Physics 251 Lab Syllabus
Fall 2010
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Labs Meet Tuesday 1:30-3:20PM or Friday 10-11:50AM

Grading: There are 13 laboratories in the semester. You may miss one laboratory. There will be no make-up laboratories. This policy is in place because of the collaborative nature of the laboratories. The collaboration cannot be duplicated during a make-up laboratory. If no laboratories are missed, then the last lab counts as extra credit. (Modification for athletics students and official medical absences: the laboratory must be made up **prior** to the next laboratory.)

A laboratory will consist of a pre laboratory assignment that must be completed prior to the lab session and will be due 9AM Monday PRIOR TO LAB.

Each lab session is worth 20 points. These 20 points are made up of the following components:

Pre-lab	5 points
Active Participation	5 points
Final Task	10 points

The purpose of the pre-lab is to get you thinking about the physics that will be used in the upcoming laboratory. You should look for similarities between the laboratory activity and the pre-lab. For this reason it is of especial importance that you **THINK** about and seriously consider the questions posed in the pre-lab.

Grading of pre-labs is mainly based on effort. What this means is that your pre-lab grade is based on completeness, logic, and reasoning **AND past** laboratory experiences and observations.

The laboratory is a collaborative effort and for this reason, it is acceptable if you work in small groups to complete the pre-labs. However, collaboration does **not** mean that you explicitly copy. Collaboration means working as partners. Any appearance of cheating will result in a zero grade. If you cannot work in a group effectively, then work on your own.

This laboratory probably will be quite different from your previous laboratory experiences. This is because you will be expected to operate with a significant amount of independence in how you perform any investigation. You will determine what data to collect and how to collect that data. Furthermore, the laboratories are arranged so that results of previous lab sessions will be important in present and future lab sessions. For

this reason it is critical that each member of the laboratory keep complete laboratory notes incorporating the answers of any discussion questions and corrections to mistakes.

Please keep in mind that an **explanation** is not the same as an **observation**. If you are uncertain of the difference between an observation and an explanation then you should talk with you laboratory or lecture instructor. Also, when laboratories ask you to reconcile differences between your prediction and your observations that means that you should **explain** what was wrong with your previous reasoning.

Preliminary and Tentative list of labs

Lab 1	Pre Test
Lab 2	What is an electric charge? Part I
Lab 3	What is an electric charge? Part II
Lab 4	Building a Model of Electric Circuits I
Lab 5	Building a Model of Electric Circuits II
Lab 6	Genecon and Capacitor Investigation
Lab 7	Play-Doh Resistors
Lab 8	Resistors in Parallel and Series
Lab 9	Resistors in Parallel and Series
Lab 10	Black Boxes I
Lab 11	AC circuits I
Lab 12	AC circuits II
Lab 13	Black Boxes II
Lab 14	Black Boxes III
Lab 15	Post Test