**Week 2: Reading & Homework Assignment # 2**

**Lecturer:** Prof. Steven Errede [serrede@illinois.edu](mailto:serrede@illinois.edu)  
Office: 435 Loomis (4th floor, SW corner)  
Office Phone: 333-0074  
HEP Sec’ys: 441 Loomis (333-4452)  
Office Hours: Anytime (by appt. preferred…)

**Lab TAs:** Matt Ziemann [mrziema2@illinois.edu](mailto:mrziema2@illinois.edu)  
Office Hours: Wednesdays, 10:00-11:00 am 6105 Eng. Sci. Bldg. (or by appt.)  
John Whitman [jwhitma2@illinois.edu](mailto:jwhitma2@illinois.edu)  
Office Hours: Mondays, 12 noon-1:00 pm 6105 Eng. Sci. Bldg. (or by appt.)

**Course Textbook(s):** Physics 406 Lecture Notes (posted on P406 website – see below)  
**Another good book:** “The Acoustical Foundations of Music” 2nd Ed., John Backus, Norton

**Course Website:**  
[http://courses.physics.illinois.edu/phys406/](http://courses.physics.illinois.edu/phys406/)  
[http://courses.physics.illinois.edu/phys193/](http://courses.physics.illinois.edu/phys193/)  

All lecture notes, lab handouts, additional references, previous student final project reports (and much more) are available on the P406 (and P193) website(s). Please check these out!

**Course Organization:**

**A. Lectures:** Tuesdays & Thursdays, 12:30-1:50 pm, in the POM Lab (6105 ESB).  
We will also have various demos using equipment in the POM Lab (6105 ESB).

**B. Friday Labs:** Lab1 @ 11:00 am -1:50 pm, Lab2 @ 2:00-4:50 pm in the POM Lab (6105 ESB)

First part of the semester will consist of doing various simple/short experiments using equipment and/or software in the lab. Will discuss this in the 1st lab session(s) this coming Friday. Second part of semester, labs will be focused on student project(s) – more on this below.

**C. Weekly Reading and Homework Assignments:** HW due following week on Thursday, in class.  
**D. Take-Home Midterm Exam:** Tuesday, March 8, 2016,  
**Due:** Thursday, March 17, 2016  
**E. Midterm Project Oral Presentations:** Brief! In class – Tues & Thurs, March 8 & 10, 2016  
**F. Final Project Oral Presentations:** Brief! In class – Thurs, April 28 & Tues, May 3, 2016  
**G. Take-Home Final Exam:** Tuesday, April 26, 2016,  
**Due:** Friday, May 6, 2016  
**H. Final Project Written Report:**  
**Due:** Friday, May 13, 2016

**Reading Assignment For Week 2:** Please read Physics 406 Lect. Notes on Waves (I & II), Math. Phys. Wave Eqn., Fourier Analysis, & Lect. IV (Parts 1 & 2) and also read Science of Sound (SoS), Ch’s 3 & 4.

**Homework Assignment For Week 2:**  
SoS Ch. 3: Exercises 2, 4, 5, 6, 7, 10  
SoS Ch. 4: Exercises 3, 5, 6, 7, 8

**Final grade based on:**  
\[ \Sigma \text{HW’s: } 20\% \]  
MT: 15%  
FE: 30%  
FP: 35% ( = Σ mid-term & final oral presentations, final written report).