Instructor: Edmund Nowak / nowak@udel.edu / 228 Sharp Lab / 831-2676
Office hours: T: 9:30 – 10:30am, F: 1:30 – 2:30pm, and by appointment.
Department office: 223 SHL / x2661

Lecture: M W F / 12:20pm – 1:10pm / Room 103 Gore Hall / Sections 010

Discussion & Laboratory: See registration booklet for days and times your section meets.

Teaching Assistants:
- Discussion: Sections 20 and 22 / 109 SHL // Wenhong Shu / wshu@udel.edu / 128 SHL / x4264
  Sections 21 and 23 / 109 SHL // Rizwan Khalid / rizwan@udel.edu / 012B SHL / x3254
- Labs: Sections 20 - 24 / 101B SHL // Xin Fan / fanxin@udel.edu / 128 SHL / x4264
  Lab Coordinator: David Johnson / 020A SHL / x1240

Course Description:
This course offers a calculus-based introduction to physics, with primary emphasis on electricity and magnetism. The concepts of electric and magnetic fields are introduced and applied to the statics and dynamics of charge particles in free space and in circuits. Course concludes with electromagnetic fields and waves, and an introduction to special relativity. The course integrates conceptual understanding with extensive problem solving and laboratory experience.

Credit hours: 4 hrs
Course Prereq: PHYS 207, MATH 242 is a co-requisite.

Course Objectives:
- To be able to quantitatively describe statics and dynamics of charged particles in the presence of electric and magnetic fields.
- Understanding and application of the basic concepts of AC and DC circuits.
- Understanding how to describe time varying electromagnetic fields and waves and their properties.
- Develop problem solving skills and improve mathematical competence.
- Build a general awareness of how the principles of electricity and magnetism apply to real-world events.
- To actively explore these principles through laboratory experiments.

Course Topics:
- Electric charges and forces
- Electric field and potential
- Fundamentals of AC and DC circuits
- Magnetic field
- Electromagnetic induction
- Maxwell equations
- Introduction to Special Relativity

Text Books:
- Phys 208 Laboratory Manual (www.physics.udel.edu/~nowak/phys208/)

Revised March 5, 2007
Grading Procedures

Your course grade will be determined by the following components:

- 20% Activities in the lab
- 13% Homework
- 13% Quizzes
- 18% on each of the 3 exams

Exam Dates: Fridays, March 16, April 27, plus a cumulative final TBA

A tentative grading scale is:
A > 90, A- > 87, B+ > 84, B > 80, B- > 77, C+ > 74, C > 70, C- > 67, D+ > 64, D > 60, D- > 57, and F < 57.

Course Policies

- Homework must be submitted at the BEGINNING of lecture on Wednesdays. NO late submissions.
- Each homework problem is worth 10 points. For each homework assignment, four problems will be chosen at random and will be graded. The remaining problems will receive either zero or ten points based on whether your work was satisfactory and represented a genuine attempt at solving the problem.
- All quizzes and exams will be based largely on concepts showing up in homework problems.
- Quizzes at the end of each Discussion section, no quiz during week FOLLOWING an exam.
- All lab scores will be used in calculating your lab grade. No lab scores will be dropped. You must complete a MINIMUM of 8 labs to pass this course.
- Lab TA will provide requirements and guidelines for laboratory reports
- Make-up exams, quizzes, and labs will be given only for excused absences consistent with University policies.
- Discretionary adjustments will be made to account for variations among DSC quizzes.
- Please give me your attention during lecture.
- I will do my best to start and end lecture on time.

Advice

The payoff for doing homework is a better understanding of the physics, improved problem solving skills and, consequently, higher quiz and examination scores. I HIGHLY recommend that you do all the homework and any supplementary problems.

Student Conduct

All students must be honest and forthright in their academic studies. Please see Rules and Responsibilities at University of Delaware for descriptions of what constitutes plagiarism, cheating, and academic misconduct. Students are also expected to abide by the Policy for Responsible Computing.

Important dates

Feb. 7 - 9: No labs or discussion sections.
Feb. 12 -16: Lab sections begin meeting; also 1st homework due on Wednesday 12:01am and 1st quiz in DSC
Feb. 16: Last day to register or to add/drop courses without $$$ penalty

March 16: Friday, 1st exam
Mar. 26 – Mar. 30: Spring Break
April 2: Classes Resume
April 9: Last day to change registration or withdraw without academic penalty

April 27: Friday, 2nd exam
May 16: Last class day

Revised March 5, 2007