

Syllabus – Fall 2021

Excluding materials for purchase, syllabus information may be subject to change. The most up-to-date syllabus is located within the course website in HuskyCT.

Course and Instructor Information

Course Title: Honors Cell Biology

Credits: 3

Prerequisites: BIOL 1107. Not open to students who have passed MCB 2210. May not be taken out of sequence after passing MCB 3211, 3220, 3246, 3842W

Professor/Instructor/Facilitator: Dr. Adam Zweifach

Pronouns: he/him/his

Email: adam.zweifach@uconn.edu

Telephone: N/A

Other: (If applicable)

Office Hours/Availability: Online - By appointment

Professor/Instructor/Facilitator: Dr. Aoife Heaslip

Pronouns: she/her

Email: aoife.heaslip@uconn.edu

Telephone: N/A

Other: (If applicable)

Office Hours/Availability: Online - By appointment

Course Materials

Required course materials should be obtained before the first day of class.

Molecular Cell Biology – 9th Edition by Lodish et al. Please purchase or rent the eBook from the [MacMillan website](#). If it is not possible to obtain the 9th Edition, an earlier edition may have most of the necessary information.

Course Description

MCB2215 provides an overview of eukaryotic cell biology for Honors students. The course emphasizes primary research literature and understanding concepts and pathways rather than memorizing detail.

Course Objectives

This course is divided into two sections.

Part 1: Zweifach

In this section of the course, we will use the interaction of coronaviruses with mammalian cells as a springboard for motivating our study of some of the core topics of cell biology.

Topics covered will include:

What are coronaviruses, and why are they a reasonable choice to motivate you to learn the material in the first part of the course?

What are the core tools cell biologists use to study cell function?

How do you read a scientific paper?

Membranes and membrane proteins

Synthesis and trafficking of proteins to organelles, including:

The ER/Golgi/lysosomes and plasma membrane, nucleus, mitochondria, chloroplasts, and peroxisomes

Vesicle trafficking, endocytosis, exocytosis and phagocytosis

Membrane transport of small molecules

Signal Transduction- how does information get across membranes?

Part 2: Heaslip

In the second half of the course, we will examine the dynamic behaviors of proteins, organelles, and cells, and investigate how the eukaryotic cytoskeleton controls these vital cellular processes. We will discuss how these functions relate to human health and disease. Topics covered will include:

Structure and Function of Actin, Microtubules, and Intermediate Filaments

Molecular Motor Proteins and cytoskeletal organization

Cell connections, Cell movement, Cell specialization

Cell Growth, Cell Cycle, Cell Death

How to Succeed in this Course

To succeed in this course, you should expect to spend 8-9 hours/ week on the assigned activities. This course is entirely open-source. You will learn the core fact-base of the material by completing surveys that will require you to find the answers to questions we provide you. You will receive 25% of your final grade for completing these surveys, which will not be graded. You will also learn to read primary scientific papers. Quizzes about the papers will be used to assess your mastery of this skill, and will comprise an additional 25% of your final grade. Finally, "big quizzes" will be assigned weekly starting in week 3 of the course. These will test your ability to apply the facts, concepts and skills you are acquiring, and will serve as both formative and summative assessments of your progress. Your graded answers to the questions on these quizzes will comprise the remaining 50% of your final grade. In each of the two sections, your lowest big quiz score will be dropped. There will be no final exam for this class.

To do well, put in the time. Complete all the assigned activities. Ask questions in class, via email, or in individual video-chats. Think.

Course Requirements and Grading

Summary of Course Grading:

Course Components	Weight
Survey questions	25%
Primary literature quizzes	25%
Weekly quizzes	50%

Grading Scale: We plan to apply the following scale to assign letter grades. An upwards curve may be applied, and scores will be rounded up. Your lowest big quiz score in each section will be dropped before your grade is calculated.

Grade	Letter Grade
93-100	A

90-92	A-
87-89	B+
83-86	B
80-82	B-
77-79	C+
73-76	C
70-72	C-
67-69	D+
63-66	D
60-62	D-
<60	F

Due Dates and Late Policy: All quiz and survey due dates are identified in the course outline above and on the “due dates” chart posted on HuskyCT. *The instructor reserves the right to change dates accordingly as the semester progresses. All changes will be communicated in an appropriate manner.*

Late submissions will be considered only in cases of emergency. Documentation of the emergency may be required. If possible, we ask that communication about late submissions should happen prior to the deadline.

Feedback and Grades: We will make every effort to provide feedback and grades within one week. To keep track of your performance in the course, refer to My Grades in HuskyCT.

All exams and survey questions are open book, open note, open internet. However, you must complete these assignments on your own. Assignments may be monitored through safeassign in HuskyCT. For short or long answer questions, you may use any resources listed above but you must answer the questions in your own words. Please review the University policy on plagiarism (<https://lib.uconn.edu/services/ask/get-help/writing/plagiarism-resources/>) if you have any concerns.

Weekly Time Commitment: You should expect to dedicate 8-9 hours a week to this course. This expectation is based on the various course activities, assignments, and assessments and the University of Connecticut’s policy regarding credit hours. More information related to hours per week per credit can be accessed at the Online Student website.

