

Course Syllabus

Course Objectives: The lab compliments the lecture section, Physics 151, by giving the student experience with data collection and analysis. Also the lab reports provide the student with practice in stating procedures and results in a succinct, rational fashion.

Requirements: The student should bring writing utensils (preferably pencils), paper (a lab book is useful though not required), and a calculator.

Lab reports: Reports are due one week from the time of the experiment. The report should have a title (heading), date, student's name and Social Security Number on the front page. The following page should contain a brief (one paragraph) discussion of the experiment's objective. Following that is a paragraph detailing the procedures performed during the experiment. The next page(s) lists the raw data in the form of a table. After that calculated values and graphs are presented. Lastly, a page should be devoted to analysing results and stating conclusions. In this section, any problems or possible sources of errors are noted.

Grading: There will be 14 labs, each graded on a 0 -20 scale. So there 280 possible points. The final grade is determined by the formula
 $(1 / 280) \Sigma (\text{lab scores}) \times 100 = \text{final numerical grade}$. The letter grade is found then using the scale

90 - 100 = A
80 - 89 = B
70 - 79 = C
60 - 69 = D
00 - 59 = F

Lab Schedule:

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|----------------------------------|-------------------------------|
| 1. Determination of density | 8. Torque |
| 2. Study of statistics | 9. Centripetal Force |
| 3. Determination of g | 10. Rotational Inertia |
| 4. Force table - vector addition | 11. Hooke's Law II |
| 5. Hooke's Law | 12. The Simple Pendulum |
| 6. Inclined Plane | 13. Speed of Sound |
| 7. Atwood's machine | 14. Gas Laws and Heat Engines |