

## Grading Policy for Physics 4AL

Each of the seven experiments must be attempted and written up. The report is due at the beginning of the session following the one at which the experiment was performed. Experiments must be performed in the lab section for which the student is registered.

An acceptable report must include:

1. **Identification information.** This includes student name and ID number, the date of the experiment performance, the partner's name, the experiment name, the course title (Physics 4AL), serial numbers or setup numbers for all equipment.
2. **The goal of the experiment.** The report must demonstrate an understanding by the student of what the goal is and how it is accomplished.
3. **Equations** relevant to the experiment should be stated and referenced. They need not be derived.
4. A clear, brief description of the experimental method.
5. **Data** should be displayed in an appropriate form such as a spreadsheet printout, or if that is too long, a graph.
6. **Uncertainties** should be estimated for all data as a number and a statement of the basis for the number. For example, the timer of the PSW runs at about 10 kHz so the accuracy of any interval will not be better than about .14 milliseconds.
7. **An error analysis** should be given for any quantity derived from the data. Theoretical predictions also have uncertainties and these should be given.
8. **Individual data for each student.** Students are encouraged to discuss and share ideas. Each student is responsible to put the ideas into his or her own words, equations, presentations (plots, tables, drawings, and the like). Verbatim copying of these amounts to plagiarism.
9. **Comparison of predictions and measurements.**
10. **Vocabulary and style.** Has the student learned the common names of various apparatus, statistical quantities, physics quantities, and so on. Also look for other stylistic characteristics like significant figures. Don't be overzealous.  $1.115 \pm .015$  could be shortened, but don't make it an issue. On the other hand,  $1.114999 \pm .014999$  should be challenged.
11. **Make a point of simplifying communication.**

Each report will be graded passing or not passing on the basis of how well the criteria are met. For the first two experiments students will be allowed to correct a non-passing report and resubmit it to remove deficiencies indicated by the TA. This must be done no later than the lab session following the one when the TA returned the report to the student.

Course grades are assigned by the instructor. A and B will be used for passing grades, including shadings of "+" and "-". The minimum requirements are:

B	3 at least P, 3 at least P-, No more than 1 NP
A	7 P. A P+ can cancel a P- to count as 2 P's
A+	7 P of which at least 3 are P+

These guidelines are approximate averages; individual student grades often do not conform, especially in borderline cases. An attempt is made to compensate for grading differences on the average for different TA's.