


College Biology II Laboratory

BIOL1625 

Instructor Information

Course Description

For Biology/Science Majors. Laboratory observation and experimentation to enhance understanding of evolution, diversity, and ecology, including basic microscopy, sample preparation, molecular techniques, and observation of organisms from the major groups of life. Students will apply the scientific method to the course concepts by conducting a research project and presenting their findings.

Pre-Requisite(s): BIOL 1620 w/C or better or BIOL 1620 must be concurrent
Semester(s) Taught: All

Course Presentation

This is an *in-person* lab that meets twice every week on Thursday's from 1 - 3:50 p.m. at the Taylorsville-Redwood Campus.

Course Student Learning Outcomes

- Use a microscope to observe, measure, and image biological specimens.
- Demonstrate proficiency in basic laboratory skills, including techniques used to identify and study organisms.
- Use morphological and molecular data to construct phylogenetic trees.
- Describe the major groups of organisms, their characteristics, and representative examples of each group.
- Generate and/or evaluate hypotheses and make predictions.
- Design experiments to test a hypothesis.
- Analyze data and draw appropriate conclusions.
- Construct a scientific figure.
- Report their findings in a discipline-appropriate format, such as an oral presentation or poster presentation.

Course Prerequisites

Corequisite: BIOL 1620 (may be taken previously w/C or better)

Required Textbook or Materials

Title: We will provide all background reading and lab protocols to you on Canvas.

For more information on textbook accessibility, contact Accessibility & Disability Services at ads@slcc.edu.

Course Learning Environment

My hope is that all of us together will create a learning environment that supports a diversity of thoughts, perspectives and experiences, and honors your identities (including race, gender, class, sexuality, religion, ability, etc.) To help accomplish this:

- No discrimination is tolerated based on anyone's race, gender, sexuality, religion, abilities, English language proficiency or socio-economic circumstances. Please always choose kindness and patience in our class communications, there is space

for all of us here.

- If you have a name and/or set of pronouns that differ from those that appear in your Canvas handle, please let me know so I can address everyone in a way that makes them feel comfortable and safe.
- I (like many people) am still in the process of learning about diverse perspectives and identities. If something was said in any of the class materials and discussions (by anyone) that made you feel uncomfortable, please talk to me about it. You can email me directly or send feedback via the anonymous open survey on our Canvas site.
- If you feel like your performance in the class is being impacted by your experiences outside of class, please don't hesitate to let me know and request extra time on your course work. I want to be a resource for you and help you learn these materials without adding to anyone's level of stress and I promise to treat everyone with compassion.

General Course Policies

Attendance: Attendance at the first lab meeting is MANDATORY! If you do NOT attend the lab the first week, YOU RISK BEING DROPPED from the course by the end of the first week. This may also result in you being dropped from the lecture where BIOL1620 is to be taken concurrently. You must attend each week in order to complete the activities for that week on which your grade will be based.

Americans with Disabilities Act: SLCC values inclusive learning environments and strives to make all aspects of the College accessible to our students. If you have a disability and believe you need accommodations to improve access to learning materials or the learning environment, please contact Accessibility and Disability Services: (phone) 801-957-4659; (email) ads@slcc.edu; (website) <https://www.slcc.edu/drc/Home/index.aspx>.

Lab Safety: Safety is the #1 priority in the laboratory. Students will be introduced to safety information on the first meeting of the semester. Specific safety procedures for

each lab exercise will be discussed throughout the semester prior to performing the lab. Students are responsible for the safety of themselves and others in the lab session; therefore, they are required to adhere to safety policies and procedures in the laboratory. Lab safety protocols can be found in the lab manual in Lab #1.

Face Coverings: While face coverings are not required at SLCC, the college has adopted a “mask-friendly” approach and encourages everyone to evaluate their situation and act accordingly. Face coverings provide a guard against spreading potentially infected droplets to other individuals and discourage people from touching their faces and possibly infecting themselves with unclean hands. Though optional, the use of face coverings by everyone, regardless of vaccination status, is strongly recommended while on campus. Please see the CDC's website for the latest guidelines on face coverings.

Makeup Labs: Students are generally not permitted to makeup labs. Constraints on lab, specimen, and equipment availability mean that we generally cannot arrange to offer the lab at different times. However, your two lowest assignment scores will be dropped to allow for some accommodation for things outside of your control.

Late work: Late work is not accepted. If you have an emergency situation, please contact your lab instructor.

