

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
CH3315, 824-3878, jyyu@uci.edu
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

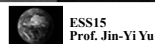
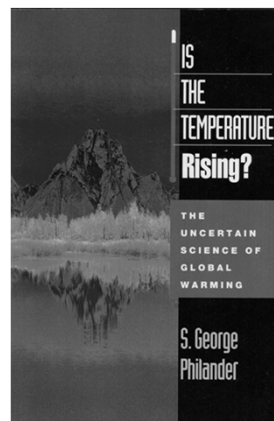
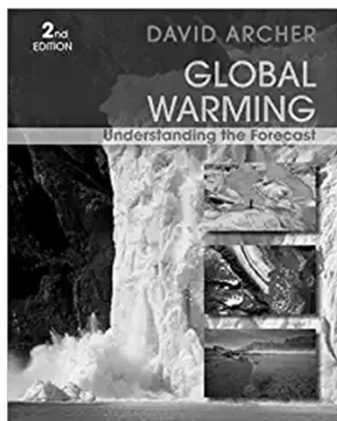
Mr. Sanjeevi Nagalingam
CH3103, snagalin@uci.edu
Office Hour: 11am-12pm, Tu



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 i-clicker 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	Physical Base	CHAPTER
Week 1	4/03 & 4/05	Climate System Overview		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	<i>Human Impact</i>	Ch.6
Week 7	5/15 & 5/17	Climate sensitivity and feedback		Ch.7
Week 8	5/22 & 5/24	Global carbon cycle	<i>Climate Change and Policy</i>	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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 Wed (3:00-3:50pm), Th(9:00-9:50am), Fri (11:00-11:50am), Fri (12:00-12:50pm); Location: RH 184

INSTRUCTORS

Professor Jin-Yi Yu
 Office: 3315 Crowl Hall
 Phone: (949) 824-3878
 Email: jyua@uci.edu
<http://www.ess.uci.edu/~yu/>

TA: Mr. Shih-Wei Fang
 Email: shihw@uci.edu
 Office Hour: 1:00-2:00pm Tuesday

TA: Ms. Qian Huang
 Email: qianh1@uci.edu
 Office Hour: 2:00-3:00pm Wednesday

TA: Mr. Sanjeevi Nagalingam
 Email: snagalin@uci.edu
 Office Hour: 11:00am-12:00pm Thursday

DESCRIPTION

This course (1) develops an understanding of the physical basis behind global climate change, (2) examines how human activities cause it, (3) looks to future rates and impacts of global warming, and (4) reviews the international conventions, protocols and scientific assessments of climate change.

TEXTBOOKS

- David Archer, "Global Warming - Understanding the Forecast" (required)
- S. George Philander, "Is the Temperature Rising?"

GRADES

Homework (25%), midterm (30%), Final Exam (30%), quizzes and in-class participation (15%; 10% for the lectures and 5% for the discussion section).

SYLLABUS

- Week 1 (4/03 & 4/05)
- Course Introduction (EDE) (Handout)
- Climate System Overview (Ch. 1) (EDE) (Handout)

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INSTRUCTOR
 Professor Jin-Yi Yu
 C23118, 824-3878 (jyua@uci.edu)
 Office Hour: 1-2pm Tuesday or by appointment

TEACHING ASSISTANT
 Mr. Shih-Wei Fang
 C23118, shihw@uci.edu
 Office Hour: 1-2pm Tuesday

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Textbook

ESS15 Grades

