

**Department of Environmental Health Science
College of Public Health
University of Georgia**

**EHSC 8310
Advanced Topics in Aquatic Microbiology, Health and the Environment
Fall, 2007 Syllabus
*Semester Topic: Climate Change, Health and Waterborne Disease***

Course Information

Instructor: Dr. Erin Lipp
Office Location: EHS 144
Phone: 706 583 8183
Email: elipp@uga.edu
Office Hours: Available by appointment (please e-mail)

Course Meeting Time and Location

Building: Environmental Health Science
Room: 207
Day: Mondays and Wednesdays
Time: 10:10 – 11:00 am (M) and 10:10 – 12:05 pm (W)

Textbooks and Other Required Course Material

No textbook is required.
Students are expected to read primary literature as assigned throughout the semester.

Course Description

Special topics related to public health, water quality, and environmental microbiology will be covered by a combination of lecture, student-driven seminars, and critical discussions of primary literature. Topics will vary by semester and may include oceans and human health, methods in environmental microbiology, and wastewater microbiology.

The Fall 2007 topic is *climate change, health and waterborne disease*.

Course Learning Objectives

- Identify topical areas of interest within the context of climate change, infectious disease and aquatic microbiology
- Search for relevant peer reviewed research
- Synthesize, summarize and present relevant research related to topical areas
- Critically evaluate peer reviewed literature
- Actively participate in and lead open discussions about research topics

Course Requirements for Grading Purposes

- Participation in weekly discussions is essential and will contribute significantly to your grade.
- Students will be responsible for leading discussion of 3 peer-reviewed papers from the published literature (papers will be posted on WebCT), decided by lottery.
- Students will provide feedback to discussion leaders for peer-assessment (due by the following class period).
- Students will be required to submit 3-5 discussion questions/points prior to discussing each paper (required for all papers); due at the beginning of class.
- Written critical reviews (2-3 pages; double spaced) are required to be submitted for two of the papers covered in the class; details will be provided separately. First paper is due by Oct. 17 and second paper is due by Dec. 5.

Topical Outline

- Introduction to climate science and climate change
- Impacts of climate change
- Role of temperature on waterborne pathogens and diseases
- Role of rainfall, floods and droughts on waterborne pathogens and diseases
- Seasonality among waterborne pathogens and diseases
- Extreme climate/weather events and waterborne disease
- Human mitigation and adaptation in reducing climate-related waterborne diseases

Grading Policy

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|--------------------------------|------------|
| • Leading discussion of papers | 75 points |
| • Peer-assessment | 10 points |
| • Discussion questions | 15 points |
| • Class participation | 50 points |
| • Critical review papers | 50 points |
| • Total | 200 points |

Grades (A-F) will be based on the following:

A	>186 pts ($\geq 93\%$)
A-	180 – 185 pts (90 - 92%)
B+	174 – 179 pts (87 - 89%)
B	166 – 173 pts (83 - 86%)
B-	160 – 165 pts (80 - 82%)
C+	154 – 159 pts (77 - 79%)
C	146 – 153 pts (73 - 76%)
C-	140 – 145 pts (70 - 72%)
D	120 – 139 pts (60 - 69%)
F	<120 pts (<60%)

Make-Up Policy

There are no make up opportunities in this course. Your participation is expected in all class discussions.

Attendance Policy

This is a participatory class therefore attendance is expected. All excused absences will be considered by the instructor; unexcused absences are not acceptable (each unexcused absence or excessive lateness (more than 10 minutes) will result in the loss of 10 points from the final grade).

University Honor Code and Academic Honesty Policy

All academic work must meet the standards contained in “A Culture of Honesty.” All students are responsible to inform themselves about those standards before performing any academic work.

Students with Disabilities

Students with disabilities who require reasonable accommodations in order to participate in course activities or meet course requirements should contact the instructor or designate during regular office hours or by appointment.

General Disclaimers

The course syllabus is a general plan for the course; deviations announced to the class by the instructor may be necessary.

Course Schedule for Fall 2007 (tentative)
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Unless otherwise noted, Mondays will consist of lectures and Wednesdays will be dedicated to student-led critical discussions of assigned reading on the weekly topic. Reading assignments will be added throughout the semester.

Week of	Topic/Lecture (Monday)	Topic/Assignment (Wednesday) ¹
Aug. 20	Course Organization/Intro	<i>No class</i>
Aug. 27	IPCC Science	
Sept. 3	<i>Labor Day – no class</i>	
Sept. 10	IPCC Impacts	
Sept. 17	<i>TBD</i>	
Sept. 24	Temperature effects - bacteria	
Oct. 1	Temperature effects – other	
Oct. 8	Wet weather - bacteria	
Oct. 15	Wet weather - viruses	
Oct. 22	<i>TBD</i>	
Oct. 29	Wet weather - protozoa	
Nov. 5	Seasonality - bacteria	
Nov. 12	Seasonality - viruses	
Nov. 19	Seasonality - protozoa	
Nov. 26	Extreme events	
Dec. 3	Mitigation and adaptation	
Dec. 10	<i>Finals week – no class</i>	<i>Finals week – no class</i>

¹ Assignments will be made as the class progresses; readings will be posted on WebCT. Unless noted or announced otherwise, *students will lead class discussions every Wednesday.*