Tentative Syllabus
Physics 210: University Physics
Fall Semester 2004

Place:  Sci 209

Time:  10:30 to 11:30 MWF

Instructor: Dr. Stuart Snyder
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Office Hours: 9:00-1:00 Tu and by arrangement.

Text: University Physics (7th edition) by Halliday, Resnick, and Walker.

Corequisite: Math 112

Course Description:
This course is the first semester of a two-semester course that explores fundamental concepts of classical physics. During the fall semester we will study the concepts of vectors, linear motion, force including Newton's laws, energy, momentum, gravitation, rotational motion, vibrations and waves, and fluid mechanics. This material is covered in the first 18 chapters of the text.

This is a calculus-based physics course. For many students, this course will be their first exposure to calculus. Therefore, during the semester the basic calculus skills of differentiation and integration as applied to physics will also be developed. Students are, however, expected to be well-versed in algebra and basic trigonometry.

Outcomes and Assessment:
The degree to which the student is successful in learning the fundamental concepts of classical physics and applying these concepts to solve problems will be assessed by homework and examinations. The student is responsible for reading the assigned material in the text.

Homework:
Physics is a problem-solving science and is best learned by solving problems. Several (5 to 8) homework problems will be assigned and graded each week. The total homework score will be a significant part of the final grade. The body of homework problems accumulated by the end of the semester will be a valuable set of reference material, and homework assignments must be prepared accordingly. Homework solutions must contain a thorough written explanation of the solution to the problem as well as the mathematical solution. In other words, use plenty of English! Handwriting must be legible and grammar and spelling must be scholarly. The reason for this is to allow an
understanding of the solution of a homework problem in the future when the physics concepts are no longer fresh. Homework must be turned in on single-sided paper only. Paper torn from a spiral notebook is not acceptable. Multiple pages must be stapled together. Presentation of the solutions of the homework problems will constitute part of the homework grade. The score of a poorly-presented homework set will be docked up to 20%. Please understand that I do not mind students collaborating on homework, but this collaboration must be mutual. Solutions to homework problems must show that an honest individual effort was made. Simply duplicating another student’s solution is not acceptable. Homework solutions will be posted after the due date. After the solutions are posted, late homework will not be accepted.

**Examinations:**
We will tentatively have three 1-hour exams at roughly 4 week intervals on the following chapters:

Exam 1 (motion and force): Chapters 1, 2, 3, 4, 5 and 6
Exam 2: (energy and momentum): Chapters 7, 8, and 9
Exam 3: (rotation and torque): Chapters 10, 11, 12, and 13
Final Exam: Comprehensive and also Chapters 14, 15, 16, and 17 (fluids, simple harmonic motion, and waves)

**Grading:**
Grades will be determined as follows:

Hour exams: 60%
Final Exam: 25%
Homework: 15%

Grades will tentatively be assigned on the following basis:

90% to 100% A
80% to 89% B
70% to 79% C
60% to 69% D
less than 60% F

**Make-up Policy:**
Make-up exams must be scheduled in advance of the scheduled hour exam. Failure to do so will result in a 0 for that exam.

**Academic Honesty:**
It has been my experience that the vast majority of students taking this course are honest, hard-working students who enjoy learning. In fairness to these students, I do not tolerate cheating on exams. A student caught cheating on an exam will receive an “F” for the course.