Course Number: MAR 580-04

Course Title: **Special Topics in Fisheries Oceanography: Advising Fishery Managers**

Instructors:

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Location: SMAST II Classroom 156
Meetings: Wednesday 9:30-noon
Office Hours: Wednesday 1-4pm or by appointment

Course Description: This course is discussion-based, focusing on understanding and communicating how and where fisheries research is applied to fisheries management.

We will review the following topics throughout the semester:

- Magnuson-Stevens Fishery Conservation and Management Act and 'best scientific information available'
- Regional fishery management organizations, including regional fishery management councils, inter-state fishery management commissions and international organizations
- Development of Fishery Management Plans
- Peer review, including regional stock assessment processes as well as Scientific and Statistical Committees (SSCs)
- Guidelines for incorporating fisheries science and research in management plans

We will meet weekly to focus on:

- Provision of best scientific information available
- How to effectively communicate fisheries science to a variety of audiences
- How to understand the implications of individual research in a management context
- How to apply research to management plans and fisheries regulations

Course Objectives:

1. Discuss important issues associated with management decisions

2. Understand how to apply individual research in a management context
3. Improve skills for communicating research to a variety of audiences

Evaluation procedures:
Grades will be based on participation in class discussions (20%), three class presentations (60%), and a class project (20%) to be determined.

1. Class discussions will be based on applying research in a management context.
2. Students will prepare three presentations on topics related to their graduate research to improve skills for communicating research to a variety of audiences (scientists, managers, fishing industry members, general public).
3. A class project on a topic related to students' graduate research will be developed individually on a relevant topic to be decided by students and instructors.

Primary Review Materials (available as pdfs from instructors):

Royce, W.F. 1985. The Historical Development of Fisheries Science and Management. Fisheries Centennial Celebration.

United States Department of Commerce (USDOC). 2007. Magnuson-Stevens Fishery Conservation and Management Act.

U.S. Regional Fishery Management Councils: Providing sound stewardship of our nation's fishery resources. 2009. Current 25(3).

Witherell, D. 2005. Use of scientific review by the Regional Fishery Management Councils: The existing process and recommendations for improvement.

Hartley, T.W. and R.A. Robertson. 2009. Stakeholder collaboration in fisheries research: Integrating knowledge among fishing leaders and science partners in northern New England. Society and Natural Resources 22:42-55.

Glenn, H. et al. 2011. Trust in the fisheries scientific community. Marine Policy doi:10.1016/j.marpol.2011.03.008.

Lynch, A.J. 2011. Forging new perspectives of fisheries science and management. Fisheries 36(7): 353-354.

Vellucci, M. 2007. Fishing for the truth: Achieving the "Best Available Science" by forging a middle ground between mainstream scientists and fishermen. Environs 30(2): 275-303.

Lichatowich, J.A. and R.N. Williams. 2009. Failures to incorporate science into fishery management and recovery programs: Lessons from the Columbia River. American Fisheries Society Symposium 70:1005-1009.

Cloutier, T.M. 1996. Conflicts of interest on Regional Fishery Management Councils: Corruption or cooperative management? Ocean and Coastal Law Journal 2(1): 101-152.

Caddy, J.F. and K.L. Cochrane. 2001. A review of fisheries management past and present and some future perspectives for the third millennium. Ocean and Coastal Management 44: 653-682.

Cadrin, S., C. O'Keefe, D. Georgianna and E. Keiley. 2010. A Report on Economic and Scientific Conditions in the Massachusetts Multispecies Groundfishery. Massachusetts Marine Fisheries Institute Report.

O'Boyle, R. 2011. Background and observations on MFI Report on economic and social conditions in the Massachusetts Multispecies groundfishery. SSC, NEFMC.

Sullivan, P.J. and 10 co-authors. 2006. Defining and Implementing Best Available Science for Fisheries and Environmental Science, Policy, and Management. Fisheries 31(9): 460-465.

Tentative Class Schedule (subject to change)

Date	Topic	Reading	Lecturer
3-Sep	Introduction: Integrating Fisheries Science and Management		Steve/Cate
10-Sep	Development of fisheries science and management	Royce, 1985	Steve/Cate
17-Sep	Magnuson-Stevens Act and US Fisheries Policy	USDOC, 2007	Cate
24-Sep	US Fishery Management Governance Structure	Current, 2009	Cate
1-Oct	Scientific Review Process by Management Councils	Witherell, 2005	Steve
8-Oct	Communicating Science and Reseach	Hartley and Robertson, 2009 Glenn et al., 2011	Cate
15-Oct	Student Presentations: Science Community		Students
22-Oct	Understanding Research in a Management Context	Lynch, 2011 Vellucci, 2007	Steve/Cate
29-Oct	Failure to Incorporate Science in Management	Lichatowich and Williams, 2009 Cloutier, 1996	Steve
5-Nov	Student Presentations: Fishing Community		Students
12-Nov	Balancing Science and Politics	Caddy and Cochrane, 2001 Cadrin et al., 2011; O'Boyle, 2011	Steve/Cate
19-Nov	NEFMC Meeting Newport, RI		Field Trip
26-Nov	Thanksgiving Break - No Class		
3-Dec	Student Presentations: Management Community		Students
10-Dec	Final Paper due		