Course Information

PHYS 123A - Waves

Lecture Instructor: Prof. Norval Fortson  Email: fortson@phys.washington.edu  Office: C505 Physics and Astronomy Building  Phone: (206) 543-9194

Tutorial Instructor:  Prof. P. S. Shaffer and Prof. Lillian C. McDermott  Email: shaffer@phys.washington.edu  Office: C208 Physics Astronomy Building;  Phone: (206) 685-2046

Lab Instructor:  Prof. Blayne R. Heckel  Email: heckel@phys.washington.edu  Office: C515 Physics and Astronomy Building;  Phone: (206) 685-2401

Office Hours: To be announced.

Lecture Hall: Room A102 in the auditorium wing of the Physics and Astronomy Building (PAB)

Lecture Schedule: MWF 1:30-2:20

Holidays: Monday Nov. 12 (Veterans Day), Thursday, Friday Nov. 22,23 (Thanksgiving weekend).

Homework: Tycho Homework will be due on Wednesdays at 11:00 PM

Course Textbooks:
Lecture:  Randall D. Knight, Physics for Scientists and Engineers, 1st edition, Pearson Education, Inc.;
Tutorial:  L. C. McDermott and P. S. Shaffer, Tutorials in Introductory Physics;
Laboratory:  Physics 123Z Laboratory Manual (purchase at B-042 Communications Bldg. before 1st lab.)
**Clicker (H-ITT) Response System** - You will need to purchase a H-ITT Response Unit from the University Bookstore if you do not already have one. In class, we will have regular interactive sessions using the response system. At the end of the quarter, your grade may be increased by as much as 0.1 grade points if you have regularly participated in the interactive sessions, and if you have registered your clicker (instructions for registration will be provided a few days after the start of the quarter).

**Grading Policy**

Concurrent enrollment in PHYS123 lecture, tutorial and lab is mandatory; students will receive a combined grade for lecture, tutorial and lab. The final course grade is based on the best two of three midterms, the final exam, the Tycho lecture HW, tutorial participation and HW, supplemental HW and lecture exercises (using the new infrared response system), and lab participation and reports. A summary of the grading policy for this course may be found in the 12X Grading Policy Statement. However, the lecture instructor may adjust individual final grades by up to 0.1 grade points based on records from the lecture infrared response system. All percentages discussed in the policy statement and in the summary below are used to determine your raw grade, before this adjustment is applied.

**Midterm exams:** There will be three closed-book midterm exams. Each midterm will emphasize recent material, but may include questions requiring a knowledge of topics from earlier in the course. The exams will include both multiple choice and written answer questions. Only the best two of three values of the z-score \[
\frac{(your\ score\ -\ class\ average)}{(std\ deviation)}
\] will count toward the final course grade. Your lowest midterm score (relative to the mean) will be dropped. After correcting for different average scores on different midterms, the midterms will contribute 40% to your final raw grade. You are permitted to bring one 8.5"x11" page of notes (both sides) to each midterm. Calculators are permitted. Cell phones, radios, etc. are not permitted. Laptop computers are not permitted, and the use of the text-storage capability now available on many calculators is not permitted. Exams are to be
your own work; you are not permitted to collaborate with any other person. The Physics department reserves the right to ask for valid identification from any student during examinations.

**Note that there will be no make-up exams in Physics 123A.**

Students with outside professional, service, or career commitments (i.e. military service, ROTC, professional conference presentation, NCAA sports, etc.) conflicting exactly with the exam dates must contact the instructor *early in the quarter* to establish alternate examination procedures. Students who miss an exam without making prior arrangements with the lecture instructor will drop that exam score. Except for extreme circumstances, a final grade of 0.0 may be assigned to any student who misses two midterm exams.

**Final Exam:** A two-hour closed-book comprehensive final exam worth 150 points or 25% of the final raw grade will take place on Monday, Nov. 12 from 2:30 to 4:20 PM for Physics 123A. This examination will cover material from the entire course. You are permitted to bring *three* 8.5"x11" pages of notes (both sides) to the final exam. Calculators are permitted. Cell phones, radios, etc. are not permitted. Laptop computers are not permitted, and the use of the text-storage capability now available on many calculators is not permitted. The final exam is to be your own work; you are not permitted to collaborate with any other person. The Physics Department reserves the right to ask for valid identification from any student during examinations. A final grade of 0.0 may be assigned to any student who does not take the final exam.

**Exam Re-grades:** If you believe that the points on the examination were incorrectly totaled or if there is a gross error in the grading, you may return an exam for regrading. To do so, you must resubmit the examination to Laura Clement in room C136 PAB no later than noon on the Wednesday after the exams are returned. You must write a brief note on the front page or attached to the front page of the exam explaining the possible error in the grading. **Do not make *any* changes or marks on the other pages of the examination.** Portions of each examination are scanned or photocopied. You should be aware that any request for a regrade may result in a regrading of the entire exam. Therefore your total score may increase or decrease.

**Labs and Tutorials:** Grading policies will be explained in your lab and tutorial section. Please note that grades for lab and tutorial
form a significant percentage of your overall grade for the course. Also, completion of most of the lab and tutorial work is required in order to pass the course. For example, if you complete less than six labs during the quarter, and do not make up the work, your grade for the entire course will be 0.0! Even completing six of the eight labs will reduce your grade significantly. Do not skip these important activities!

**Homework:**
Lecture homework will be assigned weekly through the Tycho system and is normally due at 11:00 PM on the Wednesday after it is assigned.
Tutorial homework will be assigned and collected in each tutorial section. One problem from each assignment will be graded in detail, and will contribute to your score for tutorials.
There may be computer projects assigned in the tutorial sections. Computers are available in the Physics Study Center from 8:30 AM-5:20 PM on weekdays and at various other locations around campus.

**Your responsibility:** Check your grades on the Tycho system every week or two and report any problems to both the lecture instructor and the relevant TAs (and/or lab/tutorial faculty) immediately. Lab, tutorial and exam grades should be recorded for your review within one week from the date that papers are submitted for grading. Tycho homework grades should be recorded within 24 hours of submission. Grading problems that are reported in a timely fashion will be investigated and, if action is warranted, corrected. The lecture, lab and tutorial instructors may choose to ignore grading complaints that are not reported in a timely fashion.

**The Physics Study Center**
Students are encouraged to gather and work cooperatively in small groups in the Physics Study Center located in room AM018 of the PAB. (To reach the Physics Study Center, go down the stairs that circle behind the Foucault pendulum and proceed toward the end of the hall.) Teaching assistants will be available for consultation during many portions of the day if your study group needs
assistance, but staffing levels will not support much individual attention. The Study Center is staffed from approximately 9:30 AM to 4:30 PM on weekdays.