

Schedule of Experiments:

Week	Date	Lab number	Lecture topics	Reading (Pedrotti)	HW due	Lab notebooks and reports due
1	Sept 8 - 11	Lab 0	Error analysis, Waves	(Ch 1, 4-1:4-5)		
2	Sept. 15 – 18	Lab 1a: Reflection and Refraction	Fermat's principle, Snell's Law, total internal reflection	2-0:2-5 and 3-3	HW 1	Lab 0
3	Sept. 22 - 25	Lab 1b: Reflection and Refraction	Imaging, spherical surfaces	2-6:2-8	HW 2	
4	Sept 29 – Oct. 2	Lab 2a: Geometric Optics	Thin lenses, optical instruments, the eye	2-9:2-10, 3-5:3-7, 19-3:19-5		Lab 1
5	Oct. 6 – 9	Lab 2b: Geometric Optics	Waves in three dimensions, Polarized light, Malus' Law	4-8:4-9, 15-1	HW 3	
6	Oct. 13 - 16	Lab 3a: Polarization of Light	Brewster's angle, Fresnel equations	15-2:15-3, 23-1		Lab 2
7	Oct. 20 - 23	Lab 3b: Polarization of Light	Two-beam interference, Young's double slit exp,	7-0:7-2	HW 4	
8	Oct. 27 - 30	Lab 4a: Michelson Interferometer	Michelson interferometer, Coherence	8-1:8-2		Lab 3
9	Nov. 3 - 6	Lab 4b: Michelson Interferometer	Fraunhofer Diffraction	11-0:11-3	HW 5	
10	Nov. 10 - 13	Lab 5a: Diffraction of Light	Double slit diffraction, Babinet's principle	11-4:11-5		Lab 4
11	Nov. 17 - 20	Lab 5b: Diffraction of Light	N-slit diffraction, diffraction gratings	11-6, 12-0:12-4	HW 6	
12	No class	Thanksgiving		6-0:6-1, 6-4		
13	Dec 1 - 4	Lab 6a : Atomic Spectra	Light quanta, Einstein coefficients	6-5:6-7		Lab 5
14	Dec 8 - 11	Lab 6b: Atomic Spectra	Population inversion, Lasers			
15	Thurs. Dec. 18 1:30 – 3:30 pm (tentative)	Final exam – (in class, written)				Lab 6