Academic Dishonesty: Academic Dishonesty is absolutely NOT tolerated and includes all forms of cheating and plagiarism as outlined in the Code of Student Rights and Responsibilities and outlined here. There is NO tolerance for dishonesty. ***Academic dishonesty includes, but is not limited to, claiming another person's work or words as one's own, accessing answers to lab reports, quizzes and exams from the Internet, completing quizzes or exams with other individuals, etc. Students must put any answers in their own words. Exams are to be completed individually by the student.*** Penalty for first offense may include a grade of “0” on the assignment or exam and second offense may result in an “E” for the course.

Generative artificial intelligence (AI) software is a rapidly emerging tool that students may be interested in using. If doing so, SLCC students are expected to adhere to the same standards as the Code of Student Rights and Responsibilities statement on plagiarism. Presenting generative AI software content as your own is a violation of academic integrity. If you use generative AI in your work, you must indicate that you have done so.

Electronic Devices: Electronic devices can be used for note-taking and course-related purposes ONLY but should not be used during class for working on other tasks (e.g. answer emails, Facebook, other classes, texting, etc.). Cell phones, pagers are to be on mute during class to minimize disruption. Cell phones MUST be turned completely OFF and put away during exams. You may be asked to leave if your electronic device disrupts the class in anyway.

Classroom recordings: Students may not record or publish information from the class without written authorization from the instructor. If used without authorization you have violated Privacy/Intellectual Property Rights.

Drop, Withdraw or Incomplete Grade: *The last day to drop this class with refund is September 10, 2024; last day to withdraw without refund is October 22, 2024. It is the responsibility of the student to drop/withdraw from this class, not the instructors.* A grade of "I" (Incomplete) is at the instructor's discretion and can be given if a student is facing extenuating circumstances preventing them from finishing the semester. In order to receive an incomplete, most of the course work must be completed (e.g. ~70%) with a passing grade.

Emergency Evacuation Procedures: We will follow school guidelines in case of an emergency at: <https://i.slcc.edu/emergency-prepare/emergency-procedures.aspx>

SLCC Academic Policies: SLCC academic policies may be found in the [SLCC Catalog](#), and the [Code of Student Rights and Responsibilities](#).

Institutional Syllabus: More information regarding SLCC Institutional Policies, Learning Support and Tutoring Services, and Advising and Counseling Support Services can be found in Canvas through the Institutional Syllabus page.

Free STEM Tutoring

STEM Learning provides free tutoring services and textbook checkout to students enrolled in various courses offered by the School of Science, Math, and Engineering.

Tutoring is provided as a drop-in service only, except in certain circumstances.

Please visit <https://www.slcc.edu/stem/tutoring/index.aspx> for more information!

How to Navigate to Canvas

Description of Assignments/Exams

Laboratory performance will be assessed on the basis of lab participation, lab quizzes, and a research project that will be summarized in a research presentation. Students are expected to attend and participate in laboratory each week. Students should read the lab manual prior to lab so as to use their limited time in lab to full advantage. Pre-quizzes will be administered on Canvas, will cover the lab content for the week and must be completed prior to the lab each week. Laboratory methodologies will vary from week to week, depending upon the nature of the laboratory exercise, but will include both individual and collaborative efforts. The laboratory includes both quantitative and qualitative exercises. The two lowest individual lab scores for assignments and pre-quizzes will be dropped.

Communication Plan

The best way to contact me is via the Canvas Inbox, as I will prioritize this email over other modes of communication.

I will endeavor to respond to your questions and emails within 24-hours during the week (excluding weekends and holidays), with special focus on trying to reply by 5pm Monday through Friday. On weekends and holidays, although I often check in to the site and my email regularly, please do not expect that I will be able to respond until the next business day. I will attempt to provide timely feedback (e.g. within a week of final due dates) on all posts and written assignments.

Grading Scale

Assessment	Percentage
Lab Assignments	40
Pre-quizzes	15
Lab Practical Exams	20

Research	25
Project/Poster	
Total Possible	100

A	93-100%
A-	90-93%
B+	87-90%
B	83-87%
B-	80-83%
C+	77-80%
C	73-77%
C-	70-73%
D+	67-70%
D	63-67%
D-	60-63%
E	Below 60%

College Wide Student Learning Outcomes

SLCC has identified nine essential capacities all students should strengthen, regardless of academic major or career plans, that will serve students in all aspects of life.

