

SPRING 2021 - COASTAL AND OCEAN POLICY AND MANAGEMENT

Thursday's 5:30 – 8:30pm

A Marine Studies Consortium course (www.marinestudiesconsortium.org)

**** This course will be taught entirely in remote mode via ZOOM this semester****

Instructor

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Course Description

Welcome to a Marine Studies Consortium course! For many of you, this course is probably listed as *Coastal Zone Management* in your course catalogs. This course will examine major trends, issues and policy that are impacting the world's coastal and ocean resources. Scientific, economic, social and political aspects of each issue will be discussed and case studies will be used to illustrate the challenge of linking good scientific data with regulatory and management decisions. Topics include (but are not limited to) relevant coastal and ocean processes, international and national governance, coastal and marine spatial planning, marine protected areas, fishery management zones, coastal development, climate change and marine mammals.

Course Format this Semester

Lectures and discussions will be accomplished entirely through online learning using ZOOM. It is envisioned that ZOOM classes will be a combination of recorded lectures and videos (to be reviewed by students anytime during the week prior the next scheduled class) as well as live with the entire class participating together. The overall aim is for students to be introduced to the information and to retain it in the most comfortable way possible.

Student Learning Outcomes

This course will give students an understanding of coastal and ocean management, policy, and laws as well as challenges in ocean protection as a public policy problem. Students will learn:

- How to define issues of concern for various target audiences
- Garner an overarching understanding of international/national/state jurisdictions and governing policies
- How to understand the political, economic, and social context of ocean protection and management
- What data and technical expertise are needed and the political, financial, and associated scientific challenges
- How to develop and implement tools to achieve management and policy objectives

Questions and issues to be addressed

- How can one use the life history characteristics of the species/suite of species to develop effective laws/policies?

Protecting and managing uses:

- How do the marine resources in question function? (natural ecosystems)
- How can human needs be met in an environmentally sustainable way (ecosystem services)?
- How can conflicting natural and human needs be accommodated (multiple uses)?
- How do we understand and respond to changing circumstances and needs (adaptive management)?

Class lectures and discussions will be derived largely from numerous topic-specific journal articles, Fact Sheets, topical briefings, and the like.

Weekly reading assignments

The reading assignments for each week will be listed in advance and media such as in *Dropbox or Google Drive...still considering the best method* for students from other Consortium institutions. These readings tend to be relatively short but are very useful to prepare for upcoming lectures and aids in discussions. Relevant Fact Sheets and reading materials/journal articles will be assigned each week throughout the semester.

Class Attendance and Participation

The class only meets once per week so it's important to be online via Zoom. This course will involve active discussion and participation by all students as much as technically possible. It will be much more interesting for all involved that way, especially with guest lecturers. Preparing for class by reviewing the assigned readings in advance is important. Students will be expected to read through assigned papers and come to class prepared to question/defend/discuss the major topical areas. If you will be unable to virtually attend class, you will be able to review the recorded lecture but are still expected to meet assignment requirements and deadlines.

Differing Academic Calendars of Consortium Institutions

The Academic Calendars of Consortium member institutions may all be slightly different as it pertains to such things as when semester classes begin and end, exam dates, semester breaks, and the like. I am flexible and will work closely with any student to ensure that I take this into account. In other words, we'll figure this out together!

Guest Lecturers

Every effort has been made to have local topical experts share their academic and professional experiences with the class. Each student should come to class on that day familiar with the guest lecturers work and institution. *Each student will submit via email 2 questions the instructor via email that deal with that week's topic and/or institution and/or instructor's academic and/or professional background by COB on that Monday.* The Instructor will pass along these questions to the Guest Lecturer. This is a great opportunity for students to ask experts about such things as graduate school education, types of careers, topics of publications, locations worked and the status of science there, possible volunteer/paid internships, job vacancies, and opportunities of interest.

Adherence to the College Honor Code at your college

As members of a Marine Studies Consortium institution, we commit ourselves to act honestly, responsibly, and above all, with honor and integrity in all areas of campus life. We are accountable for all that we say and write. We are responsible for the academic integrity of our work. We pledge that we will not misrepresent our work nor give or receive unauthorized aid. We commit ourselves to behave in a manner, which demonstrates concern for the personal dignity, rights and freedoms of all members of the community. We are respectful of college property and the property of others. We will not tolerate a lack of respect for these values. I accept responsibility to maintain the Honor Code at all times.

GRADING

Students' grades for the semester will be based on the following breakdown:

- 5% questions submitted for guest lecturers
- 25% law/policy/target species/assemblage oral presentation (if feasible, based on class size)
- 30% mid-term examination
- 40% comprehensive final examination

STUDENT ASSIGNMENTS

Each student will prepare (a) an oral presentation to be delivered to the class, and take both a (b) mid-term and (c) final examination. Each of these assignments should demonstrate a good general understanding of marine resource issues (beyond just a recitation of facts) and an ability to clearly communicate that information. Ideas should be carefully organized and concisely presented, leading to thoughtful discussions.

