Syllabus – Physics for Scientists & Engineers I – Physics 180
Fall 2006

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Mastering Physics http://session.masteringphysics.com/myct
Choose MasteringPhysics for Young/Freedman University Physics, 11e and follow registration instructions
Course ID: PHYS180F2006

Holidays: Sept. 4th, Oct. 27th, Nov. 10th, Nov. 24th, Dec. 13th (finals prep day)

Text: University Physics, Young and Freedman, 11th edition with PRS Clicker and Mastering Physics access code.

Course Description: (from the UNR General Catalog) 3 credits. Vectors, one and two dimensional kinematics, particle dynamics, work and energy, momentum, rotational mechanics, oscillations, gravitation, fluids, elastic waves and sound. Prerequisite Math 181.

Methodology: Class discussion and participation will enhance the learning environment and will be important ingredients in our class. We will use a variety of methods to introduce concepts including group work and discussion as well as more traditional methods. We are implementing a Personal Response System (PRS) which will serve as a tool to ensure student understanding as we move through the topics of the semester. Each student will be required to obtain a PRS Interwrite RF “clicker” in order to participate. Your new text includes a coupon for approximately ½ the cost. A portion of the semester grade will be based on the use of the PRS. Please refer to the requirements section for details. In addition, a web-based component that is packaged with your textbook will be included. We will use it to compliment the learning in our class with homework assignments done and graded online for immediate feedback. Most importantly for a successful semester please ask questions when something isn’t clear and especially if you find your curiosity has been peaked! Be willing to actively participate – volunteer a different explanation or point of view, ask a question, but please don’t exclude yourself from the learning process.

1. Exams: There will be 3 exams:
   - 1st Exam: Sept. 29th
   - 2nd Exam: Nov. 8th
   - 3rd Exam: Dec. 6th or 8th (TBD)

NOTE: The exams may include multiple choice, fill in, but will emphasize problem solving. Always show all your work and include proper units. One exam grade may be replaced with the score from a comprehensive final exam given on the final date. There are NO make-up exams. If you do miss an exam you will have to take the comprehensive final exam to replace that exam. If you are happy with your grade after the three regular semester exams you may skip taking the final. The final exam will be on Friday December 15th at 9:45 AM.
2. **Homework & Quizzes:** Homework will be assigned each week. It is extremely important to work through each assigned question and problem, as it is impossible to learn physics without doing physics. This homework will be done and graded online. It is your responsibility to make sure you know the assignments and the homework that is graded. There will be a quiz most weeks. These quizzes will be based on material currently being covered and may consist of conceptual questions, problems, or a combination of both. Some of the quizzes will come from participation with the PRS. There are NO makeup quizzes, please don’t ask! A total of 50 points for quizzes (either written or electronically responded) and 100 points for homework will be included in your final grade.

3. **Attendance & Participation:** It is expected that you attend all classes. If you must miss a class it is your responsibility to get all assignments and to know the material covered. Please don’t hesitate to call or email me for the information, however, I encourage you to get to know two to three of your classmates and exchange phone numbers or email addresses. Note that 50 points of your semester grade comes from participation and attendance. These points will be evaluated with your PRS.

**GRADING:**

- Exams: 300pts
- Quizzes and Homework: 150pts
- Attendance and Participation 50pts
- Total possible points: 500

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A &= 500 - 450 \\
B &= 449 - 400 \\
C &= 399 - 340 \\
D &= 339 - 275 \\
F &= 274 \text{ and below}
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*NOTE:* In order to pass the class you must complete at least 50% of the homework and quizzes.

**ADA Statement:** Qualified students with physical or documented learning disabilities have the right to free accommodations to ensure equal access to educational opportunities at the University of Nevada, Reno. For assistance and clarification of services provided under ADA, contact the Disabled Student Services Office.

**Academic Integrity:** All examinations, homework, and quizzes must be completed by the student; any act of plagiarism (cheating, piracy, theft, etc.) will result in immediate suspension from the course and possible suspension from the University.
Course Outline: The most important thing you can do to be prepared for all classes is to keep up with the reading and homework assignments. Read the chapters to be covered before coming to class, this will ensure you are ready to make the most of the class time since I will not be summarizing the reading. Some quizzes may be based solely on the reading! I encourage you to work through as many extra problems as you can, especially in chapters you find more difficult. The Mastering Physics online component of your textbook is a useful tool and I encourage you to use its resources to make the most of your study time.

• Week 1 - Chapters 1, 2
• Week 2 - Chapters 2, 3
• Week 3 - Chapter 4
• Week 4 - Chapter 4, 5
• Week 5 - Chapter 5 (Exam 1)
• Week 6 - Chapter 6
• Week 7 - Chapter 7
• Week 8 - Chapter 8
• Week 9 -
• Week 10 - Chapter 9
• Week 11 - Chapter 10 (Exam 2 )
• Week 12 - Chapter 11, 12
• Week 13 - Chapters 13, 14
• Week 14 - Chapter 14, 15
• Week 15 - Chapter 16 (Exam 3)
• Week 16 - Grades and final review
• Final Week - Section 1 -- Friday, Dec. 15 @ 9:45am

Note: This is a tentative outline of what we will cover, we may spend more or less time on a particular topic.