THE MATERIAL ON THE NEXT FOUR PAGES IS IMPORTANT!!!
PLEASE READ VERY CAREFULLY AND KEEP IT HANDY!!

PHYS 1100 Laboratory Syllabus
Spring 2016

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Office: Burson 135B  Office Phone: (704) 687-7470

DO NOT FORGET TO FILL THE INFORMATION BELOW DURING YOUR FIRST LAB SESSION. YOU WILL USE THIS INFORMATION TO GET IN TOUCH WITH YOUR INSTRUCTOR DURING THE SEMESTER.

Your Instructor’s name: _______________________

Your Instructor’s Phone: _____________________ Email: ______________________

COURSE MATERIAL REQUIRED:
- Login to Moodle-2 to access the lab manual write ups. Download and print the lab write ups before coming to each lab.
- Calculator
- A thin binder to keep your lab reports, homework and quizzes. Retain it until your grade has been posted.

COURSE INFORMATION: Laboratory investigations illustrating experimental techniques and fundamental principles of natural phenomena.

COURSE OBJECTIVES:
- To conduct an organized and scientific investigation in order to experimentally verify the theoretical concept introduced in the lecture
- To familiarize students with experimental apparatus and scientific method of data collection and analysis
- To derive conclusions from the results based on your understanding of the relevant physics
- To study and understand introductory physics concepts via computer simulation experiments and exercises

LABORATORY ACTIVITIES:
- 6 experimental laboratory sessions
- Labs meet every other week. See the schedule below.

COURSE GRADING:

All six labs will count towards your final grade. Each lab is worth the same (16.6%).

>= 90%:  A  
60-69.9:  D
80-89.9:  B  
< 60%:  F
70-79.9:  C
LAB ATTENDANCE POLICY/ MAKE-UP LABS:

PLEASE NOTE THAT STUDENTS WHO MISS A LABORATORY MEETING WILL LOSE 16% FOR THE LAB REPORT. THIS LOSS WILL AUTOMATICALLY PREVENT YOU FROM SCORING ENOUGH POINTS (90) TO ATTAIN A FINAL GRADE OF ‘A’!

There are NO Make-up labs:

- If you miss a lab due to reason which classifies as genuine reason for absence as per university policy (http://provost.uncc.edu/policies/classroom-attendance), the credits of that lab will be added to your final exam.
- If you miss a lab due to reasons beyond your control, it will be upon the discretion of lab instructor whether or not to grant you an excuse for that lab.

Academic Integrity:

Students have the responsibility to know and observe the requirements of The UNCC Code of Student Academic Integrity (See the UNCC Catalog). This code forbids cheating, fabrication or falsification of information, multiple submission of academic work, plagiarism, abuse of academic materials, and complicity in academic dishonesty. Any special requirements or permission regarding academic integrity will be stated by the instructor, and are binding on the students. Academic evaluations in this course include a judgment that the student’s work is free from academic dishonesty of any type; and grades in this course therefore should be and will be adversely affected by academic dishonesty. Students who violate the code can be expelled from UNCC. The normal penalty for a first offense is zero credit on the work involving dishonesty and further substantial reduction of the course grade. In almost all cases the course grade is reduced to F. Copies of the code can be obtained from the Dean of Students Office. Standards of academic integrity will be enforced in this course. Students are expected to report cases of academic dishonesty to the course instructor.

Although the data collection during the lab is a group effort, data analysis and answering the questions related to the obtained data MUST be individual effort. Failure to do so will be treated as a case of academic dishonesty and will be dealt according to the University Policy.

Conducting a Laboratory Investigation

The goal of a physicist is to gain an understanding of our physical universe. To gain this understanding, observations must be made on physical systems. If the understanding is to be anything more than superficial, measurements of the physical properties of the system must be made. These measurements, once made, can then lead to a factual understanding of the system. For example, if our physical system is a bow and arrow, we can gain a factual understanding by examining the results of experiments done with the bow and arrow. To obtain this understanding we might begin by examining the physical appearance of the bow and arrow and by measuring certain properties of the bow and arrow, such as the length and mass of the arrow, the dimensions of the bow, etc. We might want to determine how far the arrow will travel when the bow string is pulled back by different distances or when the arrow is launched at different angles. In order to obtain and utilize the factual information in an efficient manner, certain techniques must be learned concerning the manner in which experimental data is obtained and how it is analyzed. In this laboratory many of the experiments have been designed to allow you an opportunity to develop skills necessary to make meaningful measurements, to extract useful data from a given physical system, to organize the data so as to reveal the maximum information about the system, and to draw conclusions about the system which are supported by the factual information.
obtained as a result of having done the experiment. Although your experiences in this class relate to the field of physics, the techniques whereby a problem is approached in a systematic way can carry over into many fields of study.

LABORATORY REPORTS

You will use your lab manual pages to complete the lab reports. Follow the procedure and fill the appropriate tables, draw graphs, do calculations. Once you completed your lab report, print your name, your partner’s name and the date. Submit the associated pages to your instructor. The report will be graded by your instructor and returned back to you at the beginning of the following lab session.

Please retain your graded lab reports until the final grade is posted. In case of any grades disputes at the end of the semester, it will be the student’s responsibility to furnish the lab report to the TA or lab coordinator. Thus, make sure you pick up your graded lab report every lab session.

PHYS 1100 Laboratory Schedule
Spring 2016
Lab Location: Burson 131
Group A includes students with Even-numbered lab sections (e.g. L12, L14, etc)
Group B includes students with Odd-numbered lab sections (e.g. L13, L15, etc)

<table>
<thead>
<tr>
<th>Week of Jan 18th</th>
<th>Group A activity</th>
<th>Group B Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week of Jan 25th</td>
<td>NONE</td>
<td>Lab 1 - Measurements</td>
</tr>
<tr>
<td>Week of Feb 1st</td>
<td>Lab 2 – Position Vs. Time</td>
<td>NONE</td>
</tr>
<tr>
<td>Week of Feb 8th</td>
<td>NONE</td>
<td>Lab 2 – Position Vs. Time</td>
</tr>
<tr>
<td>Week of Feb 15th</td>
<td>Lab 3 – Newton’s Law</td>
<td>NONE</td>
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<tr>
<td>Week of Feb 22nd</td>
<td>NONE</td>
<td>Lab 3 – Newton’s Law</td>
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<tr>
<td>Week of Feb 29th</td>
<td>Lab 4 – Centripetal Force</td>
<td>NONE</td>
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<tr>
<td>Week of Mar. 7th</td>
<td>NONE</td>
<td>NONE</td>
</tr>
<tr>
<td>Week of March 14th</td>
<td>NONE</td>
<td>Lab 4 – Centripetal Force</td>
</tr>
<tr>
<td>Week of Mar 21st</td>
<td>Inclement Weather Make up Labs</td>
<td>Inclement Weather Makeup Labs</td>
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<tr>
<td>Week of March 28th</td>
<td>Lab 5 – Equipotential Surface and Electric Fields</td>
<td>NONE</td>
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<tr>
<td>Week of April 4th</td>
<td>NONE</td>
<td>Lab 5 – Equipotential Surface and Electric Fields</td>
</tr>
<tr>
<td>Week of April 11th</td>
<td>Lab 6 – Reflection of Light</td>
<td>NONE</td>
</tr>
<tr>
<td>Week of April 18th</td>
<td>Labs completed</td>
<td>Lab 6 – Reflection of Light</td>
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