Climate Change (ESS15)

Earth System Science 15: CLIMATE CHANGE (Spring 2018)
(http://www.ess.uci.edu/~yu/ess15.html)

COURSE TIME

Lecture: Tuesdays & Thursdays, 2:00-3:20pm, EH1200
Discussion: Tu (9:00-9:50am), Tu (10:00-10:50am), Wed (1:00-1:50pm), Wed (3:00-3:50pm), Th(9:00-9:50am), Fri (11:00-11:50am), Fri (12:00-12:50pm), RH184

INSTRUCTOR
Professor Jin-Yi Yu
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Office Hour: 1-2pm Tuesday or by appt.

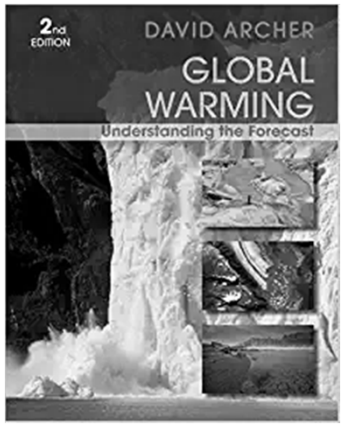
TEACHING ASSISTANT
Mr. Shih-Wei Fang
CH3103, shihweif@uci.edu
Office Hour: 1-2pm, Th

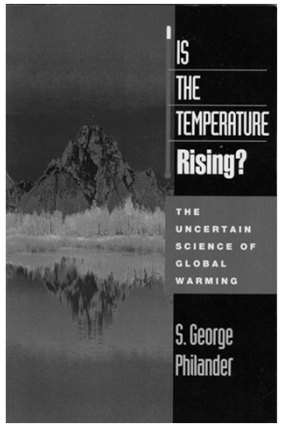
Ms. Qian Huang
CH3103, qianh1@uci.edu
Office Hour: 2-3pm, Wed

Mr. Sanjeevi Nagalingam
CH3103, snagalin@uci.edu
Office Hour: 11am-12pm, Tu

Croul Hall / Earth System Science

Textbook





ESS15 Grades

Grades: Homework (25%), midterm (30%), Final Exam (30%), quizzes and in-class participation (10% for the lectures, 5% for the discussion section). It is student's responsibility to make sure that the TA receives their homework.

- Late assignments policies
  - EEE quizzes must be completed by their due date.
- Group work policies
  - EEE quizzes are to be done alone.
  - Discussion assignments can be done in groups per your TA's instructions.
- Attendance policies
  - Students are expected to attend lectures and discussion sections.
  - Attendance and participation will be determined through in-lecture i-clicker quizzes and in-discussion group projects.

- I-clicker: There will be iclicker quizzes during most lectures. These quizzes will count as part of in-class participation. To get full participation credit, students are required to answer more than two thirds of all questions during a lecture, during 20 lectures. You can get partial credit for participating in less than 20 lectures.

- Discussion: In order to receive full participation credit, you need to attend 6 out of the total 9 discussions. You can only get credit for attending a discussion you are enrolled in. You can get partial credit for attending less than 6 sessions.

Course Description

This course develops:

- an understanding of the physical basis behind climate change,
- examines how human activities cause it,
- looks to future rates and impacts of global warming,
- reviews the international conventions, protocols and scientific assessments of climate change.

Syllabus

WEEK	DATE	TOPICS		CHAPTER
Week 1	4/03 & 4/05	Climate System Overview	*Physical Base*	Ch.1
Week 2	4/10 & 4/12	Global Energy Balance		Ch.2
Week 3	4/17 & 4/19	Radiation Transfer		Ch.3
Week 4	4/24 & 4/26	Greenhouse Effect		Ch.4
Week 5	5/01 & 5/03	Temperature, Pressure, and Wind		Ch.5
Week 6	*5/08* & 5/10	Mid-term & Weather and Climate	***Human Impact***	Ch.6
Week 7	5/15 & 5/17	Climate sensitivity and feedback		Ch.7
Week 8	5/22 & 5/24	Global carbon cycle	***Climate Change and Policy***	Ch.8-9
Week 9	5/29 & 5/31	Climates of the past		Ch.10-11
Week 10	6/05 & 6/07	Future climate change and impacts		Ch.12-13
FINAL	6/14 (Th)	(1:30-3:30 p.m)		

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