

MWF 10:30 am to 12:00 pm, Thimann Lecture Hall, Room 1.

Instructors: Professors Onuttom Narayan and Robert Johnson

Offices:

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Principal Textbook: [openstax University Physics Volume 2](#) (no cost online), Chapters 5 through 16. This online textbook is sufficient, but the optional traditional printed textbook below may be of interest to you, especially if you already own it, as it has been used for many years in the UCSC Physics 5 series.

Optional Textbook: *Physics for Scientists and Engineers*, 4th edition, by Douglas Giancoli, Chapters 21 through 31. Only Volume 2 of the multi-volume set is relevant. The Giancoli reading assignments below do not exactly match with OpenStax but are close.

Syllabus

	Dates	Topics	OpenStax	Giancoli	Lab
	June 20	Holiday			
1	June 22	Electric charge; Coulomb's law	5.1–5.3	21	
	June 24	Electric field, field lines, electric dipoles	5.4–5.7	21	
	June 27	Electric flux and Gauss' law; equilibrium	6.1–6.4	22	1
2	June 29	Electric potential and electric field	7.1–7.4	23	Electrostatics
	July 1	Equipotential surfaces; applications	7.5, 7.6	23	
	July 4	Holiday			2
3	July 6	Capacitors	8.1, 8.2	24	Surface
	July 8	Electrostatic energy; dielectrics	8.3–8.5	24	Charge
	July 11	Electric power, current, resistance, ohm's law	9.1–9.5	25	3
4	July 13	DC circuits, Kirchhoff's rules	10.1–10.4	26	DC Circuits
	July 15	Magnetic fields and currents. Magnetic force.	11.1–11.4	27	
	July 18	Midterm Exam			4
5	July 20	Lorentz force; magnetic dipoles; applications	11.5–11.7	27	Magnetic
	July 22	Magnetic fields from currents; Biot-Savart	12.1–12.3	28	Fields
	July 25	Solenoid; Ampere's law; Mag. Materials	12.4–12.7	28	5
6	July 27	Induced EMF; Faraday's law; Lenz's law	13.1–13.3	29	Electron
	July 29	Transformers; E-field from changing B	13.4–13.7	29	e/m
	August 1	Inductance and stored energy	14.1–14.3	30	6
7	August 3	RC, LR and LC circuits	10.5, 14.4-6	30	Induction
	August 5	Displacement current and Maxwell's equations	16.1	31	
	August 8	Maxwell's equations; E/M waves; light	16.2, 16.3	31	7
8	August 10	Poynting vector; radio and TV	16.4, 16.5	31	Circuit Step
	August 12	Final Exam 9:30 am to 12:30 pm			Response

Be sure the read all of the Canvas syllabus pages at the beginning of the term!