UCONN
UNIVERSITY OF CONNECTICUT

Laboratory Syllabus

BIOL 1107: Principles of Biology I - Sections 001L-032L
Spring 2020

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. Lab coats and manuals are available for purchase at the UConn Bookstore.

Required Materials:
- **Laboratory Manual:** Biology 1107 Laboratory Manual, Fall 2019 - Spring 2020 ed.
- **Lab coat:** Disposable-style 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 terminology to communicate results.

Course Outline: Laboratory Exercise Schedule & Assignment Due Dates

See the Laboratory Schedule document linked to on the HuskyCT laboratory site.

Course Requirements and Policies

Lab Orientation

- You must score a **10/10** on the Plagiarism, Lab Safety, and Lab Syllabus Quizzes on HuskyCT. These quizzes ensure that you are aware of and understand this course's policies.
    - **Online assignments & 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.

Lab Attendance

- **IMPORTANT:** If you **miss three lab exercises** for any reason and do not make them up, you will receive a **failing grade** for the entire course.
    - Assignment due dates do not change based on absences. Complete and submit your graded assignments ahead of your scheduled lab section.
- You must attend the lab section for which you are registered.
- You must arrive at each lab session on time.
- **Beginning March 26th, labs will not meet in person. All lab work will be completed asynchronously through HuskyCT. Office Hours will still be held synchronously using the Blackboard Collaborate feature at their regularly scheduled times.**

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.

Lab Safety Regulations

- The BIOL 1107 lab rooms are classified as Biosafety Level 1 facilities (BSL-1). This means that you may encounter chemical or biological hazards appropriate for a BSL-1 facility in these spaces. All lab safety requirements are based on regulations enforced by the Department of Environmental Health & Safety:
    - **Dress Code:**
        - Wear a lab coat and safety glasses **at all times.**
        - Clothing that completely covers the legs is required.
        - Closed-toe shoes are required.
    - Do not consume food or drink inside the lab rooms.
    - Do not dispose of food or drink containers inside the lab rooms.
    - Applying cosmetics and chewing gum are not permitted in the laboratory.
- **Additional lab safety rules are reviewed in the lab orientation review materials.**
- You must score 10/10 on the Lab Safety Quiz on HuskyCT, or you will be unable to attend lab.

Laboratory Makeup Policy

- Disclaimer: The laboratory experience is highly dependent on students performing the exercises in order to gain hands-on experience with equipment and techniques. It is important to do your best to not miss any lab sessions.
- If you must be absent, you may try to arrange to attend another lab section the same week as your absence. To do so, fill out the "Make Up Request" form linked to on the left-hand menu on HuskyCT, under the Communication heading.
    - 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)**.**
- Due to the logistics of setting up and breaking down the lab exercises by lab staff, we are unable to offer a lab make up at any time other than the week an exercise is offered on the lab exercise schedule.
    - If you have a Thursday or Friday lab section, you must do your best to not be unexpectedly absent as you will likely not have an opportunity to reschedule.
    - If you miss a lab, you will receive a "0" for any assessments or graded activities that occurred during the missed lab. This includes in-class assignments, quizzes, and practical exams.
    - For extenuating circumstances or absence due to disability, contact the Lab Supervisor.

Summary of Course Grading:

Course Components	Weight
Lecture	55%
Lab	45%

Summary of Laboratory Grading:

Point Value	Component	Description
60 points total (10 points each)	Quizzes	At the beginning of most labs you will have a quiz worth 10 points. There are 6 quizzes total.
26 points total (2 points each)	Prelabs	To be completed at home before attending lab. There are 1 or 2 pre-lab modules for each lab session.
20 points total (5 points each)	In-Class Assignments	Some labs will have an assignment due before you leave the lab for the day. There are 4 ICA total.
50 points (10 points each)	Homework & Problem Sets	You will have four written and 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.
50 points	Lab Practical Exam I	One practical exams was given at the midpoint of the semester.
25 points total (5 points each)	Lab Manual Pages	During the online portion of the course, photos of completed lab manual pages are submitted for each lab session.
40 points total (10 points each)	Distance Learning Assignments	During the online portion of the course, each lab exercise will have an assignment associated with the material from that lab session.
50 points	Lab Final Exam	During the lab portion of the course, a final lab exam will be given.
381 points total*	**<u>*Note the total number of points has not changed after moving online!</u>**	

Quizzes: These will be administered at the start of the lab period. The lab quiz will cover material from the previous lab exercise.

- Lab quizzes are administered online via HuskyCT during your registered lab period using University-owned tablet devices (iPads).
- You will need your NetID and password to access the quizzes during the lab.

