

University of Connecticut
MCB 3848W
Research Literature in Molecular & Cell Biology
Environmental Microbiology
Course Outline and Policies
Spring Semester 2019

COURSE: MCB 3848W, Research Literature in Molecular & Cell Biology, Environmental Microbiology, 3 credits

LECTURE: Lecture: Tues. and Thurs. 11:00 am to 12:15 pm, Beach 209

INSTRUCTOR: Dr. Kathleen Feldman

CONTACT INFORMATION: Office: Beach 201B

Office Hours: Tuesdays 9:30 am to 10:45 am
Thursdays 9:30 am to 10:45 am

Voice Mail: 860-486-4337

Email: kathleen.feldman@uconn.edu

You may come to my office or communicate by email or telephone. When communicating by email please include "MCB3848W" in the subject line to help distinguish your message from other emails. I will try to answer email questions promptly, but the questions must be short and to-the-point. Email is more efficient than voice mail. Please do not send email and voice mail on the same subject

COURSE OBJECTIVE: 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 through the use of primary research articles. The goal of this course is to improve communication skills on three levels: (1) conducting database searches, (2) providing verbal presentations both formal and informal, and (3) completing well-structured and well-written papers.

The class sessions each week will follow different formats in order to best accomplish these goals including in-class lectures and small group discussions.

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 verbal presentations and written papers
- Understand the process involved in completing well-structured and well written papers

TEXTBOOKS: Required Text: A Short Guide to Writing about Biology (8th or 9th edition), Jan A. Pechenik, ISBN:0-321-15981-0

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.

GRADING AND ASSIGNMENTS: A minimum of 15 revised and edited pages of writing is a standard requirement for W courses. The following 10 assignments will be completed during the course of the

semester. All assignments will initially be submitted as drafts which will be reviewed for structure, grammatical correctness, and content. Drafts will not be graded but must show a concerted effort toward producing a reasonable initial product. Drafts will be returned to the student following review and mark-up. Students may meet with the instructor on an individual basis with any questions regarding expectations for the final products. Students will use the instructor's comments to produce a final product which will be given a letter grade based on quality of work. (see attached rubric)

Note: It is strongly recommended that any student struggling to meet work quality expectations should seek individual assistance from the instructor and/or from the UCONN Writing Center located in the Homer Babbage Library, 2nd Floor. Go to <https://uconn.mywconline.com> to make an appointment with a student tutor.

Final grade for the course and the minimum 15 page course requirement will be determined based on the following:

Assignments, Grading, and Page Count:

- 5 % Personal Statement (1 page)
- 10 % Article Summary 1 (1 – 2 pages)
- 10 % Article Summary 2 (1 - 2 pages)
- 10 % Article Summary 3 (1 - 2 pages)
- 10 % Article Summary 4 (1 - 2 pages)
- 10 % Article Summary 5 (1 - 2 pages)
- 5 % Prologue (1 page)
- 5 % Abstract (1 page)
- 15 % Oral Power Point Presentation (20 minutes)
- 15 % Final Research Paper (7 – 9 pages)
- 5 % Quizzes and participation in class discussions and presentations

Assignment Weight:

Course Components	Points	Weight
Personal Statement	100	5%
Summary/Critiques	500	50%
Prologue	100	5%
Abstract	100	5%
Oral Presentation	100	15%
Final Paper	100	15%
Quizzes and participation	100	5%
Total	1100	100%

Grading Scale: Undergrad

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

ASSIGNMENTS: A minimum of 15 revised and edited pages of writing is a standard requirement for W courses. For MCB 3841W, this will consist of:

Personal Statement: This will consist of a one-page summary of your background and accomplishments.

Article Summaries: 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 minimum of 1 page but not more than 2 pages in length.

Prologue: Written explanation of why you decided to research your particular topic for your final oral report and research paper. Why it is of interest to you? (1 page)

Abstract: Written summarization of the findings in your research paper.

Oral Presentation: Each student will be required to present a 20 minute oral Power Point presentation on a topic of their choice and will write a formal research paper based on its contents.

Final Research Paper: You will write a paper on a topic in Environmental Microbiology that is of interest to you. You will search for primary literature 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.

Portfolio: At the end of the semester, the student will be required to submit final copies of all writing assignments as a portfolio.

Due Dates and Late Policy

All course due dates are identified in the **Class Schedule**. ***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.

ATTENDANCE STUDENTS ARE EXPECTED TO ATTEND AND BE ON TIME FOR ALL CLASSES.

PLEASE TURN OFF ALL CELLULAR PHONES AND BEEPERS DURING CLASS.

