Haverford College - Physics Department
Physics 102b: Classical and Modern Physics II
F. Crawford
Spring 2003 Course Schedule/Syllabus

Lecture Schedule

Lecture	Day	Date	Lecture Topics	Hecht Reading
0	M	Jan 20	Introduction	*none*
1	W	Jan 22	Hooke's Law; Stress and Strain; Elastic Moduli	10.1 - 10.4
2	F	Jan 24	Simple Harmonic Motion; Oscillations	10.5 - 10.8
3	M	Jan 27	Transverse, Compression Waves; Sounds Waves; Intensity	11.1 - 11.5
4	W	Jan 29	Sound Speed; Sound Level; Beats	11.6 - 11.9
5	F	Jan 31	Standing Waves; Doppler Effect	11.10, 11.11
6	M	Feb 3	Charge; Insulators and Conductors	15.1, 15.2
7	W	Feb 5	Coulomb's Law; Electric Field	15.3, 15.4
8	F	Feb 7	Electric Field; Gauss's Law	15.4 - 15.6
9	M	Feb 10	Gauss's Law; Electric Potential	15.6, 16.1
10	W	Feb 12	Electric Potential; Equipotentials	16.1, 16.2
11	F	Feb 14	Charge Distributions	16.3 - 16.6
12	M	Feb 17	Capacitors	16.7, 16.8
E	W	Feb 19	**Midterm Exam #1 - in class**	*none*
13	F	Feb 21	Energy in Capacitors; Electric Current	16.9, 17.1
14	M	Feb 24	Ohm's Law; Resistivity	17.1 - 17.3
15	W	Feb 26	Voltage; Energy and Power; Current Density	17.4 - 17.6
16	F	Feb 28	Internal Resistance; Resistors in Series and Parallel	18.1, 18.2
17	M	Mar 3	RC Circuits; Kirchoff's Rules	18.3 - 18.5
18	W	Mar 5	Magnets; Magnetic Fields	19.1, 19.2
19	F	Mar 7	Currents and Magnetic Fields	19.3, 19.4
–	M	Mar 10	*Spring Break - no class*	*none*
–	W	Mar 12	*Spring Break - no class*	*none*
–	F	Mar 14	*Spring Break - no class*	*none*
20	M	Mar 17	Magnetic Force on Moving Charges	19.5, 19.6
21	W	Mar 19	Faraday's Induction Law; Motional emf	20.1, 20.2
22	F	Mar 21	AC and DC Generators; Inductance; RL Circuits	20.3 - 20.7
23	M	Mar 24	EM Waves; Irradiance; Energy Quanta; Atoms and Light	22.1 - 22.7
24	W	Mar 26	EM Spectrum; Scattering; Reflection	22.8 - 22.14, 23.1 - 23.3
25	F	Mar 28	Refraction; Total Internal Reflection	23.4 - 23.6
26	M	Mar 31	Lenses; Focal Points and Focal Planes	24.1 - 24.4
E	W	Apr 2	**Midterm Exam #2 - in class**	*none*
27	F	Apr 4	Single and Combination Lenses	24.5, 24.6
28	M	Apr 7	Mirrors; Polarization	24.7, 25.1
29	W	Apr 9	Polarization; Young's Experiment	25.2 - 25.4
30	F	Apr 11	Interference and Diffraction	25.6 - 25.9
31	M	Apr 14	AC Current; Reactance	21.1 - 21.3
32	W	Apr 16	LCR Circuits; Impedance; Power and Resonance	21.4
33	F	Apr 18	X-rays; Radioactivity; Atomic Spectra; Radiation	27.1 - 27.9
34	M	Apr 21	Blackbody Radiation; Photoelectric Effect	28.1 - 28.4
35	W	Apr 23	Bohr Atom; Lasers	28.5 - 28.7
36	F	Apr 25	de Broglie Waves; Quantum Numbers	29.1 - 29.4
37	M	Apr 28	Zeeman Effect; Spin; Uncertainty Principle	29.5 - 29.9
38	W	Apr 30	Radioactive Decay; Half-life; Fission and Fusion	30.8 - 30.10
39	F	May 2	Review - *all course work due today*	*none*

The **Final Exam** is a self-scheduled exam to be taken during final exam week (see the Registrar's policy for allowed dates and times).