

Laboratory Syllabus

BIOL 1107: Principles of Biology I

Fall 2018

Course Information

Course Title: Principles of Biology I (BIOL 1107)

Credits: 4

Prerequisites: A course in high school level chemistry or concurrent enrollment in CHEM 1127 are recommended for students enrolling in BIOL 1107.

HuskyCT Course Site: <https://lms.uconn.edu/>

Lab Supervisor: Dr. Christopher Malinoski

Office: Bronwell (Engineering III), Rm. 103

Email: c.malinoski@uconn.edu

TA Email Information: On HuskyCT lab site, listed on left-hand menu as “TA Contact Information”

Course Materials

Required course materials should be obtained before the first day of class. They are available for purchase at the [UConn Bookstore](#).

Required Materials:

- **Laboratory Manual:** Biology 1107 Laboratory Manual, Fall 2017/Spring 2018 ed.
- **Lab coat** – Must be long-style coat that extends below the waist and covers the tops of your legs when sitting. Waist-level lab coats are not acceptable. Disposable lab coat recommended.

Additional course materials are available within [HuskyCT](#).

Course Description

Designed to provide a foundation for more advanced courses in Biology and related sciences. Topics covered include molecular and cell biology, animal anatomy and physiology. Laboratory exercises include dissection of preserved animals. (Source: <http://catalog.uconn.edu/BIOL/#1107>)

Laboratory Course Objectives

By the end of the semester, students should be able to:

1. Use a micropipette, serological pipette, microscope, and dissecting tools to complete lab work.
2. Solve metric system unit conversions.
3. Calculate and create molar and percent solutions and dilutions.
4. Use a compound microscope to view objects.
5. Write a scientific lab report with a testable hypothesis, independent and dependent variables, applicable content, and credible sources.
6. Create and analyze figures and tables to support interpretations in your lab report.
7. Use accurate biological and anatomical terminologies to communicate results.
8. Describe how the systemic coordination of the cardiovascular, digestive, respiratory, excretory, and immune systems contribute to the distribution of materials within the body.
9. Examine clinical situations and disease processes related to animal and human anatomy.

Course Outline: Laboratory Exercise Schedule & Assignment Due Dates

See the Laboratory Schedule document linked to on the HuskyCT laboratory site, or at the following link:

Course Requirements and Grading

Lab Attendance

- You must attend the lab section for which you are registered.
- You must arrive to lab on time.
 - If you are tardy, you will only have the remainder of the allotted time to finish the quiz.
- If you are absent and do not have the documentation needed to reschedule, you will not be allowed to make-up the quiz or complete the in-class assignments.
- Due dates do not change based on absences.
 - Your online assignments are always due before your registered lab section begins, as outlined on the Exercise Schedule and Assignment Due Dates link.

Dissection Policy

- The use and dissection of preserved animal specimens (fetal pig, adult pig heart, adult sheep kidney, adult sheep brain, etc.) is required for this course. If for very specific reasons you simply cannot participate in these dissection exercises, please consider dropping the course.
- If you have any questions or concerns regarding what may constitute participation in these exercises, please contact the Lab Supervisor prior to the External Anatomy exercise.

HuskyCT Information

- There are two HuskyCT sites for BIOL 1107. One site is dedicated to the lecture portion of the course and the other is dedicated to the laboratory portion of the course.
 - The lab site contains the lab safety, plagiarism, & lab syllabus quizzes, assignments and submissions, lab quizzes, pre-lab modules, and lab grades.
 - Announcements related to lab are made through the HuskyCT laboratory site.

Lab Training & Orientation

- You must score a **10/10** on the Plagiarism, Lab Safety, and Lab Syllabus Quizzes on HuskyCT. These quizzes are designed to ensure that you are aware of and understand this course's policies.
 - **Online assignments & assignment submissions will not be available on HuskyCT until you satisfy this requirement!** The standard late policy will apply to assignments that you do not submit due to failing to complete this requirement.
 - You may retake each quiz as needed, until you score 10/10.

Health & Safety Regulations

- Due to regulations enforced by the Department of Environmental Health & Safety, you **must** wear a lab coat and safety glasses **at all times** when you are inside the lab rooms.
 - **Bring your lab coat to every lab, including the two lab practical exams!**
 - **You will not be admitted to the practical exams without your lab coat!**
- Food and drink are not allowed inside the lab rooms.
- Do not dispose of food or drink containers inside the lab rooms.
- Applying cosmetics, chewing gum, and wearing open-toe shoes are not permitted in the laboratory.
- You must score 10/10 on the Lab Safety Quiz on HuskyCT, or you will be unable to attend lab.

