

## Week 10: Reading and Homework Assignments

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**Lab TA's:** Ben Juday [bdjuday@yahoo.com](mailto:bdjuday@yahoo.com) and Alan Carter [alancarter@gmail.com](mailto:alancarter@gmail.com)

**Course Textbook:** "The Science of Sound", 3<sup>rd</sup> Ed. Rossing, Moore & Wheeler, Addison-Wesley

**Another good book:** "The Acoustical Foundations of Music" 2<sup>nd</sup> Ed., John Backus, Norton

**Course Website:** <http://online.physics.uiuc.edu/courses/phys498pom/>  
<http://online.physics.uiuc.edu/courses/phys199pom/>

Freshman "Discovery"  
POM Course  
(less technical)

All lecture notes, lab handouts, previous student final project reports and much more available on the P498POM (and P199POM) website(s). Please spend some time checking them out!

### **Course Organization:**

**A. Lectures:** Tuesday & Thursday, 1:00-2:20 pm, in the POM Lab (6105 ESB).

Will also have various demos using equipment in the POM Lab (6105 ESB).

**B. Friday Labs:** PM1 @ 11:00 am -1:50 pm, PM2 @ 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 more in the 1<sup>st</sup> 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 Thursday, in class.

**D. Take-Home Midterm Exam:** Tuesday, March 10, 2009, **Due:** Thursday, March 19, 2009

**E. Midterm Project Oral Presentation:** 1-3pm Thursday, March 12, 2009

**F. Take-Home Final Exam:** Tuesday, May 5, 2009, **Due:** Thursday, May 14, 2009

**G. Final Project Oral Presentation:** 1-3pm Thursday, April 30, 2009

**H. Final Project Report:** **Due:** Thursday, May 14, 2009

**Reading Assignment For Week 10:** Please Read P498POM Lect. Note 11

**Homework Assignment For Week 10:** As you do this week's reading assignment: See Below.....

### **Final grade based on:**

$\Sigma$ HW's: 20%

MT: 15%

FE: 30%

FP: 35% (includes mid-term and final oral presentations).

**Homework Assignment For Week 10:**

As you do this week's reading assignment, have a pad of paper & pencil with you and:

- 1.) Work through the derivation of the linear superposition of two complex periodic signals in P498POM Lect. Notes 11, p. 4-10
- 2.) Work through the derivation of complex standing waves, P498POM Lect. Notes 11, p. 18-20,

If you have not ever done this type of studying before, it is a very useful/helpful/valuable method of learning anything...