Laboratory Syllabus
Physics 222, Section 008, Spring 2008

Instructor: Matthew Musgrave
Email: mmusgrav@utk.edu
Office: Nielsen 609-5
Office Hours: Monday 12:10-1:20, Nielsen 201, or by appointment in Nielsen 609-5.

Recitation: Nielsen 512 from 11:15-12:05 on Wednesday.
Lab: Nielsen 510 from 12:20-2:15 on Wednesday.
Lab Manual: *Selected Introductory Physics Experiments* by James E. Parks

Grading: Your lab grade will be determined from the lab reports you will write for each lab (60%), the quizzes taken during recitation (30%), and participation (10%). Remember that the grade for this lab counts for 20% of your grade for Phys 222.

Recitation: Recitation will be used to discuss concepts from the lectures, homework, or labs. Questions are encouraged during recitation, and your participation is expected. At the end of each recitation a quiz will be given which may cover material from the recitation, homework, or lab experiment to be performed that day. At the end of the semester the lowest quiz grade will be dropped.

Laboratory: Read the experiment before you come to the lab. It will make the labs quicker and easier. You will work in pairs on the labs, but you will write lab reports individually for each experiment. The TA needs to check and sign your data before you leave the lab. Lab reports are graded out of 100 points. Lab reports are due at the beginning of the following week’s lab. After the due date, lab reports will be accepted up to four days late (through Saturday) but with a deduction of 10 points per day it is late, and any day after that with a deduction of 50 points. Email late lab reports to me with a copy of your data.

Missed Labs: If you are unable to attend a lab, inform me as soon as possible, preferably before the lab. If possible arrangements will be made for you to make up the lab with another section; otherwise, you will make up the lab at the end of the semester during the week designated for lab make-ups. Only one lab can be made up during the designated make-up week. Other labs that are missed will receive zero credit.
Lab Report Format

Lab reports should be single spaced, Times New Roman 12 point font, and at least one page long but no longer than one and a half pages. Write lab reports in the narrative form (no I’s, we’s, he’s, or she’s) with the exception of the “What I learned” section.

Heading (10pts)
Include the title of the lab, your name, your partner’s name, and the date the lab was performed.

Results (20pts)
In this section you need to analyze and discuss your data. Discuss trends in your data and any interesting results. Try to answer the question “Why did the data behave this way?” Do not simply restate the information on your data sheet.

Conclusions (20pts)
Make conclusions from your data. Your conclusions should concern what would happen if you varied the parameters of the experiment. Your conclusions should show an understanding of the experiment and the data’s trends. Your conclusions should be supported by your data.

Error Analysis (20pts)
Discuss any possible sources of error. You should explain sources of error that may actually have contributed to your percent difference, and focus on sources of error specific to the lab. You need to discuss multiple sources of error, and explain how they would affect your data.

What I learned? (20pts)
Explain what you learned by completing this lab. You always learn something when you try something new.

Data (10pts)
Your data needs to be signed by the TA and turned in with the lab report.

Do to the brevity of your lab reports (one page), you should not write about the procedure or the theory. Your lab reports will focus instead on analyzing your data and the experiment. Limit your discussion of the computer programs Excel and Datastudio and focus on the experiment. You may neatly write out any equations you need to put in the lab report. Do not copy from the lab book or any other source. Write your own original lab report.