Research Literature in MCB - Environmental Microbiology
Dept of Molecular and Cell Biology

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 in HuskyCT.

Course and Instructor Information

Course Title: MCB3841W-006 - Research Literature in MCB - Environmental Microbiology
Credits: # 3 credits
Format: In Person, Beach Hall Room 209
          Tuesdays and Thursdays 11:00 am to 12:15pm
Prerequisites: Organic Chemistry, Introductory Biology, Fundamentals of Microbiology
Professor: Dr. Kathleen A. Feldman

Email: Kathleen.feldman@uconn.edu (preferred method of contact)
Telephone: 860-486-4337
Office Hours/Availability: Beach Hall Room 201B - In-person office hours will be available on Tuesdays and Thursdays 9:30am to 10:30am or by appointment. You may request an appointment by sending an email to Dr. Feldman. Please allow up to 24 hours for a reply to an email. Most questions will be answered in less than 24 hours.

Course Materials

All course information will be posted on the UCONN Blackboard website which is accessible with your net ID at http://lms.uconn.edu

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

Required textbooks are available for purchase through the UConn Bookstore (or use the Purchase Textbooks tool in HuskyCT). Textbooks can be shipped (fees apply).

Lecture Text:

Required Text: A Short Guide to Writing about Biology (8th or 9th edition), Jan A. Pechenik, ISBN:0-321-15981-0 (approx. $6.00 used on ebay or $65.00 new on Amazon or $80 from the Uconn bookstore)

Optional Recommended Text (Not required but helpful): Any majors Microbiology textbook would be a good resource.

Current primary literature research articles will be assigned during the course of the semester.

Additional course readings and media are available within HuskyCT, through either an Internet link or Library Resources

Course Description

This course is designed to provide students with an introduction to the field of environmental microbiology primarily by reading, discussing, and writing about contemporary topics in environmental microbiology as found in the primary research articles.   The goal of this course is to improve communication skills on three levels: (1) conducting database searches, (2) providing presentations both formal and informal, and (3) completing well-structured and well-written papers.

Specific Learning Outcomes:
By the conclusion of this course students will be:
- Acquainted with some of the contemporary topics in environmental microbiology
- Familiar with the ecology and biological processes found in microorganisms.
- Develop skills reading and understanding primary literature articles
- Develop skills necessary to communicate effectively in the biological sciences through presentations and written papers
- Understand the process involved in completing well-structured and well written papers

Summary of Course Grading:

Assignments, Grading, and Approx. Page Count:
5 % Personal Statement (2 pages)
10 % Primary Article Summary/Critique #1 (2 pages)
10 % Primary Article Summary/Critique #2 (2 pages)
10 % Primary Article Summary/Critique #3 (2 pages)
10 % Primary Article Summary/Critique #4 (2 pages)
10 % Primary Article Summary/Critique #5 (2 pages)
20 % Final Oral Power Point Presentation
20 % Final Written Research Paper (5-7 pages)
5 % Participation in-class discussions

Assignment Weight:

Course Components	Points	Weight
Personal Statement	50	5%
Summary/Critiques	500	50%
Final Presentation	200	20%
Final Paper	200	20%
Participation In-class discussions	50	5%
Total	**1000**	**100%**

Discussions: In-class discussion are based on the assigned article readings. You will be assigned a primary research article to read and a list of questions for classroom discussion will be provided.

Personal Statement: This will consist of a maximum two-page summary of your background and accomplishments which you may use for a professional school or job application.

Article Summary/Critiques: There will be 5 article summaries due throughout the semester. The goal of the summaries is to provide you with practice in reading papers from the primary literature. This will help you to learn and evaluate the quality and importance of the papers you read. Article summaries should be a maximum of 2 pages in length.

Final Presentation: Each student will be required to put together a 20 minute Power Point presentation on a topic of their choice in the field of Environmental Microbiology (topic subject to approval by the instructor) and will write a final research paper based on its contents.

