Earth's Atmosphere (ESS55)

- **Course Time**

  Lectures: Tuesdays & Thursdays 9:30-10:50, SH128

  Discussions: Monday (11:00-11:50) & Wednesday (1:00-1:50), RH184

- **Text Book**

  Meteorology Today, 10th Edition, by C. Donald Ahrens, Brooks/Cole.

- **Grade**

  Homework (30%), Midterm (30%), Final (30%), In-Class Participation & Quiz (10%)

- **Homework**

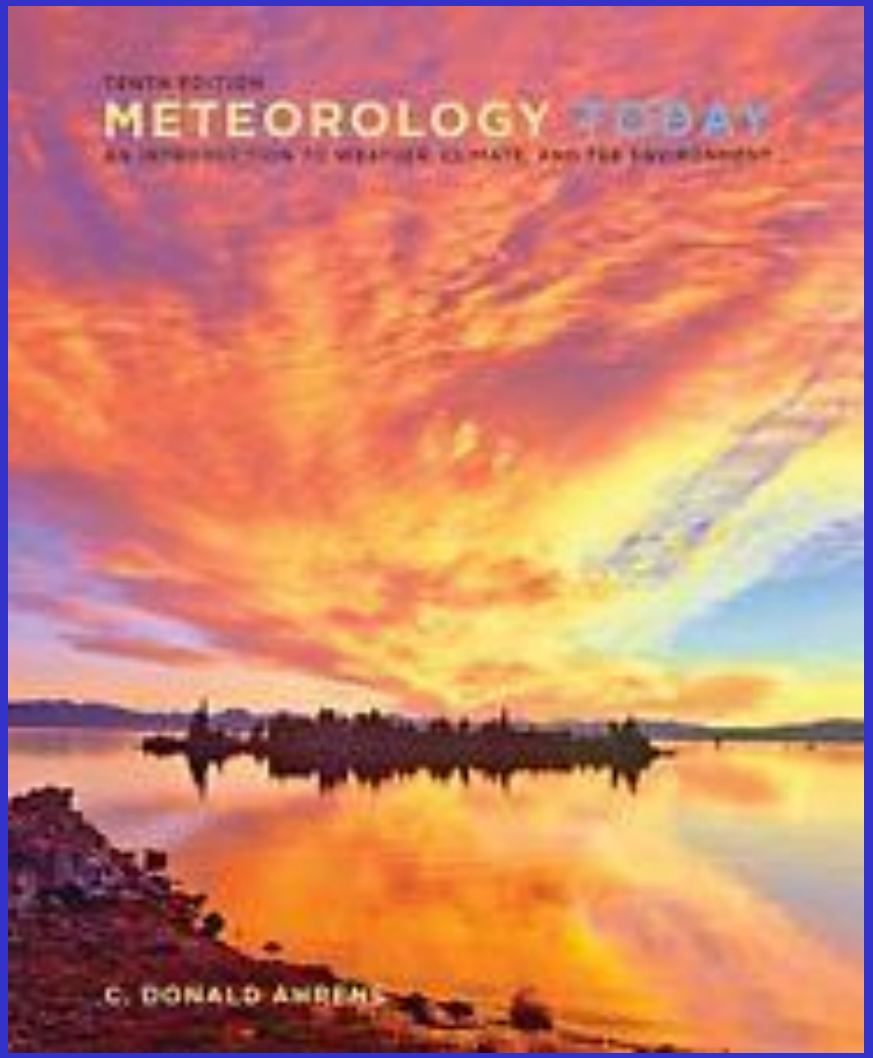
  No group answer; no email answers.

  A 20% penalty per day for late homework

- **Discussion**

  Review course material; answer homework problems; reviews for midterm and final

Textbook



Office Hour

TEACHING ASSISTANT

Mr. Jordan Schnell

CH3242, jschnell@uci.edu

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

INSTRUCTOR

Professor Jin-Yi Yu

CH3315, 824-3878, jyyu@uci.edu

Office Hour: 1-2pm Tuesday or by appt.

Croul Hall / Earth System Science

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.

Prerequisite: Mathematics 2B; Physics 3B or 7B.

Syllabus

WEEK	DATE	TOPICS	CHAPTER
Week 1	4/01 & 4/03	A Brief Survey of the Atmosphere	Ch.1
Week 2	4/08 & 4/10	Global Energy Balance	Ch.2
Week 3	4/15 & 4/17	Radiation Transfer in the Atmosphere	Ch.2-3
Week 4	4/22 & 4/24	Atmospheric Motion	Ch.8-9
Week 5	4/29 & 5/01	Atmospheric General Circulation	Ch.10
Week 6	5/06 & 5/08	Moist Processes in the Atmosphere	Ch.4-5
Week 7	5/13 & 5/15	Cloud Development & Precipitation Process	Ch.6-7
Week 8	5/20 & 5/22	Mid-Latitude Weather	Ch.11-12
Week 9	5/27 & 5/29	Tropical Hurricane	Ch.15
Week 10	6/03 & 6/05	Climate Variability and Change	Ch.16-17

Course Website

http://www.ess.uci.edu/~yu/ess55.html