Recording Lectures

Classes for this semester’s course will be conducted in person. Instructors may record these sessions and post audio on the class site to allow students to review the material and accommodate students who have to miss class due to illness or quarantine. In order to protect student privacy and intellectual property rights, students are prohibited from recording any session, or any portion of a session, by other means. The sharing of any recorded content without my written permission is prohibited, and unauthorized recording or sharing of course content may be considered a violation the law, University policy, and/or The Student Code.

Student Authentication and Verification

The University of Connecticut is required to verify the identity of students who participate in online courses (or courses like this with an on-line component) and to establish that students who register in an online course are the same students who participate in and complete the course activities and assessments and receive academic credit. Verification and authentication of student identity in this course will include secure access to the learning management system using your unique UConn NetID and password.

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
- Credit Hours and Workload
- Netiquette and Communication
- Adding or Dropping a Course
- Academic Calendar
- Policy Against Discrimination, Harassment and Inappropriate Romantic Relationships
- Sexual Assault Reporting Policy

Students with Disabilities

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](#))

Resources for Students Experiencing Distress

The University of Connecticut is committed to supporting students in their mental health, their psychological and social well-being, and their connection to their academic experience and overall wellness. The university believes that academic, personal, and professional development can flourish only when each member of our community is assured equitable access to mental health services. The university aims to make access to mental health attainable while fostering a community reflecting equity and diversity and understands that good mental health may lead to personal and professional growth, greater self-awareness, increased social engagement, enhanced academic success, and campus and community involvement.

Students who feel they may benefit from speaking with a mental health professional can find support and resources through the [Student Health and Wellness-Mental Health](#) (SHaW-MH) office. Through SHaW-MH, students can make an appointment with a mental health professional and engage in confidential conversations or seek recommendations or referrals for any mental health or psychological concern.

Mental health services are included as part of the university's student health insurance plan and also partially funded through university fees. If you do not have UConn's student health insurance plan, most major insurance plans are also accepted. Students can visit the **Student Health and Wellness-Mental Health located in Storrs on the main campus in the Arjona Building, 4th Floor**, or contact the office at (860) 486-4705, or <https://studenthealth.uconn.edu/> for services or questions.

Accommodations for Illness or Extended Absences

Please stay home if you are feeling ill and please go home if you are in class and start to feel ill. If illness prevents you from attending class, it is your responsibility to notify the instructor as soon as possible. You do not need to disclose the nature of your illness, however, you will need to work with the instructor to determine how you will complete coursework during your absence.

If life circumstances are affecting your ability to focus on courses and your UConn experience, students can email the Dean of Students at dos@uconn.edu to request support. Regional campus students should email the Student Services staff at their home campus to request support and faculty notification.

COVID-19 Specific Information

People with COVID-19 have had a wide range of symptoms reported – ranging from mild symptoms to severe illness. These symptoms may appear 2-14 days after exposure to the virus and can include:

- Fever,
- Cough,
- Shortness of breath or difficulty breathing
- Chills
- Repeated shaking with chills
- Muscle pain
- Headache
- Sore throat
- New loss of taste or smell

Additional information including what to do if you test positive or you are informed through contact tracing that you were in contact with someone who tested positive, and answers to other important questions can be found here: <https://studenthealth.uconn.edu/updates-events/coronavirus/>

In case of Instructor illness, you will be notified as to what will happen as soon as is possible.

If a student in the class is exhibiting symptoms consistent with COVID-19, the Instructor may ask them to leave the class. If this happens, the Instructor will work with the student to remediate effects of the missed time. If the Instructor asks a student to leave class and the student refuses, the Instructor may end the class early in the interests of everyone's safety.

Mask and Social Distancing Expectations

To ensure a safe learning environment for everyone, masks/face coverings must be worn at all times when inside buildings, including in the classroom, regardless of vaccination status. If a student is not wearing a mask/face covering, they will be asked by the instructor to put one on immediately or leave the classroom. Repeatedly failing to follow this expectation will result in a referral to Community Standards. If necessary, instructors are also permitted to end the class early in the interest of everyone's safety. Activities that involve temporarily removing the mask, such as eating or drinking are not allowed. Please leave the classroom for such activities. If an instructor is not wearing a mask/face covering, students should feel comfortable asking the instructor to put one on immediately. More information about proper usage of masks is available from UConn Environmental Health and Safety at this [link](#).

Although social distancing will not be required inside classrooms for vaccinated individuals, please be respectful of the wishes of others who prefer to maintain social distancing. For their own protection, unvaccinated individuals are requested to maintain 6 feet social distancing from others.

Software/Technical Requirements (with Accessibility and Privacy Information)

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 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).
- WebCam

For information on managing your privacy at the University of Connecticut, visit the [University's Privacy page](#).

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.

This course is completely facilitated online using the learning management platform, [HuskyCT](#). 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.
- Copy and paste text, graphics or hyperlinks.
- Work within two or more browser windows simultaneously.
- Open and access PDF files.

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

Evaluation of Course Experience

Students will be given an opportunity to provide feedback on their course experience and instruction using the University's standard procedures, which are administered by the [Office of Institutional Research and Effectiveness](#) (OIRE).

The University of Connecticut is dedicated to supporting and enhancing teaching effectiveness and student learning using a variety of methods. The Student Evaluation of Teaching (SET) is just one tool used to help faculty enhance their teaching. The SET is used for both formative (self-improvement) and summative (evaluation) purposes.

Additional informal formative surveys and other feedback instruments may be administered within the course.