Final Research Paper: You will write a 5 to 7 page research paper on a topic in Environmental Microbiology that is of interest to you (topic subject to approval by the instructor). You will search for primary literature using on-line data bases and may also consult textbooks or websites for background information; however, you cannot use textbooks or websites as cited information sources. You must use at least 8 primary journal articles of which 4 may be review articles published in the scientific literature.

SafeAssign: This course uses Safe Assign which is a tool used to prevent plagiarism and to create opportunities to help students identify how to properly attribute sources. "SafeAssign compares submitted assignments against a set of sources to identify areas of overlap between the submitted assignment and existing works".

Due Dates and Late Policy

All course due dates are identified in the Course Outline/Calendar on the last page of this document. *The instructor reserves the right to change dates accordingly as the semester progresses. All changes will be communicated in an appropriate manner.*

Late Work receives a zero except for cases of emergency. Late work will only be accepted under cases of documentable emergencies. Emergencies would include hospitalization or illness for which you have received a doctor's note or a family member's documentable medical emergency.

Final Course Grading Scale:

Grade	Letter Grade	GPA
93-100	A	4.0
90-92	A-	3.7
87-89	B+	3.3
83-86	B	3.0
80-82	B-	2.7
77-79	C+	2.3
73-76	C	2.0
70-72	C-	1.7
67-69	D+	1.3
63-66	D	1.0
60-62	D-	0.7
<60	F	0.0

Feedback and Grades

I will make every effort to provide feedback and grades within 1 week of submission. To keep track of your performance in the course, refer to My Grades in HuskyCT.

Weekly Time Commitment

You should expect to dedicate approx. **9 – 10** 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.

Student Authentication and Verification

The University of Connecticut is required to verify the identity of students who participate in courses and to establish that students who register in a course are the same students who participate in, complete the course activities and assessments, and receive academic credit. Verification and authentication of student identity in this course will include:

1. Secure access to the learning management system using your unique UConn NetID and password.

Mask Wearing Mandate

Until further notice, 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. 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.

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)

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)
- 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).

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 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).

Additional informal formative surveys may also be administered within the course as an optional evaluation tool.

Copyright

My lectures, notes, handouts, and displays are protected by state common law and federal copyright law. They are my own original expression and I've recorded them prior or during my lecture to ensure that I obtain copyright protection. Students are authorized to take notes in my class; however, this authorization extends only to making one set of notes for your own personal use and no other use. I will inform you as to whether you are authorized to record my lectures at the beginning of each semester. If you are so authorized to record my lectures, you may not copy this recording or any other material, provide copies of either to anyone else, or make a commercial use of them without prior permission from me.

MCB 3841W – Section 004
Research Literature in Molecular & Cell Biology
Environmental Microbiology
Fall Semester 2021

Date	Course Schedule	Required Reading*
TUES. **Aug 31**	Introduction and Course Overview Outline Personal Statement Academic integrity – Plagiarism Quiz	Chapter 1 Chapter 12
THURS. **Sept 2**	Writing lab discussion – Tutor Talk Discuss how to write research article summaries	Chapter 2
TUES. **Sept 7**	Draft Personal Statement Due Discuss Article #1	Chapter 3 and 7 Article #1
THURS. **Sept 9**	Data Base Search Training Meet at the Homer Babbidge Library EC Room 1136	Chapter 4
TUES. **Sept 14**	Draft of Research Article Summary 1 Due Draft Personal Statement Returned Discuss Prologue/Abstract/Paper/Oral Presentation – pick research topic	Chapter 5
THURS. **Sept 16**	Discuss Article #2	Article #2
TUES. **Sept 21**	Draft of Title and Prologue Due Draft of Research Article Summary 2 Due Draft of Research Article Summary 1 Returned	Chapter 6
THURS. **Sept 23**	Final Personal Statement Due Draft of Title and Prologue Returned	
TUES. **Sept 28**	Draft of Research Article Summary 2 Returned Final Research Article Summary 1 Due Discuss common writing errors	
THURS **Sept 30**	Final Personal Statement Returned Discuss Research Article 3	Article 3
TUES. **Oct 5**	Draft of Research Article Summary 3 Due Final Research Article Summary 2 Due Final Research Article Summary 1 Returned Discuss common writing errors	Chapter 11
THURS. **Oct 7**	Final Title and Prologue Due Discuss Research Article 4	Article 4
TUES **Oct 12**	Draft of Research Article Summary 4 Due Final Research Article Summary 2 Returned Draft of Research Article Summary 3 Returned Mini meetings – 7 students	
THURS. **Oct 14**	Discuss Research Article 5 Final Title & Prologue Returned	Article 5
TUES. **Oct 19**	Draft of Research Article Summary 5 Due Draft Research Article Summary 4 Returned Mini meetings – 7 students	

