

PHYS-272A-001 (T-R) (HONORS) Spring 2015---MORSE---DETAILED COURSE OUTLINE---version 2.0 (02/28/15)

<i>week</i>	<i>day</i>	<i>2014 Date</i>	<i>Lec #</i>	<i>Reading due</i>	<i>Lecture</i>	<i>Mastering Physics problem set assigned</i>	<i>HW due</i>
1	Tues	Jan 13	#1	21.1-4	Coulomb's Law, Electric Fields	#1 Chap 21: Electric Charge and Fields	
	Thur	Jan 15	#2	21.5-7	Fields, Dipoles		
2	Tues	Jan 20	#3	22.1-3	Electric Flux	#2 Chap 22: Gauss's Law, Electric Flux	#1
	Thur	Jan 22	#4	22.4-5	Gauss's Law		
3	Tues	Jan 27	#5	23.1-3	Electric Potential, Equi-Potentials	#3 Chap 23: Electric Potential, Gradients	#2
	Thur	Jan 29	#6	23.4-5	Fields and Potential Gradients		
4	Tues	Feb 03	#7	24.1-3	Capacitors, Energy Storage	#4 Chap 24: Capacitance, Dielectrics	#3
	Thur	Feb 05	#8	24.4-6	Dielectrics		
5	Tues	Feb 10	#9	25.1-3	Electric Currents, Resistance	#5 Chap 25: Currents and Resistance	#4
	Thur	Feb 12	#10	25.4-6	Conduction, Power	*** End of material for Exam-I, Lec 1-10, Chap 21-25, HW 1-5***	
6*	Tues	Feb 17	#11	26.1-5	Resistors, Kirchoff's Law, RC Circuits, Power	#6 Chap 26: DC Circuits, Kirchoff's Laws, Power	#5
	Thur	Feb 19	***	***	Exam-I	Lec 1-10, Chap 21-25, HW 1-5	
7	Tues	Feb 24	#12	27.1-4	Magnetic Fields, Magnetic Flux	#7 Chap 27: Magnetic Fields and Forces	#6
	Thur	Feb 26	#13	27.5-9	Flux Lines, Magnetic Forces, Torques		
8	Tues	Mar 03	#14	28.1-4	Currents, Sources of Magnetic Fields	#8 Chap 28: Currents, Sources of Magnetic Fields	#7
	Thur	Mar 05	#15	28.5-8	Currents Elements, Circuits, Ampere's Law		
9	Tues	Mar 10	#16	29.1-5	Induction, Faraday's Law	#9 Chap 28: Ampere's Law; Chap 29, Induction	#8
	Thur	Mar 12	#17	29.5-8	Maxwell's Equations		
10	Tues	Mar 17	#18	30.1-3	Inductance	#10 Chap 29: Maxwell's Eqns; Chap 30: Inductive Circuits	#9
	Thur	Mar 19	#19	30.4-6	RC, LC, RL, and RLC Circuits		
	Mon	Mar 23-27	***	***	SPRING BREAK Mar 23-27		
11	Tues	Mar 31	#20	31.1-3	AC Circuits, Phasors, complex numbers	#11 Chap 31: AC Circuits, Phasors, Power, Resonance	#10
	Thur	Apr 02	#21	31.4-6	Resonance, Resonant Circuits	** End of material for Exam-II, Lec 11-21, Chap 26-31, HW 6-11**	
12*	Tues	Apr 07	#22	32.1-5	Electromagnetic Waves, Energy, Momentum	#12 Chap 32: Electromagnetic Waves, Wave Energy, Momentum	#11
	Thur	Apr 09	***	***	Exam-II	Lec 11-21, Chap 26-31, HW 6-11	
13	Tues	Apr 14	#23	33.1-4	Light, Reflection, Refraction, Polarization	#13 Chap 33: Light, Reflection, Refraction, Polarization	#12
	Thur	Apr 16	#24	33.5-7	Dispersion, Scattering, Huygen's Principle		
14	Tues	Apr 21	#25	34.1-4	Geometric Optics ,Mirrors: Flat and Curved	#14 Chap 34: Geometric Optics, Mirrors, Lenses	#13
		Apr 23	#26	33.5-8	Thin Lenses, Cameras, Telescopes		

15	Tues	Apr 28	#27	35.1-4	Light Interference Two Sources, Young's Expt	#15 Chap 35:Light Interference, Youngs Double-Slit Experiment	#14
	Thur	Apr 30	#28	35.5-36.3	Fresnel, Fraunhofer Diffraction		
16	Tues	May 05	#29	36.4-8	Diffraction, Single-Slit Interference, Gratings	#16 Chap 36: Diffraction, single-slit, gratings(DO NOT TURN IN)	15
	Thur	May 07	***	***	STUDY PERIOD May 7,8		
17	Tues	May 12			Final Exam (in class) 9:45--11:45 AM in WAT-415	60%: Lec 22-29, Chap 32-36, 12-16 HW 40%: Lec 1-21, Chap 21-31, HW 1-11	#16
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