PHYS319-Optics
Lab Report Format
Spring 2018 version

Title: Experiment Name/Your name/Lab Partner(s):

Abstract [5 pts]: defined in dictionary as *a summary of points…*

Your abstract should be a concise statement of the major points of your experiment. It should include the following-

Objective/statement of experimental methods /primary results and any statement elaborating on the results/primary sources of uncertainty

Theory/Method [10 pts]: Short description of main theory (e.g., primary equations) and the methods used in the experiment. ***Your method should include summary of relevant method (& how it relates to theory) only and not a step by step rehash of procedure.***

Results [15 pts]: The results should be placed in one concise form (e.g., a table). Your lab instructor should not have to look for your results. *You should always calculate % error and % difference whenever relevant* and present with results.

Graphs (graded as part of results above) can be put in either the results section or in the back of the lab report . You should always explicitly state any specific relevant results obtained from your graph (e.g., the slope of the equation of a line). **Graphs should be fully labeled.**

Sample calculations [5 pts]: (You should show one type of each different kind of calculation used to arrive at your results (e.g., a wavelength calculation)

Discussion of Results [30 pts]: You should explicitly summarize your experimental objectives and discuss whether they were accomplished. You are to discuss your results in the context of the main theoretical principles. If your objectives were not met you should discuss the reasons why. You should always discuss sources of uncertainties and errors. Any suggestions on how to improve the lab should be placed here.

Please note that occasionally you will discuss a concept only to see it asked as a question. If this occurs, simply make a note of it in the **Questions** section. You do not have to re-answer the question. *It is strongly recommended that you look at the questions before you write your discussion since you will probably find important concepts there.*

Lab data [5 pts] –Data taken in lab should be neatly presented, fully labeled and initialed by your teaching assistant. **A (photo or copy) should be turned in with your report.**

Questions [30 pts]: Always answer the questions at the end of the lab procedure if there are any given.

For 50 point Reports

Turn only following sections: Abstract (7 points), Results (5 points), Sample calculations (5 points), Questions (30 points) & copy of data (3 points).