Earth System Science 124: WEATHER ANALYSIS (Winter 2021)
(http://www.ess.uci.edu/~yu/ess124.html)

VIRTUAL REMOTE VIA ZOOM
Lectures: Tuesdays & Thursdays 11:00am-12:20pm
Join Zoom Meeting: https://uci.zoom.us/j/94394284642
Discussion: Wednesdays 9:00-9:50am, (at https://uci.zoom.us/j/99406897930)

INSTRUCTORS
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COURSE DESCRIPTION
This course provides an overview of weather systems in mid-latitudes and tropics. The fundamental dynamics responsible for these weather systems are described. Elementary weather analysis and forecasting techniques are introduced.

WEEK	DATE	TOPICS	CHAPTER
Week 1	1/05	Properties of the Atmosphere	Ch.1
	1/07	Meteorological Measurements	Ch.2
		Weather Map	Ch.3
Week 2	1/12	Atmospheric Instability	Ch.6
	1/14	Forces and Force Balances	Ch.7
Week 3	1/19	The Development of High- and Low-Pressure Systems	Ch.8
	1/21	Air Masses and Fronts	Ch.9
Week 4	1/26	Extratropical Cyclones East of the Rocky Mountains	Ch.10
	1/28	Extratropical Cyclones Along the East and Gulf Coasts	Ch.11
Week 5	2/02	Freezing Precipitation and Ice Storms	Ch.12
	2/04	Lake-Effect Snowstorms	Ch.13
Week 6	2/09	*Midterm Examination*	Ch.1-13
	2/11	Cold Waves	Ch.14
		Great Plains Blizzards	Ch.15
Week 7	2/16	Mountain Snowstorms	Ch.16
	2/18	Mountain Winterstorms	Ch.17
Week 8	2/23	Thunderstorms	Ch.18
	2/25	Tornadoes	Ch.19
Week 9	3/02	Hailstorms	Ch.20
	3/04	Lighting	Ch.21
		Downbursts	Ch.22
Week 10	3/09	Tropical Cyclone	Ch.24
	3/11	Flood	Ch.25
		Drought	Ch.26
		Heat wave	Ch.27
Week 11	TBA	*Final Examination* (10:30am)	Ch.10-26

Textbook: Robert Rauber, et al., "Severe and Hazardous Weather" (5th Edition), Kendall Hunt Publishing Company.

Grades: Homework (30%), midterm (35%), and Final Exam (35%).

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. It is student's responsibility to make sure that the Instructors receive their homework. **Email answers are not acceptable.** If you turn in your homework after the lectures, you should email the Instructor to notify them where and when you drop the homework.

SPECIAL ACCOMMODATION DUE TO THE IMPACT OF COVID

During the 2020-21 academic year, students in this course are expected to follow the School of Physical Sciences guidelines (https://ps.uci.edu/students) for students in remote courses.

This is an exceptional quarter due to the impact of COVID on you, your friends, and your family. Continuing social and political unrest may add even more anxiety. For students experiencing stress, I urge you to take advantage of the many resources available to UCI students.

You are advised to take the following actions in order to avoid disruption harming your grades:
● avoid missing assignments/discussions early in the quarter so that you can make use of dropping missed/low scores later in the quarter if disruption occurs
● keep up with the class and study in order to achieve high scores in the smaller, more frequent assignments rather than waiting to study before higher stakes midterms and final exams
● communicate with your instructor as soon as possible if situations arise where you will not be able to complete assigned work

ON THE UNAUTHORIZED DISTRIBUTION OF COURSE MATERIALS

The unauthorized sale or commercial distribution of course notes or recordings is a violation of campus policy.

Specifically, Section 102.23 of Policies Applying to Campus Activities, Organizations, and Students states that the following activities constitute grounds for discipline:

"Selling, preparing, or distributing for any commercial purpose course lecture notes or video or audio recordings of any course unless authorized by the University in advance and explicitly permitted by the course instructor in writing. The unauthorized sale or commercial distribution of course notes or recordings by a student is a violation of these Policies whether or not it was the student or someone else who prepared the notes or recordings."