

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

**EHSC 8310  
Advanced Topics in Aquatic Microbiology, Health and the Environment  
Fall, 2009 Syllabus**

**Course Information**

Instructor: Dr. Erin Lipp  
Office Location: EHS 144  
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Office Hours: Available by appointment (please e-mail)

TA: Leena Malayil ([leena@uga.edu](mailto:leena@uga.edu))  
Office Hours: Available by appointment (please e-mail)

**Course Meeting Time and Location**

Building: Environmental Health Science  
Room: 120 (Lab)  
Day: Wednesdays and Fridays  
Time: 10:10 – 11:00 am (W) and 10:10 – 12:05 pm (F)

**Textbooks and Other Required Course Material**

Lab notebooks are required; carbon copy pages are preferred.

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, critical discussions of primary literature and application of field and lab methods.

The Fall 2007 topic is *stream water quality and public health in Athens, GA – a field and lab based approach*.

## Course Learning Objectives

As a foundation for this course all students will be expected to:

- Identify topical areas of interest within the context of water quality in inland waters (streams)
- 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

Additionally, given the 'hands on' nature of this course, students are expected to:

- Develop and test hypotheses related to microbiological water quality issues in Athens, GA
- Develop and implement a field-based sampling strategy for water quality
- Plan for and prepare necessary reagents, media, equipment for microbiological analyses
- Analyze results of lab tests
- Apply lab and field results to hypotheses and prepare final report

## Course Requirements for Grading Purposes

- This is a hands-on course and *participation* is expected.
- *Lead discussion* on water quality topic and current literature
- Weekly *lab* summaries
- Final *project* (joint presentation or paper)

## Topical Outline

- Water quality and disease
- Waterborne pathogens
- Recreational water quality and regulations
- Fecal indicator bacteria
- Methods in detection
- Sources of contamination

## Grading Policy

- |                                 |            |
|---------------------------------|------------|
| • Discussion leader             | 25 points  |
| • Participation <sup>1</sup>    | 25 points  |
| • Weekly lab summaries          | 25 points  |
| • Contribution to final project | 25 points  |
| • Total                         | 100 points |

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<sup>1</sup> Participation includes active involvement in any class discussions, development of hypotheses and approach for course project, involvement in media and reagent prep, sampling, processing, analysis and interpretation of results. You will work together in the lab so participation by ALL is essential.

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

A	≥93 pts
A-	90 – 92 pts
B+	87 – 89 pts
B	83 – 86 pts
B-	80 – 82 pts
C+	77 – 79 pts
C	73 – 76 pts
C-	70 – 72 pts
D	60 – 69 pts
F	<60 pts

### **Make-Up Policy**

There are no formal make up opportunities in this course. Your participation is expected in all classes; exceptions are made as described below.

### **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 5 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.*