Physics 605
Syllabus

1/18/2005

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Offices: 2018 NCPA MWF 8:00 – 9:45, 2:00-3:00 or by calling 915-5888 for an appointment. TTH 10:30 – 11:00, 1:00 – 3:00

I also am glad to answer questions by e-mail.

Text: *Acoustics, An Introduction to its Physical Principles and Applications,* by Allan D. Pierce, published by the Acoustical Society of America

Grading:

3	Tests
2	Homework average
2	Final
7	

100-87.5	A
87.5-75	B
75-62.5	C
62.5-50	D
<50	F

Academic Regulations:

Regular attendance is expected. Every class is important. Please do not come late. Homework is to be turned in at the beginning of class.

Web site for correct time:

http://nist.time.gov/timezone.cgi?Central/d/-6

Advance Acoustics Goals: to develop a deep understanding of the physical processes of acoustic theory.

This class emphasizes processes unique to acoustics. Overlapping fields such as modes in enclosures, diffraction and refraction are not covered.

We cover Chapters 1, 3, 10 and 11 with supplementary materials from the literature. Familiarity with the material in Chapter 2 is advised

The syllabus below is subject to change to accommodate instruction and/or student needs.

Date	Chapter	Homework Due
Jan 18	Secs 1.1-1.4	Read Chapter 1
Jan 20	Secs 1.4-1.7	Read Chapter 2
Jan 25	Secs 1.7-1.8	
Jan 27	Secs 1.8-1.10	
Feb 1	Secs 1.10, 1.11	Ch1, set 1
Feb 3	Sec 1.12, Secs 3.1, 3.2	Read Chapter 3
Feb 8	Sec 3.3	
Feb 10	Sec 3.4	Ch1, set 2
Feb 15	Secs 3.4, 3.5	
Feb 17	**Test 1, Chapter 1**	
Feb 22	Sec 3.5	
Feb 24	Secs 3.5, 3.6	
Feb 28	**Deadline for course withdrawal**	
Mar 1	Secs 3.6, 3.7	Read Chapter 10
Mar 3	Viscosity (Reif), Sec 10.1	Ch 3, set 1
Mar 8	Batchelor + Sec 10.1	
Mar 10	Sec 10.1, 10.2	
Mar 14-18	**Spring break**	
Mar 22	Sec 10.3	Ch 3, set 2
Mar 24	**Test 2, Chapter 1,3**	
Mar 29	Propagation in tubes (Tijdeman)	
Mar 31	Propagation in tubes (Tijdeman)	Ch 10, set 1
Apr 5	Secs 10.7, 10.8	
Apr 7	Secs 10.8, 10.9	
Apr 12	Sec 10.9	Read Chapter 11
Apr 14	Non-linear acoustics (Hamilton and Blackstock), Secs 11.1	Chapter 10 , set 2
Apr 19	Secs 11.2, 11.3	
Apr 21	**Test 3: Chapter 1, 3, 10**	
Apr 26	Secs 11.3	
Apr 28	Sec 11.4	
May 3	Homework/review/additional topics of interest	Ch 11, set 1
May 5	Homework/review/additional topics of interest.	
Final Exam		