

**Ecological and Social Sustainability
First Year MES Core Program, Winter 2011
Program Description**

Faculty: Gerardo Chin-Leo, Ph.D., Judith B. Cushing, Ph.D., and Ralph Murphy, Ph.D.

This program addressed topics that illustrate the theoretical and practical issues confronting efforts toward ecological sustainability. Under the general theme of “models and interventions” we examined two significant fisheries (cod and salmon), U.S. energy policy, and climate change, and explored general concepts in systems theory, resource economics, resource governance, and geoengineering. Assigned reading centered on six books: Gunderson & C. S. Holling, *Panarchy* (ch. 1-3); Meadows, *Thinking in Systems*; Kurlanski, *Cod*; Wilkinson, *Messages from Frank’s Landing*; Sandalow, *Freedom from Oil*; and Hansen, *Storms of my Grandchildren*. Books were supplemented by the complete text of the 1974 Boldt decision on Native American fishing rights (United States v. Washington, 384 F.Supp. 312 (W.D. Wash. 1974)), D. Peters et al., *Front Ecol Environ* 2008 Special Issue on Connectivity and other articles on climate change and fisheries management. Students participated in seminars, lectures, and workshops that focused on developing critical thinking, speaking, and presentation skills; two computer-based workshops illustrated the use of software (*Excel* and *Maple*) to analyze quantitative information and model population dynamics. By the end of the quarter, each student produced professional quality 12-15 page paper and 15 minute presentation on a topic in environmental studies that interested her or him. A series of workshops and discussions through the quarter supported the various stages of research and writing involved in such a project, including choice of manageable topic, literature search, organization, drafts, and presentation. This work was intended to deepen knowledge not only of the chosen topic, but also of the meaning and nature of professional work in environmental studies.

EQUIVALENCIES:

TOTAL CREDITS EARNED: 8*

6 – Interdisciplinary Approaches to Critical Environmental Issues:

Climate Change, Energy, and Fisheries.

2 – Research in Environmental Studies

***GRADUATE LEVEL CREDITS (Master of Environmental Studies)**