Physics 2305 17 January, 2000
Introduction

Welcome to Physics 2305, the first semester of Foundations of Physics I.

Your instructor for the 8 am, 1 pm, and 4 pm MWF sessions is:

Dr. Gregory C. Sloan
Robeson Hall, 324A (through 322)
231-8744, gsloan@vt.edu (email is preferred)

Pre-requisites: Passing grade in Math 1205, concurrent enrollment in Math 1206

Texts Halliday, Resnick, & Walker, *Fundamentals of Physics, 5th Ed.*, 1997 (required)

Select Problem Collection for Fundamentals of Physics
CD-Physics for Fundamentals of Physics, Version 2.0

Christman, *A Student's Companion* for Fundamentals of Physics (optional)
Christman, *Student's Solutions Manual* for Fundamentals of Physics (optional)

Lecture

Lectures are designed to *support* readings from the textbook, not replace them. We'll go over examples, demonstrate principles, and elaborate on important or difficult topics. In order to learn from lecture, you must complete the assigned readings beforehand, so that you will already know which areas you need to concentrate on and what questions to ask.

Grading

Component of course	Fraction of final grade
4 exams	67 %
6 lab assignments	15 %
problem sets and quizzes	18 %

Exam grades and final grades depend on your performance *relative* to other students in the class and not on your absolute score.

Exams

Exam	Day	Time	Date	Fraction of final grade
Exam 1	Fri	5 pm	11 February	12 %
Exam 2	"	"	24 March	15 %
Exam 3	"	"	21 April	15 %
Final	Sat	7 pm	6 May	25 %

For students with university-excused absences from exams, the missing score will be replaced with the average of the remaining exams. Make-up exams are only available to students who make arrangements prior to the exam date, and then only in rare cases.

Laboratory assignments

The laboratory periods apply theoretical concepts presented in lecture to actual situations. This time allows you to develop good observations, data-taking, data-analysis, and presentation skills. This component of the course is very important, and the consequences of not completing all six experiments are severe. *Your final course grade will drop by one-third of a letter grade for each lab you do not complete.* For example, if one lab is missing, a B+ would become a B; if two labs are missing, a B+ would become a B−. Students can purchase lab manuals at the bookstore. The laboratory website provides information about the syllabus, procedures, policies, schedules, TA office hours, and contact information (http://www.phys.vt.edu/~labs/).

Problem sets

Typically, 10-12 problems will be assigned each week. They will be due on Thursday of the following week (at midday). Assignments submitted after the due date will be penalized 10% of the total possible grade for each day late, and no credit will be given for assignments received after the problem set has been graded or solutions have been posted. Typically, only two problems in each set will be graded; students will not know which these are in advance.

Our goal is to learn the fundamental concepts of physics and how to apply these concepts to physical situations. As a consequence, it is impossible to over-emphasize the importance of the problem sets. The student who gives each problem his or her full attention will recognize which concepts they didn't understand in lecture or in the textbook, will be able to learn these concepts and how to apply them, and will do well on the exams. The student who relies on help from others before thinking carefully about each problem, or who turns to solutions manuals or other crutches will find it very difficult to do well on exams.

Quizzes

There will typically be one quiz a week, usually, but not always, in recitation. While attendance is not mandatory, no make-up quizzes will be offered for unexcused absences.

Course website http://www.phys.vt.edu/~sloan/teaching/phys2305

Please be sure to read the administrative page as soon as possible. You should also check the website regularly for announcements, problem set assignments, solutions, office hours, class handouts, old quizzes, exam results, and any other material I might post.

Honor Code

Students are expected to know and adhere to the honor code of Virginia Tech. Violations of the honor code will be dealt with mercilessly.

Other Notes

No grades will be replaced, and no extra credit assignments will be offered. Students should bring a calculator to each exam and to every class (in case of a quiz). Those without calculators will be expected to work out all calculations by hand.