

## **Ethical Aspects of Environmental Science**

Spring Semester 2018, 1-credit seminar

Mondays, 2-3pm at HPL and over IVN

### **Instructor:**

Cindy Palinkas, UMCES Horn Point Laboratory

(410) 221-8487

[cpalinkas@umces.edu](mailto:cpalinkas@umces.edu)

**Prerequisites:** None

**Textbooks:** None; all resources will be posted to the course Moodle site

**Course website:** Available via Moodle

**Description:** Humans and their environment are inherently linked, especially in coastal and estuarine regions, and scientific and social values often must be balanced in ecosystem management and decision-making. This 1-credit seminar examines these issues through the lens of GeoEthics, the ethical, social and cultural implications of geoscience research and practice, using a case-study approach. After a brief introduction to the concept, students will develop a list of topics to examine throughout the seminar. Example topics could include practices such as fracking, offshore wind farming, and dam removal, as well as behaviors and attitudes of scientists conducting research.

### **Learning Outcomes**

Students will be able to:

- understand professional codes of conduct in research and publishing
- identify research misconduct and appropriate reporting mechanisms
- engage in productive collaborations in both teams and mentor/trainee relationships
- properly manage data ownership, sharing, and protection
- understand the process and responsibilities involved in academic publishing, including authorship and peer review
- communicate effectively in oral presentations and group discussions
- think independently, critically, creatively and reflectively

### **Assessment**

Students will be assessed by their participation in class discussions (75% of final grade) and the end-of-semester student presentations (25% of final grade). Each study will be expected to lead at least one class meeting.

### **End-of-semester student presentations**

Each student will present the ethical issues of his/her own research topic at the end of the semester (last 2 class meetings). These presentations should follow the format of oral presentations at most scientific meetings (12 minute presentation, 3 minutes discussion).

### **Class format and student expectations**

The leader for each week will be given resources for their topic (papers, online sources), posted to Moodle at least 1 week in advance. The leader may modify these resources in consultation with the instructor prior to posting on Moodle. The leader will be expected to provide a brief (~5 minutes) introduction to the topic, and then lead a discussion of the posted resources. All students are expected to read the resources before class and actively participate in all discussions.

### **Class schedule (tentative)**

Please note that the following schedule is tentative and will be discussed in the first class meeting. Each student will be assigned to lead one or more class meetings, after the first week; the schedule will be posted to Moodle. Example topics for the case studies also will be discussed in the first class meeting.

<b>Date</b>	<b>Topic</b>
29-Jan	RCR "rules of the road," including IRB and IACUC; research misconduct
5-Feb	Collaborative research; conflicts of interest and commitment
12-Feb	<b>No class</b> - ethics online video
19-Feb	Ethical personal interactions: mentor/trainee; individual/team
26-Feb	Ethics in the lab and field – data acquisition, management, sharing, and ownership
5-Mar	Publication ethics – responsible authorship, peer review
12-Mar	Professional society codes of conduct
19-Mar	<b>No class</b> - Spring Break
26-Mar	Case study 1
2-Apr	Case study 2
9-Apr	Case study 3
16-Apr	Case study 4
23-Apr	Case study 5
30-Apr	Student presentations
7-May	Student presentations