Don Jacobs Taylor 108
Phone: 2390 Email: djacobs@wooster.edu
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Physics 102
GENERAL PHYSICS

Text: Giancoli: *Physics*, 6th Edition

Week(s)	week starting	Chapter	topic
1	1/14/08	23	Geometrical Optics
2	1/21	11. 24	Waves/Diffraction/Interference
3	1/28	24, 25	Optical Instruments
4	2/4	16	Electric Charge & Field test: Chapts 23-25 on Wed. 2/6
5	2/11	16, 17	Potential & Energy
6	2/18	18, 19	Circuits
7	2/25	20	Magnetism test: Chapts 16-19 on Wed. 2/27
8	3/3	21	Electromagnetism
9	3/10		SPRING BREAK
10	3/17		SPRING BREAK
11	3/24	22	EM Waves
12	3/31	26	Relativity
13	4/7	27	Quantum Physics test: Chapts 20-22 on Wed. 4/9
14	4/14	28	Atomic Physics
15	4/21	30	Nuclear Physics
16	5/28	32	Particle Physics

FINAL EXAM @ 7-10 p.m. on Tuesday, May 6.

Only people with exceptional excuses are allowed by the Dean of Faculty to take the final at another time.

Grades

final %	grade
90-100	A- to A
80-90	B- to B+
etc.	

25% labs
45% tests
10% homework & quizzes
17% final exam
3% class participation

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Course goals and expectations:

Physics 102 is the second course in a sequence developing physical insight and problem solving skills using algebra and geometry without calculus; it does not count toward a physics major. Physics 101 or its equivalent is a required prerequisite for this course. Most of you are taking this course as a requirement either for your major or for your career (e.g. med school); however, a few of you are taking the course for a distribution requirement or due to a personal interest. It doesn't matter; you can all do well. There will be three tests plus a final exam; all of the problems on the tests will be graded in such a way that most of the credit will be given for setting up the problem correctly using the physics principles. Students who memorize equations and try to "plug and chug" will not do well because the course and tests emphasize learning the concepts and developing the equations from the principles. The course grade is based on many components but there is no "curve" or distribution assigning course grades; all of you can earn an A in the class. Physics courses assign the same grade for the lab as the course; hence, you will receive 1.25 credits with a grade that reflects the combined learning in both venues.

The class can be described as "lecture-based", but the class time is divided among various activities (lecturing, answering questions, examples, demonstrations, posing questions and relating the material to the "real world"). A small portion of the course grade is based on class participation so you are expected to contribute to the class. I will assign over 100 homework problems over the semester with most assignments requiring four problems so that one or two homework sets are due each week. You need to practice using the principles in solving word problems in this introductory course. I make homework due two class periods after it is assigned so you can look over the problems and ask questions at the next class meeting. The homework is then due at the beginning of the following class meeting. Test questions will combine the concepts used in the homework and discussed in class, but will not be the same problems.

Physics 101-102 are among my favorite courses because of the superb students. You are not used to thinking as a physicist, but this is something that I can help you develop so that you find physics clear and logical and thus easy.

Rules during class:

1) If you have a question then ask. If you don't know how to phrase the question, then ask a more general question (what is the important concept? how does one obtain an equation from the concept? can you give me a simple example of this concept?) If you have a question, then many others will as well. It is much easier for me to answer a question when it occurs than to try to address it several days later when we may be on a different topic.
2) In consideration of your fellow students, please do not eat during class nor leave your cell phone on.
3) You should come to class on time and stay engaged; I will pose questions as well as explain the concepts and how to apply them.
4) I encourage you to see me after class if you have questions.
5) It is very important that what you turn in for a grade is your work. If you copy from another student or source and submit it for a grade, then you risk receiving an F in the course. The policy for Academic Integrity is on the next page:

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Policy Regarding Conflicts between Academic Responsibilities and Co-curricular/Extra-curricular Activities

The College of Wooster is an academic institution and its fundamental purpose is to stimulate its students to reach the highest standard of intellectual achievement. As an academic institution with this purpose, the College expects students to give the highest priority to their academic responsibilities. When conflicts arise between academic commitments and complementary programs (including athletic, cultural, educational, and volunteer activities), students, faculty, staff, and administrators all share the responsibility of minimizing and resolving them.

It is your responsibility to inform me in writing of conflicts between academic commitments to this course and complementary programs in which you participate as soon as you are aware of them. You are to discuss with me how you might fulfill your academic commitments to our mutual satisfaction without sacrificing the academic integrity and rigor of the course.

Academic Support

The Learning Center (ext. 2595) offers services designed to help students improve their overall academic performance. Sessions are structured to promote principles of effective learning and academic management. Any student on campus may schedule sessions at the Learning Center.

Any student with a documented learning disability needing academic accommodations is requested to speak with Pam Rose, Director of the Learning Center (ext. 2595), and the instructor, as early in the semester as possible. All discussions will remain confidential.

HOMEWORK SOLUTIONS FOR PHYSICS 102

Solutions will be posted on the Consort Libraries Electronics Reserve web site.
To access the solutions, go to:

http://eres.library.denison.edu/eres/default.aspx

Click on "Electronic Reserves & Reserves Pages"

Use one of the methods listed to search (Course number, instructor, etc.)

Click on Woo-Phys102

Type in the Course Password: phys102

Click "Accept"

This will take you to a list of homework solutions that have been posted so far.