8, when the work and the course will end at 11:59 PM Central Time on Saturday.) The course and system deadlines are based on the Central Time Zone.

Students are directly responsible to instructors for class attendance and work missed during an absence for any cause. If absences jeopardize progress in a course, the College reserves the right to drop or withdraw students from classes. For additional information, see the Administrative Withdrawal for Non-Attendance heading in the [Withdrawal Policy](#).

CougarMail

All students are provided a CougarMail account when they enroll in classes at Columbia College. You are responsible for monitoring email from that account for important messages from the College and from your instructor.

Students should use email for private messages to the instructor and other students. The class discussions are for public messages so the class members can each see what others have to say about any given topic and respond.

Late Assignment Policy

All classes rely on participation and a commitment to your instructor and your classmates to regularly engage in the reading, discussion and writing assignments. You must keep up with the schedule of reading and writing to successfully complete the class.

No late assignments will be accepted without the prior approval of the instructor.

Acceptance of a late assignment is at the discretion of the instructor.

Make-up examinations may be authorized for students who miss regularly-scheduled examinations due to circumstances beyond their control. Make-up examinations must be administered as soon as possible after the regularly scheduled examination period and must be administered in a controlled environment.

Student Conduct

All Columbia College students, whether enrolled in a land-based or online course, are responsible for behaving in a manner consistent with Columbia College's **Student Conduct Code** and **Acceptable Computing Use Policy**. Students violating these policies or any other College policy will be referred to the office of Student Affairs and/or the office of Academic Affairs for possible disciplinary action. The Student Code of Conduct, the **Student Behavioral Misconduct Policy and Procedures**, and the Acceptable Computing Use Policy can be found in the Policy Library at ccis.edu/policies. The adjunct faculty member maintains the right to manage a positive learning environment all students must adhere to the conventions of online etiquette when enrolled in a course with an online component.