

Electromagnetism and Optics

College of Creative Studies
University of California, Santa Barbara

This is the fifth of 6 courses in the CCS Physics sequence and is required for all CCS Physics majors. Topics to be covered include:

- Electromagnetic induction, inductance
- Magnetic properties of matter, fields in matter
- AC circuits, passive circuits, basic amplifiers
- Maxwell's equations and electromagnetic waves
- Light waves
- Mirrors and lenses
- Interference
- Diffraction
- Gratings and spectra
- Polarization

Prerequisites: PHYS CS 34 or consent of instructor

Lecture:

Time: Tues/Thurs 11:00am - 12:20pm

Place: BLDG 387, room 103

Instructor: Dr. Ilan Ben-Yaacov, ESB Room 3221D, ext 5295, ilan@engineering.ucsb.edu

Office Hours: Wednesday 9:30-11:30am in ESB 3221D

Problem Sessions:

Time / Place: Thurs 1:00 - 2:50 pm, BLDG 387 room 103

Thurs 3:00 - 4:50 pm, BLDG 387 room 103

Instructor: Doug Folsom, doug.folsom@gmail.com

Office Hours: Tuesday 1:15 - 3:15pm in CCS Faculty Office (behind CCS building)

Teaching Assistant: James Garrison, garrison@physics.ucsb.edu

TA office hours: Tuesday 6:00-8:00pm, CCS Room 145

Grader: Alex Troesch, atroesch@umail.ucsb.edu

Grader office hours: Wednesday 6:00-8:00pm, CCS Room 145

Required Texts: *Physics*, 5th edition, vol 2, by Halliday, Resnick, Krane, 2002, ISBN 0-471-40194-3
Electricity and Magnetism, 2nd edition, by Purcell, 1985, ISBN 0-07-004908-4

Class Web Page: <http://my.ece.ucsb.edu/PHYSCS35>