

PH1210 Assignment Schedule

Date	Problem Solving (1 st half of class — have these problems ready for discussion.)	Lecture Topics (2 nd Half of class)
1/14	Introductions/Policies/Procedures	<ul style="list-style-type: none"> • Electric Charge (19.1) • Insulators and Conductors (19.2)
1/16	Chapter 19 CQ 1 CE 1,2 Prob 1,2,6,7	<ul style="list-style-type: none"> • Coulomb's Law (19.3) • The Electric Field (19.4)
1/18	Chapter 19 CQ 7 CE 7,8 Prob 8,9,11,12,32,35	<ul style="list-style-type: none"> • Electric Field lines (19.5) • Shielding and Charging by Induction (19.6) • Electric Flux and Gauss' law (19.7)
1/21	Martin Luther King Day Celebration	
1/23	Chapter 19 CQ 4,5,6,11 CE 17 Prob 42,43,45,49,50,51,54, 56	<ul style="list-style-type: none"> • Electric Potential Energy and Electric Potential(20.1) • Energy Conservation (20.2)
1/25	Chapter 20 CQ 2 CE 1,2,3,4 Prob 1,4,5,6,7,16,17	<ul style="list-style-type: none"> • The Electric Potential of Point Charges (20.3) • Equipotential Surfaces and the Electric Field (20.4)
1/28	Chapter 20 CQ 5,8 CE 10,12 Prob 21,22,23,24,36,39	<ul style="list-style-type: none"> • Capacitors and Dielectrics (20.5) • Electrical Energy Storage (20.6)
1/30	Chapter 20 CQ 10,13 CE 15 Prob 40,42,43,48,49,54,59	<ul style="list-style-type: none"> • Electric Current (21.1) • Resistance and Ohm's Law (21.2)
2/1	Chapter 21 CQ 1 CE 1,3,5,6 Prob 2,4,8,9,10,16	<ul style="list-style-type: none"> • Energy and Power in Electric Circuits (21.3) • Resistors in Series and Parallel (21.4)
2/4	Chapter 21 CQ 8 CE 9,11,13 Prob 19,20,23,26,31,36	<ul style="list-style-type: none"> • Resistors in Series and Parallel (continued) • Kirchoff's Rules (21.5) • Ammeters and Voltmeters (21.8)
2/6	Chapter 21 CQ 13,15 CE 14,17 Prob 33,37,38,46,47	<ul style="list-style-type: none"> • Circuits Containing Capacitors (21.6) • RC Circuits (21.7)
2/8	Winter Carnival Recess	
2/11	Chapter 21 CQ 16,17 CE 25,26 Prob 53,54,55,56,61,62	<ul style="list-style-type: none"> • Exam #1 Review
2/13	EXAM #1 (In Class) Chapters 19-21	

PH1210 Assignment Schedule

2/15	Exam 1 Return/Review	<ul style="list-style-type: none"> • The Magnetic Field (22.1) • The Magnetic Force on Moving Charges(22.2) • The Motion of Charged Particles in a Magnetic Field (22.3)
2/18	Chapter 22 CQ 1,2,3 CE 4 Prob 2,3,5,8,13,15	<ul style="list-style-type: none"> • The Magnetic Force Exerted on a Current-Carrying Wire (22.4) • Loops of Current and Magnetic Torque (22.5) • Electric Currents, Magnetic Fields, and Ampere's Law (22.6) • Current Loops and Solenoids (22.7) • Magnetism in Matter (22.8)
2/20	Chapter 22 CQ 6 CE 15,20,21 Prob 23,24,26,30,33,38,41,49	<ul style="list-style-type: none"> • Induced Electromotive Force (23.1) • Magnetic Flux (23.2) • Faraday's Law of Induction (23.3)
2/22	Chapter 23 CQ 3 CE 4,5 Prob 2,3,4,5,6,9,10,14	<ul style="list-style-type: none"> • Lenz's Law (23.4) • Mechanical Work and Electrical Energy (23.5) • Generators and Motors (23.6)
2/25	Chapter 23 CQ 2,5,6,9 CE 6 Prob 18,19,25,27,29,34,36	<ul style="list-style-type: none"> • Inductance (23.7) • RL Circuits (2.8) • Energy Stored in a Magnetic Field (23.9) • Transformers (23.10)
2/27	Chapter 23 CQ 12 CE 12,14 Prob 39,40,45,49,56,61	<ul style="list-style-type: none"> • Alternating Voltages and Currents (24.1) • Capacitors in AC Circuits (24.2) • RC Circuits (24.3)
2/29	Chapter 24 CQ 7 CE 1,5,6 Prob 1,4,6,9,10,19,20	<ul style="list-style-type: none"> • Inductors in AC Circuits (24.4) • RLC Circuits (24.5) • Resonance in Electrical Circuits (24.6)
3/3	Chapter 24 CQ 11 CE 9,15,16 Prob 28,29,42,43,53,54	<ul style="list-style-type: none"> • Exam # 2 Review
3/5	EXAM #2 (In Class) Chapters 22-24	
3/7	Exam #2 Return and Review	<ul style="list-style-type: none"> • The Production/Propagation of Electromagnetic Waves (25.1-25.2) • The electromagnetic Spectrum (25.3) • Energy and Momentum in Electromagnetic Waves (25.4) • Polarization (25.5)
3/10-3/14	Spring Break	

