

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*



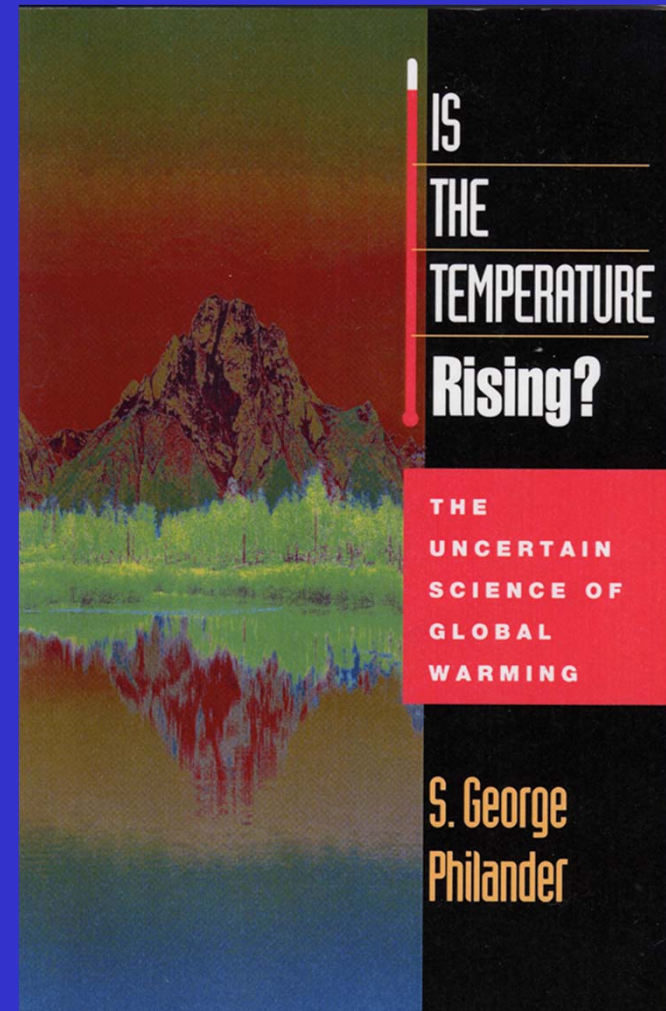
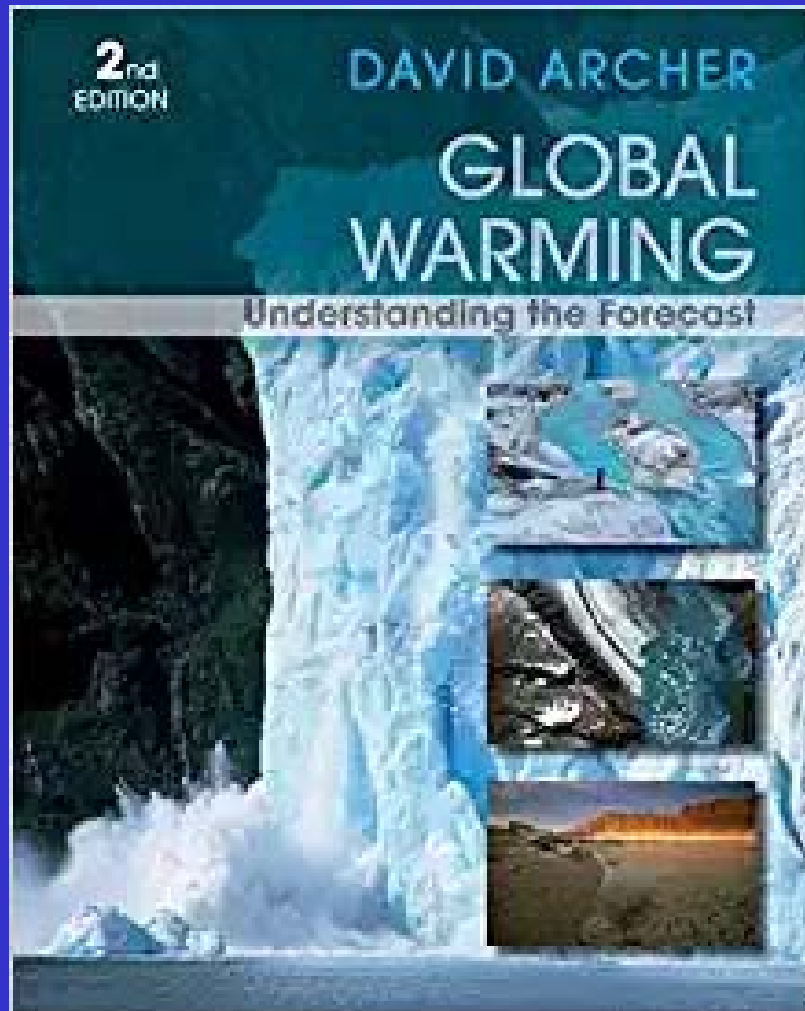
ESS15
Prof. Jin-Yi Yu

Croul Hall / Earth System Science



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Textbook



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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

<u>WEEK</u>	<u>DATE</u>	<u>TOPICS</u>	<i>Physical Base</i>	<u>CHAPTER</u>
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)		



Course Website

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ESS15 CLIMATE CHANGE (Spring 2018) [syllabus]

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INSTRUCTORS

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

TA: Mr. Shih-Wei Fang
Email: shihweif@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

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SYLLABUS

- **Week 1** (4/03 & 4/05)
Course Introduction (PDF) (Handout)
Climate System Overview [Ch. 1] (PDF) (Handout)

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Textbook



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10% for the lectures and 5% for the discussion section.

• Late assignments policy

• Group work policies

• Attendance policy

• In-class participation

• Final Exam

• Quizzes

• Discussion

• Participation

• Attendance



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