

ENSP 342
Environmental Threats to Oceans and Coasts: Towards an Integrated Policy Response
Spring 2016

Tuesday/Thursday 9:30 – 10:45
EGR 3106

Syllabus

Instructor:

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Office hours: by appointment

Overview of the Course

This course will provide interdisciplinary study of the world's oceans and coasts as we consider the challenge of maintaining their health and vitality in the face of multiple environmental threats, including climate change, pollution, over-fishing, and habitat disturbance. Specific environmental challenges will be covered in lecture and readings to provide an understanding of underlying scientific, social and economic issues, and current policy-related developments. During the final component of the course we will discuss and analyze recent efforts towards providing an integrated policy response, such as ecosystem-based management and marine spatial planning.

Goals/Learning Outcomes for the Course:

- Students will demonstrate the ability to identify and describe the (1) environmental problems facing the oceans and (2) policy responses to those problems by successfully completing mid-term and final exams covering these subjects.
- Students will demonstrate the ability to analyze and evaluate policy decisions from specific stakeholder perspectives by writing an opinion piece on an ocean policy issue.
- Students will demonstrate the ability to synthesize and summarize an original research article or government panel report and present an oral presentation on this summary
- Students will demonstrate the ability to formulate an integrated and interdisciplinary response to current ocean management issues by completing an individual report and group presentation on marine spatial planning for an assigned region.

Course Materials:

*Secretariat of the Convention on Biological Diversity (CBD), 2012. Impacts of Marine Debris on Biodiversity: Current Status and Potential Solutions. CBD Technical Series No. 67

Noone, K.J., U.R. Sumaila and R.J. Diaz. 2013. Managing Ocean Environments in a Changing Climate. Elsevier Press. ISBN 978-0-12-407668-6

http://feru.sites.olt.ubc.ca/files/2013/07/Noone_Sumaila_Rogers-2013-Book.pdf

*Final Recommendations of the Interagency Ocean Policy Task Force, July 19, 2010.

*Buck, E. H. 2012. Ballast Water Management to Combat Invasive Species. Congressional Research Service RL32344.

*Available on ELMS-Canvas Files Section

Evaluation and Grading Criteria

A total of 100 points is possible from four cumulative sources; (a) Mid-term test 25%; (b) Final examination 25%; (c) Article Summary Presentation 10%; (d) Assignments 15%; (e) Final Integrated Assignment Group Project 15%; and (f) Reading Reflections 10%.

Grades will be determined based on the following distribution: 100-98% = A+, 97-92 = A, 91-90 = A-; 89-88 = B+, 87-82 = B, 81-80 = B-; 79-78 = C+, 77-72 = C, 71-70 = C-; 69-68 = D+, 67-62 = D, 61-60 = D-; $\leq 59 = F$.

Course Reading and Reading Quizzes

Assigned reading materials are listed in the Schedule of Readings and Assignments below. Students are expected to read course material for each week prior to each Wednesday's lecture. Several reading quizzes will be given in the beginning of class on selected Wednesdays, and will consist of multiple-choice questions on the assigned reading for that week.

Course Policies

Late Policy

Unless you see me in advance of the due date and obtain an approved excuse, 5 percent of the total possible points will be deducted from your score for every day the assignment is late, including weekend days. (So, for example, on a 100-point scale, a student who would have earned a 94 on a timely paper will earn 89 if the same paper is turned in one date late, 84 if turned in 2 days late, etc.).

Attendance and Absences:

In accordance with University policy, students are expected to attend classes regularly and on-time. Attendance will not be taken on a regular basis, but failure to attend class is likely to impact your grade because the lecture materials will be a primary source of exam material.

An absence will only be considered excused under the circumstances described by the University's attendance policy, available at:

<http://www.umd.edu/catalog/index.cfm/show/content.section/c/27/ss/1584/s/1540>.

Academic Accommodations:

If you have a documented disability, please contact Disability Support Services 0126 Shoemaker Hall. Each semester students with documented disabilities should apply to DSS for accommodation request forms which you can provide to your instructors as proof of your eligibility for accommodations. The rules for eligibility and the types of accommodations a student may request can be reviewed on the DSS website at <http://www.counseling.umd.edu/DSS>. Please provide your documentation to me well in advance of any scheduled due dates or exams so that I can be sure that all of your accommodation needs are satisfied.

