PHYS 1408 Principles of Physics I
Laboratory Syllabus
Summer II 2016
Texas Tech University

Laboratory Instructor: __________
Section: __________

Laboratory Coordinator:
Dr. Keith West
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Email: keith.h.west@ttu.edu

Laboratory Manual: The manual is available from the Society of Physics Students. The locations and times are as follows:

M 12:30 PM - 5:00 PM, July 11 – July 15, Room 004 in the basement of the Science Building. All manuals are $30.

Students must purchase a lab manual before their first lab meeting. Students who do not have a lab manual will not be admitted to lab and due to most sections being full probably will not be allowed to make that lab up. If you have a financial issue, please see Dr. West. He will make exceptions to the above requirement at his discretion.

Meeting Place: Science Building 105 Note: No food or drinks are allowed in the laboratory, including bottles and cups with lids.

Laboratory homework: A laboratory homework will be assigned each laboratory activity. It will be turned in the following lab meeting 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 lab homework will be emailed to you in advance of the lab it covers by Dr. West.

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.

Obviously attendance is the most important part of participation. If you aren’t here, you can’t participate. Absences will be excused for university events, illness (documentation may be required), funerals (documentation may be required and excuses for funerals are at Dr. West’s discretion), court appearances (plaintiff, defendant, witness, juror, documentation is required). Occasionally something so out of the ordinary occurs that you may feel should be grounds for being excused. Please see Dr. West if you feel you have extenuating circumstances. Excuses for extenuating circumstances are at Dr. West’s discretion. (Note that long weekends or family trips do not count as extenuating circumstances.)

The general policy in physics labs is that if you KNOW IN ADVANCE you will be absent, you need to try to arrange a make-up lab rather than assume the absence will be excused, even for the reasons listed above. For example, if you have lab on Thursday and will be appearing in court
that Thursday, there is no reason not to try to make up the lab on Wednesday if possible. The reason for this is so you can gain a better understanding of the material, some of which is best learned through doing.

Obviously, if life happens, it isn’t always possible to make up a lab, but if you can, you should try to do so. Make-up labs will be at Dr. West’s discretion. He may simply excuse the absence, but please check with him before showing up to a lab section or assuming the absence is automatically excused. If you need to make up a lab or have it excused due to an unexpected absence, you must do so by the next laboratory meeting. Excuses presented at the end of the term will not be accepted.

Students are expected to arrive on time and be prepared to begin work when the lab starts. Please keep in mind that if someone is late, that person’s group will have to catch that individual up. This can result in the group not finishing the laboratory activity, and as a result everyone’s grade suffers. Therefore, students arriving more than 15 minutes late will not be admitted to lab. Dr. West recognizes that from time to time things happen which can delay someone. If something occurred to prevent the student from arriving on time, a makeup lab without penalty can be arranged at Dr. West’s discretion. Students who are late on a consistent basis will be given a warning to be on time. If that person continues to be late, he/she will not be admitted to lab and will not be allowed to make up that lab.

After attendance, conducting the investigation is the most important part of participation. If you do these things, you should be fine. Participation points will be lost if you socialize, play with lab equipment, fail to take part in the experiment, or are otherwise not on task. Cell phone usage or other violations of the lab rules that result in a student being dismissed will carry a 10% reduction in the course participation grade as well as a zero for all work associated with that lab.

Participation will count as 25% of your grade.

**Laboratory experiments:** The laboratory experiments are as listed in the laboratory manual, except that they may not always be worked in the same order as in the manual. Every effort will be made to keep the lab topic the same as is being covered in lecture that week or was covered in lecture the previous week, but please keep in mind that it will not always be possible to do so.

Performing the experiment will count as 45% of your lab grade. Make sure you have answered all questions, done all calculations, and had your TA check all places where you are instructed to discuss with your TA. Lab write-ups are due at the end of the lab period.
Tentative list of laboratory experiments:

<table>
<thead>
<tr>
<th>Date</th>
<th>Activity</th>
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<tbody>
<tr>
<td>07/13 – 07/14</td>
<td>Experimental Uncertainty and Vector Analysis</td>
</tr>
<tr>
<td>07/18 – 07/19</td>
<td>1-D Motion Part I</td>
</tr>
<tr>
<td>07/20 – 07/21</td>
<td>2-D Projectile Motion</td>
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<tr>
<td>07/25 – 07/26</td>
<td>Gravitational Forces</td>
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<tr>
<td>07/27 – 07/28</td>
<td>Force and Motion</td>
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<tr>
<td>08/01 – 08/02</td>
<td>Work and Energy</td>
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<tr>
<td>08/03 – 08/04</td>
<td>Collisions and Linear Momentum</td>
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<tr>
<td>08/08 – 08/09</td>
<td>Periodic Motion</td>
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Grading:

- Laboratory: 45%
- Laboratory homework: 30%
- Participation: 25%

Any student who, because of a disability, may require special arrangements in order to meet the course requirements should contact the instructor as soon as possible to make any necessary arrangements. Students should present appropriate verification from Student Disability Services during the instructor’s office hours. Please note instructors are not allowed to provide classroom accommodations to a student until appropriate verification from Student Disability Services has been provided. For additional information, you may contact the Student Disability Services office in 335 West Hall or 806-742-2405.