

**Sustainable Coastal Economies: The Science and Policy of Managing & Conserving our Ocean Resources**  
Caleb McClennen

Times:

Tuesday, December 4 (6:10-8:10PM)  
Saturday, December 15 (10:00AM-4:00PM)  
Tuesday, December 18 (6:10-8:10PM)

Location: (12/4 and 12/18) Columbia University, Morningside Campus, Schermerhorn, Room 1015

Field Excursion (12/15) Wall St. Pier 11 IKEA Ferry to Redhook Waterfront.

This course is part of CERC's Certificate Program in Conservation and Environmental Sustainability. Courses may be taken on an individual basis or you may pursue the full 12-course Certificate.

Course Overview:

In New York State alone, activities that depend on healthy, accessible, and clean oceans such as tourism and recreation, fisheries, and marine transport generate more than \$14.3 billion a year for our state economy. Locally, nationally, and internationally, the ocean economy is rapidly developing with significant investment in new opportunities such as offshore wind, aquaculture and mineral resources, while existing offshore oil, transport, fisheries and tourism/recreation sectors continue to experience significant growth. Continuing coastal development, intensification of agriculture and inland activities such as waste, sewer and water management, all continue to directly impact the sustainability of our coastal resources. It has been recognized for decades that managing and conserving coastal and marine resources must take a multi-sectoral approach given the overlapping nature of ocean activities combined with the fluid character of their externalities. This course explores the science and policy behind the trade-offs in increased ocean and coastal economic development in several core marine sectors, investigates existing options for improving sustainability, and discusses areas of necessary improvement in our ability to effectively manage this transformation.

Course Structure: This course will be taught through a combination of foundational lectures and specific discussion based on the core issues facing our coastal ocean economy today. Lectures will be led by the

course instructor and cover the critical pillars of ocean management in the 21st century.

Each student will be tasked with producing a single case study of 5-7 pages, and a brief 10-minute presentation to summarize the core issues surrounding a selected topic in greater depth.

Each case study should include a (1) summary, (2) historical background of the issue, (3) description of the decision or turning point at hand including summary of stakeholder roles, and a (4) conclusion with recommendations for the way forward. Additional materials/figures/data/references/links are welcome as appendices. Students will have until December 21 to finalize and submit their papers.

Date: Theme

Topic 1: Introduction: Ocean Science, Economics and Policy

Topic 2: Fisheries and Aquaculture

Topic 3: Marine Transport

Topic 4: Coastal Development New York Vision 2020

Topic 5: Offshore Energy (Wind and Oil)

Topic 6: Student Presentations and Closing Discussion.