

PHYSICS 109

PHYSICS IN THE ARTS

FALL 1994

<u>Instructors:</u>	Charles Boardman	3520 Sterling Hall	Tel 263-2449
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Office Hours :Hakki Ögelman; Anytime, although it may be best to make an appointment.

Teaching Assistants; Hours will be posted in 2331 Sterling

Exams: To be given at class time, room to be announced:

- - Wednesday, Oct 5
- - Wednesday, Nov 9
- -Wednesday, Dec 14

There will be no make-up exams and no final exam

Text: Lecture notes and lab instructions can be purchased at the University Bookstore. You should also purchase a bound quadrilled (slim) notebook for the laboratory. A calculator would be helpful in lab.

Prerequisites: There are no prerequisites. Homework and lab work require that you be able to do simple computations, including fractions and very elementary high school algebra. Some of you will be out of practice - don't freak out, we will help, but do overcome your embarrassment and ask questions when you have trouble.

Homework: Homework will be assigned Wednesday and is due in class the following Wednesday. Turn in the homework problems even if you get only partial answers. You can get help from us or one of the teaching assistants on your homework. Homework is tailored to help with exams and will be counted as extra credit in final grading.

Labs: All labs meet in Room 2331 Sterling. Come to the section to which you were assigned. Record lab notes in a bound notebook. Keep the notebook on the shelves in the lab. It is essential that you attend the labs regularly. Attendance will be taken. If you miss a lab, it must be made up the same week or the following week (make arrangements with your instructor). Photography and Musical Instruments Labs must be made up the same week. An unexcused failure to do a lab results in the loss of 1/2 grade point per lab.

Grades: Based on exams and labs.

- - Exams: Questions will be closely patterned after the assigned homework problems. Questions also cover the work performed in the lab.
- - Labs: The evaluation of your lab work will be based primarily on lab attendance. To complete each experiment is of secondary importance. You are encouraged to deviate from the written lab instructions if you have ideas of your own which you would like to follow. Your instructor will check your lab notebook.

Week	Date	Topic of Lab
1	Sept. 5	NO LAB
2	Sept. 12	Principles of loudspeaker, microphone, oscilloscope and oscillator,...
3	Sept. 19	Hearing
4	Sept. 26	Harmonic oscillator, resonance
5	Oct. 3	Strings
6	Oct. 10	Pipes
7	Oct. 17	Sound analysis
8	Oct. 24	Musical Scales
9	Oct. 31	Musical instruments
10	Nov. 7	Lenses
11	Nov. 14	Photography 1
12	Nov. 21	NO LAB
13	Nov. 28	Photography 2
14	Dec. 5	Color mixing
15	Dec. 12	NO LAB