

Syllabus for General Physics 2 (PHYS114) Fall, 2007

Important! You must be registered for three separate PHYS114 sections: **LEC-QZ, REC, and LAB**. If you are missing any of these sections, get on a wait list **immediately!**

Course instructors:

	<u>Instructor</u>	<u>Office</u>	<u>Phone</u>	<u>Email</u>
<u>Lecture:</u>	Larry Weaver	CW014	532-1616	lweaver@phys.ksu.edu
<u>Recitations:</u>				
8 :30	Frances Mateycik	CW403	532-7167	mateyf@phys.ksu.edu
9 :30	Frances Mateycik	CW403	532-7167	mateyf@phys.ksu.edu
12 :30	Sharon Qin	CW ???	532- ????	xqin@phys.ksu.edu
3 :30	Sharon Qin	CW ???	532- ????	xqin@phys.ksu.edu
<u>Director of Labs:</u>	David Van Domelen	CW402	532-1605	dvandom@phys.ksu.edu

Text: “Physics” (6th Edition) by Douglas C. Giancoli

Course Web Site: Important course resources such as exam and homework grades, announcements, practice exams, lecture notes and numerical answers and solutions to homework problems will be posted on the course web site, accessed through K-State Online. See “How to Use the Course Web Site” below for more information.

Individual Help: Any student wanting individual help is urged to see one of the instructors during office hours, or at other times by appointment. The Department of Physics also maintains a free tutor room; the schedule will be posted on the course web site about a week after courses begin. In addition, some Physics graduate students work as paid tutors at typical rates of \$10 per hour. A list of contacts will be posted on the web site when available.

Grading: Here is the basis for determining grades. Only 60% of your grade is based on exams.

<u>Distribution of total points:</u>		<u>Determination of final grade:</u>	
Recitation & homework:	200 points	900 points or above:	A
Best four hour exams:	400 points	800 - 899 points	B
Final exam:	200 points	700 - 799 points:	C
Laboratory:	<u>200 points</u>	600 - 699 points:	D
Total:	1000 points	Under 600 points:	F

Recitations and Homework: Solving problems systematically on a regular basis is an important part of success in physics. (See the attached page “How to Do Homework Problems”.) Qualitative understanding of concepts is also important and useful. Both problems and discussion questions have been assigned as homework.

Participation in recitation, based on homework and quizzes, counts 20% of your final grade. Assigned homework problems and discussion questions should be written out before the Wednesday class each week. Homework, both the “Questions” and the “Problems”, will be collected each recitation period and returned the following week. There will usually be a short quiz based on the material to be covered that day.

Posted homework answers and solutions: Numerical answers (not solutions) to all assigned problems will be posted on the course web site before the problems are due. Complete worked-out solutions of assigned homework questions and problems will also be available on the course web site at 6:00 pm each Wednesday (after the last recitation).

Exams: There are five one-hour exams during the semester. Only the best four of your five scores will count. Makeup exams will be given only in special circumstances. Exams are given at 5:30 pm on the Thursdays shown in the schedule, in CW101, CW102, and CW103. The final exam is comprehensive, and has the same weight as two one-hour exams.

Exams contain problems that are similar (but not identical) to homework problems and recitation quizzes, and also conceptual questions, in multiple-choice format. You will record exam responses on Scantron cards for automatic grading. Your exam grade will usually be available in the Gradebook on the course web site the day after each exam.

No notes or equation sheets may be brought to exams, but a sheet of useful equations will be provided with your exam. Please note that past student experience has shown that having equations available does not guarantee success -- understanding the physics is the key.

Practice Exams: A file of last year's General Physics 2 exams (without solutions) is available on the course web site. They are a useful study resource. Each practice exam also includes the equation sheet so you can see what equations will be provided.

Laboratory: Laboratory is a required and integrated part of the course, and counts 20% of your final grade. *A passing grade in laboratory is required to pass the course.* See the lab manual for rules and grading procedures. Labs begin the week of **28 August**. You must have a lab manual at the first lab. Lab manuals are available at the Arts and Sciences copy center in the basement of Eisenhower Hall.

Credit for Previous Lab Work: Students retaking the course who have successfully completed the lab must contact [Dave van Domelen in CW402 \(532-1605\)](#) prior to the first week of lab in order to get credit for previous lab work.

University Undergraduate Honor System: It is expected that all students will adhere to the University's undergraduate honor system. The honor pledge (“On my honor as a student, I have neither given nor received unauthorized aid on this academic work”) must be written out and signed by the student on all exams and homework in order for the grade to be recorded.

Note that you are encouraged to work with (but not to copy from!) other students on homework problems. You should acknowledge cooperation by writing “I worked with” on the assignment.

Academic Dishonesty Warning: Plagiarism and cheating are serious offenses and may be punished by failure on the exam, paper or project; failure in the course; and/or expulsion from the university. For more information refer to the “Academic Dishonesty” policy in the [K-State Undergraduate Catalog](#) and the [Undergraduate Honor System Policy](#) on the Provost's web page at <http://www.ksu.edu/honor/>.

Students with Disabilities: If you have any condition such as a physical or learning disability which will make it difficult for you to carry out the work as outlined here, or which will require academic accommodations, please notify the lecturer and contact the Disabled Students Office (Holton 202) during the first two weeks of the course.

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How to Use the Course Web Site

The course web site is accessed through K-State Online, <http://online.ksu.edu/>. You will need a current K-State eID (electronic ID) and password. If you do not have one, go to <http://online.ksu.edu/>, click on Register for your K-State eID, and follow the instructions given there.

Once your eID and password are current, go to <http://online.ksu.edu>, click on Sign In, and enter your eID (as your user name) and your password. This should get you to the K-State Online Course Organizer, which lists all the courses you are involved in. Click on the name of a course to view it. For detailed help, go to "Student User Guide" under "Help and Information".

Exam Gradebook. The Gradebook in "**General Physics 2 Lecture**" contains your exam grades for the semester. Your homework grades are in the Gradebook for your recitation section (see below).

Homework Gradebook. Additional information is available under the course called "**General Physics 2 Recitation N**", where *N* is a letter A-D corresponding to your recitation section. Your recitation grades will be posted here about one week after each assignment is due. Other information, such as a mini-syllabus specifying grading procedures used by your recitation instructor, may also be provided.

How to do homework problems

- **Don't wait until the last minute.**

Begin homework assignments several days before they are due.
- **Get help if you need it.**

Being stuck for a long time is demoralizing. You are encouraged to cooperate with other students, or to seek help from instructors, in doing these assignments.
- **What's going on here?**
 - Sketch the situation - make the situation real for yourself.
 - Identify desired quantities, with units. "*I want to find a distance, in meters.*"
 - List the quantities you know, with units.
 - If you can't do a problem, try to write down why you are stuck.
- **What's my strategy?**
 - What concepts apply to this situation?
 - Briefly state your strategy in **words and sentences**. (Pretend you are explaining to another student.)
- **What equation or equations implement this strategy?**

Write down the equation or equations you will use, in symbols before you plug in numbers.
- **Solve algebraically for the desired quantity.**

Get the quantity you want on the left of the equals sign, and everything else on the right.
- **Don't skip steps!**

Skipping steps makes your work hard to follow, and often leads to mistakes.
- **Do the arithmetic, with units.**

Substitute numbers with units in equations.
 $(5.0 \text{ m/s})(2.0 \text{ s}) = 10 \text{ m}$
Keep units until the end. It's a useful check.
- **Write down the answer, with units.**
- **Does the answer make sense?**

Is it ridiculously small or absurdly large? Did the units come out right?