Prelab Assignments: Complete the pre-lab modules on HuskyCT before each lab session.

- 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 the lab that week.**

In-Class Assignments: These assignments are completed during the lab using HuskyCT & the Lab iPads.

- You must complete these ICA during class time.

Homework, Lab Reports, Lab Manual Pages Submissions, Distance Learning Assignments & Problem Sets: Assignments of these types 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 generates a preview of the file you uploaded as this is the only way to make sure that 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, this course required you to upload file in either *.doc or *.docx format. **Pages files, *.PDFs, and all other file types are not allowed in this course. The late submission penalty will apply to documents uploaded as incorrect file types.**

Lab Final

- **Will be delivered online through HuskyCT. The lab final will require the use of Lockdown browser and is planned to make use of their live proctoring service.**

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.

- All assignments (homework, problem sets, lab reports, pre-labs, etc.) are due before the start of your regularly scheduled lab section the week of the due date.
- Late penalties accumulate at the rate of 10% per day, up to 7 days. 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.
    - A computer crash or error is not an acceptable extenuating circumstance.
- The instructor reserves the right to change dates accordingly as the semester progresses. All changes will be communicated in an appropriate manner.

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. This shows that you are aware of our course policies and the consequences relating to academic misconduct. Be sure to thoroughly review the supplemental review material, also on HuskyCT, prior to taking this quiz.

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 when your scheduled lab section meets.

- 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. Your TA cannot approve assignment extensions.

- 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 makeup 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.
- **Use a device to take photos and then upload these to HuskyCT.**
- **Transfer files between devices.**

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				Spring 2020
Session	**Date***	**Lab Exercise(s)**	**Items Due**	**Due Date**
1	1/21	Lab 1: Laboratory Basics	In-Class Assignment (ICA) 1: Lab Basics	N/A
2	1/28	Lab 2: Amino Acids & Proteins	Pre-labs 2A & 2B	
			Quiz 1	
			HMWK 1: Hypothesis Practice	
3	2/4	Lab 3: Microscope	Pre-lab 3	
		Lab 4: Semi-Permeable Membranes	Quiz 2	
			ICA 2: Semi-Permeable Membranes	
			HMWK 2: Lab Report Skills	
4	2/11	Lab 5: Cellular Respiration	Pre-labs 4A & 4B	
			Quiz 3	
5	2/18	Lab 6: Chromosomes & Karyotypes	Pre-lab 5	
		Lab 7: Genetics I: DNA Isolation & PCR	Quiz 4	
			LR 1: Cell Respiration	
6	2/25	Lab 8: Genetics II: Agarose Gel Electrophoresis	Pre-lab 6	
		Lab 9: Gene Regulation	Quiz 5	
		Lab 10: Protein Synthesis	ICA 3: Gene Regulation	
7	3/3	Lab 11: Intro. to Bioinformatics	Pre-lab 7	
		Students bring laptop to lab!	Quiz 6	
			ICA 4: Bioinformatics (Physical)	
			HMWK 3: Genetics	
8	3/10	**Lab Practical Exam I**	Problem Set 1	
Spring Break (Week of 3/17)				
9	3/24	Lab 12: Histology	Pre-lab 8 (2 pts)	End of Day March 27th
		Lab 13: Skeletal System	Lab Manual Pages (5 pts)	
			DLA 1 (10 pts)	
10	3/31	Lab 14: External Anatomy	Pre-lab 9 (2 pts)	End of Day April 3rd
		Lab 15: Digestive System	Lab Manual Pages (5 pts)	
			LR 2: Digestive System (30 pts)	
11	4/7	Lab 16: Cardiovascular System	Pre-lab 10 (2 pts)	End of Day April 10th
			Lab Manual Pages (5 pts)	
			DLA 2 (10 pts)	
12	4/14	Lab 17: Respiratory	Pre-lab 11 (2 pts)	End of Day April 17th
		Lab 18: Excretory System	Lab Manual Pages (5 pts)	
			DLA 3 (10 pts)	
13	4/21	Lab 19: Nervous System	Pre-lab 12 (2 pts)	End of Day April 24th
		Lab 20: Immune System	Lab Manual Pages (5 pts)	
			DLA 4 (10 pts)	
14	4/28	**Lab Final Exam (50 pts)**	Problem Set 2 (10 pts)	End of Day May 1st

*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.

ICA stands for In-Class Assignment. These assignments are completed and handed in during the lab period in which their due date appears.

DLA stands for Distance Learning Assignment. These assignments are completed online and are due by the date specified above.

All items highlighted in green above are designed as distance learning activities and must be completed online via HuskyCT.