DISABILITIES If you have a documented disability, please speak with me as soon as possible regarding accommodations. All accommodations must be arranged through the Services for Students with Disabilities Office. If you have a disability and have not already done so, you are encouraged to speak with a Disabilities Specialist regarding your needs.

ACADEMIC INTEGRITY AND STUDENT HONOR CODE: All cases of academic misconduct will be handled in accordance with the policies set forth by the University of Connecticut.

Academic Integrity: A fundamental tenant of all educational institutions is academic honesty; academic work depends upon respect for and acknowledgement of the research and ideas of others. Misrepresenting someone else's work as one's own is a serious offense in any academic setting and it will not be condoned. Academic misconduct includes, but is not limited to, providing or receiving assistance in a manner not authorized by the instructor in the creation of work to be submitted for academic evaluation (e.g.

papers, projects, and examinations); any attempt to influence improperly (e.g. bribery, threats) any member of the faculty, staff, or administration of the University in any matter pertaining to academics or research; presenting as one's own, the ideas or works of another for academic evaluation; doing unauthorized academic work for which another person will receive credit or be evaluated; and presenting the same or substantially the same papers or projects in two or more courses without the explicit permission of the instructors involved. A student who knowingly assists another student in committing an act of academic misconduct shall be equally accountable for the violation, and shall be subject to the sanctions and other remedies described in *The Student Code*.

Instructor's Role: Instructors shall take all reasonable steps to prevent academic misconduct by students in their courses. When an instructor believes there is sufficient information to demonstrate a clear case of academic misconduct, the instructor shall notify the accused student in writing (and orally, if possible) that unless the student requests a hearing to contest the instructor's belief, the instructor shall impose the appropriate academic consequence warranted by the circumstance, usually an "F" for that particular assignment. Normally, written notification shall occur within thirty (30) days of the discovery of the alleged misconduct. A copy of this notice is sent to the Dean of the college or a designee and to the department head. The appropriate academic consequence for serious offenses is generally considered to be failure of the course. For less serious offenses regarding small portions of the course work, failure for that portion is suggested with the requirement that the student repeat the work for no credit. The faculty member is responsible for saving the information of academic misconduct in its original form and need not return any of the papers or their materials to the student. Copies of the Student's work and information about other evidence shall be provided to the student upon request.

**Policy Against
Discrimination,
Harassment and
Inappropriate
Romantic
Relationships**

Policy Against Discrimination, Harassment and Inappropriate Romantic Relationships

The University is committed to maintaining an environment free of discrimination or discriminatory harassment directed toward any person or group within its community – students, employees, or visitors. Academic and professional excellence can flourish only when each member of our community is assured an atmosphere of mutual respect. All members of the University community are responsible for the maintenance of an academic and work environment in which people are free to learn and work without fear of discrimination or discriminatory harassment. In addition, inappropriate Romantic relationships can undermine the University's mission when those in positions of authority abuse or appear to abuse their authority. To that end, and in accordance with federal and state law, the University prohibits discrimination and discriminatory harassment, as well as inappropriate Romantic relationships, and such behavior will be met with appropriate disciplinary action, up to and including dismissal from the University. Refer to the [Policy Against Discrimination, Harassment and Inappropriate Romantic Relationships](#) for more information.

Sexual Assault Reporting Policy

To protect the campus community, all non-confidential University employees (including faculty) are required to report assaults they witness or are told about to the [Office of Diversity & Equity](#) under the [Sexual Assault Response Policy](#). The University takes all reports with the utmost seriousness. Please be aware that while the information you provide will remain private, it will not be confidential and will be shared with University officials who can help. Refer to the [Sexual Assault Reporting Policy](#) for more information.

**UCONN Calendar
IMPORTANT DATES
SPRING SEMESTER 2019**

- Tues. Jan 22 Spring semester begins
- Mon. Jan 28 Last day to file petitions for course credit by examination
- Mon. Feb 4 Courses dropped after this date will have a "W" for withdrawal recorded on the academic record.
Last day to add or drop courses without additional signatures
Add/Drop via Student Administration System closes
Last day to place courses on Pass/Fail
- Mon. Feb 11 Last day for student to make up Incomplete or Absence grades
- Tues-Mon. Feb 12-18 Examinations for course credit by examination
- Tues. Feb 19 Dean's signature required to add a course
- Fri. Mar 1 Mid-semester progress reports due students from faculty
- Sun. Mar 17 Spring recess begins
- Sat. Mar 23 Spring recess ends
- Mon. Mar 25 Registration for the Fall 2019 semester via Student Administration System begins
- Sat. Mar 30 Emergency closing class make-up date
- Mon. Apr 1 Last day to drop a course
Last day to convert courses on Pass/Fail option to letter grade option
- Fri. May 3 Last day of Spring semester classes
- Mon. May 6 Final examinations begin
- Sat. May 11 Final examinations end
- Sat. May 11-12 University Commencement ceremonies
- Tues. May 14 Deadline for Faculty to submit Spring grades via Student Administration System

