

# Course Schedule

Physics 1204 / Music 1466 Spring '09

2/5/2009

**PLEASE NOTE: this schedule is sure to change during the semester!**

WEEK BEGINNING	READING FROM ROSSING	TOPICS
1. Jan 19 L01 - 03	Ch 1 & 2	Basic principles of motion; review of physics and math; pressure; vibrating systems; vibration spectra; vibrations of membranes and plates. Section (Th/F): demos "sound waves are moving air", Helmholtz resonators.
2. Jan 26 L04 - 06	Ch 3 & 4	Waves; speed of sound; standing waves; resonance; harmonic series on a string. F - HW 1 due.
3. Feb 2 L07 - 09	Ch 5, Ch 7	Harmonic series in a pipe; sympathetic vibrations; hearing; logarithms in sound and music. Section (Th/F): Quiz #1; demos/experiments on longitudinal and transverse standing waves. F - HW 2 due.
4. Feb 9 L10-12	Ch 7	Logarithms in sound and music; pitch; timbre. F - HW 3 due.
5. Feb 16 L13-14	Ch 7, Ch 13.17-18	Chimes and bells. Sound intensity, Decibel scales, sound pressure, power and loudness. Section (Th/F): Fourier synthesis/analysis demos. W/F - Field trip to Cornell chimes (1 pm) OR lecture. F - HW 4 due.
6. Feb 23 L14 - 16	Ch 6, Ch 8, Ch 9	Sound intensity, Decibel scales, sound pressure, power and loudness. Beats, intervals, consonance and dissonance. Scales & temperament. W - PRELIM EXAM 1 in class.
7. Mar 2 L17 - 19	Ch 9, Ch 10	Scales and temperament, plucked string, guitar. Section (Th/F): Quiz #2; slide whistles experiment. F - HW 5 due.
8. Mar 9 L20-21	Ch 10	Guitar, violin family. NO SECTION THIS WEEK, NO LECTURE ON FRI.
9. Mar 16	-----	*** SPRING BREAK ***

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10. Mar 23 L22 - 24	Ch 10	Violin family, flute. M-HW 6 Title for term paper due. Th/F-HW 7 (review of term papers) due. Section (Th/F): discussion on "excellent" vs. "so-so" term papers.
11. Mar 30 L25 - 27	Ch 12, 13	Clarinet, saxophone, brass, piano. Section (Th/F): Quiz #3 Woodwinds demo in class. F - HW 8 due.
12. Apr 6 L28-29	Ch 13	Piano, harpsichord, voice. F - HW 9 (proposal for term paper) due.
13. Apr 13 L30	Ch 11, 13	Voice and singing. Field trip to pianos room. F - PRELIM EXAM 2 in class.
14. Apr 20 L31 - 33	Ch 15 - 17	Drums, room acoustics. M - HW 10 (draft of term paper) due - OPTIONAL.
15. April 27 L34 - 35		Room acoustics. NO SECTION THIS WEEK. NO LECTURE ON FRIDAY.
16. May 5	STUDY WEEK	M - HW 11 (final version of term paper) due.
17. May 12	FINALS WEEK	(NO FINAL EXAM)