Syllabus – Physics for Scientists & Engineers II – Physics 181
Spring 2005

Instructor: Dr. Dave Bennum
Office Phone: 784-6128
Office: LP 312
Home No.: 323-4390
E-mail: daveb@physics.unr.edu or dbennum1@sbcglobal.net
Office Hours: 10-12 MWF and by appointment TR

Physics Now: www.itm.com
PINCODE: E-5Y7HUGXHE2ET (Note this pin code should be used to register in the class, not the pin code distributed with the book. Also please note, register only once. If you lose your password contact me or tech support and be careful that you note passwords are case sensitive.)

Holidays: February 21, March 28, 30, April 1

Text: Physics for Scientists and Engineers, 6th Edition
Author: Raymond A. Serway and John W. Jewett, Jr

Course Description: (from the UNR General Catalog) 181 Physics for Scientists and Engineers II
(3+0) 3 credits Thermodynamic laws, kinetic theory, electric charge, field, potential, current, dielectrics, circuit elements, magnetic fields and materials, electromagnetic oscillations. Prerequisite: MATH 182; PHYS 180.

Course Objective: A mastery of introductory theory and application of the laws of thermodynamics, kinetic theory and electricity and magnetism. The course is calculus-based and the learning objectives will be evaluated by students’ abilities to solve problems

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. A web-based component that is packaged with your textbook will be included this semester. We will use it to compliment the learning in our class with homework assignments done and graded online for immediate feedback. Most importantly 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.
Requirements:

1. **Exams:** There will be 3 exams:
   - 1st Exam: Wednesday, February 16
   - 2nd Exam: Friday, March 25
   - 3rd Exam: Friday, April 29

   NOTE: The exams may include multiple choice, fill in, and problems. 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 class meeting (refer to the final class schedule for time and date).

2. **Homework & Quizzes:** Homework will be assigned each week. It is extremely important to work through each assigned problem, as it is impossible to learn physics without doing physics. A portion of 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 the assigned homework and may be conceptual or problem solving. There are NO makeup quizzes, please don’t ask! A total of 100 points for quizzes and 100 points for homework will be included in your final grade.

3. **Attendance:** 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.

**GRADING:**

- Exams: 300pts
- Quizzes and Homework: 200pts
- Total possible points: 500

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\begin{align*}
\text{A} &= 500 - 450 \\
\text{B} &= 449 - 400 \\
\text{C} &= 399 - 350 \\
\text{D} &= 349 - 300 \\
\text{F} &= 299 \text{ and below}
\end{align*}
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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. The assigned homework is considered the bare minimum you should do. I encourage you to work through as many extra problems as you can, especially in chapters you find more difficult. The PhysicsNow 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 19
- Week 2 - Chapters 20
- Week 3 - Chapter 21
- Week 4 - Chapter 22
- Week 5 - Chapter 22 / Review (Exam 1, Wednesday, February 16)
- Week 6 - Chapter 23
- Week 7 - Chapter 24
- Week 8 - Chapter 25
- Week 9 - Chapter 26
- Week 10 - Chapter 27,28
- Week 11 - Chapter 28 (Exam 2, Friday, March 25)
- Week 12 - Chapter 29,30
- Week 13 - Chapters 31,32
- Week 14 - Chapter 32,33
- Week 15 - Chapter 34 (Exam 3, Friday, April 29)
- Week 16 - Grades and final review
- Final Week - Refer to the final week schedule for date and time.

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

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.