THURS. **Oct. 21**	Abstract Draft Due Mini meetings – 6 Students	
TUES **Oct 26**	Final Research Article Summary 3 Due	
THURS. **Oct 28**	Final Research Article Summary 4 Due Draft Research Article Summary 5 Returned	
TUES. **Nov 2**	Student PowerPoint Presentations Abstract Draft Returned Final Research Article Summary 3 Returned	
THURS. **Nov 4**	Student PowerPoint Presentations Final Research Article Summary 5 Due Final Research Article Summary #4 Returned	
TUES **Nov 9**	Student PowerPoint Presentations Final Abstract Due	
THURS. **Nov 11**	Student PowerPoint Presentations Final Research Article Summary #5 Returned	
TUES. **Nov 16**	Student PowerPoint Presentations Final Abstract Returned	
THURS. **Nov 18**	Student PowerPoint Presentations	
TUES. **Nov 23**	Thanksgiving Recess	
THURS. **Nov 25**	Thanksgiving Recess	
TUES. **Nov 30**	Draft of Final Research Paper is due to instructor	
THURS. **Dec 2**	Draft of Research paper returned to student	
TUES. **Dec 7**	Students meet individually with instructor to discuss portfolio	
THURS **Dec 9**	Students meet individually with instructor to discuss portfolio	
Finals Week **12/12 to 12/18**	**Final Exam Week – No Final Exam** **Final Revised Research Paper Due 12/14/21**	

* A Short Guide to Writing about Biology (9th edition), Jan A. Pechenik,

Written Assignment Grading Rubric (Total points = 100)

points	10	8	6	4	2
Organization	Essay has an introduction that that gives the reader a clear picture of the main ideas. Essay has a conclusion that summarizes all the main ideas	Essay has both and introduction and conclusion, but one idea is not covered in either the intro or conclusion	Essay has both an introduction and a conclusion, but these do not clearly state the thesis of the essay	Essay is missing either an introduction or a conclusion	Essay has either an introduction or a conclusion, but the essay is not introduce or summarize effectively
	20	**16**	**12**	**8**	**4**
Content	Clearly states and analysis concepts being discussed	Concept is stated but not as clearly as possible. Some parts of the analysis are slightly muddled	Concept is stated but something stated is incorrect	Concept is stated but several parts are incorrect	No concept described
	20	**16**	**12**	**8**	**4**
Explanation/ Critique	Material from paper is not simply restated but explained. Critique provided.	Explanations are unclear/critique provided	Portions of paper are not explained/critique provided	Concepts not explained/critique provided, but not thorough	No explanations provided/ no critique
	10	**8**	**6**	**4**	**2**
Mechanics	Flawless	Has a few (1-3) errors that did not detract from readability	Has a few (3-6) errors that made the essay less understandable	Has more (more than 6) than few errors	Has many errors
	40		**20**		**0**
Rough Draft	Thorough, turned in		Turned in- doesn't cover entire assignment		Not turned in