**PHY 1033-001 Physics for Engineers and Scientists I Laboratory**

**Mon 1:00 PM to 2:50 PM**

**Room SC 1081**

**Instructor Information**

<table>
<thead>
<tr>
<th>Instructor: Manish Kumar Kothakonda</th>
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<td>Office: SC 1051</td>
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<td>Office hours: By appointment</td>
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<td>Tutoring Center Hrs: Tue 3:30PM-6:30PM</td>
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<th>Lab Coordinator: Kevin Stokes</th>
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**Required Textbook and Supplies**

- A scientific calculator

**Prerequisites**
Credit for or concurrent enrollment in PHYS 1031.

**Student Learning Outcomes**

- Recognize how observation and experiment connect to the theory learned in lecture.
- Perform basic laboratory data analysis techniques, including graphical representation of data and an understanding of statistical and systematic errors and error propagation.
- Demonstrate basic experimental skills; be able to set up and conduct an experiment including computer-based data collection.

**Attendance Policy**
Attendance is required. Laboratory is all about doing, so if you are not present to engage in the laboratory experience, you do not get credit. Be sure to sign the attendance sheet every day you come in. Have your instructor review and initial your data sheet before leaving lab. This document is to be turned in with your written lab report. There are no make-up labs. The lowest lab report grade and quiz grade are dropped; if you are absent for one class and earn a zero, this will be the grade that is dropped. You are expected to report to class on time. If you are tardy, you will miss the quiz that is given at the beginning of class. You may also lose credit on your lab report based on not being present for the entire laboratory activity.

**Grading**
Lab reports count for 80% of the course grade, quizzes 10%, and the final exam 10%. Homework is included in the lab report.

Late assignments may be turned in up to one week late, and can receive up to half credit. After one week, a grade of zero will be given for the assignment. There is no extra credit work.

Final letter grades are based on the following grading scale: A, work of the highest degree of excellence (90 – 100%); B, work of a high degree of excellence (80 – 89%); C, satisfactory work (70 – 79%); D, passing but marginal work (60 – 69%); F, work failed (below 60%).
Quizzes
Each laboratory period begins with a three to five minute quiz. You are expected to prepare for lab by reading the lab manual for that session and familiarizing yourself with the theory and basic procedure. There are no make-up quizzes. If you are late for class you will miss the quiz and earn a zero for the quiz grade.

Participation
You will work together in small groups (2 – 4 people) to complete each lab. The lab will consist of performing an experiment and gathering data to test a hypothesis or explore a physics concept. The experimental procedure is in the lab manual and all needed equipment will be provided. You are encouraged to discuss the activity with your group and to ask your instructor questions during class. When you have completed collecting data, have the instructor review your data and initial your data sheet. The written lab report is due at the beginning of the next class and should include the initialed data sheet. If your lab manual has a separate homework section, that is also due at the beginning of the next class. The lab report and homework should be stapled together. All members of the team are expected to share in the activity and discussion of the lab. Points will be deducted from the lab report grades of a team if all members are not participating. You are expected to leave your lab station neat and orderly. Failure to leave your lab station neat and orderly will result in a deduction of points from your grade. You are expected to take proper care of the equipment that is issued to you. Any reckless damage to equipment will result in a grade reduction.

NOTE: Cell Phones are not to be used.

Academic Integrity
Academic integrity is fundamental to the process of learning and evaluating academic performance. Academic dishonesty will not be tolerated. Academic dishonesty includes, but is not limited to, the following: cheating, plagiarism, tampering with academic records and examinations, falsifying identity, and being an accessory to acts of academic dishonesty. Refer to the Student Code of Conduct for further information. The Code is available online at http://www.studentaffairs.uno.edu.

Students with Disabilities
It is University policy to provide, on a flexible and individualized basis, reasonable accommodations to students who have disabilities that may affect their ability to participate in course activities or to meet course requirements. Students with disabilities should contact the Office of Disability Services as well as their instructors to discuss their individual needs for accommodations. For more information, please go to http://www.ods.uno.edu.