

## MPO551 Syllabus

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**Grading:** Three mid-terms: 25% each; Homeworks 25%

**Textbook:** *Atmospheric Science: An Introductory Survey*, by Wallace and Hobbs (Academic press)

Class #1	Aug 26	Introduction to course	Clement/ Majumdar
Class #2	Aug 28	Earth System (Chapter 2)	Clement
Class #3	Sep 4	Thermodynamics: Ideal Gas Law (Chapter 3)	Clement
Class #4	Sep 9	Thermodynamics: First Law (Chapter 3)	Clement
Class #5	Sep 11	Thermodynamics: Water Vapor (Chapter 3)	Clement
Class #6	Sep 16	Thermodynamic diagrams (Chapter 3)	Clement
Class #7	Sep 18	Atmospheric chemistry: (Chapter 5)	Atlas
Class #8	Sep 23	Atmospheric chemistry: (Chapter 5)	Atlas
Class #9	Sep 25	MIDTERM I	
Class #10	Sep 30	Cloud physics: Warm clouds I (Chapter 6)	Albrecht
Class #11	Oct 2	Cloud physics: Warm clouds II (Chapter 6)	Albrecht
Class #12	Oct 4	Cloud physics: Cold clouds I (Chapter 6)	Albrecht
Class #13	Oct 14	Radiation: Shortwave (Chapter 4)	Zuidema
Class #14	Oct 16	Radiation: Longwave (Chapter 4)	Zuidema
Class #15	Oct 18	NO CLASS - FALL BREAK	
Class #16	Oct 21	Radiation: Remote sensing (Chapter 4)	Minnett
Class #17	Oct 23	MIDTERM II	
Class #18	Oct 28	Dynamics: General circulation (Chapter 7)	Majumdar
Class #19	Oct 30	Dynamics: Primitive equations (Chapter 7)	Majumdar
Class #20	Nov 4	Dynamics: Weather Systems (Chapter 8)	Majumdar
Class #21	Nov 6	Dynamics: QG theory (Chapter	Majumdar

		7/8)	
Class #22	Nov 11	Dynamics: QG theory (Chapter 7/8)	Majumdar
Class #23	Nov 13	Dynamics: Tropical Circulation	Zhang
Class #24	Nov 18	Boundary Layer I (Chapter 9)	Avissar
Class #25	Nov 20	Boundary Layer II (Chapter 9)	Avissar
Class #26	Dec 2	Climate Dynamics: Internal climate variability (Chapter 10)	Clement/Soden
Class #27	Dec 4	Climate Dynamics: Anthropogenic climate change; Radiative convective equilibrium(Chapter 10)	Clement/Soden
Class #28	Dec 9	MIDTERM III	