

Physics 31B General Physics

1. Course Description:

General Physics – Electricity & Magnetism Optics, and Modern Physics
Lecture 3 hours, Lab & Discussion 4 hours

Meets Physics prerequisites for:

- 1) Pre-med at UCLA, UCSD, UCI, CSUSB, and CSUN.
- 2) Architecture at Cal Poly Pomona
- 3) Civil Engineering at CSULA, CSUN, and Cal Poly Pomona
- 4) Electrical Engineering at CSULA, CSUN, and Cal Poly Pomona

2. Prerequisites:

Minimum grades of C in Math 5B and Physics 31A

3. Instructor:

Dr. Wai Min Liu
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Email

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Office

E310E

4. Text:

Eugene Hecht, Physics: Calculus (2nd Edition) (Volume II)

5. Objective:

- Understanding concepts and theorems
- Acquiring independent studying and problem solving skills

6. Grading:

Lab	200 pts
Homework	100 pts (each chapter HW 7 pts)
Midterm (2)	400 pts (200 pts each)
Final	300 pts
Total	1000 pts

7. Class Rules:

- No make up test or exam
- Each lecture absence deducts 10 points
- Each lab absence deducts 20 points
- Each tardy or early departure deduct 5 points
- Each talking or disturbing during lecture deducts 20 points

W. Liu 02/15/04

Physics 31 B lab schedule

WK #	~ Lab
1	Power, energy and heat
2	Gauss' Law
3	Electrical Circuits: with lamps
4	Voltage dividers
5	Electronics ad oscilloscopes
6	Circuits, Steady state and transient
7	$\mathbf{F} = q\mathbf{V} \times \mathbf{B}$
8	The index of refraction and Snell's Law
9	Lens, Ray, Image, and Aberrations
10	Mirrors
11	Thin Lenses
12	Optical Instrument
13	Interference and diffraction
14	Photoelectric effect and Plank's constant
15	Atomic spectra
Final wk	Half Life