Environmental Microbiology MCB4653  
Spring 2014 – 3 credits

**On Campus Class Schedule:** M 5th and 6th period 11:45AM – 1:40PM; mandatory  
Weekly Online Podcasting Lecture – 50 min; mandatory

**Distance Learning students only:** All classes are available as podcasts through the course website (see below).

**Class Location:** For On-campus students Monday class will be held in MCB1011

**Instructor:**  
Dr. Jamie Foster, Associate Professor, Microbiology and Cell Science

**Course Website:**  
Login available through Sakai ([http://lss.at.ufl.edu/](http://lss.at.ufl.edu/)).

**Contact Information:**  
I am located off-campus at the UF Space Life Sciences Lab, Kennedy Space Center  
My contact information is: **Tel:** 321-261-3772; **Email:** jfoster@ufl.edu;  
**Skype:** jamief94086.

**Office Hours:**  
**Gainesville Campus:** Monday 2:00 pm – 3:00 pm in the Microbiology and Cell Science Building room 1044  
**Virtual Office Hours:** Skype Video Chats by appointment

**Course Description for Environmental Microbiology:**  
Overview of microorganisms in the environment including: occurrence, abundance, and distribution; processes of microbial interaction with the environment and practices of applied environmental microbiology.

**Learning Objectives for Environmental microbiology:**  
*By the end of this course students should be able to:*  
1) Describe and comprehend the fundamental concepts of environmental microbiology  
2) Analyze primary literature articles in the field of environmental microbiology to develop critical thinking skills; and  
3) Develop essential writing and verbal communication skills through essays and oral presentations that target the field of environmental microbiology.

**Prerequisites:** MCB3020, MCB 3023 or an equivalent introductory microbiology course

**Required Texts:**  
2. Environmental Microbiology: From Genomes to Biogeochemistry by Eugene Madsen
ISBN-13 978-1405136471
3. Headset microphone; (example: www.rosettastone.com)

Grading:
1. One Topical Oral Presentation (10% of your final grade; 100 points) -
You will be expected to give a three-minute oral presentation with two additional
minutes for questions. I will discuss the appropriate elements to structuring and
developing an oral presentation. You MUST consult with me before starting work on this
presentation to ensure your selected topic is appropriate. The presentation will be
graded using a combination of peer review and instructor evaluation. Your fellow
classmates will anonymously evaluate your slides, presentation skills, and information
content. Their comments and perceptions of your presentation will account for 20 points
of your presentation grade. Another 20 points will be dependent on your evaluation of
other students. The objective is for you to develop your critical evaluation skills and
ability to constructively critique your peers. The remaining 60 points will be assessed by
myself, and will be dependent on your presentation skills, accuracy of the scientific
content, and knowledge of the presented material.

2. Discussion and class participation (5% of your final grade; 50 points) - It is
important that you each take an active role in your own education. Just showing up isn't
enough. I expect each of you to be prepared for class and involve yourself in the
lectures by asking questions and participating in the group discussions. Be prepared to
discuss the merits (if any) of the experimental approach and results.

3. Primary Literature Writing Assignment (10% of your final grade; 50 points each;
total of 100 points) - You will receive two peer-reviewed literature articles on one or
more aspects of environmental microbiology. You will be expected to write a 400-word
abstract for each research article. Write your summaries in 12 font Arial, Helvetica, or
Times New Roman. You must not plagiarize text from the papers given to you, nor
should you cut and paste text from websites. Plagiarizing will result in an automatic zero
on the assignment. The rational behind this assignment is that as a future scientist or
doctor you are often required to write abstracts (i.e., summaries) or reviews of large
pieces of work into succinct accounts for colleagues, publication, or professors. Your
objective is to evaluate and summarize the objectives and conclusions of the paper. The
assignment will be graded based on your understanding of the scientific content, ability
to analyze the author’s conclusions, and quality of writing. You will have one week to
complete each assignment.

In addition to the science component to the writing assignments your abstracts
will be evaluated with respect to grammar, punctuation, and usage of standard written
English, as well as clarity, coherence, and organization. Your writing assignments will
be graded using a rubric that will be specific to each writing assignment. Briefly the
rubric will include an assessment about the comprehension of the scientific content,
your ability to integrate the experimental design and results, your participation in the
group discussion, your ability to develop pertinent scientific questions, and the quality of
your writing ability (see previous comment). Each component will account for 20% of your grade on the writing assignments.

