Course Instructions

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Purpose: Physics 242, Vibrations and Waves, is a course intended to prepare you for the many kinds of oscillating systems that you will encounter later in both experimental and theoretical physics. The emphasis of the course is on solving problems, and a substantial part of the course is spent on problems that will exercise the principles of oscillating systems. The course and its associated Laboratory course, Phys242L, are very closely coupled, to the point that the separation between them may become indistinguishable.

Calendar: Class normally meets in Room 109 Workman from 11:00 am till 12:15 pm, Tuesday and Thursday. We will try to arrange another class meeting at a mutually acceptable time for extra problem solving sessions.

The last day of classes is Friday, May 7. Final exams begin Saturday May 8. The final exam for Physics 242 will be given only at the time and place announced by the Registrar. There will be no exceptions. The final exam will emphasize the later parts of the course, but it will be inclusive of the whole course. There will be two or three “mid-term” exams during the course.


Homework: Homework will be assigned nearly every class period. Assignments are due at the beginning of the following class period and will not be accepted late. If the homework requires multiple pages, it must be stapled in the upper left corner. Write the assigned problem numbers clearly at the top of the first page, and identify each problem by its assignment number, problem number, and section number. Do not fold your papers! Homework must be neatly done, and you must show all your work, so that it is easy to follow how you arrived at your solution. When a numerical or algebraic answer is required, draw a box around it. Answers must be labeled with the proper units, and the units must be reasonable. In general we will use MKS units, but there may be occasional problems with cgs units. Homework papers which do not meet these guidelines will be rejected with no grade.

Grading: Grades will be based on the scores you earn on the assigned written work and your participation in class discussions, with possible adjustments if your class performance and written work are not consistent. No grade of “incomplete” will be awarded for any reason. The weighting of your final grade will be as follows, though I reserve the right to change the weighting:

- Class Participation: 20%
- Homework: 25%
- Midterm Exams: 35%
- Final Exam: 20%

Office hours: I will have office hours Monday, Wednesday and Friday 2:00-3:30 pm and other times by appointment. I will not be available before class on class days.

Policy on Academic Honesty: You may discuss material with each other until doomsday, and I encourage it, BUT... Anything written must be your own work. It is not permissible to give or receive answers in a way that bypasses the need to think about the homework, quizzes, or exams on your own. If you receive help from any source, it must be acknowledged. Such acknowledgment will not necessarily lead to a penalty, but its omission if a violation of this policy and can have serious consequences. If in doubt, please ask me. Violation of the letter or intent of this policy will result in serious harm to your grade, and may result in recommendation for suspension from the Institute.

Auditors: Auditors are welcome. The usual NMIMS rules regarding auditors will apply. Please make yourselves known so that we can make enough handouts for all. However, we will not be able to provide you with consulting or grading facilities unless you pay the appropriate fees as a regular student.