

Weather & Meteorology (ESS124)

- **Course Time**

Lectures: Tuesdays & Thursdays 9:30-10:50; RH184

- **Text Book**

Robert Rauber, et al., “Severe and Hazardous Weather” (3rd Edition), Kendall Hunt Publishing Company.

- **Grade**

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

- **Homework**

No group answer; no email answers.
a 20% penalty per day for late homework



ESS124
Prof. Jin-Yi Yu

Office Hour

INSTRUCTOR

Professor Jin-Yi Yu

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Office Hour: 2-3pm Tuesday or by appt.



Croul Hall / Earth System Science



ESS124
Prof. Jin-Yi Yu

Course Description

This course provides an overview of weather systems in midlatitudes and tropics. The fundamental dynamics responsible for these weather systems are described. Elementary weather analysis and forecasting techniques are introduced.



Syllabus

<u>WEEK</u>	<u>DATE</u>	<u>TOPICS</u>	<u>CHAPTER</u>
Week 1	3/29	Properties of the Atmosphere	Ch.1
	3/31	Meteorological Measurements	Ch.2
		Weather Map	Ch.3
Week 2	4/05	Atmospheric Instability	Ch.6
	4/07	Forces and Force Balances	Ch.7
Week 3	4/12	The Development of High- and Low-Pressure Systems	Ch.8
	4/14	Air Masses and Fronts	Ch.9
Week 4	4/19	Extratropical Cyclones East of the Rocky Mountains	Ch.10
	4/21	Extratropical Cyclones Along the East and Gulf Coasts	Ch.11
Week 5	4/26	Freezing Precipitation and Ice Storms	Ch.12
	4/28	Lake-Effect Snowstorms	Ch.13
Week 6	5/03	Midterm Examination	Ch.1-13
	5/05	Cold Waves	Ch.14
		Great Plains Blizzards	Ch.15
Week 7	5/10	Mountain Snowstorms	Ch.16
	5/12	Mountain Winterstorms	Ch.17
Week 8	5/17	Thunderstorms	Ch.18
	5/19	Tornadoes	Ch.19
Week 9	5/24	Hailstorms	Ch.20
	5/26	Lighting	Ch.21
		Downbursts	Ch.22
Week 10	5/31	Tropical Cyclone	Ch.24
	6/02	Flood	Ch.25
		Drought	Ch.26
		Heat wave	Ch.27
Week 11	6/9	Final Examination (8:30am)	Ch.6-12+Ch.16

