

PHYSICS 1111/2211–Introductory Physics I Labs
H-255
Spring 2018

Textbook: Physics I Laboratory Manual (Mechanics, Waves, and Heat)
M.G. Thackston (*11th Edition*)

Instructor: Dr. Russ Patrick Office: H260f Phone: 470-578-4209
rpatri11@kennesaw.edu

Week Beginning	Lab No.	Experiment Title
22-Jan	L 1	Free Fall
29-Jan	L 2	Atwood's Machine
5-Feb	L 3	Friction
12-Feb	L4	Centripetal Force
19-Feb	L5	Conservation of Energy and Momentum
26-Feb	L 6	Rotations
5-Mar	L7	Equilibrium
12-Mar	L8	Simple Harmonic Motion
19-Mar	L 9	Standing Waves & Resonance
26-Mar	L10/11	Thermal Properties
2-Apr	NO LAB	SPRING BREAK

Laboratory Instructions:

- 1) Everyone must read and sign the *Safety Instruction Sheet* for the Laboratory. Print and sign your name at the bottom, tear off, and give to the instructor.
- 2) **Students who are late by more than 15 min. will not be admitted and will receive a zero for the lab.**
- 3) Every student must have at least one lab partner.

4) Labs are graded on a 20 point scale. The lowest lab grade is dropped. **NO MAKEUP LABS UNDER ANY CIRCUMSTANCES.**

5) Labs are to be turned in one week after the lab is performed. There is a 25% penalty for each day a lab is late. Lab turned in more than 3 days late will receive a zero for the lab.

6) Use pencil on your data sheets.

7) Put lab partners names on data sheet on the space provided.

8) If I see copying from an old lab, F for lab course (entire table).

9) Since there is not a lot of room for computations on the data sheet, put them on a separate sheet. **Show computations neatly.**

10) Read graphing section carefully (I9-I13) Use correct graph paper [10 square/cm or 20 squares/inch.] Excel plotting is OK if you abide by all the rules.

11) There will be some stuff (graphs, questions) that you can do at home. I will tell you what is required work in the lab and what can be done at home.

Learning Outcomes

- 1) Demonstrate the ability to use the GLX data-logger with a variety of sensors,
- 2) Be able to perform error calculations related to both their collected data and results calculated from those data,
- 3) Be able to graphically represent their experimental results.