Physics 106 - How Things Work II
Course Information - Spring 2008

Instructor: Gordon D. Cates - Professor of Physics and Radiology
Office: Physics 106A, Phone: (434) 924-4792, email: cates@virginia.edu
Lectures: MWF 1:00-1:50 pm, Physics 203
Office hours: M 2:00-3:30 pm, W 2:00-3:30 pm
Web Site: http://people.virginia.edu/ gdc4k/phys106/spring08/

Course Structure:
- 3 lectures per week
- Homework assigned and graded more-or-less weekly
- 2 Quizzes (time TBA)
- 1 Midterm Exam
- Final Exam

Course Goals:
1. To begin to see science in everyday life
2. To learn that science isn’t frightening
3. To learn to think logically in order to solve problems
4. To develop and expand your physical intuition
5. To learn how things work
6. To obtain a perspective on the history of science and technology

Homework:

Reading:

Will be assigned during the lectures.

Graded Problem Sets:
- Each problem set will consist of several guiding questions regarding the physics concepts associated with everyday things or experience. Questions will require independent thought on your part in order to answer them correctly. You are encouraged to discuss problem set questions with one another but you must write up your answers individually and in your own words. Problem sets are not pledged assignments, however, points will be deducted from your problem set if you use someone else’s words or allow them to use your words. The purpose of these problem sets is to help you understand the material. In most cases, students who simply “borrow” answers from other students or from the instructor, and who don’t make a serious effort to understand why those answers are correct, do poorly on the quizzes and exams.
- Submission and grading of homework will occur through the web-based system “eclass”, which can be accessed at the web site https://eclass2.phys.virginia.edu/.
  A link for eclass and instructions on how to use eclass will be available on the web site.
• Once homework is assigned you will generally be given a full week to complete it. Late Homework will receive a 10% grade reduction for each day (24 hours) that the homework is late. After five days, homeworks will no longer be accepted and solutions will be posted.

• Generally, late homework will only be accepted without a penalty if you are severely ill or have a serious personal crisis. In such cases, you will be expected to provide a note from health services or your dean. Exceptions will include sanctioned sports events (i.e. you are traveling) or religious holidays. Regardless of the reason, you MUST notify us by email prior to the homework being late. To cover other unforeseen circumstances, your lowest homework score will be dropped. On the issue

Quizzes

Quizzes will be a mixture of questions requiring a short written answer and multiple-choice questions. The quizzes will have a similar format to both the midterm and the final and will thus be good practice. No make-up quizzes will be given without prior permission.

Exams

The Midterm Exam (50 minutes) and Final Exam (2 hours 50 minutes) will emphasize understanding of concepts so that memorization will be far less valuable for answering the questions than basic insight into how things work. The exams will in general include both short-answer questions and multiple-choice questions. No make-up exams will be given without prior permission. Valid excuses for missing an exam may include: severe illness, serious personal crisis or emergency, or religious holidays.

Grading

Final course grades will be based on knowledge of the course material as determined by performance on homework, quizzes and exams using the following weighting:

Class Participation:  7%
Homework:            23%
Quizzes:             15%
Midterm exam:        20%
Final exam:          35%

The Physics 106 Cardinal Rule

For anything out of the ordinary: send an email, FIRST if possible, and include “Physics 106” in the subject line.

• You need to reschedule a quiz because you are flying to Stockholm to receive a Nobel Prize.
  Send an email explaining first! Example — Subject: Physics 106, Nobel Prize
• You won’t be handing in your homework on time because you just had your appendix out.
  Have your friend send an email with subject heading “Physics 106, appendix removed”

In summary, when there is anything you need us to know, send an email. Telling me in class should be considered the equivalent of writing a note, sticking it in a bottle, and tossing it into the Rivanna River.