

## Reading\_HW\_Schedule

<b>Class</b>	<b>Day</b>	<b>Section</b>	<b>Title</b>	<b>Pages/ Section</b>	<b>Homework Problems</b>	<b>Due Date</b>
1	01/14	17.1	Electric Charge	3	none	
		17.2	Conductors and Insulation	3	none	
		17.3	Conservation and Quantization of Charge	2	none	
2	01/16	17.4	Coulomb's Law	5	9, 13, 16	01/18
		17.5	Electric Field and Electric Forces	3	none	
		17.6	Calculating Electric Fields	3	36, 47	01/18
3	01/18	17.7	Electric Field Lines	2	52, 53	01/23
		17.8	Gauss's Law and Field Calculations	5	56, 57	01/23
		17.9	Charges on Conductors	3	62, 63	01/23
4	01/23	18.1	Electric Potential Energy	5	3, 8	01/25
		18.2	Potential	4	12, 15, 24	01/25
		18.3	Equipotential Surfaces	3	29	01/25
5	01/25	18.4	The Millikan Oil-Drop Experiment	1	none	01/28
		18.5	Capacitors	3	38, 40	01/28
		18.6	Capacitors in Series and in Parallel	3	48, 51	01/28
6	01/28	18.7	Electric Field Energy	2	58, 60	01/30
		18.8	Dielectrics	3	68, 70	01/30
		18.9	Molecular Model of Induced Charge	1	none	
7	01/30	19.1	Current	3	2, 4	02/01
		19.2	Resistance and Ohm's Law	5	7, 14	02/01
		19.3	Electromotive Force and Circuits	6	20, 24	02/01
8	02/01	19.4	Energy and Power in Electric Circuits	3	34, 37	02/04
		19.5	Resistors in Series and Parallel	3	47, 49	02/04
		19.6	Kirchhoff's Rules	6	57	02/04
9	02/04	19.7	Electrical Measuring Instruments	1	none	
		19.8	Resistance-Capacitance Circuits	3	none	
		19.9	Physiological Effects of Currents	1	none	
		19.10	Power Distribution Systems	3	none	
10	02/06	20.1	Magnetism	2	none	
		20.2	Magnetic Field and Magnetic Force	8	1, 2, 4	02/08
		20.3	Motion of Charged Particles in a Magnetic Field	3	13, 14	02/08
11	02/08	20.4	Mass Spectrometers	2	22, 24	02/11
		20.5	Magnetic Force on a Current-Carrying Conductor	3	26, 28	02/11
		20.6	Force and Torque on a Current Loop	4	35, 38	02/11
12	02/11	20.7	Magnetic Field of a Long, Straight Conductor	2	42, 45	02/13
		20.8	Force between Parallel Conductors	3	53	02/13
		20.9	Current Loops and Solenoids	3	57, 58, 64	02/13
13	02/13	20.10	Magnetic Field Calculations	3	none	
		20.11	Magnetic Materials	1	none	
14	02/15	21.1	Induction Experiments	2	none	
		21.2	Magnetic Flux	2	2	02/18
		21.3	Faraday's Law	4	6, 7	02/18
15	02/18	21.4	Lenz's Law	3	14, 15	02/20
		21.5	Motional Electromotive Force	3	21	02/20
		21.6	Eddy Currents	1	none	
16	02/20	21.7	Mutual Inductance	2	28, 29	02/22
		21.8	Self-Inductance	2	32, 34	02/22
		21.9	Transformers	3	38, 40	02/22
17	02/22	21.10	Magnetic Field Energy	2	43, 44	02/25
		21.11	The R—L Circuit	3	49, 51	02/25

