PHYS 1015, Elementary Physics Laboratory

Spring 2014

Tuesday 7:30–9:20 or 9:30–11:20 SCNCE 326

Instructor: Larry Smith SCNCE 111 283-7520 Larry.Smith@snow.edu http://www.snow.edu/larrys

Text: PHYS 1015 Experiments lab packet purchased from Majock Books.

Other Materials: A calculator capable of exponential notation and trig functions.
Optional: your own protractor and metric ruler.

Corequisites: Concurrent enrollment in PHYS 1010.

Labs: The labs are the main component of this course (PHYS 1015) and will give you hands-on experience to complement the book and the lecture (PHYS1010) discussions. You will turn in an individual write-up for each lab, even though you will work in groups (groups of 2 or 3 work best) during lab time to collect data. Make sure your write-up is your own work, even though the data will be the same as your lab partners'. Do not do a group write-up nor copy others' write-ups. Please make your write-up so clear that a layman could easily understand what you did, even so clear that you could reconstruct the lab yourself using only your write-up in 2 years. The write-ups are generally due at the beginning of class the next Friday. Late labs are worth up to 50% up to one week late; thereafter no credit will be given; no late labs will be accepted after April 18.

Help: The Physics Help-Ware simulations are to help you prepare for the in-class labs. There are Apple][gs computers available in the lab room for the Help-Ware. You are encouraged to see me during my posted office hours (MWF 10:30–11:20, TR 11:30–12:20) and at other times by appointment. Students with medical, psychological, learning or other disabilities desiring accommodations, academic adjustments, or auxiliary aids will need to contact the Disability Resource Center, room 241 Greenwood Center, phone number (435) 283-7321. The Americans With Disabilities Act (ADA) Coordinator in the Student Success Center determines eligibility for and authorizes the provision of appropriate services and aids.

Participation: Ask questions in lab, come to office hours, help other students. Don't just sit back and watch during the labs—actively participate. Attend regularly; come prepared, having read the lab and associated resources on the class website beforehand.

Quizzes: Short frequent quizzes will ascertain whether you have studied the experiment before coming to lab.

Final Exam: The final exam is Tuesday, Apr 22, during the last lab; in SCNCE 326.

Grading:				
	Participation/Attitude	10%	Quizzes	15%
	Lab Write-Ups	60%	Final Exam	15%

Lab Schedule

Jan 7:	1	Simple Measurements	Mar 4:	8	Thermal Equiv of Work
Jan 14:	2	Accuracy and Precision	Mar 11:	9	Specific Heat
Jan 21:	3	Acceleration gravity	Mar 18:	10	Electrical Heating
Jan 28:	4	Forces as Vectors	Apr 1:	11	Harmonic Motion
Feb 4:	5	Ballistic Pendulum	Apr 8:	12	Standing Waves
Feb 11:	6	Torques	Apr 15:	13	Simple Circuits
Feb 25:	7	Centripetal Force	Apr 22:	14	Lenses