

Course Outline

Course: Physics for Science and Engineering I

Instructor: Dr Alakabha Datta

Office: 121-B Lewis Hall

Meeting: Tues 11 am- 12.15 pm at Lewis 101

Thurs 11 am-12.15 pm at Lewis 101

Office Hours: Tues and Thursdays 10am-10.50 am or by appointment.

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Phone: (662) 915-5611

Course Information: check Blackboard.

NOTE: You should take the Lab Phys 221 along with this course if you have not already passed it.

Book



Fundamentals of Physics, 7th Edition

David Halliday, Univ. of Pittsburgh

Robert Resnick, Rensselaer Polytechnic Institute

Jearl Walker, Cleveland State Univ.

ISBN: 0-471-21643-7

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1136 pages

Student Site:

<http://bcs.wiley.com/he-bcs/Books?action=index&bcsId=2037&itemId=0471216437>

Course Goals: Learning the basic laws of physics concerning particle motion and wave phenomena and its application to various engineering sciences and to everyday life. You will also learn to analyze problems logically and systematically.

Marking:

Homework: 40 %

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 but turn in your own work. Do not copy some from someone. 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: 30%

There will be 3 tests each worth 10% and will roughly given at intervals of a month. Each test will cover one class period (75 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: 30%

Monday 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.

Table of contents

[Chapter 1: Measurement](#)

[Chapter 2: Motion Along a Straight Line](#)

[Chapter 3: Vectors](#)

[Chapter 4: Motion in Two and Three Dimensions](#)

[Chapter 5: Force and Motion I](#)

[Chapter 6: Force and Motion II](#)

[Chapter 7: Kinetic Energy and Work](#)

[Chapter 8: Potential Energy and Conservation of Energy](#)

[Chapter 9: Center of Mass and Linear Momentum](#)

[Chapter 10: Rotation](#)

[Chapter 11: Rolling Torque, and Angular Momentum](#)

[Chapter 12: Equilibrium and Elasticity](#)

[Chapter 13: Gravitation](#)

[Chapter 14: Fluids](#)

[Chapter 15: Oscillations](#)

[Chapter 16: Waves I](#)

[Chapter 17: Waves II](#)

[Chapter 18: Temperature, Heat, and the First Law of Thermodynamics](#)

[Chapter 19: The Kinetic Theory of Gases](#)

[Chapter 20: Entropy and the Second Law of Thermodynamics](#)

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.