

## **PHYS 1111 Introductory Physics – Mechanics, Waves, Thermodynamics**

Course Information and Schedule

The University of Georgia

Fall 2009

*Prof. Phillip Stancil*

### **Times and Locations:**

**Lectures:** TuTh, Period 5 (2:00pm - 3:15pm), Room 221, Physics Bldg.

**Laboratory:** Various times, Physics Bldg., third floor

**Office Hours:** M 10:00-11:00am, Tu 4:30-5:30pm, Th 1:00-1:50pm;  
other times by appointment only

### **Instructor:**

Prof. Phillip C. Stancil

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WWW: [www.physast.uga.edu/people/fac-pcs.html](http://www.physast.uga.edu/people/fac-pcs.html)

### **Required Course Materials:**

1. *Physics*, 4<sup>th</sup> Edition, James S. Walker, Pearson Addison-Wesley, 2010.
2. *Experiments for an Introductory Physics Course*, 5<sup>th</sup> Edition, R. M. Wood and S. Lewis. Needed for the laboratory section of the course.
3. A simple scientific calculator, which must be **non-programmable, non-graphing, and non-symbolic**. The use of calculator graphing, algebra-solving, or programming functions will not be permitted for any test or exam, nor are PDAs, cellphones, or other electronic devices to be used.

### **Required Resources:**

1. *Course Webpage:* <http://www.physast.uga.edu/classes/phys1111/stancil/>.
2. *MasteringPhysics:* : <http://www.masteringphysics.com/>. The *MasteringPhysics* online tutoring/homework system will be used in this course. See the Homework section for more information.

### **Other Resources:**

1. *Student Study Guide with Selected Solution*, by David Reid.

## Grading Policy:

Your final score will be determined from your overall performance in the class including tests, final exam, online homework, and laboratory grade with the following weights:

- 45% Three (out of four) in-class tests (15% each)
- 30% Final exam score
- 10% *MasteringPhysics* online homework
- 15% Overall laboratory score

The tests grades will be taken from the highest three out of four tests with the lowest score dropped. Final letter grades will be based on the class statistical distribution of total composite scores with the mean score corresponding to a middle-C. However, the lower range of the grade distributions will be no higher than 95.00 A, 90.00 A-, 86.67 B+, 83.33 B, 80.00 B-, 76.67 C+, 73.33 C, 70.00 C-, and 60.00 D.

## Exam Policy:

There will be four in-class tests and one final exam. All tests and exams are closed book and closed notes. You can only bring pencil and calculator to the tests and exam. Calculators must be non-programmable, *i.e.* no formulae can be stored. Equation sheets will be provided. The tests and exam will consist of problems and conceptual questions in multiple-choice or true/false format, as appropriate. Further details about each test and the exam will be given in class.

The test make-up policy is as follows: 1) **There will be no make-up tests given.** 2) If you miss one test, your test average will be based on the other three tests only. I.e., the missed test will count as your dropped test score. 3) If you miss two tests, your final exam can count 45% of your total grade, with the final exam score replacing the score for the second missed test. 4) In order to be eligible for your final exam grade to replace the missed second test, you must have a documented excuse for missing the test (*e.g.*, doctor's note for a **serious** illness) and you **must** contact me (via telephone, fax, e-mail, etc.) **before** the test. An unexcused missed second test results in an automatic zero. 5) If you miss a third test or the final exam, regardless of the excuse, the maximum grade you can receive in the course is an Incomplete. 6) A missed final exam can only be made-up under extreme circumstances. In order to be eligible for a make-up final exam you must follow the same procedures as outlined in 4). 7) If you have a scheduling conflict with the final exam, you must inform me at least two weeks before the exam, so arrangements can be made. The anticipated test schedule is attached, though it may be possible that the dates of the in-class tests can change. Announcements of the fact will be made in class. 'I did not know we had a test today' is an unacceptable excuse.

## Homework Policy:

Homework assignments will consist of two parts. The first part will be done online through the *MasteringPhysics* system. More details about using *MasteringPhysics* will be given in class and on the course website, but it will consist of three types of problems: Skill Builders (SB), Self-Tutoring Problems, and End of Chapter (EOC) Problems from Walker. The second part of the homework will consist of additional EOC problems, but which will not be collected for grading. Assignments will generally be made by Tuesday of each week with the *MasteringPhysics* portion due by the following Monday (Tuesday, if Monday is a holiday). I suggest you do all of the assigned problems as carefully as you can, especially the additional EOC problems. It is highly likely that one or more of the homework problems will appear, in some form, on each of the tests and the final exam. You are encouraged to work with your fellow classmates on the non-online EOC portion of the homework assignments, but the online parts must be your own work. You are also encouraged to work *many* additional problems including those given in the *Student Study Guide*.

