Instructor: Chris Tate  

Email: ctate10@utk.edu  

Office Hours: Thursday 3:25-4:35 in Nielsen 201 (Tutorial Center) or by appointment  

Lab Manual: *Contemporary Introductory Physics Experiments* by Dr. James E. Parks  

**Purpose of the Lab:** The purpose of this laboratory is to provide you with some direct experience with the concepts that you will learn in the lecture portions of this course. In addition, you will be exposed to the techniques that are used to obtain and analyze the experimental data, which are used to construct or test physical theories.  

**Attendance:** It is expected that you attend every lab. The lowest lab grade at the end of the semester will be dropped. Therefore, there will be no make-up lab as this can account for a missed lab. You are expected to participate fully within your lab group.  

**Reading:**  
Read the theory and method sections of your lab before coming to class.  

**Grading:** Each lab + report will be worth 100 points. Final lab grades will be determined by the percentage of points earned to possible points.  

**Lab Reports:**  

**Title:** Experiment Name(s), your name, partner's name, Lab 232, Section Number, and Date of Experiment.  

**Purpose, Theory, & Procedure:** In this section include a short summary of the experiment including what the setup is, what measurements were taken, what relationships were observed, and any theoretical equations or laws which might relate. In the theory section, include all relevant equations and a brief explanation of the theory behind the experiment, enough to let me know that you understand what is going on.  

**Conclusion and Results with Error Analysis:** In this section include the end results of your experiment. Include whether or not theoretical laws appeared to hold true, your own results versus theoretical predictions, and error analysis (e.g. percent difference and sources of error). This is the main part of the report. Don’t be afraid to elaborate on what you found and how the concepts that relate to it.  

**Questions/Problems:** Any questions/ problems assigned during the lab section.
**Attachments:** Attach data worksheets (raw data & analyses) and worked problems/questions. If a problem requires handwritten work, you must attach this to your report. Do not just give me the answer.