PHYS 140-02 Technical Physics

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Technical Physics
Phys 140-02, RT Students Only

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Office Hours Thursday 9:30-10:30 & 2:00-3:00 are drop-in office hours. Other times are also certainly possible.


Learning Outcomes

• learning basic physics principles
• learning to think like a physicist, solving complex problems quantitatively
• explain the scientific method

Class Philosophy

Most of the basic learning you do in this course will be on your own. You learn the material by reading the book ahead of time, and practice problem solving by doing homework. You cannot count on the lecture to provide you with this basic understanding. The in-class portion of the course serves to build on and enlighten your basic learning. We will look at the material from a different viewpoint in class, as well as work on problems as a class and in groups. There will be occasional quizzes, announced or not, to give you and me an idea of where you stand in your understanding. All tests are somewhat cumulative, particularly the final.

Solution to the homework will be posted under the Files tab, as will sample exam questions.

Grading: Three tests are worth 20% each, plus a final worth 30%. Homework and (sometimes pop) quizzes are together worth 10% of the final grade.
See also the Physics Department Grading Policy:
http://www.xavier.edu/physics/About-the-Department.cfm

87  B+  77  C+  
%    %  

93  A  83  B  73  C  60  D  
%  %  %  %  

90  A-  80  B-  70  C-  
%  %  %  

All homework problems are to be turned in the class after we complete the chapter. They will be checked to see that they have been completed, and random problems will be graded. Please be neat in your homework assignments.

All exams must be taken. If an exam is missed and a legitimate written excuse is not provided a zero will be recorded. If an exam is missed and a legitimate written excuse is provided before the exam time, a make-up exam may be given. There will be at most one make-up exam.

Class attendance is required.

Homework / Due date
Ch 12:  1, 2, 3, 4, 6  due Jan 19
        10, 13, 14,  due Jan 21
        SP1, SP5  due Jan 26
Ch 13:  1, 2, 3, 4, 6, 7  due Feb 2
        9, 12, 13, 14, 15 due Feb 4
        SP1, SP5 due Feb Feb 9

Chapters we hope to cover:
12 Electrostatics
13 Circuits
14 Magnets
15 Waves
16 EM Waves
18 The Atom
19 The Nucleus