

# PHYS 251: Physics I (Mechanics)

Fall 2009; 9am and 10am Sections

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**Text:** Giancoli: Physics for Scientists and Engineers, **Fourth edition** (required)

The UO bookstore has a package of Volumes 1-3 + Modern Physics and the student study guide. You will need Volume 1 for 251 (fall) and Volumes 2,3 for 252/253 (winter/spring).

**Instructor:** Prof. Graham Kribs

**Office:** 470 Willamette Hall

**Office Hours:**

11am–12:30pm Mondays

11am–12:30pm Thursdays

or by appointment

**E-mail:** [phy251.kribs@gmail.com](mailto:phy251.kribs@gmail.com)

**Teaching Assistants:**

	E-mail	Office	Office Hours
Shikha Gill	<a href="mailto:shikhade@uoregon.edu">shikhade@uoregon.edu</a>	218 Willamette	1-2pm Wed
Andrew Golter	<a href="mailto:agolter@uoregon.edu">agolter@uoregon.edu</a>	218 Willamette	12-1pm Wed
Yan Sang	<a href="mailto:ysang@uoregon.com">ysang@uoregon.com</a>	218 Willamette	2-3pm Tue

**Class Website:**

<http://wingate.uoregon.edu/phy251>

(Announcements, homework, solutions, syllabus, etc.)

**Course Format**

Mon Lecture

Wed Lecture

Thu Lecture

Fri Tutorial

**Friday Tutorial:**

Friday's class will be run by Andrew as a problem solving session.

**Co-requirement:**

You must have taken or are now taking MATH 251 (Calculus). We will use calculus in this and subsequent courses.

**Homework:**

Homework will be assigned weekly on Thursdays, due the following Thursday by 5pm in the

“lock-box” labeled “PHYS 251” in the basement of Willamette. One homework assignment will be due during the last week (“dead week”) of classes.

### Difficulties with homework?

You have many resources to help you with the material – use them!

- 1) Re-review the textbook examples.
- 2) Seek out your fellow students! Work on your homework together: helping each other with the material is very beneficial (research in physics is done exactly the same way). However, like everything in publishing, the work you turn in must be your own.
- 3) Form a study group (this was very successful in past years), reserve a room in the science library.
- 4) See the TAs in their office hours.
- 5) Utilize the physics drop-in center.
- 6) See me in my office hours.

Email, by contrast, is very difficult to explain subtle points of physics (and for me to see whether you are, or are not, following my explanation). As a consequence, the response you can expect to get for most email requests for help will be “come see me in office hours”.

### Late Homework:

Not accepted. The homework deadline, 5pm Thursdays, is strict.

Any variation of this policy is only at my (the instructor’s) discretion and would be granted only if you contact me well in advance (1 week or more) of a deadline.

### Grade:

50% Homework

20% In-class Mid-term Exam: **Monday, 2 November**

30% Final

The conversion of percentage grade into letter will be *no harder* than as follows:

97-100%	A+	74-79%	C+
93-96%	A	67-73%	C
90-92%	A-	60-66%	C-
87-89%	B+	57-59%	D+
83-86%	B	53-56%	D
80-82%	B-	50-52%	D-
< 50% Fail			

### Make-ups, Medical Exceptions, H1N1, etc.

No “make-up” homework, make-up mid-term exams, or make-up final exams will be given. Instead, I will drop the lowest-grade homework for every student for any reason, including medical reasons. If you miss two or more homework assignments, without a plausible medical exception or prior in-writing agreement from me, you will receive zero grade for what you missed.

If you miss the mid-term exam or final exam for a plausible medical exception, I will re-weight your grade based on the work you did complete:

	Grade calculation based on medical exception <i>only</i>
missed homework:	50% Homework completed, 20% Mid-term Exam, 30% Final Exam
missed mid-term exam:	60% Homework, 40% Final Exam (*)
missed final exam:	70% Homework, 30% Mid-term Exam (*)
missed mid-term and final:	Incomplete (*)

(\*) **However**, for any missed exam, and thus any case that requires re-weighting, I reserve the right to give a grade of Incomplete and require the student to reappear my office at a future date and time for an oral exam where the student solves problems at the blackboard. The grading scheme of an oral exam is determined entirely at the discretion of the instructor.

### Attendance policy:

Attendance will not be checked or graded. If you miss class it is entirely your responsibility to obtain all information provided in class from another student.

### Class Cancellation:

In the unlikely event that I have to cancel class at the last minute (**bad weather** or otherwise), I will put an announcement on the class website and attempt to email everyone.

## Course Outline

Week	Material	Reading: Giancoli Chapters
28 Sep-2 Oct	Units, uncertainty, motion in 1-d	1,2
5-9 Oct	Motion in 2-d,3-d	3
12-16 Oct	Newton's Laws I	4
19-23 Oct	Newton's Laws II	5
26-30 Oct	Gravitation	6
2 Nov (Mon)	In-class Midterm Exam	
3-6 Nov	Work, Energy	7
9-13 Nov	Conservation of Energy	8
16-20 Nov	Momentum, Rotations	9,10
23-25 Nov	More Rotations	10
30 Nov-4 Dec	Angular Momentum	11
8 Dec (Tue)	10:15-12:15 Final Exam for 10am 251 section	
10 Dec (Thu)	10:15-12:15 Final Exam for 9am 251 section You <b>must</b> take the exam of the section for which you are registered.	

### Reading:

Your learning will greatly benefit from *reading* the chapter *before* class. While lecture material will highlight the major points of the textbook, I will not cover all material in-class. Nevertheless, you are responsible for all "non-starred" sections of Chapters 1-11 regardless of whether I cover it in class.