

Portland State University

Department of Physics

Fall 2005

Physics 471/571: Atmospheric Physics

CRNs: 14558 and 14559

Instructor: Aslam Khalil, Professor

Time and Place: Tu & Th 1400-1550 BHB, Rm 218

Office Hours: Tu & Th 1230-1330; 1600-1700 SB2 Rm 410

Contact Information: Call anytime: (503) 725-8396 or FAX: (503) 725-8550

e-mail: aslamk@pdx.edu (Preferred means of contact)

SCHEDULE

Day	Date	Wk	Lect	
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September

Foundations: The Atmosphere and Global Environmental Problems

T	27	1	1	Introduction. Nature and Scale of Global Atmospheric Issues
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Th	29		2	Characteristics and Circulation of the Atmosphere
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October

Global Mass Balances - Transport and Chemistry

T	4	2	3	Models - Formulation and Resolution
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Th	6		4	Global Sources - Ocean-Air Exchange
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T	11	3	5	Global Sources - Soils and other processes
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Th	13		6	Global Sinks
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T	18	4	7	Lifetimes of Gases
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Th	20		8	X Budgets of Environmentally Important Gases + <<Problem Set #1 >>
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T	25	5		X <<Mid-term Exam>>
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Stratospheric Ozone Layer

Th	27		9	Stratospheric Ozone Chemistry and Physics
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November

T	1	6	10	Ozone Depletion
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Th	3		11	Effects of Ozone Changes
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Greenhouse Effect and Global Warming

T	8	7	12	X The Greenhouse Effect + << Problem Set #2 >>
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Th	10		13	Simple Models
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T	15	8	14	Predictions of Global Warming
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Environmental Management Issues

Th	17		15	Connections Between Climate, Ozone Depletion and Other Issues
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T	22	9	16	X Management Options and Theory, Economics + <<Problem Set # 3 >>
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Th	24			Thanksgiving Holiday
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December

T	29	10	17	Global Change in Perspective
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Th	1			X <<Problem Set #4 >> and Open Forum Discussion. All Revisions Due
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M	5	11		X <<Final Exam>> 10:15 - 12:05 (verify)
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See Notes on the Back