

Syllabus: SIO 25 Climate Change and Society

Dr. Jane L. Teranes

Fall, 2013

Lectures: MWF 1:00-1:50, Center Hall 222

Final Exam: Monday December 9th, 11:30am-2:30pm

Office hours:

Galbraith Hall 367: Wednesdays 2-4pm

Old Scripps Building 27: Thursdays 2-4pm

I am also available by email and by appointment.

Telephone: 822-2099 **e-mail:** jteranes@ucsd.edu **Course website:** ted.ucsd.edu

Course Teaching Assistant:

Sara Sanchez, Graduate Student at Scripps Institution of Oceanography

Office hours: Galbraith Hall 364 Mondays 2-3pm **e-mail:** scsanche@ucsd.edu

Objectives:

By the end of this course, you should be able to (1) understand and describe the science of climate change; (2) identify and explain global symptoms of climate change and (3) be familiar with technological, economic and political solutions for reducing greenhouse gas emissions (4) be able to weigh the pros and cons of various solutions and (5) be able to accurately and effectively relate information on climate change to a general public audience.

Reading:

-Required Book: The Rough Guide to Climate Change, Robert Henson, Penguin Group, **Third edition**, Jan. 2011.

-Many additional articles will be distributed and/or available on the course website or through electronic reserves (Ex. newspaper clippings, IPCC summary reports, environmental treaty documents, journal articles, etc.)

Format:

This course will focus on scientific understanding of global climate change and examination of policy questions. Class will consist of lectures and in-class discussion of specific examples. There are required assignments that will be a significant portion of your grade. Class attendance and participation are very important and will be part of your grade.

Grading:

-30% Homework assignments

-30% Quizzes

-40% Final Exam (cumulative)

-Extra credit: Campus seminars that will be announced in class throughout the quarter.

Course Schedule

Date	Topic	Reading
9/27	Introduction: Class and Topics	
9/30	Climate Change Science Primer	Henson Part 1
10/2	Climate Change Policy Introduction	Henson Part 1
10/4	The Climate System	Henson Part 1
10/7	The Carbon Cycle Homework #1 assigned	TBD
10/9	Understanding Climate Change	IPCC Summary for Policy Makers
10/11	Reports from the Intergovernmental Panel on Climate Change	IPCC Summary for Policy Makers
10/14	The Longer View of Change	Henson Part 3
10/16	Learning from Past Climates	Henson Part 3
10/18	Modeling the Climate System Homework #1 due	Henson Part 3
10/21	Guest Lecture: Sara Sanchez (your TA) "Perspectives from a graduate student involved in Climate Change Research" Homework #2 assigned	Henson Part 3
10/23	Quiz #1	
10/25	The Symptoms – extreme heat , floods and droughts	Henson Part 2
10/28	The Symptoms – melting ice caps, rising seas	Henson Part 2
10/30	The Symptoms – ocean acidification	Henson Part 2
11/1	The Symptoms – ecosystems and agriculture	Henson Part 2
11/4	The Symptoms – climate weirding	Henson Part 2
11/6	The Symptoms – assessing the risks to California Homework #2 due	TBD
11/8	Discussion Homework #3 assigned	
11/11	Veteren's Day: No class	
11/13	Quiz #2	Henson Part 4
11/15	Global Energy Consumption – Who's responsible?	Henson Part 4
11/18	Renewable Energy, Technological Solutions	Henson Part 4; TBD
11/20	Living with Natural Gas? And, what is Fracking?	TBD
11/22	Action: International, National and Regional Policy Solutions	Henson Part 4
11/25	Action: Economic Tools and Financial Incentives Homework #3 due	Henson Part 4
11/27	Thanksgiving Break: No class	
12/2	A Heated Debate and Global Warming Skeptics	TBD
12/4	What Can You Do?	Henson Part 5; TBD
12/6	Discussion, Final Review	Henson Part 5

NOTE: TBD stands for reading that is to be determined. This reading will be assigned in class and usually posted on the website.