Religious Observances

The University System of Maryland policy provides that students should not be penalized because of observances of their religious beliefs. Students shall be given an opportunity, whenever feasible, to make

up within a reasonable time any academic assignment that is missed due to individual participation in religious observances. *It is the responsibility of the student to inform the instructor of any intended absences for religious observances in advance.* Notice should be provided as soon as possible but no later than the end of the schedule adjustment (drop/add) period.

Code of Academic Integrity

Academic dishonesty (such as cheating on exams, plagiarism from the internet or other students, submitting the same paper for credit in two courses without authorization, buying papers, submitting fraudulent documents and forging signatures) is unacceptable and will result in referral to the Student Honor Council after which a determination of a violation will result in a failing grade in the course and a note on your transcript indicating a violation of the rules of academic integrity. The University's Code of Academic Integrity sets standards for academic integrity at Maryland for all undergraduate and graduate students. As a student, you are responsible for upholding these standards for this course:

1. No cheating (“intentionally using or attempting to use unauthorized materials, information, or study aids in any academic exercise”);
2. No fabrication (“intentional and unauthorized falsification or invention of any information or citation in an academic exercise”);
3. No facilitating academic dishonesty (“intentionally or knowingly helping or attempting to help another to violate any provision of this Code”);
4. No plagiarism (“intentionally or knowingly representing the words or ideas of another as one's own in any academic exercise”).

For more information on the Code of Academic Integrity or the Student Honor Council, visit www.shc.umd.edu.

Copyright Protection for Class Materials

Commercial firms have been paying students to take notes and collect course materials, which are then copied and sold. Course materials that exist in a tangible medium, such as written or recorded lectures, Power Point presentations, handouts and tests, are copyright protected. Students **may not** copy and distribute such materials except for personal use and with the instructor's permission.

Course Evaluation

Your participation in the evaluation of courses through CourseEvalUM is a responsibility you hold as a student member of our academic community. Your feedback is confidential and important to the improvement of teaching and learning at the University. By completing all of your evaluations each semester, you will have the privilege of accessing online, at Testudo, the evaluation reports for the thousands of courses online at Testudo. Evaluations can be completed at www.courseevalum.umd.edu.

Schedule of Readings and Assignments:

Part I: Environmental Threats to Oceans and Coasts: Climate Change and Pollution

Week 1 January 26/28. Introduction/Marine and Coastal Processes

Reading: Noone, Chapter 1

Week 2 February 2/4. Climate Change: Ocean Acidification and Ocean Warming

Reading: Noone, Chapters 2-3

Due February 4: Presentation topic/article choice survey due.

Week 3 February 9/11. Coastal Pollution: Agriculture, Municipal and Stormwater Runoff

Reading: Noone, Chapter 4

Week 4 February 16/18. Coastal Pollution: Energy, Industry, and Military

Reading: Noone, Chapter 6

Week 5 February 23/25. Ocean Pollution: Energy and Mineral Production and Transport

Due February 25: Assignment 1- Op/Ed articles due

Week 6 March 3. Ocean Pollution: Marine Debris and Ocean Dumping

March 1: No class

Reading: CBD, 2012 p.11-38

Final Integrated Assessment Groups Assigned

Week 7 March 8/10. Mid-term Review and Mid-term Examination

Part II: Environmental Threats to Oceans and Coasts: Over-Fishing and Habitat Disturbance

Week 8 March 22/24. Over-Fishing and Fisheries Management

Reading: Noone, Chapter 7

Week 9 March 29/March 31. Case Study: Collapse of the Atlantic Cod Fishery, Grand Banks, Newfoundland

Week 10 April 5/7. Introduction of Non-native species

Reading: Buck, 2012.

Week 11 April 12/14. Habitat disturbance and destruction, Freshwater production, and Marine aquaculture

Reading: Noone, Chapter 5

Week 12 April 19/21. Impacts of Multiple Stressors
Reading: Noone, Chapters 8, 11
Final Integrated Assignment Group Meetings

Part III. Towards on Integrated Policy Response

Week 13 April 26/28. Coastal and Marine Spatial Planning
Reading: Noone Chapter 12; Ocean Policy Task Force, 2010

Week 14 May 3/5. Marine Spatial Planning – Group Presentations

Week 15 May 10. Final Examination Review