All critical feedback will be provided to you via track changes in Microsoft Word and Sakai within two weeks of the final due date or prior to the last class meeting. Unless otherwise noted all writing assignments are due one week after the assignment is given. Abstracts are limited to 400-words.

Note: Off Campus Discussion on the literature papers will occur during the Skype sessions on Wednesdays (Time to be determined).

4. Personal Statement Assignment (5% of your grade; 50 points) – As each of you graduates and moves into the real world you will need to generate cover letters or personal statements for either your job applications or graduate/medical school applications. This assignment is designed to jump start that process by helping you develop and polish your own personal objectives and statements. You are required to write a one page statement that would be consistent with an application to a post-graduate school. Since this is an important assignment for your future careers you will have as many opportunities as you wish to revise the statement and improve your grade. I will provide feedback to you within one week of your submission. You may correct or revise your statement and resubmit for a new evaluation through Sakai.

5. Weekly quizzes (20% of your final grade; 200 points) – Each week there will be a quiz that needs to be completed on the Sakai course website. The quizzes will include all material covered that week including podcasts. (Approximately 10-15 points each; 200 points total)

6. Written Exams (50% of your final grade; 500 points) - Questions on the exams will take the form of multiple choice and short answers. These exams will allow you to demonstrate your familiarity with the concepts, terminology, and methodologies covered in the course. The first and second exam will be worth 150 points; and the final will be worth 200 points. For the final the majority of the exam will be on the material from the last third of the class, however 50 points of the final will be based on questions from the first two thirds of the class.

Make-Up policy – There will be no make up exams unless the following:

• For planned excused absences such as interviews, you must contact the instructor 48 hr in advance of the missed exam and provide adequate documentation.
• For absences due to catastrophic events such as serious illness, accident, or death in the immediate family, proper documented justification is required.

I will require documentation for any missed assignments or exams!

Grading: Straight Scale
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<td>900 – 929</td>
<td>90% - 92.9%</td>
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<td>870 – 899</td>
<td>87% - 89.9%</td>
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<td>830 – 869</td>
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### Academic Honesty, Software Use, Campus Helping Resources, Services for Students with Disabilities

#### Academic Honesty
In 1995 the UF student body enacted an honor code and voluntarily committed itself to the highest standards of honesty and integrity. When students enroll at the university, they commit themselves to the standard drafted and enacted by students.

The Honor Pledge: We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity.

On all work submitted for credit by students at the university, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment."

Students should report any condition that facilitates dishonesty to the instructor, department chair, college dean, Student Honor Council, or Student Conduct and Conflict Resolution in the Dean of Students Office.

(Source: 2012-2013 Undergraduate Catalog)

It is assumed all work will be completed independently unless the assignment is defined as a group project, in writing by the instructor.

This policy will be vigorously upheld at all times in this course.

#### Distance Learning Complaints:
Each online distance learning program has a process for, and will make every attempt to resolve, student complaints within its academic and administrative departments at the program level. See [http://distance.ufl.edu/student-complaints](http://distance.ufl.edu/student-complaints) for more details.

#### Software Use:
All faculty, staff and students of the university are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such
violations are also against university policies and rules, disciplinary action will be taken as appropriate.

Campus Helping Resources

Students experiencing crises or personal problems that interfere with their general well-being are encouraged to utilize the university’s counseling resources. The Counseling & Wellness Center provides confidential counseling services at no cost for currently enrolled students. Resources are available on campus for students having personal problems or lacking clear career or academic goals, which interfere with their academic performance.

- University Counseling & Wellness Center, 3190 Radio Road, 352-392-1575, www.counseling.ufl.edu/cwc/
  Counseling Services
  Groups and Workshops
  Outreach and Consultation
  Self-Help Library
  Training Programs
  Community Provider Database

- Career Resource Center, First Floor JWRU, 392-1601, www.crc.ufl.edu/

Services for Students with Disabilities

The Disability Resource Center coordinates the needed accommodations of students with disabilities. This includes registering disabilities, recommending academic accommodations within the classroom, accessing special adaptive computer equipment, providing interpretation services and mediating faculty-student disability related issues.

0001 Reid Hall, 352-392-8565, www.dso.ufl.edu/drc/