Syllabus: Physics 218: Mechanics — Fall 2005

IMPORTANT!!!! READ THIS ENTIRE DOCUMENT!!!!

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Note: DO NOT send email to my departmental address, or other address. You must use this email address for communication regarding this course.

Office Hours, subject to change: 8:30 – 10:00 Monday and Tuesday or by appointment. Usually, you do not need an appointment, as I love to work physics problems whenever you can find me. However, I am often very busy, and mornings before about 10 are the best time on most weekdays.

Textbooks:

University Physics, 11th ed. by Young and Freedman
Laboratory Experiments for Physics 218, 8th ed., by Ramirez, Seidel, and Hiebert (Hayden-McNeil Publishing)

Web Sites:

For our sections only: http://leona.physics.tamu.edu/Phys218.05f/
Departmental site: http://physics218.physics.tamu.edu
Note: information on the web site for our sections supersedes information on the departmental site. You must check these sites regularly for posted information.

Prerequisites: You must have a working knowledge of algebra, plane geometry, and trigonometry.

Corequisites: MATH 151 or equivalent. As the semester progresses you will be expected to have a working knowledge of calculus (derivatives and integrals), and be proficient in the use of vectors (cartesian and polar coordinate representation, addition, subtraction, dot and cross products).

Grading:

<table>
<thead>
<tr>
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<th>Points</th>
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<tbody>
<tr>
<td>Three exams in class (100 points each)</td>
<td>300</td>
</tr>
<tr>
<td>Daily quizzes</td>
<td>100</td>
</tr>
<tr>
<td>Recitation quizzes</td>
<td>50</td>
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<tr>
<td>Laboratory</td>
<td>100</td>
</tr>
<tr>
<td>Final Exam</td>
<td>200</td>
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<tr>
<td>Total</td>
<td>750</td>
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Letter Grade: For each item in the list above, a certain number of points will be required for A, B, C, and D. Usually, this will be 90%, 80%, 70%, and 60% respectively of the number of points shown, but the percentages may be lowered. The number of total points needed for each letter grade in the course, will be the sum of the number needed for that letter grade in each item in the above list.

NOTE: You must pass both the lecture (3 midterm exams, final exam, quizzes, and recitation) and laboratory (≥70%) parts of the course separately in order to pass the course.
Exams: There will be three midterm exams and one final exam: Each midterm exam will last 75 minutes, while the final exam is comprehensive and lasts for 2 hours. Each exam will generally consist of problems similar in content and difficulty to the homework, quizzes, and especially to the examples from the book and class. The entire solution will be graded and partial credit given if merited. Your work must show the steps toward the solution; the answer alone is not sufficient. **No formula sheets will be provided,** however a small amount of useful information will be provided at the end of each exam. Exams will emphasize the material of a given section, but will by necessity also include concepts from previous sections.

Only simple arithmetic will appear on the exams, so you probably will not need to bring a calculator. If you can add $\frac{1}{2} + \frac{1}{5}$ and multiply $5 \times 13$ you will not need a calculator. However, if it is a comfort to you to bring one, then feel free to do so.

You must bring your student ID with you to all exams for identification purposes.

Exam grades may be curved depending on the level of difficulty conditions of a particular exam. This does not mean that you are competing with each other. I am perfectly happy to give the entire class A’s on an exam. (And by the same token, I am willing to give you all F’s if that is merited.) In no case will a curve result in a lower letter grade than the standard 90-100% A, 80-89% B, 70-79% C, 60-69% D and <60% F.

The **Final Exam** will be comprehensive. Material past Exam 3 may be weighted more than other material covered previously.

**Daily Quizzes** (in class) will cover concepts immediately after they are presented. This will encourage your participation and attendance. These quizzes must be solved correctly. No partial credit will be given.

**Homework problems** will be assigned weekly. You need to work all of the homework problems to do well on the exams. Occasionally, some homework will be given in class and collected in the next class. These assignments will count as an in-class quiz (see above).

All **lab and recitation** sections meet in Heldenfels Room 118. The first hour is a problem session (recitation) followed by two hours of lab. The recitation is very important — it is your chance for direct help from a young physicist. Each recitation will begin with a quiz over the previously assigned homework.

There will be no recitation or lab meetings during the first week of the semester.

Students **retaking the course** can use their lab grade from a previous semester, provided they passed the lab with a grade of 80% or higher. To do this, go to the physics department office and tell them to provide me with your previous grade. They will want to know the semester you took the class, and who was your professor.

Students retaking the course do not have to repeat the Lab but they are **required to attend Recitation** and take weekly quizzes.

**Tentative class schedule:** Chapters 1–4, Exam 1, Chapters 5–8, Exam 2, Chapters 9–12 (and 13 as time allows), Exam 3, Chapters 13 and 15 (as time allows), Final Exam.
Absences: Absences will be treated according to university regulations, as outlined in the Student Rules. http://student-rules.tamu.edu/rule7.htm. Policies dictating valid excuses and notification thereof are given in the Student Rules. Note: Very few conditions qualify as an authorized excused absence, so avoid missing an exam at all costs.

If you miss any exam, with a valid excuse, you will be allowed to makeup that exam, otherwise the grade will be entered as 0.

If you miss any lab with a valid excuse it will be your responsibility to make up that lab on the scheduled make-up day. If you also miss the make-up labs with a valid excuse, then that lab will not count toward your average, otherwise that lab grade will be entered as 0.

If you miss any daily quiz or recitation quiz with a valid excuse, then that recitation work will be eliminated from your average, otherwise that quiz will be given the grade 0.

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact the Department of Student Life, Services for Students with Disabilities, in Room 126 of the Koldus Building or call 845-1637.


The Executive Committee of the Faculty Senate recommends that instructors, particularly of lectures and labs at the freshman and sophomore levels, should include the following paragraphs in their first-day handout materials:

The handouts used in this course are copyrighted. By “handouts,” I mean all materials generated for this class, which include but are not limited to syllabi, quizzes, exams, lab problems, in-class materials, review sheets, and additional problem sets. Because these materials are copyrighted, you do not have the right to copy the handouts, unless I expressly grant permission.

As commonly defined, plagiarism consists of passing off as one’s own the ideas, words, writings, etc., which belong to another. In accordance with this definition, you are committing plagiarism if you copy the work of another person and turn it in as your own, even if you should have the permission of that person. Plagiarism is one of the worst academic sins, for the plagiarist destroys the trust among colleagues without which research cannot be safely communicated.

If you have any questions regarding plagiarism, please consult the latest issue of the Texas A&M University Student Rules, under the section “Scholastic Dishonesty.”