Fall 2014

MAR 525 – U.S. Ocean Policy

Emphasis on marine fisheries management policies, approaches, and role of science for sustainable fisheries and habitat protection (3 credits)

Overview

This course provides an overview of U.S. ocean management with an emphasis on national ocean policy and its implementation through planning by the Northeast Regional Ocean Council (NROC). It provides an understanding of marine fisheries policy and management by federal fishery management councils (e.g., New England and Mid-Atlantic Fishery Management Councils) and the Atlantic States Marine Fisheries Commission (ASMFC).

It includes a description of fishery management in the Commonwealth and the manner in which Massachusetts manages marine fisheries through its own state waters' initiatives and involvement with councils and ASMFC. It is tailored to introduce students to ocean management and fishery management initiatives now underway and contemplated — initiatives that will dominate ocean and marine fisheries management policy and debate for at least the next five years especially catch-share management and allocation of ocean resources.

Another emphasis of this course will be the manner in which scientific and technical information and providers of that advice/information affect ocean and marine fisheries management decisions and policy-making. Effects on decisions and policy of scientific uncertainty will be explored.

This course is oriented towards students with an interest in managing ocean use and marine fisheries and providing timely, influential scientific advice to ocean and marine fishery policy-makers.

Professor
David E. Pierce, Ph.D., Deputy Director Massachusetts Division of Marine Fisheries
251 Causeway St. Boston, MA 02114
David.Pierce@state.ma.us (work)
(617) 413-2361 (cell)

Course Description

Objectives:

- Identify current policy-setting initiatives affecting ocean use and fishery management and understand how scientific and technical information continues to influence those initiatives.
- Identify public and government agendas and environmental and political issues accelerating demand and urgency for revised and new ocean management and fishery management policies and initiatives for the Commonwealth of Massachusetts, New England, and the nation.
- Evaluate existing and proposed ocean and marine fishery management policies especially with regards to ecosystem-management, marine protected areas (MPAs), ocean zoning, and the precautionary management approach.
- Describe the marine fishery management process in general and examine actual, on-going fishery management situations.
- Assess the role and importance of scientific and technical information in the ocean and fishery management processes.
- Identify ways and skills in which scientists can increase their effectiveness in the ocean and fishery management processes, e.g., successfully engage policy makers — such as fishery managers – and influence policies and management decisions.
- Become familiar with state, federal, and international ocean and marine fishery management organizations.
Exams
There will be mid-term and final exams. An ocean or marine fisheries management issue paper will be required.

Class Participation
Class participation will be required. Students will be expected to lead class discussions on articles and other assigned material pertaining to class lectures provided by the instructor. Point/counterpoint debates will be held with students taking opposing sides on ocean use and marine fisheries management issues such as groundfish sectors, catch share management, wind “farms,” impacts of fishing gear on marine fisheries habitat, and marine reserves.

Evaluation
Grades will be based as follows: Class participation (20%); Mid-term exam (30%); Final exam (30%); and Policy issue paper (20%)

Schedule
Classes will be held once a week for 2 ½ hours (Friday 9:30 a.m – 12:00).

Class 1 September 5
Introductions and review of course objectives and workload.
Policy defined and policy process
Policy makers
Refer to Northeast Regional Ocean Council (NROC), New England Fishery Management Council (NEFMC), NOAA Fisheries, Atlantic States Marine Fisheries Commission (ASMFC), Marine Fisheries Institute (MFI), and Division of Marine Fisheries websites.

Class 2 September 12
National Ocean Council (NOC) & NROC
Refer to: (1) “Priority Objectives” of Implementation Strategy and Coastal and Marine Spatial Planning (CMSP) & NOC Legal Authorities Relating to the Implementation of CMSP; (2) Nine NOC Strategic Action Plans, e.g., Ecosystem-Based Management, Coastal and Marine Spatial Planning, Inform Decisions and Improve Understanding, Resiliency and Adaptation to Climate Change and Ocean Acidification and Ocean, Coastal, and Great Lakes Observations, Mapping, and Infrastructure (www.whitehouse.gov/administration/eop/oceans/sap); and (3) NROC especially www.NortheastOceanData.org.

Class 3 September 19
Continuation of Class 2, plus
Magnuson-Stevens Fishery Conservation and Management Act as Amended through January 12, 2007
Proposed 2014 MSA Reauthorization
New England Fishery Management Council & NOC’s Coastal Marine Spatial Planning (CMSP)
Policy makers & policy entrepreneurs
Scientists in the policy process
Refer to: (1) U.S. Regional Fishery Management Councils: Decades of Knowledge and Experience in Coastal and Marine Spatial Planning at www.fisherycouncils.org [Excellent site with books Managing our Nation’s Fisheries (2003 & 2005); Scientific and Statistical Committee (SSC) Workshops in 2008, 2009, and 2010; Councils’ CMSP Flyer; and booklet, “US Regional Fishery Management Councils: Opportunities and Challenges;” plus more], (2) COMPASS website (Communication Partnership for Science and the Sea), (3) Scientific Consensus Statements on “marine ecosystem-based management” and marine protected areas; (4) NOAA Scientific Integrity

**Class 4 September 26**

**Policy debates:** Biodiversity protection, Wind energy "farm" promotion, Seals & Great White sharks, Coral reef loss and deep-sea corals


**Class 5 October 3**

**Catch-share management policy**


**Class 6 October 10**

**Policy debates:** Ecosystem-based fishery management, Climate change (e.g., Ocean acidification, NAO index, El Nino and Nina), Marine sanctuaries and MPAs, Oil & gas development (e.g., Gulf of Mexico)


**Class 7 October 17 — Mid-Semester**

**Peer review & mechanisms for scientific advice for policy choices**


**Class 8 October 24 — Mid-Term Exam Due**
Obstacles for use of scientific information in public policy making

Class 9 October 31
Sustainable fisheries policy

Class 10 November 7
Ocean or Marine Fisheries Management Issue Paper due

Class 11 November 14
Seafood contaminants and safety policy
Refer to: (1) "Policy and guidance for seafood safety risks posed by polychlorinated biphenyls (PCBs) and related organochlorines," David Pierce Ph.D. Dissertation June 1996, (2) Massachusetts Department of Public Health Division of Food and Drugs website regarding fish consumption advisories, and (3) Seafood Safety. 1991. National Academy of Sciences.

Class 12 November 21
Stellwagen Bank National Marine Sanctuary management policies
Endangered species

November 28 Thanksgiving recess – no class

Class 13 December 5
Environmental ethics
Semester review

Final exam due December 5
December 19: Final grades due.