PHYS 1404 General Physics II  
Laboratory Syllabus  
Spring 2010  
Texas Tech University  
Course Syllabus

Laboratory Instructor: ____________  
Section: ____________

Laboratory Coordinator:  
Dr. Beth Thacker  
Associate Professor of Physics  
Office: SC 15  
Phone: 806-742-2996  
Email: beth.thacker@ttu.edu


Meeting Place: Science Building 119

Laboratory: Each laboratory meeting, will consist of working through one of the interactive laboratories in the Physics 1404 Laboratory Manual. It may also include working through questions or problems in the lab manual or home work assignments from the lecture portion of the class or from the laboratory instructor. There may also be quizzes on the laboratory material. Topics include electricity, magnetism, optics and radioactivity. The laboratory and homework will be graded.

Pre-Lab preparation sheet: Some laboratories have pre-lab preparation sheets. You should read through the laboratory and answer the questions on the pre-laboratory preparation sheet before coming to class. The sheets will be collected and graded for completion. Points will be subtracted from the participation part of your grade, if the pre-lab is not completed and turned in.

Laboratory homework: Each week, a laboratory homework may be assigned. It will be turned in the following week at the beginning of the laboratory period. It is late after the beginning of the laboratory period and late laboratory homework will not be accepted. The laboratory homework will count as 25% of your laboratory grade.

Quizzes: There may be quizzes given at the beginning of the laboratory period. Quizzes will be announced. Quizzes will count as 25% of your grade.

Participation: Coming to class on time, not leaving early and being “on-task” when you are in the lab counts as part of your participation grade. Also, working the pre-lab sheets and participation in departmental assessment, which may include a general pre-test, post-test or other surveys, will count toward your participation grade. For all of these things, you will get full credit, if you do them, such as filling out the pre-lab sheets, any surveys or pre- or post-tests administered, and points will be subtracted from your participation grade, if you do not do them. They will not be graded, except for completion. However, if they are not completed or are not taken seriously, you will have points taken off. Participation will count as 15% of your grade.
**Laboratory Management:** Laboratory management will be done through Blackboard. The site is [www.blackboard.ttu.edu](http://www.blackboard.ttu.edu). You can use your eraider ID to log on. Grades will be posted on Blackboard and some surveys to be done outside of class will be administered on Blackboard.

**Recitation:** The recitation is designed to help you with problem solving. Active participation will also help you on homework and exams. You will work with students in your group on solving problems, often homework problems or problems similar to homework problems. After you have worked on it for a while, you will discuss it with the class or with the TA. You may be asked, as a group, to present problems on the board or to the TA. Your active participation in recitation will count as part of the laboratory part of your grade. This means that you will actively work on problems when asked and turn in some problems for grading.

**Tentative list of laboratory experiments:**

1. Exploring the Nature of electrostatic Forces
2. Electric Field and Potential
3. Batteries, Bulbs, and Current
4. Current in Simple DC Circuits
5. Voltage in Simple DC Circuits and Ohm’s Law
6. Kirchhoff’s Circuit Rules
7. Introduction to Capacitors and RC Circuits
8. Magnetism
9. Introduction to Light
10. Reflection and Refraction of Light
11. Geometrical Optics-Lenses
12. Laboratory Final

**Grading:**

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laboratory</td>
<td>20%</td>
</tr>
<tr>
<td>Laboratory homework</td>
<td>25%</td>
</tr>
<tr>
<td>Quizzes</td>
<td>25%</td>
</tr>
<tr>
<td>Pre-lab and participation</td>
<td>15%</td>
</tr>
<tr>
<td>Laboratory Final</td>
<td>15%</td>
</tr>
</tbody>
</table>

Any student who because of a disability may require special arrangements in order to meet course requirements should contact the instructor as soon as possible to make any necessary accommodations. Student should present appropriate verification from AccessTECH. No requirement exists that accommodations be made prior to completion of this approved university procedure.