

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

**EHSC (MARS) 8410
Oceans and Human Health
Fall, 2008 Syllabus**

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: Wednesdays and Fridays
Time: 10:10 – 11:00 am (W) and 10:10 – 12:05 pm (F)

Textbooks and Other Required Course Material

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

Course Description

Oceans and the marine environment are increasingly recognized for their role in the health of the human population, both as a source of disease and source of new bioactive (medicinal) agents. In this course, we will explore this emerging field with a combination of lecture, student-driven seminars and critical discussions of primary literature.

Course Learning Objectives

This course is intended for graduate students with a background in microbiology, marine science and/or environmental health. As part of the course, students should be able to:

- Identify topical areas of research within the context of oceans and human health
- Synthesize, summarize and present relevant research related to topical areas
- Critically evaluate peer reviewed literature
- Participate in open discussion about research topics
- Critically discuss public health implications and/or policies of relevant ocean science issues.

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). Students will work with the instructor to select their paper; in some cases the instructor will make specific suggestions. Paper selection is due 1 week before scheduled discussion day.
- Students will be required to submit 3-5 discussion questions/points prior to discussing each paper (required for all papers). Due by Monday before your scheduled discussion day.
- Write an NSF-style proposal on a research project related to some aspect of 'oceans and human health.'
- Act as a reviewer of your peers for research proposals.

Topical Outline

- Oceans and human health overview
- Harmful algal blooms
- Toxic algae and seafood associated disease
- Bioactive and medicinal compounds from the sea
- Impact and epidemiology of sewage-associated pathogens in coastal waters
- Ecology and epidemiology of human pathogens native to marine waters
- Sources of and routes of exposure to anthropogenic toxic (chemical) contaminants
- Climate variability and human disease
- Tsunamis, hurricanes and human health
- Human threats to marine ecosystems
- Human effects from loss of marine ecosystem services

Grading Policy

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| • Leading discussion of papers | 75 points |
| • Discussion questions | 15 points |
| • Class participation | 10 points |
| • NSF-style proposal | 100 points (25 for first draft; 75 for final) |
| • Reviews (written) | 25 points |
| • Panel participation | 25 points |
| • Total | 250 points |

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

A	≥232 pts (≥93%)
A-	225 - 231 (90 - 92%)
B+	217 - 224 pts (87 - 89%)
B	207 - 216 pts (83 - 86%)
B-	200 - 206 pts (80 - 82%)
C+	192 - 199 pts (77 - 79%)
C	182 - 191 pts (73 - 76%)
C-	175 - 181 pts (70 - 72%)
D	150 - 174 pts (60 - 69%)
F	<150 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 2008 (tentative)

Unless otherwise noted, Wednesdays will consist of lectures and Fridays 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 (Wednesday)	Topic/Assignment (Friday) ¹
Aug. 18	8/20: Course overview/Organization	8/22: <i>Monsoons to Microbes, Under the Weather</i> and <i>Marine Biotechnology</i> (exec. summaries)
Aug. 25	8/27: Ocean science issues relevant to public health	8/29: Information about proposal project and Q & A
Sept. 1	9/03: Harmful algal blooms	9/05:
Sept. 8	9/10: Seafood, shellfish and algal toxins	9/12:
Sept. 15	9/17: Bioactive/medicinal compounds	9/19:
Sept. 22	9/24: Marine water quality and infectious disease - regulations	9/26:
Sept. 29	10/01: Naturally occurring human pathogens	10/03:
Oct. 6	10/08: Sewage derived human pathogens	10/10:
Oct. 13	10/15: Emerging methods for detecting infectious agents	10/17:
Oct. 20 ²	10/22: Tsunamis, hurricanes and other extreme events	10/24:
Oct. 27	10/29: Discussion of first draft proposals	10/31: <i>Fall Break – no class</i>
Nov. 3	11/5: Climate change and ocean impacts/human disease (<i>Dr. Patricia Yager</i>)	11/7:
Nov. 10	11/12: Chemical contaminants & toxins (<i>Dr. Marsha Black</i>)	11/14:
Nov. 17	11/19: Loss of ecosystem services/human effects	11/21:
Nov. 24	11/26: <i>Thanksgiving Break</i>	11/28: <i>Thanksgiving Break</i>
Dec. 1	12/03: Panel review – 1	12/05: Panel review - 2
Dec. 8	12/10: <i>Reading Day – no class</i>	12/12: <i>Finals week – no class</i>

¹ Specific reading 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 Friday.*

² Deadline to withdraw is October 23.

Important Dates (any changes will be noted in WebCT and in class)
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Sept. 3 (Wednesday)	Proposal topic (one sentence description)
Sept. 17 (Wednesday)	Proposal specific aims/project description (1-page) due, including preliminary reference list (additional pages as needed)
Oct. 15 (Wednesday)	First draft of <i>full</i> proposal due (electronic preferred [pdf])
Oct. 29 (Wednesday)	In class discussion of proposals. Bring questions, issues, problems, etc.
Nov. 19 (Wednesday)	<i>Final</i> full proposals due (electronic preferred [pdf])
Nov. 21 (Friday)	Proposals will be distributed to all and primary and secondary reviewers will be assigned.
Dec. 3 (Wednesday)	Panel review of proposals (day 1). Written reviews of assigned proposals are due.
Dec. 5 (Friday)	Panel review of proposals (day 2). Written reviews of assigned proposals are due.