### **Bonus Points:**

About four or five times throughout the semester, a pop quiz will be given in class. Each quiz will consist of one multiple-choice question. The average of all quizzes is worth a maximum of 2 points. Further, during most class periods, I'll call on some students to work an example problem or other task. If the student is in attendance and assists, they will receive 1 bonus point. The maximum number of bonus points for the course is 3. You can receive 1 bonus point just for taking the quizzes, even if you got all wrong answers. The purpose is to reward those who regularly attend class and keep up with the lecture material and homework assignments. For example, if the lowest total course score for a B- turned-out to be 80.00 while your average was 78.50, you will receive a B- if your bonus average is 1.50 or higher. Otherwise, if you failed to take the quizzes or your bonus average was 1.49 or lower, you will receive a C+. Therefore, unless there is a numerical error in your scores, there will be no basis to discuss a letter grade adjustment.

### **Student Responsibilities:**

1. You are responsible for all material (a) given in the homework problems, (b) discussed in class, (c) in the assigned reading, and (d) in the lab exercises.
2. You are responsible for all announcements made in class, whether you are present or not, and on the class website.
3. Read the assigned portions of the textbook before class.
4. Do all homework assignments.
5. Attend all laboratory sessions in your assigned laboratory section.
6. Know the University's policies concerning withdrawals and incompletes.
7. Ask me if you do not understand anything.

### **Academic Honesty:**

Be aware of the University's policy on academic honesty. It is described in the pamphlet *A Culture of Honesty: Policies and Procedures on Academic Honesty*. Anyone caught cheating on a test or exam will receive a failing grade for the course. Anyone found to be cheating on labs will receive a zero for that assignment. A second incident will result in failure of the course.

**PHYS 1111 Class Schedule, Fall 2009, Tu(T)Th(H), Period 5, Prof. Stancil**

<b>Class</b>	<b>Date</b>	<b>Chapter</b>	<b>Reading</b>	<b>Topic</b>
1	T 8/18	1	1.1-1.8	Introduction - Science and Motion
2	H 8/20	2	2.1-2.4	Kinematics in 1D
3	T 8/25	2	2.5-2.7	Kinematics in 1D
4	H 8/27	3	3.1-3.5	Vectors
5	T 9/1	4	4.1-4.2	Kinematics in 2D
6	H 9/3	4	4.3-4.5	Kinematics in 2D
7	T 9/8	<i>Review</i>		
8	H 9/10	<b>TEST #1</b>		<b>Chapters 1-4</b>
9	T 9/15	5	5.1-5.5, 3.6	Forces, Newton's laws
10	H 9/17	5 and 6	5.6-5.7, 6.1	Forces and Friction
11	T 9/22	6 and 12	6.2-6.4, 12.1-12.2	Strings, Springs, and Gravitation
12	H 9/24	6 and 7	6.5 and 7.1-7.2	Circular Motion and Work
13	T 9/29	7 and 8	7.3-7.4, 8.1-8.2	Kinetic and Potential Energy
14	H 10/1	<i>Review</i>		
15	T 10/6	<b>TEST #2</b>		<b>Chapters 5-7</b>
16	H 10/8	8 and 9	8.3-8.4, 9.1-9.2	Conserv. of Energy, Momentum ( <i>Midterm</i> )
17	T 10/13	9	9.3-9.7	Collisions, Center of Mass
18	H 10/15	10	10.1-10.6	Rotational Kinematics
19	T 10/20	11	11.1-11.5	Rotational Dynamics
20	H 10/22	11	11.6-11.9	Angular Momentum ( <i>Withdrawal deadline</i> )
21	T 10/27	<i>Review</i>		
22	H 10/29	<b>TEST #3</b>		<b>Chapters 8-11</b>
23	T 11/3	13	13.1-13.5	Oscillations
24	H 11/5	13	13.6, 8.5, 12.4	Oscillations and Potential Diagrams
25	T 11/10	14	14.1-14.4	Waves and Sound
26	H 11/12	14	14.6-14.9	Superposition of Waves
27	T 11/17	16	16.1-16.3	Temperature and Thermal Expansion
28	H 11/19	<i>Review</i>		
	T 11/24	<i>No class</i>		<i>Thanksgiving Break</i>
	H 11/26	<i>No class</i>		<i>Thanksgiving Break</i>
29	T 12/1	<b>TEST #4</b>		<b>Chapters 13, 14, and 16</b>
30	H 12/3	16 and Review	16.4	Heat and Final Review
31	T 12/8	<i>No class</i>		<i>Friday class schedule</i>
	F 12/11	<b>FINAL EXAM</b>	Comprehensive	<i>3:30pm-6:30pm</i>