

Atmospheric Sciences 5300: Fall 2025

Schedule (first half, thermodynamics)

Week	Date	Day	Topics	Reading	HW
1	8/18	M	Introduction		
	8/20	W	Moisture variables; dry adiabatic processes	WH 3.5, K 5.4, P 7.1, 7.3.1, 7.4	
	8/22	F	Moisture variables; dry adiabatic processes	(same)	
2	8/25	M	Skew T -log p diagram: dry adiabatic processes	K Fig. 7 (p. 27), P 1.4.4, 5.4.3, 7.5-6	# 1
	8/27	W	Skew T -log p diagram: dry adiabatic processes	(same)	
	8/29	F	Skew T -log p diagram: dry adiabatic processes	(same)	
3	9/1	M	<i>(Holiday: no class)</i>		
	9/3	W	Skew T -log p diagram: saturated adiabatic processes	K 5.5-7, P 7.2, 7.7.1-2, 7.8-9	# 2
	9/5	F	Skew T -log p diagram: saturated adiabatic processes	(same)	
4	9/8	M	Skew T -log p diagram: saturated adiabatic processes	(same)	# 3
	9/10	W	Skew T -log p diagram: saturated adiabatic processes	(same)	
	9/12	F	Skew T -log p diagram: liquid water and total water	K 5.7, P 7.10.3-4	
5	9/15	M	Skew T -log p diagram: liquid water and total water	(same)	# 4
	9/17	W	Precipitation rate; snow versus rain	(lecture notes)	
	9/19	F	Saturation adiabatic lapse rate	K 7.1.2, P 7.7.3	
6	9/22	M	Saturation adiabatic lapse rate	K 7.1.2, P 7.7.3	# 5
	9/24	W	Stability; buoyancy oscillations	K 7.2, P 8.1-3	
	9/26	F	CAPE, LCL, LFC, NBL; maximum updraft speed	K 7.3, P 8.4-5	
7	9/29	M	Skew T -log p diagram: microburst downdrafts	(lecture notes)	# 6
	10/1	W	Skew T -log p diagram: microburst downdrafts	(lecture notes)	
	10/3	F	Heat capacity	K 4.2	
8	10/13	M	Review		# 7
	10/15	W	Midterm Exam		
	10/17	F	TBD		

K = Thermodynamics notes, WH = Wallace & Hobbs, P = Petty