

Lecture Schedule:

AOSS / NRE 480. This is will vary from year to year.

Week	Lecture	Title
1	1	Introduction: Course Outline, Basis of Climate Change Science and Impacts
	2	Role of IPCC and Summary of Predictions
2	3	IPCC Predictions of Temperature and Precipitation, Correlated Behavior in the Physical Climate System, Relation of Climate Change to Energy
	4	Conservation Principle, Conservation of Energy, Ice-Age Cycles, Role of Water in the Physical Climate System
3	5	Climate Variability of the Past 1000 Years, Radiative Balance of the Earth, Role of Terrestrial and Marine Ecosystems in the Carbon Budget
	6	Earth System: Roles of Atmosphere, Ocean, Land, and Cryosphere in Maintaining Earth's Climate; The Vertical Structure of the Greenhouse Effect.; Weather and Climate
4	7	Aerosols, Feedback Mechanisms, Models and the Role of Models
	8	Model Experiments: Diagnostics of Past Observations, Predictions of the Next Century (IPCC), Climate Forcing
5	9	Definition of Project Form, First Round of Project Definition, Synthesis of Previous Lectures
	10	Observing Systems, Observations of the Physical Climate, Observations of Ecosystems, Coherent and Convergent Evidence of Climate Change
6	11	Vulnerability, Ethics, Adaptation: Winners and Losers in Climate Change (Lemos, 2007)
	12	Project Proposals: Individuals or Teams
7	13	Climate Change as a Management Problem, Background of International Policy, Framework Convention, Kyoto
	14	Kyoto Protocol, Is the Sulfur Market a Good Policy Model for Climate Change
8	15	The Carbon Market (Felt, 2007)
	16	Analysis of Market-based Approaches to Environmental Regulation: Can these be effectively applied to carbon dioxide management?

9	17	Selection of Project Proposals: Project Team Definition
	18	Local, State, and Regional Policy (Rabe, 2007)
10	19	The Role of the Judicial System and Litigation in Climate Change, Massachusetts vs EPA (Mendelson, 2007)
	20	Project Status, Refinement of Scope, Identification of externalities
11	21	Public Health: Overview of Impacts of Climate Change on Public Health (O'Neill, 2007)
	22	Public Health: Societal Response and Adaptation of Public Health Services, Heat Waves (McCormick, 2007)
12	23	Business and Climate Change: Preparing for the Future (Hoffman, 2007)
	24	Global Geo-engineering: Strategies for Managing the Global Climate (Rasch, 2007)
13	25	Climate, Energy, Adaptation: The U.S. Perspective (Bierbaum, 2007)
	26	Project Status and Discussion Class Synthesis and Discussion
14	27	Class Synthesis and Discussion
	28	Project Presentations