

Physics 212 Section 1

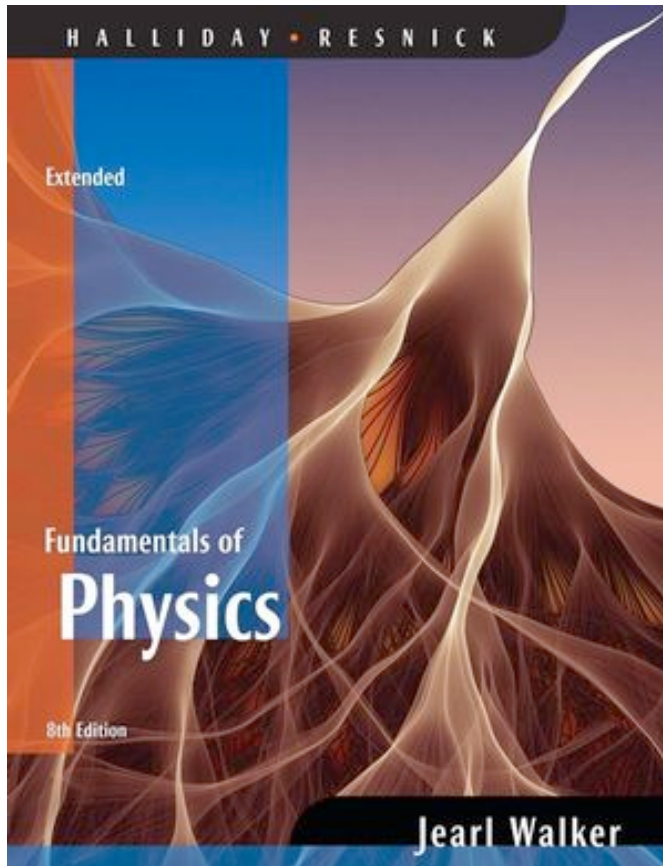
Rob Kroeger x7921 E-Mail kroeger@phy.olemiss.edu

Class Time: 2:00 – 2:50 M, W, F Lewis 101

Office Hours: 11:00 A.M. - 11:50 Mon., Wed., Fri.

Location of my office: Lewis 206

Textbook: Fundamentals of Physics by Halliday, Resnick and Walker 7th Edition



You **must** also register for **Physics 222** unless you have specific permission to do otherwise, or have previously taken Physics 222.

Content of the Course:

By the end of the term the student should have a working knowledge of the following concepts, addressed in the specified chapters of the textbook:

Chapter 21:	Electric Charge
Chapter 22:	Electric Field
Chapter 23:	Gauss' Law
Chapter 24:	Electric Potential/Voltage
Chapter 25:	Capacitance and Dielectrics
Chapter 26:	Current and Resistance
Chapter 27:	DC Circuits
Chapter 28:	Magnetic Fields
Chapter 29:	Biot Savart Law and Ampere's Law
Chapter 30:	Faraday's Law/ Lenz's Law
Chapter 31:	Oscillations and AC Circuits
Chapter 32:	Maxwell's Equations
Chapter 33:	Electromagnetic Waves
Chapter 34:	Light and Geometric Optics
Chapter 35:	Interference
Chapter 36:	Diffraction

Learning Objectives

After completing this course, the student should understand the role of fields and potentials in the solving of problems in electromagnetism. The student will know how apply these concepts through the analytical tools of calculus, vector algebra, and trigonometry to solve physical problems. These skills will be acquired through the lecture, reading of the assigned textbook, and through working the assigned homework problems. The course should enhance the student's capacity for analytical reasoning and problem solving.

Course Credit and Grading Scale

Nearly all of the course credit will be based on the student's demonstrated ability to solve physical problems in the realm of electro-magnetism through the tests and homework. A small fraction of the credit will be assigned through conceptual quizzes using the PRS clickers.

Breakdown of credit for the course:

15% Homework & Quizzes
60% 4 to 6 Tests
25% Final Exam

An overall course average of the following percentages will guarantee the corresponding letter grade:

90%	A
80%	B
70%	C
60%	D

Do Not ask to the final exam at a separate time from the class, except in case you have two other final exams on the same day. **Your final exam will be Wednesday May 7th at Noon. You must make your travel plans accordingly.**

Do Not ask to take any test at a separate time from the class. If any emergency arises on the day of a test, make sure you have documentation to support your request for a retake (e.g. a letter from the attending physician etc.) In general **I will not drop any test scores. Don't miss a test!**

A test is tentatively scheduled for Friday March 9th. Don't plan to leave for spring break prior to 2:50 PM.

Late homework won't be accepted, but you will have five dropped homework assignments in the course of the term. These are intended to cover all cases of lost or forgotten homework, brief absences, etc. If you joined the class late or in the case of extended absences (more than a week) we can make some adjustment. Problem sets must be turned in at the beginning of class on the day they are due. Please **don't slide homework under my office door**. Don't turn in homework with ragged edges (spiral paper). Don't use legal size paper or red ink. Please staple the pages together and don't fold them. Please **include the problem set number with your homework**.

IMPORTANT!! Please keep all tests and homework.

In the preparation of your homework, the use of **any** solution manual except the Students' Solution Manual (available from the bookstore) constitutes academic dishonesty. Any attempt to obtain, use, or circulate the Instructor's Solution Manual for this textbook (even if it is posted on a website) is specifically forbidden.

In the preparation of your homework, the use of any website (**like Cramster**) that has solutions to problems in Halliday and Resnick is forbidden, with the exception of the one associated with the text:

<http://www.wiley.com/college/halliday>

Allowing someone else to submit answers on the Personal Response System using your clicker is specifically forbidden, as is submitting answers on someone else's behalf.

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