

PHYSICS 112 COURSE SYLLABUS

Course Information

Fundamentals of Physics - II Spring Semester, 2008
Meeting Time: MWF 10:00-10:50am Meeting Place: FJA
Course Folder: \\Fileserver1\acad_dept_pgm\Physics\Banerjee_Shubho\Public\Physics112
Instructor: Shubho Banerjee
Office: 219 RT Phone: X3585
Office Hours: By announcement.

Course Objectives

To provide a solid foundation in the fundamentals of classical physics, and an intuition for physical phenomena.

Text

Physics for Scientists and Engineers, 7th Edition, Brooks/Cole, ISBN: 0-495-01312-9

Course Requirements

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| 1. Three tests as scheduled on course calendar | 45% |
| 2. Homework as scheduled on course calendar | 25% |
| 3. Final exam | 30% |

Grading Procedures

- All graded work will be assigned a numerical score. You may estimate the corresponding letter grade by computing a percentage score and comparing it with the table below:

$$\text{Percentage Score} = (\text{Your Score} / \text{Total Possible}) * 100$$

Percentage Score	Letter Grade	Percentage Score	Letter Grade	Percentage Score	Letter Grade
95-100	A	80-82	B-	67-69	D+
90-94	A-	77-79	C+	63-66	D
87-89	B+	73-76	C	60-63	D-
83-86	B	70-72	C-	Below 60	F

- No late homework assignments will be accepted without approval from the instructor.
- Make-up exams may be arranged on the condition that the student receives approval from the instructor *before* missing an exam.
- The conditions of the Honor Code described in the Rhodes College Student Hand Book apply to all assignments in this course unless otherwise specified by the instructor. You cannot use solutions of any form to solve the problems. You can work with other students if you like but when you put down an answer you must understand how to do the problem. You must keep a written record of your work.

Course Calendar

Date	Subject	HW Due
Wed. Jan. 9	Temperature and Thermal Expansion	
Fri. Jan. 11	Ideal Gas Law and Kinetic Theory	
Mon. Jan. 14	Thermal Energy	
Wed. Jan. 16	Change of State	Ch. 19+21
Fri. Jan. 18	Transfer of Thermal Energy	
Mon. Jan. 21	MLK Observance	
Wed. Jan. 23	Charge	Ch. 20
Fri. Jan. 25	Electric Force	
Mon. Jan. 28	Electric Field	
Wed. Jan. 30	Gauss' Law	
Fri. Feb. 1	Review	Ch. 23+24
Mon. Feb. 4	Test 1	
Wed. Feb. 6	Electric Potential Energy	
Fri. Feb. 8	Electric Potential	
Mon. Feb. 11	Capacitance	
Wed. Feb. 13	Current and Resistance	Ch. 25+26
Fri. Feb. 15	Voltage and Energy	
Mon. Feb. 18	Power	
Wed. Feb. 20	Circuit Principles	Ch. 27
Fri. Feb. 22	Network Analysis	
Mon. Feb. 25	Magnetic Field	Ch. 28
Wed. Feb. 27	Biot Savart's law, Ampere's law	
Fri. Feb. 29	Electrodynamics	
Mon. Mar. 3	Spring Recess	
Wed. Mar. 5	Spring Recess	
Fri. Mar. 7	Spring Recess	
Mon. Mar. 10	Magnetic Force	
Wed. Mar. 12	Review	Ch. 29+30
Fri. Mar. 14	Test 2	
Mon. Mar. 17	Induced EMF	
Wed. Mar. 19	Generators	
Fri. Mar. 21	Easter Recess	
Mon. Mar. 24	EM Waves	Ch. 31
Wed. Mar. 26	Production of EM Waves	
Fri. Mar. 28	Scattering and Reflection	Ch. 34
Mon. Mar. 31	Refraction	
Wed. Apr. 2	Mirrors	Ch. 35
Fri. Apr. 4	Ray Tracing	
Mon. Apr. 7	Image Equation	
Wed. Apr. 9	Lenses	
Fri. Apr. 11	Review	Ch. 36
Mon. Apr. 14	Test 3	
Wed. Apr. 16	Polarization	
Fri. Apr. 18	Interference	
Mon. Apr. 21	Diffraction	
Wed. Apr. 23	Review	Ch. 37+38
Fri. Apr. 25	URCAS 2008	
Wed. Apr. 30	Final Exam (1:00-2:30 pm)	