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		21.12	The L—C Circuit	1	none	
18	02/25	22.1	Phasors and Alternating Currents	3	1, 2	02/27
		22.2	Resistance and Reactance	6	3, 6	02/27
		22.3	The Series R—L—C Circuit	4	9, 11	02/27
19	02/27	22.4	Power in Alternating-Current Circuits	3	15, 16	03/01
		22.5	Series Resonance	3	19, 22	03/01
		22.6	Parallel Resonance	1	27	03/01
20	03/01	23.1	Introduction to Electromagnetic Waves	1	none	
		23.2	Speed of an Electromagnetic Wave	2	1, 2, 3	03/04
		23.3	The Electromagnetic Spectrum	1	none	
21	03/04	23.4	Sinusoidal Waves	3	6, 10	03/08
		23.5	Energy in Electromagnetic Waves	4	16, 20, 23	03/08
		23.6	Nature of Light	2	none	
22	03/08	23.7	Reflection and Refraction	6	26, 28, 40	03/11
		23.8	Total Internal Reflection	2	46, 50	03/11
		23.9	Dispersion	1	52, 53	03/11
23	03/11	23.10	Polarization	6	57, 58, 62	03/13
		23.11	Huygens's Principle	2	none	
		23.12	Scattering of Light	1	none	
24	<b>03/13</b>		<b>Midterm</b>			
25	03/15	24.1	Reflection at a Plane Surface	3	1, 2, 3	03/25
		24.2	Reflection at a Spherical Surface	7	5, 6	03/25
		24.3	Graphical Methods for Mirrors	2	13	03/25
26	03/25	24.4	Refraction at a Spherical Surface	4	19	03/27
		24.5	Thin Lenses	6	29	03/27
		24.6	Graphical Methods for Lenses	3	50	03/27
27	03/27	25.1	The Camera	3	none	
		25.2	The Projector	1	none	
		25.3	The Eye	4	none	
		25.4	The Magnifier	2	none	
28	04/01	25.5	The Microscope	2	none	
		25.6	Telescopes	3	none	
		25.7	Lens Aberrations	1	none	
29	04/03	26.1	Interference and Coherent Sources	3	1, 4	04/05
		26.2	Two-Source Interference of Light	3	6, 7, 11	04/05
		26.3	Interference in Thin Films	5	16, 17, 19	04/05
30	04/05	26.4	Diffraction	3	none	
		26.5	Diffraction from a Single Slit	4	25, 28	04/08
		26.6	Multiple Slits and Diffraction Gratings	3	35, 36, 38	04/08
31	04/08	26.7	X-Ray Diffraction	3	42, 43	04/10
		26.8	Circular Apertures and Resolving Power	3	45, 49	04/10
		26.9	Holography	2	none	
32	04/10	27.1	Invariance of Physical Laws	3	none	
		27.2	Relative Nature of Simultaneity	2	1, 2	04/12
		27.3	Relativity of Time	4	3, 5, 6, 9	04/12
		27.4	Relativity of Length	4	10, 12, 13, 14	04/12
33	04/12	27.5	The Lorentz Transformation	3	18, 20, 21	04/15
		27.6	Relativistic Momentum	3	22, 23, 26	04/15
		27.7	Relativistic Work and Energy	3	27, 29, 30	04/15
		27.8	Relativity and Newtonian Mechanics	2	none	
34	04/15	28.1	The Photoelectric Effect	5	1, 2, 3	04/17
		28.2	Line Spectra and Energy Levels	5	17, 18	04/17
		28.3	The Nuclear Atom and the Bohr Model	7	22, 23	04/17

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35	04/17	28.4	The Laser	1	28,29, 32	04/22
		28.5	X-Ray Production and Scattering	3	33, 34	04/22
		28.6	The Wave Nature of Particles	3	40, 41, 44	04/22
36	04/19	28.7	Wave—Particle Duality	4	none	
		28.8	The Electron Microscope	1	none	
37	04/22	29.1	Electrons in Atoms	8	1, 2, 3, 6	04/26
		29.2	Atomic Structure	4	9, 10, 12, 13	04/26
		29.3	Diatomic Molecules	4	19, 20	04/26
38	04/24	29.4	Structure and Properties of Solids	2	none	
		29.5	Energy Bands	1	none	
		29.6	Semiconductors	2	none	
39	04/26	29.7	Semiconductor Devices	3	none	
		29.8	Superconductivity	2	none	
40	04/29	30.1	Properties of Nuclei	5	none	
		30.2	Nuclear Stability	3	none	
		30.3	Radioactivity	6	none	
41	05/01	30.4	Radiation and the Life Sciences	4	none	
		30.5	Nuclear Reactions	2	none	
		30.6	Nuclear Fission	4	none	
42	05/03	30.7	Nuclear Fusion	1	none	
		30.8	Fundamental Particles	2	none	
		30.9	High-Energy Physics	6	none	
		30.10	Cosmology	4	none	
43	<b>05/08</b>		<b>Final Exam from 11:00-13:00</b>			