

Physics 153N Science of Sound & Music Winter 2009 Tentative Schedule

<u>Week of</u>	<u>Monday</u>	<u>Wednesday</u>	<u>Friday</u>	<u>Laboratory</u>
January 5	Course Intro Scientific Method	Inductive and Deductive Reasoning	Hallmarks of Good Scientific Theory	Game of Science
January 12	Math Review: Trig, Exponents & Logarithms	Intro Newtonian Mechanics	Applying Newton's Laws	Motion and Graphs
January 19	Simple Harmonic Motion	Simple Harmonic Motion	Damped and Driven Oscillations Resonance	Forces and Motion
January 26	Damped and Driven Oscillations Resonance	Elastic Media Sound Waves	Sound Intensity & Inverse Square Law	Harmonic Motion Damped & Driven Oscillators
February 2	Superposition & Beats	Exam I	Interference & Diffraction	Waves in Vibrating Strings Mersenne's Laws
February 9	Standing Waves & Overtone Series	Longitudinal Standing Waves	Complex Waves: Sound Spectra & Fourier Analysis	Standing Waves in Pipes Measure Speed of Sound
February 16	Complex Waves: Sound Spectra & Fourier Analysis	Human Ear	Human Ear	Sound Intensity Inverse-Square Law
February 23	⇐	Midsemester Break	⇒	No Lab

March 2	Human Voice	Human Voice	Sound Recording and Reproduction	Superposition & Fourier Series
March 9	Sound Recording and Reproduction	Sound Recording and Reproduction	Room/Auditorium Acoustics	Diffraction & Interference
March 16	Catch up & Review	Exam II	Room/Auditorium Acoustics	Measure & Simulate Sound Spectra
March 23	Flood	Flood	Flood	Flood
March 30	Flood	Flood	Flood	Flood
April 6	Room/Auditorium Acoustics	Temperament & Pitch	Easter Recess	Vibrating Plates/Membranes?
April 13				Guitar Exhibit?
April 20				No Lab Unless Guitar Exhibit Moves to This Week
April 27	Catch up and Review		Exam III 8:30am Friday, May 1	