Laboratory Makeup Policy

If you are absent, you may try to arrange to attend another lab section offered the same week as your absence. Note that no make up sessions are offered at a later date.

- For a make up to be scheduled, **documentation is required.**
 - Documentation may include: a doctor's note; an obituary; or a letter from a coach or advisor (on official letterhead).
 - In all circumstances, documentation must indicate that you are **unable to attend class** on the **specific date** of your registered section (e.g., a doctor's note stating you were seen is not the same as a doctor's note excusing you from class).
- **To Schedule a Make Up Lab:** Go onto HuskyCT and look at the schedule of lab sections ("Section Schedule" link under the "Communication" header on the left-hand menu) in order to identify another section that you can attend. Then, fill out the following form and await a response from the Lab Supervisor: [Make-Up Lab Form](#)
 - **You should allow 24 hours for the Lab Supervisor to respond.**
- Lab makeups, while handled on a case-by-case basis, will typically only be permitted for the following reasons: illness, professional obligations, bereavement, and jury duty. For extenuating circumstances, contact the Lab Supervisor.

Summary of Course Grading:

Course Components	Weight
Lecture	60%
Lab	40%

Summary of Laboratory Grading:

Point Value	Component	Description
100 points total (10 points each)	Quizzes	At the beginning of most labs you will have a quiz worth 10 points. There are 10 quizzes total.
24 points total (2 points each)	Pre-lab Modules	To be completed before attending lab. There are pre-lab modules for each week you will perform a new lab exercise.
45 points (5 or 15 points each)	In-Class Assignments	Some labs will have an assignment due before you leave lab for the day. There are 7 ICA total. The Dissection project ICA is worth 15 pts as it represents three weeks of in-class work.
40 points (10 points each)	Homework	You will have four written assignments to work on at home.
20 points (10 points each)	Problem Sets	You will have two calculation focused assignments to work on at home.
60 points (30 points each)	Lab Reports	You will have two lab reports to work on at home.
100 points (50 points each)	Lab Practical Exams	Two cumulative practical exams will be given: one for the first half of the course (molecular & cell biology) and one for the second half (anatomy & physiology)
389 points total		

Quizzes

These will be administered at the start of the lab period. Eighty percent (80%) of the quiz will cover the previous lab's material, and 20% will be pre-lab questions based on the lab you are about to perform.

- Lab quizzes are administered online via HuskyCT during your registered lab period using University-owned tablet devices (iPads).
- Your NetID and password are required to access the quizzes during lab. Come prepared with this information.

Pre-lab Modules

There are pre-lab modules on HuskyCT for you to complete before attending lab this semester. These pre-lab modules contain important conceptual information related to the lab exercises that you will perform, as well as some pre-lab questions for you to answer.

- If a pre-lab module is available, it will appear in the appropriate lab exercise folder under the "Lab Information" link on the left-hand menu on the HuskyCT lab site. It will also appear on the "Exercise Schedule and Due Dates" document.
- Each week a pre-lab module is available, you **must** complete the pre-lab module before coming to lab. If you do not complete the pre-lab, **you will not be able to attend lab that week.**
- Each week, the pre-lab modules will be worth a total of 2 points. Your score is proportional to the number of pre-lab questions that you answer correctly.
- The pre-lab modules are configured for unlimited attempts, should you want to try again.

Assignments

Assignments must be submitted online via HuskyCT before your registered lab section begins.

- **It is your responsibility to confirm that your upload is successful.**
 - Check that HuskyCT correctly generates a preview based on the file you uploaded to confirm your upload was successful. This preview may take a few minutes to generate.

- If you do not see this preview, or it appears incomplete, **contact your TAs immediately.**
- If an unsuccessful upload attempt is not discovered until later, the standard late policy will apply.
- While HuskyCT will accept uploads of many file types, it is required for this course that your uploaded documents be in either *.doc or *.docx format. **Pages files and *.PDFs are not allowed in this course.**

Due Dates and Late Policy

All course due dates are identified in the “Exercise Schedule and Assignment Due Dates” document linked to on the HuskyCT lab site. Generally, your assignments are due before the start of your regularly scheduled lab section the week of the due date. *The instructor reserves the right to change dates accordingly as the semester progresses. All changes will be communicated in an appropriate manner.*

Late penalties accumulate at the rate of **10% per day**, up to 7 days. Weekend days count towards this total. **After one week, the grade on a late assignment is a zero.** Extensions are not given, except in the case of extenuating circumstances, which are handled on a case-by-case basis; contact the Lab Supervisor.

