Earth System Science 15: CLIMATE CHANGE (Spring 2018)
(https://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
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Office Hour: 2-3pm, Wed

Mr. Sanjeevi Nagalingam
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Office Hour: 11am-12pm, Tu

COURSE 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.

WEEK	DATE	TOPICS	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	Ch.6
Week 7	5/15 & 5/17	Climate sensitivity and feedback	Ch.7
Week 8	5/22 & 5/24	Global carbon cycle	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)	

Textbook: "Global Warming – Understanding the Forecast", by David Archer.

Grades: Homework (25%), midterm (30%), Final Exam (30%), quizzes and in-class participation (15%: 10% for the lectures and 5% for the discussion section). It is student's responsibility to make sure that the TA receives their homework.

Course policies and instructor expectations:

• 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.

• Re-grade policies
- UCI grading policies only allow for re-grades in case of clerical error (i.e. something was missed or counted incorrectly).
- If you feel something else was missed in your work beyond this scope you must re-submit your original work within a week of receiving your grade, along with a 1-page explanation of why you feel your grade should be re-calculated.

• Academic Honesty Policies
- University-level students have a responsibility to themselves and their classmates to pursue their studies ethically and responsibly. You are required to abide by University policies concerning academic honesty. (See: http://www.senate.uci.edu/senateweb/default2.asp?active_page_id=754)
- If in doubt about how much you can work collaboratively, or how to cite materials appropriately, please ask the instructor or the TA.
- Incidents of academic dishonesty may be reported to the Dean of your School as well as the Dean of the Division of Undergraduate Education and may result in a failing grade and/or dismissal from the University.

• 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; you cannot get extra credit for participating in more than 20 lectures. The instructor will not accept pieces of paper or emails as proof of participation; bring your iclickers and make sure they have power.
- Honesty policy: It is strictly forbidden to operate other people's iclickers during class. Students caught operating others' iclickers and corresponding iclicker owners will be penalized by receiving zero (0%) participation credit for the quarter. Cases may be reported to the Dean.

• 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; you cannot get extra credit for attending more than 6 sessions.
- Honesty policy: The discussion leader may check your student ID during the discussion. Posing as someone else during a discussion section will result in zero (0%) discussion credit for the quarter for both students.

• Homework: It is your homework to read and study the book chapter(s) and readings associated with each lecture topic. In addition, there will be group assignments during discussion. While these are not formally graded they are part of your participation grade and are

essential to succeeding on the midterms and final.

• Midterms and Final: There will be a midterm and a final. Midterm and final dates are already set and published, so plan your calendar and schedule accordingly. Attendance to the midterms and final is mandatory! (Taking the midterms and final on different dates will be allowed only in very exceptional cases.) The exams will contain a mix of True/False, multiple choice, and short answer questions. During the exam you should bring only: Student ID, a scientific calculator, two or more pencils + eraser, scantron ParSCORE form # F-288-PAR-L. No cellphones, tablets, laptops, textbooks, and backpacks. The instructors will assign seating.

▪ Honesty policy: Midterm and Final exams have to be completed individually, with no exceptions. Students caught in "collaborating" on one or more questions or completing someone else's exam will be penalized by failing the exam (0% for the exam toward your final grade). Every case will also be reported to the dean.

• Final grading: The final %-grades will be converted to letter grades using the UCI grade scheme, adjusted by a curve depending on class performance.