- Acquire substantive knowledge in the intended major and throughout General Education
- Communicate effectively
- Develop quantitative literacies necessary for the chosen field of study
- Think critically

- Express themselves creatively
- Develop civic literacy and the capacity to be community-engaged learners who act in mutually beneficial ways with community partners
- Develop the knowledge and skills to work with others in a professional and constructive manner
- Develop information literacy
- Develop computer literacy

Institutional Policies

As members of our academic community, we would like to invite you to review the Institutional Syllabus which covers important policies and procedures. This document contains important links for students on the code of student rights and responsibilities, academic integrity, and grading policies, Title IX and other important acknowledgements. By familiarizing yourself with this information, you can help us create a safe and respectful environment for everyone.

You can access the document by clicking on the following link:

<https://slcc.instructure.com/courses/530981/pages/institutional-syllabus>

Learning Support and Tutoring Services

We are pleased to offer a range of tutoring and learning support services to help you achieve your academic goals. Whether you need assistance with a specific subject or want to improve your study skills, you have many options for tutoring or other support.

To learn more about the services we offer and how to access them, please visit the Institutional Syllabus under the Tutoring and Learning Support tab:

<https://slcc.instructure.com/courses/530981/pages/institutional-syllabus>. We encourage you to take advantage of these resources to help you succeed in your studies. If you have any questions or would like to schedule a tutoring session, please don't hesitate to reach out to us. We are here to support you in any way we can.

Student Academic Calendar

As students you should be aware of all important dates in the semester, such as the day that courses begin and end, as well as the drop date and the last day to withdraw. To learn more about those dates, navigate to the Student Academic Calendar below:

[SLCC Student Academic Calendar](#)

Advising and Counseling Support Services

At our institution, we are committed to supporting your academic and personal growth. That's why we offer a range of advising and counseling services to help you navigate the challenges of college life. To learn more about the resources available to you and how to access them, please visit the Institutional Syllabus under the Advising and Counseling Support Services tab: <https://slcc.instructure.com/courses/530981/pages/institutional-syllabus>. Our advising team and the support centers across campus are here to support you in achieving your goals and overcoming any obstacles you may face.

Assignment Schedule

Due Date	Assignment Name	Assignment Type	Points
	Biology Hallway: Questions for Your Instructor	Discussion	0
8/22	Plant Measurements	Assignment	10
8/24	Orientation Quiz	Quiz	0
8/29	Quiz - Microscopy	Quiz	10
8/29	Microscopy Lab Exercises	Assignment	10
8/29	Question and Hypothesis	Assignment	5

Due Date	Assignment Name	Assignment Type	Points
9/5	Quiz - History of Life	Quiz	10
9/5	History of Life Lab Exercises	Assignment	10
9/12	Quiz - Prep for Field Trip to NHMU!	Quiz	10
9/12	Research - Experimental Design	Quiz	10
9/12	Field Trip - NHMU	Assignment	10
9/19	Quiz - Phylogeny	Quiz	10
9/19	Phylogeny Exercises	Assignment	10
9/26	Quiz - Prokaryotes	Quiz	10
9/26	Prokaryotes Exercises	Assignment	10
10/3	Quiz - Supergroups Excavata, Amoebozoa, and SAR	Quiz	10
10/3	Supergroup Excavata, Amoebozoa, and SAR Lab Exercises	Assignment	10
10/10	Quiz - Archaeplastids part 1	Quiz	10
10/10	Archaeplastida part 1 Lab Exercises	Assignment	10
10/10	Practical Exam 1	Assignment	25
10/17	Preliminary Data	Assignment	20
10/24	Quiz - Archaeplastids part 2	Quiz	10

Due Date	Assignment Name	Assignment Type	Points
10/24	Archaeplastida part 2 Lab Exercises	Assignment	10
10/31	Quiz - Fungi	Quiz	10
10/31	Fungi Lab Exercises	Assignment	10
11/7	Quiz - Prep for Field Trip to LLPA!	Quiz	10
11/7	Field Trip LLPA	Assignment	10
11/14	Quiz - Basal Animals and Deuterostomes	Quiz	10
11/14	Basal Animals and Deuterostomes Lab Exercises	Assignment	10
11/20	Research Poster	Assignment	40
11/21	Quiz - Protostomes	Quiz	10
11/21	Protostomes Lab Exercises	Assignment	10
12/5	ePortfolio and Reflection	Assignment	10
12/5	Practical Exam 2	Assignment	25
12/5	Research Presentation	Assignment	20