Physics 202 Winter 2009: Syllabus

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Willamette 142/109

Office Hours: Tues 3:00 - 3:50, Friday 11:00 - 11:50, or by appointment

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Teaching Assistants: A Whole bunch Updated soon at Blackboard
CLICK THE LINK BELOW TO GET

T.A. INFO

The specific goals of this class are to:

● LEARN THE PHYSICS!! Thermodynamics, Oscillators, Waves, Sound, Light, and Optics..REALY... LEARN the Physics, not rote memorization.
● To use the conceptual understanding and algebraic mathematics to solve problems.

Textbook:

● "Physics, 6th Edition by Douglas Giancoli (Prentice Hall, 2004). In a collaboration between the UO and Prentice Hall, a reduced-cost customized version of this book is available at the Duckstore at a cost of $107.00. Any Used copy of Giancoli 6th Edition is fine. The customized and standard versions of the book differ in price but have IDENTICAL content (the customized book comes with a free access code for Mastering Physics system but this system will not be required). You will need access to the book on a weekly basis (for background reading and also to read the homework problems). If you have regular access to
the book without buying it (e.g. sharing etc) this is ok. The Science Library will also have a limited number of books available.

Other Helpful Books:

- Most any other basic physics text

Course Organization

- The lectures for this course will incorporate, **interactive learning utilizing clickers** (we will provide the clickers this time) physics demonstrations, overheads, and the blackboard. **YOU ARE EXPECTED TO READ THE MATERIAL BEFORE COMING TO CLASS! BORDERLINE GRADES WILL BE HELPED IF YOU HAVE SHOWN CLASS PARTICIPATION!** At the end of each lecture I will announce what sections of the book you should read to prepare for the next class. Announcements, assignments, exam results will be posted at the website which is accessible through Blackboard. Changes occur regularly. It is the responsibility of the student to check for updates.

Office Hours:

- Make use of office hours! Both mine and the Teaching Assistants. Also Drop-in Help Sessions are available. Pick up a schedule in the Physics Office

Homework:

Besides the reading assignments, we will be using an Web Based Homework system call WebAssign. You will submit most of your homework answers via computer. This is to give quick feedback to homework questions. You will be allowed a stated number of attempts to submit a correct assignment. (Homework can be saved. This would not count as a submission) **THE DUE DATES ARE SET AND NO LATE HOMEWORK WILL BE GRADED.** Note: the values for the problems in the web question will be different for each student. If you figure out how to solve the problem as a group, you will still have to calculate your values for your own answer. This frees up Teaching Assistant time for teaching you in office hours rather than grading. utilize office hours to discuss homeworks problems.

[Campus Computing Lab Hours and Info is here](#) if you do not have easy access to the computer network.
The homework will help you keep pace with the course and the feedback will let you know how well you are doing.

The link to Webassign can be made through Blackboard. You have free access for the first 3 weeks of the course, then you will need to pay a fee of around $10.00. You can do this at Webassign with a credit card or you can purchase an access card at the Bookstore. (Purchasing a card at the Bookstore costs $1.00 more) Homework assignments are here.

Tutorials:
In addition to your three lectures, you are required to attend one tutorial session each week. Tutorials begin on Thursday January 8.

Objectives: Tutorials give you the opportunity to discuss the physics you have experienced in lectures with your classmates, and the teaching assistants. With our support, you will work collaboratively with your classmates to solve a set of tutorial problems. Given out at the beginning of each tutorial, these problems are designed to help you with your homework by developing and practicing your problem solving skills. The tutorial problems are not marked but attendance will be taken at the end of each tutorial (see Grading Section).

Further help: in addition to your tutorial session and your teaching assistant’s weekly office hours, you can also use the “drop in” help-center: located at Willamette Room 147.

Grading:

<table>
<thead>
<tr>
<th>Grading Method</th>
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<tbody>
<tr>
<td>WebAssign: 20%</td>
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<tr>
<td>Hand-In HW Problem: 5%</td>
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<tr>
<td>Tutorials: 10%</td>
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<td>Exam 1 and 2: 35%</td>
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<td>Final Exam: 30%</td>
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The homework and exam dates are posted. Homeworks are due by the posted time. Note that the mid exams are cumulative, because the material is such. However, the
second exam will cover the application of what was learned earlier to the chapters learned between exams. The exam questions will test your knowledge of the material AND your ability to communicate clearly. The Final Exam will be comprehensive with a focus on the last third of the course.

A few more notes, and some advice:

- Best use of the text and lectures can be made by reading the chapter assignments before lectures.
- University courses, in general, require at least 2 hours/week of work outside the course for each hour spent in class.
- This means you should devote at least 8 hours/week working outside class to do well in this course!
- There is a laboratory course, PHYS 205, which accompanies this course. The requirement of this lab depends on your major.
- By devoting adequate time, managing your time effectively, and practicing good study/problem solving skills you should succeed in this course.
- BIG HINT FOR SOLVING PHYSICS PROBLEMS: LEARN THE PHYSICS!!! Do not just look for equations to plug in. Know the Physics behind each equation. It will make things so much easier. READ THE BOOK! You paid a lot of money for it. Use it until it turns into a rag!

Successful Problem solving: Here’s a few guidelines on solving problems:

1. Draw a clear diagram(s) indicating the situation
2. Think about the principles involved. Write them down!
3. Write down the quantities that are known and the quantities you want to know
4. State any appropriate equations
5. Write down numbered steps indicating the logical progression of your reasoning
6. Clearly mark your answer (underlined or in a box)
7. Don’t forget units! Check your significant figures.
8. Check your answer to see if it is reasonable. eg perform an “orders of magnitude” estimate

Academic Honesty:
Every effort will be made in this class to deter dishonesty through classroom procedures. You are all welcome to work in groups on Homework assignments, but each person must submit their own assignment on-line. Additionally, exams must be based on individual work only (i.e. don't look at someone else's exam). It is degrading to impose draconian security measures to enforce honesty. Instead, we will use the honor system in this course and allow each of you to uphold your personal standards of conduct. For those of you who have failed to develop your own ethics, the University has designed the Student Conduct Program. Suspected academic dishonesty will be reported.

Accommodations:

If you have a documented disability and anticipate needing accommodations in this course, please see me as soon as possible. And please request that the Counselor for Students with Disabilities send a letter verifying your disability.