

Electromagnetism

College of Creative Studies
University of California, Santa Barbara

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

- Coulomb's Law, Gauss' Law, Electric Fields
- Electric Potential, Electric Field Energy
- Conductors and Dielectrics
- Capacitors, Resistors, and Diodes
- Electric currents and resistance
- DC circuit analysis, RC circuits
- Magnetic fields
- Ampere's Law, Biot-Savart Law

Prerequisites: PHYS CS 33 or consent of instructor

Lecture:

Time: Tues/Thurs 3:30 - 4:50 p.m.

Place: BLDG 387, room 103

Instructor: Dr. Ilan Ben-Yaacov, ESB Room 2213, ext 5295, ilan@engineering.ucsb.edu

Office Hours: Tuesday 1:15-3:15pm in ESB 2213

Problem Sessions:

Time / Place: Thurs 11:00am - 12:50 p.m., LSB 1101

Thurs 1:00 - 2:50 p.m., LSB 1101

Instructor: Sathya Guruswami, sathya.guruswami@ccs.ucsb.edu

Office Hours: Wed 10:30am-12:30pm in CCS Faculty Office (behind CCS building)

Teaching Assistant: Justin Lowrey, justin@lowreys.net

TA office hours: Tuesday 5:00-7:00pm, CCS Building

Grader: Ryan Hazelton, rhazelton@umail.ucsb.edu

Grader office hours: Wednesday 5:00-7:00pm, CCS Building

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/PHYSCS34_F2007