Feedback and Grades

- To keep track of your performance in the course, refer to My Grades in HuskyCT.
- Your TA will make every effort to provide feedback and grades one week after an assignment is due.
 - If your TA consistently fails to provide feedback in a timely manner, inform the Lab Supervisor.

Contesting a Grade

- Should you wish to contest a grade, you must speak with the TA who graded the assignment to discuss the issue **within one (1) week** of receiving your grade, **after which a grade cannot be contested.**

Academic Misconduct

You must score 10/10 on the Plagiarism Quiz on HuskyCT.

You are responsible for submitting assignments on HuskyCT. **SafeAssign** software is used to scan your documents for plagiarism against your peers (past and current) and various online sources (Journals, Websites, Wikipedia, StudyBlue, Quizlet, etc.).

All violations of the plagiarism policy will be reported in writing to the Office of Community Standards at the University of Connecticut. Familiarize yourself with the **Plagiarism Policy** (see lab manual and the plagiarism quiz review material available on HuskyCT). For more information on community standards and academic misconduct: <http://community.uconn.edu/the-student-code-preamble/>

Students with Disabilities

Although we are notified of your accommodations by the Center for Students with Disabilities, it is helpful to hear from each student directly so as to ensure that we are best able to meet your specific needs. Below are examples of how some of the more prevalent accommodations are met in BIOL 1107 lab. We encourage you to contact the Lab Supervisor and your lab TAs to discuss any other accommodations that you wish to exercise in this course, so that your needs can be efficiently and promptly addressed.

- If you wish to exercise an accommodation for extra time on quizzes, or an accommodation to take quizzes in a reduced distraction environment, it is your responsibility to schedule for your lab quizzes to be taken at the CSD testing center. You must plan to do so ahead of time using the [CSD Student Portal](#), and in accordance with the CSD’s policies. Quizzes must be taken prior to completing the lab exercise for that week, as the quizzes contain pre-lab questions.
- If you have accommodations for extra time on assignments that you wish to exercise, you must contact the Lab Supervisor to develop an extension schedule.
- If you have an accommodation for occasional absences from class that you need to exercise, follow the lab makeup procedures listed above in this syllabus. In extenuating circumstances where you are not able to make up a lab following the above procedures, contact the Lab Supervisor directly.

The University of Connecticut is committed to protecting the rights of individuals with disabilities and assuring that the learning environment is accessible. If you anticipate or experience physical or academic barriers based on disability or pregnancy, please let me know immediately so that we can discuss options. Students who require accommodations should contact the Center for Students with Disabilities, Wilbur Cross Building Room 204, (860) 486-2020 or <http://csd.uconn.edu/>.

Blackboard measures and evaluates accessibility using two sets of standards: the WCAG 2.0 standards issued by the World Wide Web Consortium (W3C) and Section 508 of the Rehabilitation Act issued in the United States federal government.” (Retrieved March 24, 2013 from [Blackboard's website](#))

Inclement Weather and Campus Closings

In the event of inclement weather or other major events, check alert.uconn.edu for information regarding delayed openings or early closings. Should there be an early closing or delayed opening: if two hours of normal lab time are available, lab will be held (Example: Normal lab time is 8AM to 11AM - if the university opens at 9AM, this lab section would meet, beginning at 9AM). If only one hour is available, or if the lab is cancelled in its entirety, lab may be rescheduled. Check HuskyCT for announcements.

Student Responsibilities and Resources

As a member of the University of Connecticut student community, you are held to certain standards and academic policies. In addition, there are numerous resources available to help you succeed in your academic work. Review these important [standards, policies and resources](#), which include:

- The Student Code
 - Academic Integrity
 - Resources on Avoiding Cheating and Plagiarism
- Copyrighted Materials
- Netiquette and Communication
- Adding or Dropping a Course
- Academic Calendar
- Policy Against Discrimination, Harassment and Inappropriate Romantic Relationships
- Sexual Assault Reporting Policy

Software/Technical Requirements

The software/technical requirements for this course include:

- HuskyCT/Blackboard ([HuskyCT/ Blackboard Accessibility Statement](#), [HuskyCT/ Blackboard Privacy Policy](#))
- [Adobe Acrobat Reader](#) ([Adobe Reader Accessibility Statement](#), [Adobe Reader Privacy Policy](#))
- Google Apps ([Google Apps @ UConn Accessibility](#), [Google for Education Privacy Policy](#))
- Microsoft Office (free to UConn students through [uconn.onthehub.com](#)) ([Microsoft Accessibility Statement](#), [Microsoft Privacy Statement](#))
- Dedicated access to high-speed internet with a minimum speed of 1.5 Mbps (4 Mbps or higher is recommended).

