

Earth System Science 55: EARTH'S ATMOSPHERE (Spring 2024)
(<http://www.ess.uci.edu/~yu/ess55.html>)

COURSE TIME

Lecture: Tuesday & Thursday, 12:30-1:50am, ALP1700

Discussion: Monday (10:00-10:50am; 2:00-2:50pm; 3:00-3:50pm), RH184

INSTRUCTOR

Professor Jin-Yi Yu

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Office Hour: 10-11am Wednesday or by appt.

TEACHING ASSISTANT

Ms. Lili Manzo

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Office Hour: 3-4pm Tuesday

COURSE DESCRIPTION

The course will cover some fundamentals of atmospheric science, such as the static atmosphere (including composition, hydrostatic balance and thermodynamics), the global energy balance, radiative transfer and climate, the hydrologic cycle, the general circulation and climate regimes.

<u>WEEK</u>	<u>DATE</u>	<u>TOPICS</u>	<u>CHAPTER</u>
Week 1	4/02 & 4/04	A Brief Survey of the Atmosphere	Ch.1
Week 2	4/09 & 4/11	Global Energy Balance	Ch.2
Week 3	4/16 & 4/18	Radiation Transfer in the Atmosphere	Ch.2-3
Week 4	4/22 & 4/25	Atmospheric Motion	Ch.8-9
Week 5	4/30 & 5/02	Atmospheric General Circulation	Ch.10
Week 6	5/06 & 5/09	Moist Processes in the Atmosphere	Ch.4-5
Week 7	5/14 & 5/16	Cloud Development & Precipitation Process	Ch.6-7
Week 8	5/21 & 5/23	Mid-Latitude Weather	Ch.11-12
Week 9	5/28 & 5/30	Tropical Hurricane	Ch.16
Week 10	6/04 & 6/06	Climate Variability and Change	Ch.17-18

Textbook: "Meteorology Today", The 12th Edition, by C. Donald Ahrens, 2018.

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

Email answers are not acceptable. If you turn in your homework after the lectures, you should email TA to notify them where and when you drop the homework. You should also check the Canvas grade book to make sure you receive accurate homework and exam grades. There is no dispute of the grades one week after the grades are posted on the grade book.

Homework: Usually issued on Thursday and due on the following Thursday. There is a 20% penalty per day for late homework. Group answers are not acceptable. Homework will be returned by TAs in the discussion section.

Final Examination: Monday, Jun 10, 1:30-3:30pm

Poll Everywhere: This class will be using Poll Everywhere. There are two things you need to do to make sure you will be able to participate successfully.

First, make sure your default email address in Canvas matches your email address as it is listed in the campus directory (<https://directory.uci.edu/>). This is required in order for Poll Everywhere to correctly report any grades or participation scores in the Canvas gradebook. Instructions for finding and updating your default email in Canvas are available here: <https://community.canvaslms.com/t5/Student-Guide/How-do-I-change-my-default-email-address-in-my-user-account-as-a/ta-p/410>

Secondly, take a moment to sign in to Poll Everywhere with your UCInetID:

1. Open pollev.com
2. Select Login on the left side of the page
3. Enter your @uci.edu email address as it is listed in the campus directory (<https://directory.uci.edu/>) and select Next
4. Login with your UCInetID and password
5. Complete your account setup by adding your name

For more information about completing Poll Everywhere activities, see <https://support.polleverywhere.com/hc/en-us/articles/1260801556349-Responding-to-questions>. If you run into any technical difficulty or have any questions about your UCI Poll Everywhere account, please contact our campus support staff by emailing clickers@uci.edu or call the Classroom Technologies help line at (949) 824-8833.