Course Outline

Course: Phys 213 General Physics I- Section 3 Instructor: Dr Alakabha Datta Office: 121-B Lewis Hall Meeting: M-W-F 12-12.50 pm at Lewis 109 Office Hours: M-W 11am-11.50 am or by appointment. Email:datta@olemiss.edu, datta@phy.olemiss.edu Phone: (662) 915-5611 Course homepage: http://www.phy.olemiss.edu/~datta/213.html Also check Blackboard.

NOTE: You should take the Lab Phys 223 along with this course if you have not passed it already.

Book



Introductory Physics, Building Understanding Version 1.1 Jerold Touger, Curry College ISBN: 0-471-94000-3 ©2006 875 pages

Student Site: <u>http://bcs.wiley.com/he-</u> <u>bcs/Books?action=index&itemId=0471940003&bcsId=3008</u>

Has solutions to odd problems, web resources etc.

Course Goals: Learning 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.

Marking:

Homework: 30 %

Homework: I will assign weekly homework that has to be turned in one week. There is a 25% penalty for late HW submission. No homework will be accepted three days after the due date. Please write your name in block letters and include the problem set number with your homework .

Midterm Exam: 25%

Midterm will be given over two classes. Dates will be announced later.

Final Exam: 45%

Wed Dec 4, 2006 at noon (See Class Schedule)

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

90%	А
80%	В
70%	С
60%	D

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

Table of contents

Section I: MECHANICS
Chapter 1: Physics, Mathematics, and the Real World
Chapter 2: Describing Motion in One Dimension
Chapter 3: Constructing Two-Dimensional Motion from One-
Dimensional Motions
Chapter 4: Interactions and Newton's Laws of Motion
Chapter 5: Behavior of Objects Subjected to Multiple Forces
Chapter 6: Keeping Book on Physical Systems: The Concept of
Energy
Chapter 7: More Bookkeeping: The Concept of Momentum
Chapter 8: Circular Motion and Central Forces
Section II: Physics of EXTENDED RIGID OBJECTS AND
FLUIDS
Chapter 9: Rotational Kinematics and Dynamics and the Power
of Analogy
Chapter 10: Fluids
Chapter 11: Thermal properties of Matter
Chapter 12: Entropy, Thermodynamics, and the Kinetic Theory
<u>of Gases</u>
Section III: VIBRATIONS AND WAVE PHENOMENA
Chapter 13: Periodic Motion and Simple Harmonic Oscillators