NOTE: This course has NOT been designed for use with mobile devices.

Help

[Technical and Academic Help](#) provides a guide to technical and academic assistance.

If you have difficulty accessing HuskyCT, you have access to the in person/live person support options available during regular business hours through the [Help Center](#). You also have [24x7 Course Support](#) including access to live chat, phone, and support documents.

Minimum Technical Skills

To be successful in this course, you will need the following technical skills:

- Use electronic mail with attachments.
- Save files in commonly used word processing program formats (Microsoft Office).
- Ability to view and download files from Google Drive.
- Copy and paste text, graphics or hyperlinks.
- Work within two or more browser windows simultaneously.
- Open and access PDF files.

- Use a tablet device to access the internet.

University students are expected to demonstrate competency in Computer Technology. Explore the [Computer Technology Competencies](#) page for more information..

Evaluation of the Course

Students will be provided an opportunity to evaluate instruction in this course using the University's standard procedures, which are administered by the [Office of Institutional Research and Effectiveness](#) (OIRE).

BIOL 1107 - Laboratory Exercise & Assignment Schedule			
Fall 2018			
Lab	Date*	Lab Exercise(s)	Items Due
1	8/27	Lab 1: Laboratory Basics	Pre-lab 1 ICA 1: Lab Basics (5 pts)
2	9/3	Lab 2: Amino Acids & Proteins	Pre-labs 2A & 2B: Quiz 1 (10 pts) Homework 1: Hypothesis Practice (10 pts)
3	9/10	Lab 3: Microscope Lab 4: Semi-Permeable Membranes	Pre-lab 3: Quiz 2 (10 pts) ICA 2: Semi-Permeable Membranes (5 pts) Homework 2: Lab Report Skills (10 pts)
4	9/17	Lab 5: Cellular Respiration	Pre-labs 4A & 4B: Quiz 3 (10 pts)
5	9/24	Lab 6: Chromosomes & Karyotypes Lab 7: Genetics I: DNA Isolation & PCR	Pre-lab 5 Quiz 4 (10 pts) Lab Report 1: Cell Respiration (30 pts)
6	10/1	Lab 8: Genetics II: Agarose Gel Electrophoresis Lab 9: Gene Regulation Lab 10: Protein Synthesis	Pre-lab 6 Quiz 5 (10 pts) ICA 3: Gene Regulation (5 pts)
7	10/8	Lab 11: Intro. to Bioinformatics Students bring laptop to lab!	Pre-lab 7 Quiz 6 (10 pts) ICA 4: Bioinformatics (5 pts) Homework 3: Genetics (10 pts)
8	10/15	Lab Practical Exam I (50 pts) **	Problem Set 1 (10 pts)
9	10/22	Lab 12: Histology Lab 13: Skeletal System Lab 14: External Anatomy	Pre-lab 8 (Session 9) ICA 5: Histology & Skeletal (5 pts)
10	10/29	Lab 15: Digestive System	Pre-lab 9 (Session 10) Quiz 7 (10 pts)
11	11/5	Lab 16: Cardiovascular System	Pre-lab 10 (Session 11) Quiz 8 (10 pts) Lab Report 2: Digestive System (30 pts)
12	11/12	Lab 17: Respiratory Lab 18: Excretory System	Pre-lab 11 (Session 12) Quiz 9 (10 pts) ICA 6: Dissection Project (15 pts) Homework 4: Digestive & Cardiovascular (10 pts)
Thanksgiving Break			
13	11/26	Lab 19: Nervous System Lab 20: Immune System	Pre-lab 12 (Session 13) Quiz 10 (10 pts) ICA 7: Immune (5 pts)
14	12/3	Lab Practical Exam II (50 pts) **	Problem Set 2 (10 pts)
<p>* Date refers to "Week of." Example: Date reads 9/1, meaning that listed homework, reports, and problem sets are generally due the week of 9/1, and are specifically due at the start of your scheduled lab section that week. Quizzes and ICAs are completed during lab.</p>			
<p>** You MUST bring your lab coat in order to be admitted to the lab practical exams!</p>			
<p>ICA stands for In-Class Assignment. These assignments are completed and handed in during the lab period in which their due date appears.</p>			