

Physics 220 Course Schedule
Fall 2008

Week	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	9/1 Labor Day	9/2	9/3 C1	9/4	9/5 C2	9/6
2 Lab 1	9/8 C3 HW0	9/9	9/10 C4	9/11	9/12 C5	9/13 HW1
3 Lab 2	9/15 C6 MC/Q1	9/16	9/17 C7	9/18 HW2	9/19 C8 MC/Q2	9/20
4 Lab 3	9/22 C9	9/23 HW3	9/24 C10 MC/Q3	9/25	9/26 C11	9/27
5 Lab 4	9/29 C12	9/30 HW4	10/1 C13 Midterm 1	10/2 MC/Q4	10/3 C14	10/4
6 Lab 5	10/6 C15	10/7	10/8 C16	10/9 HW5	10/10 C17 MC/Q5	10/11
7 Lab 6	10/13 C18	10/14 HW6	10/15 C19 MC/Q6	10/16	10/17 C20	10/18
8 Lab 7	10/20 C21	10/21	10/22 C22	10/23 HW7	10/24 C23 MC/Q7	10/25
9 Lab 8	10/27 C24	10/28	10/29 C25	10/30	10/31 C26	11/1 HW8
10 Lab 9	11/3 C27 Midterm 2	11/4 MC/Q8	11/5 C28	11/6	11/7 C29	11/8 HW9
11 Lab 10	11/10 C30 MC/Q9	11/11	11/12 C31	11/13 HW10	11/14 C32 MC/Q10	11/15
12 Lab 11	11/17 C33	11/18	11/19 C34	11/20 HW11	11/21 C35 MC/Q11	11/22
13 No Lab	11/24 C36	11/25 C37	11/26	11/27	11/28	11/29
Thanksgiving Break						
14 Lab 12	12/1 C38	12/2 HW12	12/3 C39 MC/Q12	12/4	12/5 C40	12/6
15 No Lab	12/8 C41	12/9	12/10 C42	12/11 HW13 MC/Q13	12/12	12/13
	12/15	12/16	12/17	12/18	12/19	12/20
Final Exams						

Carefully note the following test schedule!

Midterm	Starting Date	Ending Date	Ending Time	Last Late Day
1	Wed. Oct. 1	Fri. Oct. 3	1:00 p.m.	Mon. Oct. 6
2	Mon. Nov. 3	Wed. Nov. 5	1:00 p.m.	Sat. Nov. 8

Class	Topics	☆	Reading
Chapter 1 – Stationary Point Charges and Their Forces			
C1	Introduction to the Course		
C2	Basic Electrostatics: Charges, Insulators, Conductors, and Electrostatic Induction Models and Forces	3 1	1.0 – 1.3 1.4 – 1.5
C3	The Thread Model Coulomb's Law	5 5	1.6 1.7 – 1.8
C4A	Work and Potential Energy	5	1.9 – 1.10
Chapter 2 – Moving Point Charges and Their Forces			
C4B	Threads and Moving Sources A Little Relativity	4 2	2.0 – 2.2 2.3 – 2.4
C5	Moving Source and Stationary Field Particle Stubs and Moving Field Particles	4 5	2.5 2.6 – 2.8
C6	Magnetic Force and Relativity.	2	2.9 – 2.10
Chapter 3 – Forces and Fields			
C7	Fields of Point Charges Electric Potential and Voltage Field Vectors, Field Lines, and Field Contours	5 5 5	3.0 – 3.2 3.3 3.4
C8	Electric Fields and Conductors Force and Motion in Uniform Fields Devices using Electric and Magnetic Fields.	5 4 3	3.5 3.6 3.7
Chapter 4 – Circuits and Resistance			
C9	Electric Fields in Wires Voltage and Ohm's Law Resistivity and Resistors	2 5 3	4.0 – 4.1 4.2 4.3
C10	Resistance Circuits, Series and Parallel Resistance Real Batteries.	5 3	4.4 – 4.6 4.7
C11	Kirchoff's Laws Drift Speed	3 2	4.8 4.9
C12	Review #1		
Midterm Exam #1 on Chapters 1 – 4, Oct. 1 – Oct. 3 at 1:00 p.m.			
Chapter 5 – Representing Fields Geometrically			
C13	Electric Field Lines and the Electric Field of Point Charges Magnetic Fields of Current-carrying Wires.	5 5	5.0 – 5.2 5.3 – 5.5
C14	Electric Field of More Complex Systems	3	5.6 – 5.8
C15	Magnetic Fields of More Complex Systems.	3	5.9 – 5.11
Chapter 6 – Capacitors and Capacitance			
C16	Capacitors, Energy, and Dielectrics	5	6.0 – 6.4
C17	Capacitors in Circuits	5	6.5 – 6.6

Chapter 7 – Gauss’s Law and Electric Fields			
C18	Understanding the Meaning of Gauss’s Law	5	7.0 –7.2
C19	Applying Gauss’s Law Qualitatively Gauss’s Law of Magnetism	5 1	7.3 – 7.4 7.5
C20	Review of Integration Electric Flux	5 5	7.6 – 7.8 7.9
C21	Examples of Gauss’s Law	5	7.10 –
Chapter 8 – Ampere’s Law and Some Mathematical Details			
C22	Understanding Ampere’s Law Magnetic Line Integral	5 5	8.0 – 8.3 8.4
C23	Ampere’s Law Quantitatively	5	8.5 – 8.6
C24	Direct Integration of Fields	1	8.7
C25	Divergence and Curl Maxwell’s Equations in Differential Form	3	8.8
C26	Review #2		
Midterm Exam #2 on Chapters 5 – 8, Nov. 3 – Nov. 5 at 1:00 p.m.			
Chapter 9 – Dipoles and Magnets			
C27	Force on a Current-Carrying Wire Electric and Magnetic Dipoles	2 4	9.1 9.2-9.3
C28	Magnetic Properties of Matter	2	9.4-9.6
Chapter 10 – Accelerating Point Charges and Their Fields			
C29	The Fields of Accelerating Charges	4	10.1-10.3
C30	Visualizing Fields of Accelerating Charges Consequences of Accelerating Charges	3 3	10.4 10.5-6
Chapter 11 – Faraday’s Law of Induction			
C31	Faraday’s Law - the Math Lenz’s Law	5 5	11.1-10.5
C32	Applying Faraday’s Law	5	11.6-11.7
C33	Motors and Generators	5	11.8-11.9
Chapter 12 – Inductors and AC Circuits			
C34	Inductors Energy Stored in Inductors and Magnetic Fields	5 5	12.1-12.2 12.3
C35	LR Circuits LC Circuits	4 4	12.4 12.5
C36	Phasors Driven AC Circuits Reactance and Impedance	5 4 4	12.6-12.8

C37	Series LRC Circuits Resonance	4 5	12.9 12.10
Chapter 13 – Applications of Time-varying Fields			
C38	Household Electricity I Transformers and Power Factors Transmission Lines	3 3 5	13.1-13.2
C39	Household Electricity II	3	13.3-13.6
C40	Waves and the Electromagnetic Spectrum Transmitting and Receiving Radio Signals	5 3	13.7-8 13.9
C41	Carrying Information on Waves Polarization	4 5	13.10 13.11
C42	Review #3		

The ☆ column roughly indicates the relative importance of each topic to the overall course and to life in general.