

Course Outline

Course: Phys 214 General Physics II- Section 3

Instructor: Dr Alakabha Datta

Office: 121-B Lewis Hall

Meeting: M-W-F 12-12.50 pm at Lewis 101

Office Hours: M-W 11am-11.50 am or by appointment.

Email: datta@olemiss.edu, datta@phy.olemiss.edu

Phone: (662) 915-5611

Course Information: Check Blackboard.

NOTE: You should take the Lab Phys 224 along with this course if you have not passed it already.

Book



Physics Principles with Applications

Sixth Edition

by

Douglas C. Giancoli

University of California, Berkeley

SIXTH EDITION
PHYSICS
GIANCOLI

Course Goals and Learning Outcome: After completing the course you will know the basic laws of physics and its application to various sciences, especially life sciences and to everyday life. You will also learn to analyze problems logically and systematically. This is the second part of the General Physics program- the first part having being covered in Physics 213. In the second part we will mainly discuss electromagnetic phenomena including waves, optics and certain aspects of modern physics.

Marking:

Homework: 30 %

Homework: I will assign weekly homework that has to be turned in one week. No late homework will be accepted after the due date. Please write your name in block letters and include the problem set number with your homework. You can get help to do your homework (including help from the internet) but turn in your own work. Do not copy from someone. You are not authorized to use the Instructor's Solution Manual. There is a tutoring room available for help with your homework.

Homework solutions will be emailed to all students and will be posted on Blackboard.

Tests: 45%

There will be 3 tests each worth 15% and will roughly given at intervals of a month. Each test will cover one class period (50 mins). The dates will be announced later but you will be notified in advance of the test date and the topics included in the test. One of the tests will be given and graded before the last day to drop the course.

Final Exam: 25%

The final exam will be based on chapters covered after the last test though you will be required to use material and concepts covered in earlier chapters not included in the final exam. The exam will be at most 2 hours.

Time of Final Exam: Thursday May 7, 2007 at noon (See Class Schedule)

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

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

The grading policy will/ may change and will be finalized after the first test.

Topics Covered in course: Topics will be taken from the following chapter. Click on the chapter link to access useful information.

- [Chapter 15: The Laws of Thermodynamics](#)
- [Chapter 16: Electric Charge and Electric Field](#)
- [Chapter 17: Electric Potential and Electric Energy; Capacitance](#)
- [Chapter 18: Electric Currents](#)
- [Chapter 19: DC Circuits](#)
- [Chapter 20: Magnetism](#)
- [Chapter 21: Electromagnetic Induction and Faraday's Law; AC Circuits](#)
- [Chapter 22: Electromagnetic Waves](#)
- [Chapter 23: Light: Geometric Optics](#)
- [Chapter 24: The Wave Nature of Light](#)
- [Chapter 25: Optical Instruments](#)
- [Chapter 26: Special Theory of Relativity](#)
- [Chapter 27: Early Quantum Theory and Models of the Atom](#)
- [Chapter 28: Quantum Mechanics of Atoms](#)

[Chapter 14: Waves and Sound](#)

[Chapter 15: Wave Optics](#)

[Chapter 16: The Geometry of Wave Paths and Image Formation \(Geometric Optics\)](#)

[Chapter 17: Lenses and Optical Instruments](#)

[Section IV: ELECTRICITY AND MAGNETISM](#)

[Chapter 18: Electrical Phenomena: Forces, Charges, Currents](#)

[Chapter 19: Electric Field and Electric Potential: Extending the Conceptual Framework](#)

[Chapter 20: Quantitative Treatment of Current and Circuit Elements](#)

[Chapter 21: Direct Currents and Circuit Reasoning](#)

[Chapter 22: Magnetism and Magnetic Fields](#)

[Chapter 23: Electromagnetic Induction](#)

[Section V: PHYSICS IN THE TWENTIETH CENTURY](#)

[Chapter 24: As the Twentieth Century Opens: The Unanswered Questions](#)

[Chapter 25: Relativity](#)

[Chapter 26: Inroads into the Micro-Universe of Atoms](#)

[Chapter 27: The Concept of Quantization](#)

[Chapter 28: The Nucleus and Energy Technologies](#)

Attendance: There is no attendance requirement. However if you miss an exam or cannot turn in HW on time because of illness I will require a doctor' note. If you will away on other reasons inform me prior to your absence and get a note if applicable.

Academic Integrity: We will follow the University's policy of academic integrity (M-book). Violations of these policies will result in a failing grade and other disciplinary actions.