

ESM 237 Climate Change Impacts on Hydrology and Ecology

Professor: Sam Stevenson & Naomi Tague

Class Schedule: Spring 2018
T,Th, 12:30–1:45
Rm 1424 Bren Hall

Overview

Global climate change will dramatically alter ecosystems, water resources and human systems. Through a series of selected readings, lectures and assignments, this course will present the techniques used to apply science based information to support climate change assessment and adaptation. Assignments and discussion will center on developing the skills needed to extract, analyze, synthesize and communicate information from science-based research in order to effectively adapt to a changing climate. We will look at how current climate and projected future climate trends and variability impact the hydrologic cycle, ecosystems and human resources. A key focus will be becoming familiar with techniques that scientists use to quantify these impacts, to disentangle multiple effects and uncertainty. We will consider how vulnerability changes across scale and in different locations around the globe and address some of the key issues in making predictions and planning for continuing climate change.

See Gauchospace for Topics for Each Week and Assignment Due Dates

Grading

Climate trend analysis (10)
Conceptual model (15)
Empirical impact modeling 1 (15)
Empirical impact modeling 2 (10)
Adaptation Brief (15)
Adaptation Project Presentation (10)
Adaptation Project Report (25)