

Cañada College
Physics 405 MW 11:10 to 12:25 Rm 18-319
Fall 2008

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Office Hrs. MW12:30-1:30 Learning Center

Text *Radiologic Science for Technologists 8th ed., Stewart C. Bushong* (Text + Workbook)

Description:

Physics 405 is a one semester course designed to introduce you to the physical properties of x-rays and the basic concepts of physics. We will study how x-rays are created and how they interact with matter. We will also cover ideas of electricity and magnetism, motion, acceleration and energy.

A useful website: <http://science.howstuffworks.com/x-ray1.htm>

Math Requirements:

Simple algebra skills. Scientific notation! Prefixes. Exponents.

Exams: Three exams and a comprehensive final (equal weight).

Grading:

Best 3 Exams	(65%)
Quizzes	(5%)
Homework	(5%)
Papers	(25%)

A	90% to 100%
B	75% to 90%
C	60% to 75%
D	35% to 60%
F	Below 35%

Physics 405 content/schedule

Week	Chapter		Exams
1	1,2,...	Math Review + Basic Ideas	
2	1,2,...	Math Review + Basic Ideas	
3	1,2,...	Math Review + Basic Ideas	
4	3	Fundamentals of Physics	
5	3	Fundamentals of Physics	1
6	4	The Atom	
7	5	Electromagnetic Radiation	
8	6	Electricity & Magnetism	
9	7	Electromagnetism	
10	7	Electromagnetism	2
11	8	The X-ray imaging System	
12	9	The X-ray tube	
13	10	X-ray Production	
14	11	X-ray emission	
15	12	X-ray interaction with matter	
16	12	X-ray interaction with matter	3
17			Final