

Lab Schedule

UNIVERSITY OF ALABAMA

Department of Physics and Astronomy

PH 102 / LeClair / Summer 2012

Date	Experiment	Purpose	Skills
9 July	uncertainty analysis	quantitative determination of uncertainty in data	standard deviation
11 July	capacitors	equivalents of combinations of capacitors	operation of electronic test equipment, basic wiring
12 July	simple circuits	current, voltage, and behavior of basic circuit elements	current-voltage characteristics; operation of computer-controlled testing unit
16 July	dc circuits	equivalents of combinations of resistors; RC time constants	linear regression; time-domain response of circuits
18 July	no lab - Exam 1		
19 July	transistors	construction of 'active' circuits with transistors	current source, automatic light construction
23 July	induced EMF	generating voltages with magnetic induction	use of oscilloscope/function generator; transformer behavior; wireless power
25 July	no lab - Exam 2		
26 July	mirrors & lenses	image formation with mirrors and lenses	ray tracing, image projection
30 July	Planck's constant	measurement of Planck's constant	use of diffraction grating/wavelength measurement
1 Aug	Atomic spectra	emission lines of Hg and H gas discharges	constructing of energy diagrams from optical spectra

Table 1: Lab schedule for PH102/LeClair Summer 2012