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MCB 3841W – Section 004
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Date	Course Schedule	Required Reading*
TUES. JAN 22	Introduction and Course Overview Outline Personal Statement Academic integrity – Plagiarism Quiz	Chapter 1 Chapter 12
THURS. JAN 24	Writing lab discussion – Tutor Talk Discuss how to write research article summaries	Chapter 2
TUES. JAN 29	Draft Personal Statement Due Meet at Library for Data Base search training – EC1136	Chapter 3 and 7
THURS. JAN 31	Discuss Article #1	Article #1 Chapter 4
TUES. FEB 5	Draft of Research Article Summary 1 Due Draft Personal Statement Returned Discuss Prologue/Abstract/Paper/Oral Presentation – pick research topic	Chapter 5
THURS. FEB 7	Discuss Article #2	Article #2
TUES. FEB 12	Draft of Title and Prologue Due Draft of Research Article Summary 2 Due Draft of Research Article Summary 1 Returned	Chapter 6
THURS. FEB 14	Final Personal Statement Due Draft of Title and Prologue Returned	
TUES. FEB 19	Draft of Research Article Summary 2 Returned Final Research Article Summary 1 Due Discuss common writing errors	
THURS FEB 21	Final Personal Statement Returned Discuss Research Article 3	Article 3
TUES. FEB 26	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. FEB 28	Final Title and Prologue Due Discuss Research Article 4	Article 4
TUES MAR 5	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. MAR 7	Discuss Research Article 5 Final Title & Prologue Returned	Article 5
TUES. MAR 12	Draft of Research Article Summary 5 Due Draft Research Article Summary 4 Returned Mini meetings – 7 students	
THURS. MAR 14	Abstract Draft Due	
TUES	Spring break	

MAR 19		
THURS. MAR 21	Spring Break	
TUES. MAR 26	Final Research Article Summary 3 Due	
THURS. MAR 28	Final Research Article Summary 4 Due Draft Research Article Summary 5 Returned	
TUES APR 2	Abstract Draft Returned Final Research Article Summary 3 Returned	
THURS. APR 4	Student PowerPoint Presentations Final Research Article Summary 5 Due Final Research Article Summary #4 Returned	
TUES. APR 9	Student PowerPoint Presentations Final Abstract Due	
THURS. APR 11	Student PowerPoint Presentations Final Research Article Summary #5 Returned	
TUES. APR 16	Student PowerPoint Presentations Final Abstract Returned	
THURS. APR 18	Student PowerPoint Presentations	
TUES. APR 23	Draft of Final Research Paper is due to instructor	
THURS. APR 25	Draft of Research paper returned to student	
TUES. APR 30	Students meet individually with instructor to discuss portfolio	
THURS MAY 2	Students meet individually with instructor to discuss portfolio	
TUES. MAY 7	Final Exam Week Final Revised Research Paper Due	

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

Summary Assignment Due Date Schedule (Spring 2019)

Assignment	Assignment Outlined (instructor)	Draft Due (student)	Draft Returned (instructor)	Final Due (student)	Final Returned (instructor)
Personal statement	Jan 22	Jan 29	Feb 5	Feb 14	Feb 21
Article 1	Jan 31	Feb 5	Feb 12	Feb 19	Feb 26
Article 2	Feb 7	Feb 12	Feb 19	Feb 26	Mar 5
Article 3	Feb 21	Feb 26	Mar 5	Mar 26	Apr 2
Article 4	Feb 28	Mar 5	Mar 12	Mar 28	Apr 4
Article 5	Mar 7	Mar 12	Mar 28	Apr 4	Apr 11
Title and Prologue: Final Paper and Oral Presentation	Feb 5	Feb 12	Feb 14	Feb 28	Mar 7
Abstract: Final Paper and Oral Presentation	Feb 5	Mar 14	Apr 2	Apr 9	Apr 16
Oral Power Point Presentation	Feb 5	April 4 through April 18			
Final Paper	Feb 5	Apr 23	Apr 25	May 7	

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 an 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 introduced or summarized 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