

**Physics 116**  
**Introductory Physics II**  
**Summer 2008**  
<http://www.phys.cwru.edu/courses/p116/>

**Instructor:** Dr. Diana Driscoll  
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**Textbook:** *Physics* 7<sup>th</sup> edition, Vol. 2  
Author: Cutnell & Johnson

**Lectures:** MTWRF 9:30 - 11:20 Rm. 309 Rockefeller Bldg.

**Labs:** MW 12:30-3:30 and TF 12:30-3:30 Rm. 403 Rockefeller Bldg.

**Grades:** 10% Homework  
10% Quizzes  
10% Exam I  
10% Exam II  
10% Exam III  
25% Final  
25% Laboratory

**Homework:** There will be homework assigned on a daily basis. Each problem is worth 2 points. Each problem will be graded according to the following scheme: 0 points for no work, 1 point for some effort, 2 points for complete success. Late homework will not be accepted. I encourage you to work through the assignments with others in the class, although each person must write up their own set of solutions to be graded. You must show work for each problem. If you offer nothing but a numerical answer you may not receive any credit for the problem.

The homework problems are assigned from the "Problems" section in the textbook.

You will also be expected to read the chapters in the textbook. Due to the condensed nature of the course, I will have to rely on your effort in keeping up with the material. Use your time wisely; you cannot afford to fall behind!!!!

**Quizzes:** There will be daily quizzes. The 3 lowest quiz grades will be dropped for the final quiz grade. Each quiz problem is worth 5 points. The reason for having so many quizzes is twofold: it gives you a taste of what the exam problems will be like, and I will be able to assess your level of understanding of the material.

**Exams:** The three exams will be held during the regular class period. You will need a scientific calculator for each exam (and quiz). The exams are

closed notes and closed book, however, I will provide you with a formula sheet for each exam.

**Labs:** Your laboratory performance accounts for 25% of your physics grade. Physics is a heavily experimental field, so it is important that you do some hands-on work to earn class credit.

Students must purchase from the bookstore and bring to every lab meeting:

- a) the Introductory Physics Lab Manual for Mechanics
- b) a Roaring Spring Notebook #77-644
- c) a scientific calculator
- d) a pen

The manual and notebook can be purchased at the bookstore.

**Academic Integrity:** Please read and be familiar with the Case academic integrity policies (<http://studentaffairs.case.edu/office/integrity/policy.html>) During all quizzes and exams, I expect you to leave at least one seat between you and the person sitting next to you. If you do not sit in the front row, you should sit behind another student, forming neat columns. I may move you around during a quiz or exam. Please do not get offended if I ask you to move. It may be that I am trying to prevent somebody from copying from you.

### **Tentative Schedule**

- 7/7 Chapter 18: Electric Forces and Electric Fields
- 7/8 Chapter 19: Electric Potential Energy and Electric Potential
- 7/9 Chapter 20: Electric Circuits
- 7/10 Chapter 20: Electric Circuits
- 7/11 Chapter 21: Magnetic Forces and Magnetic Fields
  
- 7/14 **Exam I**
- 7/15 Chapter 21: Magnetic Forces and Magnetic Fields
- 7/16 Chapter 22: Electromagnetic Induction
- 7/17 Chapter 22: Electromagnetic Induction
- 7/19 Chapter 23 Alternating Current Circuits
  
- 7/21 **Exam II**
- 7/22 Chapter 24: Electromagnetic Waves
- 7/23 Chapter 25: Mirrors
- 7/24 Chapter 26: Lenses and Optical Instruments
- 7/25 Chapter 27: Interference and the Wave Nature of Light
  
- 7/28 **Exam III**
- 7/29 Chapter 28: Special Relativity
- 7/30 Chapter 29: Particles and Waves
- 7/31 Review
- 8/1 **Final**

HW1 (due 7/8): Ch18 – 5,9,13,17,29,33,37,46,52  
HW2 (due 7/9): Ch19 – 5,9,16,23,29,30,31,36,37,43,46  
HW3 (due 7/10): Ch20 – 7,11,23,36,43,55,63,  
HW4 (due 7/11): Ch20 – 73,75,77,78,79,87,95,97,99  
HW5 (due 7/14): Ch21 – 1,9,11,17,21,29,33,41  
HW6 (due 7/16): Ch21 – 34,50,53,57,58,61,62,63  
HW7 (due 7/17): Ch22 – 7,8,13,14,17,18,19,20,22,23  
HW8 (due 7/18): Ch22 – 28,29,32,34,37,45,51,53,54,57,59  
HW9 (due 7/21): Ch23 – 3,6,9,13,17,21,29,31  
HW10(due 7/23): Ch24 – 10,15,19,29,36  
HW11(due 7/24): Ch25 – 4,10,11,15,17,23,24,26  
HW12(due 7/25): Ch26 – 11,16,29,31,41,45,49,55,61,63,67,73,77  
HW13(due 7/28): Ch27 – 5,7,9,10,15,17, 19,25,31,37,39  
HW14(due 7/30): Ch28 – 3,5,11,13,17,23,31,33  
HW15(due 7/31): Ch29 – 3,5,16,17,25,31,35

## Miscellaneous Policies

I have to create a learning environment that is fair and uniform for the entire (very large) summer class. Therefore, I have to be strict at enforcing the course policies, especially when they have to do with timing.

### Homework

- late homework will not be accepted under any circumstances
- homework that looks very similar to another students', to homework solutions posted online in previous years, or to problems in solutions manuals will be investigated and possibly reported for academic integrity violation.

### Quizzes

- quizzes will be given at the beginning of each lecture. If you are not in class when the quizzes have been handed out, you won't be allowed to take the quiz.
- since quizzes are given during the regular lecture, I will not have the luxury to give students with documented learning disabilities extra time in which to complete the quiz.

### Grading

- grading of homework, quizzes, and tests will be done by one or more grad student TAs. In case you find discrepancies in your grading, you will have to contact the grader directly.
- both you and the grad student TA has to contact me by email in case of a grade change