

# Fundamental Physics II PH242, Spring 2009

## Syllabus

Instructor: Dr. Stephen Weppner  
 Text: **Physics for Scientists and Engineers**, 4th edition; by Douglas C. Giancoli  
 Moodle: <http://academics.eckerd.edu/moodle>  
 Wiki-page: <http://academics.eckerd.edu/facultywiki>  
 Ubiquitous Presenter: <http://academics.eckerd.edu/up>  
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 Office Hours: MWF 10:45-12:00, M 1:30-5:00, TTh 9:00-11:00 and by appointment.  
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Week of:	Chapter	Contents
Jan 28	17	Temperature, Thermal Expansion and Gas Laws
Feb. 2	18/19	Heat and Thermal Energy
Feb. 9	20	Thermodynamics cont.
Feb. 16	21	Test (Ch 17-20), Electric Charge
Feb. 23	22/23	Gauss' Law and Electric Potential
Mar. 2	23/24	Capacitance
Mar. 9	25/26	Current and Circuits
Mar. 16	–	<i>Spring Break</i>
Mar. 25	26	Circuits cont.
Mar. 30	27	Test (Ch 21-26), Magnetism
Apr. 6	28	Magnetism cont.
Apr. 13	29	Induction and Faradays Law
Apr. 20	32	Test (Ch 27-29), Maxwell's Equations
Apr. 27	33	Lens
May 4	34	Optical Instruments

Grading Chart	%
EXAM 1 (Wed, Feb. 18th)	12%
EXAM 2 (Wed., Apr. 1st)	12%
EXAM 3 (Fri., Apr. 24th)	12%
FINAL [comprehensive]	22%
6 quizzes (given during lab)	18%
Problem assignments	14%
Laboratory	10%

## Notes for Fundamental Physics - PHN 242

- Grades will be as follows:

93%-100% → A

90%-93% → A-

87%-90% → B+

83%-87% → B

80%-83% → B-

77%-80% → C+

73%-77% → C

70%-73% → C-

65%-70% → D

0%-65% → F

- The course objective is to gain an understanding of fundamental physics principles of thermal and electrical systems. To understand in a quantitative fashion the physical laws which describe our observations of the world around us. Most of the physics to be studied this semester was first discovered in the 19th century.
- Eckerd College has a very strict policy on academic dishonesty. Anyone found plagiarizing on an exam or a lab report will receive an F in the course. You are required to affirm that all work you do is in accordance with the Eckerd College Honor Code by writing 'Pledged' on all assignments.

The honor code reads as: **On my honor, as an Eckerd College student, I pledge not to lie, cheat, or steal, nor to tolerate those behaviors in others.**

Working together on homework assignments is encouraged.

- Up to 20 points of extra credit can be earned on each quiz by helping to contribute to the Physics Wiki page which will be used by the class on the tests (top quiz grade can be 110 points).
- Bring a pencil and calculator to exams. Make-up exams will be arranged only for pre-approved valid reasons. For each exam you will also be allowed to bring one half sheet of paper with handwritten formulas and your Physics Wiki pages
- At various times throughout the semester, at least 6 quizzes will be given. These quizzes will be one problem that will last approximately twenty minutes.
- The laboratory grade will be based on attendance, write-ups, and lab assignments. All missed laboratories must be made up otherwise it will result in a failing grade for the course.
- The last day to withdraw from class is Friday, April 9th, 2009.
- Solutions to the problems, quizzes and tests will be on the intranet, all can be found in *Moodle*.

**Assignments for PH 242**  
**Jan. 28th - Feb. 18th 2009**

The problem assignments are due on Feb. 4th (including Feb. 2nd) and Feb. 13th.

Day	Reading Assignment	Problems
Jan. 28	Chap. 17.1-4	17:5,11,15,21
Jan. 30	Chap. 17.6-9	17:31,39,46,54
Feb. 2*	Chap. 18.1-3	18:7,14,24
Feb. 4	Chap. 19.1-4	19:5,9,15
Feb. 6	Chap. 19.5-6	19:18,22,27
Feb 9	Chap. 19.7-9	19:31,34,38,51
Feb. 11	Chap. 20.1-4	20:6,8,12,24,26
Feb. 13*	Chap. 20.5-8	20:32,39,47
Feb. 16	Review	—
Feb. 18	—	TEST 1