## Physics 10310 Course Information -Fall 2010

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## **Course Description**

Materials: The textbook is *Physics for Scientists and Engineers*, 5th edition, by Paul A. Tipler and Gene Mosca, published by Freeman and Worth, Inc. and available as 1 soft-bound volume. You will also need any scientific calculator. The web page for this course will be updated regularly (see http://www.nd.edu/~losecco/phys10310) with new information and resources. Please plan to check this regularly for announcements. This course also has a Concourse course site, on which you will be able to check your grades, and where we will mirror any announcements made to the course web page. This can be found at <a href="http://concourse.nd.edu">http://concourse.nd.edu</a>, and there is also a link from the 10310 home page.

**Laboratory:** All students in Physics 10310 must also be registered in PHY11310 (laboratory) unless repeating the course. All students report the first week at your scheduled time to Jordan Hall 213 for assignment to groups. Each group meets on alternate weeks through the semester. An unexcused absence from the laboratory normally results in an automatic zero for that day's experiment.

**Exams:** Three "hour-exams" of 75 minutes each and a final exam of 2 hours are scheduled as shown on the semester schedule for the course. The three hour-exams formally begin at 8:00 am, but the doors will be opened and the exams may be started at about 7:45. The exams are scattered around campus, so we will keep you posted on their locations. Set two alarm clocks to be sure you do not oversleep! The final exam will begin at the official starting time given by the University (8:00am).

Exams are closed book. During exams you may have only calculators, pens, and pencils on your desk. Honesty is expected and under the honor system the primary responsibility for regulation lies with the students. Any student who will be unavoidably absent from an exam must obtain permission in advance to make up the exam at a later date. Travel plans are not a legitimate excuse for missing an exam. If you are ill on the morning of the exam, e-mail or call your professor as soon as possible and get an excuse from the infirmary.

The "hour-exams" are on September 16, October 7 and November 11. The "hour-exams" are all scheduled for room 101 DeBartolo Hall. The final exam is on December 15.

**Reading Assignments:** The relevant sections of the textbook should be read before coming to each class. The number of pages will be small, but preparing in advance for the class is crucial to the success of this course. Reading quizzes will be instated if pre-class preparation is not sufficient.

**Homework problems:** The text contains numerous excellent problems. Working them will greatly enhance your understanding of the material, your ability to use it in later courses, and your performance in this course. WebAssign (www.webassign.net) contains a list of required and suggested problems for the current chapters. The required problems, which are chosen to emphasize some of the important parts of each chapter, must be done on WebAssign by the due date and time. The online problems

are taken from the textbook.

Other suggested problems should not be handed in, but be advised that, for the "Suggested" problems, we have tried to choose "conceptual" problems that ask probing questions about the material, and "cumulative" problems that integrate material from previous chapters, ie, good conceptual and exam questions. Unexcused late problem sets will normally not be accepted. Solutions are posted on the web page after the due date, and you are strongly encouraged to check your solutions against those posted. While you are encouraged to discuss the problems with your classmates, you are expected to do them by yourself. Online problems are randomized. It is unlikely you will get the

same numeric result as your friends. The Honor Code will be applied to these problem sets as follows: *you must spend at least 20 minutes on each problem* before seeking help from another person. Since that other person or persons will not be there to help you on the exams, it is in your best interest to attempt each problem and grapple with the concepts yourself before asking for help.

**Discussion Sections:** Hour-long recitation sections are scheduled for Tuesdays every week. Attendance at these sections is required! The discussion sections will include time for questions about the material, but their primary focus will be group problem-solving exercises. Groups of 4 or 5 students will work together to solve unfamiliar problems based on that week's material, and each group will be graded on their work. These discussion sections are designed to help you understand the material and to think hard about the concepts you are learning.

**Semester Grade:** The numerical grade is calculated at the end of the semester using the following approximate weighting: exams 40%, homework 15%, laboratory grade 15%, Discussion Sections 10%, final exam 20%. The letter grade scale will be based on the performance of the class as a whole. You will be able to track your grades on the Concourse web page.