

8.02X Electricity and Magnetism

Course Outline

			Lecture Topic	Assignment	>Due	
February	2	Wed	Introduction: fundamental forces			
	4	Fri	Electric charge and e.s. induction	-Pset1 w/ MI		
	7	Mon	Coulomb's law			
	9	Wed	Electric field	-Pset2 w/ LVPS		
	11	Fri	Electric field and polarization		>Pset1+MI	
	14	Mon	Gauss' Law			
	16	Wed	E-field: Work, Energy, Potential (1/2)	-Pset 3 w/HVPS		
	18	Fri	Review for Quiz # 1		>Pset2+LVPS	
				7:30-9:30 Evening Review		
		22	Tue	(Monday schedule) QUIZ #1		
		23	Wed	E-field: Work, Energy, Potential (2/2)	-Pset4	
		25	Fri	Conductors and Insulators		>Pset3
	March	28	Mon	Capacitance		
		2	Wed	Capacitance (2/2), E-fields in matter	-Pset5 w/ EF	
4		Fri	E.S. Force Experiment		>Pset4+HVPS	
7		Mon	Electric current, Ohm's law			
9		Wed	Electric circuits	-Pset6 w/ VI		
11		Fri	Review for Quiz # 2			
				7:30-9:30 Evening Review		>Pset5+EF
		14	Mon	QUIZ #2		
		16	Wed	RC circuits	-Pset7 w/ EB	
		18	Fri	Ionization, Electrical Breakdown Exp		>Pset6+VI
	21-25		----- Spring Holiday -----			
April	28	Mon	Magnetic Field - Lorentz force			
	30.	Wed	Magnetic Field Sources; Biot-Savart's law	-Pset8 w/ MF		
	1	Fri	Magnetic Field - Ampere's law		>Pset7	
	4	Mon	Magnetic Fields in matter			

6 Wed Magnetic Induction - Faraday's law -Pset9
8 Fri Review for Quiz # 3 >Pset 8 + MF
7:30-9:30 Evening Review

11 Mon **QUIZ # 3**
13 Wed Magnetic Induction - Lenz's law, eddy currents -Pset10 w/AMP
15 Fri Inductance

18-19 ----- Patriots Day Vacation -----

20 Wed AC Circuits -Pset11 w/ MW
22 Fri RL Circuits >Pset10

25 Mon RLC Circuits
27 Wed Displacement Current and Maxwell's eqs.
29 Fri Electromagnetic waves -Pset12 >Pset11+AMP

May

2 Mon Review for Quiz #4
7:30-9:30 Evening Review
4 Wed **QUIZ #4**
6 Fri Polarization-Microwave experiment >Pset12
9 Mon Interference, diffraction, scattering (1/2)
11 Wed Interference, diffraction, scattering (2/2)
12 Thu last lab session >MW