PHYSICS 107 – FALL 1997 – SYLLABUS

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Office Hours: 1:30-3:00 Wed, 11:00-12:00 Thu, or phone for appointment

Text: *Physics for Poets*, R. March, 4th Ed., McGraw-Hill

Lectures will follow (approximately) the following schedule:

Chapter	*Date begun*	*Chapter*	*Date begun*	*Chapter*	*Date begun*
1	Sep 3	8	Oct 8	15	Nov 12
2	Sep 10	9	Oct 13	16	Nov 19
3	Sep 15	10	Oct 17	17	Nov 24
4	Sep 19	11	Oct 24	18	Dec 1
5	Sep 24	12	Oct 27	19	Dec 5
6	Sep 29	13	Nov 3		
7	Oct 6	14	Nov 7		

Exams will include:

(1) Two exams in lecture *October 10* and *November 14*;

(2) A two-hour final on *Thursday, December 18* at *2:45 pm*, location to be announced. It will have two parts, one cumulative and the other on the last part of the course.

You may bring *three sheets of notes* to the hour exams and *six sheets* to the final. A study guide will be handed out one week before each exam, describing the exam in detail so that you may focus your study on the topics to be covered.

Grading in this course is *performance weighted*: your best exam grade counts the most, your poorest the least. Counting the two parts of the final as separate scores, the weights are 40%, 25%, 15%, 10%. The remaining 10% is based on three problem sets (see next page).

Discussion Sections are optional, and you may attend the one you find most convenient. They are primarily intended to help you with the quantitative aspects of the course, but questions raised by the readings or lectures may also be discussed.

Questions sent by email will be answered reasonably promptly.

PROBLEM SETS

Problem sets will be graded in a way that gives nearly full credit for a serious effort, even if it leads to a wrong answer. Your grade will be based on the best 25 out of the 30 problems assigned.

Problem Set 1, due October 3
- Chapter 1, Exercises 2, 3, 9
- Chapter 2, Exercises 2, 4, 7, 8, 9
- Chapter 3, Exercises 2, 7, 11
- Chapter 4, Exercises 1, 3
- Chapter 5, Exercise 3

Problem Set 2, due November 7
- Chapter 7, Exercises 1, 3, 5
- Chapter 8, Exercises 2, 3, 4
- Chapter 10, Exercises 2, 3, 5
- Chapter 11, Exercises 4, 5
- Chapter 12, Exercise 3

Problem Set 3, due December 5
- Chapter 15, Exercises 2, 4, 5
- Chapter 16, Exercise 4
- Chapter 17, Exercise 1

SOME UNITS, CONSTANTS, AND SYMBOLS

Quantity	*Symbol*	*Value*
speed of light:	**c**	3×10^8 m/s = 300,000 Km/s = 1 ft/nsec
electron-volt:	**eV**	1.6×10^{-19} joules
Planck constant	**h**	4.15×10^{-15} eV-seconds

PREFIXES FOR UNITS

prefix	*symbol*	*multiplier*	*prefix*	*symbol*	*multiplier*
kilo	K	10^3 (thousand)	milli	m	10^{-3} (thousandth)
mega	M	10^6 (million)	micro	μ	10^{-6} (millionth)
giga	G	10^9 (billion)	nano	n	10^{-9} (billionth)
tera	T	10^{12} (trillion)	pico	p	10^{-12} (trillionth)
peta	P	10^{15} (quadrillion)	femto	f	10^{-15} (quadrillionth)