1. Questions for Guest Lecturers (5%)

Students will submit two (2) questions to the instructor via email that deal with that week's topic and/or institution and/or instructor's academic and/or professional background by COB on that Monday.

2. Oral Topic/Policy/Law Presentation (25%) (if feasible, based on class size)

You will select an ocean topic or critter that interests you and the associated law and policies associated with that topic/critter to prepare an oral presentation to be given to the class via ZOOM. Presentation visual aids are encouraged; you may prepare a Powerpoint presentation, transparency graphics for overhead projection, a slide show, posters and/or maps, or any other visuals appropriate for your topic. Class presentations should be planned for 15 minutes, with questions and class discussion to follow. Depending on the number of students participating in the class, the oral presentations may occur over more than one week OR the student will simply record if/her Zoom presentation and make it available to the class.

3. **Mid-Term Exam (30%)** covers all material and discussions up to that point.

4. **Final Exam (40%)** covers all information presented and discussed during the entire semester.

Policy on Incomplete Grades

Students are eligible to receive a grade of incomplete only if circumstances beyond the student's control prevent the student from completing required course work. To receive an Incomplete Grade, the instructor, student, Consortium Board Member at the student's home school (if the student is from a member school) and a Consortium staff member must all agree that such circumstances exist. Agreement is reached when all parties listed above have signed an MSC Incomplete Grade Contract (form available from the MSC). The Contract must include a description of the circumstances surrounding the request for an incomplete grade, a list of all the work to be made up and the time by which it will be completed. The student must submit the signed Incomplete Grade Contract to the instructor by the last class meeting.

Tentative Course Schedule

DATE*	GENERAL TOPICS
Jan 28	Introduction and overview of the course: Review of the syllabus, course objectives, discussions, assignments, and introductions to each other, including roles and responsibilities of each. Discuss how best to meet the needs of the class through remote instruction/discussions. General overview of some coastal and ocean issues and concepts; 5 Pillars of sustainability used in decision-making. Idea of laws vs. policies . Introduction to local, state, national, and international maritime boundaries and the United Nations Convention on the Law of the Sea (UNCLOS) ; jurisdiction and responsibilities of each party
Feb 4	National Environmental Policy Act (NEPA) of 1969 and a flurry of environmental legislation that followed in the 1970s dealing with places and critters of the ocean, with discussion of many different examples. Introduction to relevant agencies including but not limited to the National Oceanic and Atmospheric Administration (NOAA), U.S. Environmental Protection Agency (EPA), U.S. Army Corps of Engineers, Bureau of Ocean Energy & Management, MA. Dept. of Environmental Protection/Div. of Marine Fisheries
Feb 11	What are some of the current issues/concerns impacting the coastal zone? Future concerns? Role and responsibility of the Conservation Commissions in Massachusetts (Massachusetts Wetlands Protection Act of 1972, Section 404 Clean Water Act 1972, local Bylaws)
Feb 18	Issues/laws/policies/agencies related to current and expected climate change impacts and the challenges of managing living marine resources in a changing climate
Feb 25	Introduction to Coastal and Marine Spatial Planning and practical hands-on exercises (Vietnam example)
Mar 4	Oral Presentation (Review of laws/policies/information gaps/and recommendations to effectively manage or develop a policy that addresses your favorite critter or issue); Mid-Term review
Mar 11	MID-TERM EXAMINATION (exam sent via email or put on a site)
Mar 18	SPRING BREAK (Have fun!)
Mar 25	Issues/laws/policies/agencies related to marine mammals : Marine Mammal Protection Act of 1972, Endangered Species Act of 1973, and relevant national and international governing bodies (<i>Guest Lecture</i> : Lisa Sette, Seal Research Program, and Dr. Charles Mayo* Senior Scientist, Right Whale Ecology Program, Center for Coastal Studies, Provincetown, MA) INVITED
Apr 1	Issues/laws/policies related to living marine resources - Fisheries Management and Policy : Marine ecosystem management, State, Federal, and International Management, harvest controls, management techniques, effects of fisheries on fish populations, interactions with birds and mammals (<i>Guest Lecture</i> : Douglas Christel*, Fishery Policy Analyst, NOAA Fisheries Service Greater Atlantic Regional Fisheries Office, Gloucester, MA) INVITED
Apr 8	Marine protected areas (MPAs) and ocean zoning issues/laws/policies/agencies (<i>Guest Lecture</i> : Ben Cowie-Haskell*, Deputy Superintendent, Stellwagen Bank National Marine Sanctuary, Scituate, MA) INVITED
Apr 15	Offshore renewable and non-renewable energy issues/laws/policies/agencies; environmental concerns and potential management solutions; Energy Policy Act of 2005

Apr 22 Introduction to **deep-sea living and non-living resources** and national and international agencies/laws/policies that address this large area of the ocean

Apr 29 Review of the semester: issues, management tools, laws, and policies. Where have we come and where should we go for effective ocean governance and sustainability? Review/preparation for the Final Exam

May 6 **FINAL EXAMINATION (*Comprehensive*)**

* Subject to change based upon the availability of the guest lecturer