

PHYS 170 Laboratory Reports

	Exemplary	Proficient	Needs Improvement	Unacceptable	
Pre-Lab Quiz	/5 pts				
Cover Sheet		All item are there 2 pts	Some items missing 1 pts	No cover sheet or many items missing 0 pts	
Theory	A well-developed paragraph describing the important concepts, relationships, and theories where applicable are included in the write-up, predictions are made , and applications of the principles are included. (8pts)	A well-developed paragraph describing the important concepts, relationships, and theories where applicable are included in the write-up, application of the principles are included (6pts)	The paragraph describing the important concepts, relationships, and theories where applicable are included but missing at least one key element or one inaccurate statements. (4pts)	The paragraph describing the important concepts, relationships, and theories where applicable are included but missing numerous key elements or containing numerous inaccurate statements OR the paragraph is missing. (2 or 0 pts)	
Measuring Instruments table	Each piece of measuring equipment used in the experiment is listed along with its uncertainty and a description of the source of that uncertainty. (4pts)	Measuring equipment used in the experiment is listed along with its uncertainty and a description of the source of that uncertainty with only one error or omission. (3pts)	Measuring equipment used in the experiment is listed along with its uncertainty and a description of the source of that uncertainty with two errors or omissions. (2pts)	Measuring equipment used in the experiment is listed along with its uncertainty and a description of the source of that uncertainty with more than two errors or omissions. (1 or 0 pts)	
Data & Calculations tables	Data and calculation tables showing all measurements are included in the write-up that include accurate labels and units for all measurements. Data are reasonable. (8pts)	Data and calculation tables showing all measurements are included in the write-up that include accurate labels and units for all measurements with only one error or omission. Data are reasonable. (6pts)	Data and calculation tables showing all measurements are included in the write-up that include accurate labels and units for all measurements with two errors or omissions. Data are reasonable. (4pts)	Data and calculation tables showing all measurements are included in the write-up that include accurate labels and units for all measurements with more than two errors or omissions OR data are not reasonable. (2 or 0 pts)	
Analysis	All required analysis (including graphs, calculations, and comparisons) are carried out, organized, and clearly identified. Graphs (where applicable) include appropriate scales, titles, labeled axes, and appropriate theoretical fits. (8pts)	Required analysis (including graphs, calculations, and comparisons) are carried out, organized, and clearly identified. Graphs (where applicable) include appropriate scales, titles, labeled axes, and appropriate theoretical fits with only one error or omission. (6pts)	Required analysis (including graphs, calculations, and comparisons) are carried out, organized, and clearly identified. Graphs (where applicable) include appropriate scales, titles, labeled axes, and appropriate theoretical fits with two errors or omissions. (4pts)	Required analysis (including graphs, calculations, and comparisons) are carried out, organized, and clearly identified. Graphs (where applicable) include appropriate scales, titles, labeled axes, and appropriate theoretical fits with more than two errors or omissions. (2 or 0 pts)	
Conclusions	A thoughtful discussion of the results of the experiment that includes all of the components described in the lab manual. (8pts)	A thoughtful discussion of the results of the experiment that includes all of the components described in the lab manual. The discussion has some minor errors or flaws. (6pts)	A discussion of the results of the experiment that includes some of the components described in the lab manual OR All components are present but the discussion has some serious errors or flaws. (4pts)	A discussion of the results of the experiment that includes some of the components described in the lab manual AND the discussion has some serious errors or flaws. (2 or 0 pts)	
TOTAL					

Conclusion requirements (refer to more specific reference material in the lab manual)

- ✓ Restatement of objectives and description of how it was achieved in the experiment
- ✓ Summary of the experimental results for each intermediate step as well as the final result.
- ✓ Presentation of the how well correlate experimental results were with theoretical expectations.
- ✓ Comment on why the experimental values are not exactly the same as the theoretical.
- ✓ Any other concluding remarks you might have to wind up the report.