PH1210 Assignment Schedule

3/17	Chapter 25 CQ 5,9 CE 1,6 Prob 3,9,17,26,29,44,63,64,66	<ul style="list-style-type: none"> • The Reflection of Light (26.1) • Forming Images with a Plane Mirror (26.2) • Spherical Mirrors (26.3) • Ray Tracing/Mirror Equation (26.4)
3/19	Chapter 26 CQ 1,4,5 CE 3,4,7 Prob 1,4,9,11,16,21,22,28,32	<ul style="list-style-type: none"> • The Refraction of Light (26.5) • Ray Tracing for Lenses (26.6) • The Thin-Lens Equation (26.7) • Dispersion and the Rainbow (26.8)
3/21	Chapter 26 CQ 6,13 CE 17,21 Prob 37,40,43,53,57,64,66,69,77	<ul style="list-style-type: none"> • The Human Eye and the Camera (27.1) • Lens in Combination and Corrective Optics (27.2) • The Magnifying Glass(27.3) • The Compound Microscope (27.4) • Telescopes (27.5)
3/24	Chapter 27 CQ 1,6,8 CE 1,2,12 Prob 1,3,17,18,24,26,47,48,53,61,63	<ul style="list-style-type: none"> • Superposition and Interference (28.1) • Young's Two-Slit Experiment (28.2) • Diffraction (28.4) • Diffraction Gratings (28.6)
3/26	Chapter 28 CQ 3,4 CE 3,7 Prob 1,5,10,12,18,37,54,56,58	<ul style="list-style-type: none"> • Interference in Reflected Waves(28.3) • Resolution (28.5)
3/28	Chapter 28 CQ 8,9,11 CE 12 Prob 24,28,33,46,50,53	<ul style="list-style-type: none"> • The Postulates of Special Relativity (29.1) • Time Dilation (29.2) • Length Contraction(29.3)
3/31	Chapter 29 CQ 2 CE 2,3,5 Prob 1,2,3,6,9,10,19,21,24,27	<ul style="list-style-type: none"> • Exam #3 Review
4/2	Exam #3 (In Class) Chapters 25-28	
4/4	Exam #3 Return and Review	<ul style="list-style-type: none"> • The Relativistic Addition of Velocities (29.4) • Relativistic Momentum (29.5) • Relativistic Energy and $E=mc^2$ (29.6) • The Relativistic Universe (29.7) • General Relativity (29.8)
4/7	Chapter 29 CQ 5,7 CE 10,13 Prob 31,32,36,41,47,49,52,57,64,65	<ul style="list-style-type: none"> • Blackbody Radiation/Planck's Hyp. of Quantized Energy (30.1) • Photons/Photoelectric Effect (30.2)
4/9	Chapter 30 CQ 3,6 CE 1,4,5 Prob 2,7,8,13,14,17	<ul style="list-style-type: none"> • Mass/Momentum of a Photon (30.3) • Photon Scattering and the Compton Effect (30.4)

PH1210 Assignment Schedule

4/11	Chapter 30 CQ 8,9 Prob 31,34,35,36,41,46	<ul style="list-style-type: none"> • The de Broglie Hypothesis and Wave-Particle Duality (30.5) • The Heisenberg Uncertainty Principle (30.6) • Quantum Tunneling (30.7)
4/14	Chapter 30 CQ 11,12 CE 10,11 Prob 52,53,58,60,61,62,64	<ul style="list-style-type: none"> • Early Models of the Atom (31.1) • The Spectrum of Atomic Hydrogen (31.2) • Bohr's Model of the Hydrogen Atom (31.3) • de Broglie Waves and the Bohr Model (31.4)
4/16	Chapter 31 CQ 1,2,8 CE 1,8 Prob 1,2,7,8,13,14,18,31	<ul style="list-style-type: none"> • The Quantum Mechanical Hydrogen Atom (31.5) • Multielectron Atoms and the Periodic Table (31.6) • Atomic Radiation (31.7)
4/18	Chapter 31 CQ 9,11 CE 12,16 Prob 33,34,35,42,43,50,53	<ul style="list-style-type: none"> • The Constituents and Structure of Nuclei (32.1) • Radioactivity (32.2) • Half-Life and Radioactive Dating (32.3)
4/21	Chapter 32 CQ 1,18 CE 1,5,8 Prob 1,4,14,17,24,25,29,30	<ul style="list-style-type: none"> • Nuclear Binding Energy (32.4) • Nuclear Fission (32.5) • Nuclear Fusion (32.6)
4/23	Chapter 32 CQ 9 CE 7,11 Prob 37,42,44,48,50	<ul style="list-style-type: none"> • Practical Applications of Nuclear Physics (32.7) • Elementary Particles (32.8) • Unified Forces and Cosmology(32.9)
4/25	Chapter 32 CQ: 13 Prob 52, 54, 56	Final Exam Review
4/30	Final Exam (12:45pm) Chapters 19-32	