Lab Report Guidelines

The goal of a lab report is to provide a technically competent reader with a clear description of your work, including measurements, calculations, and conclusions. Each group can submit a shared report, which includes the names of the group members who are formally included in that group, except by permission of the instructor. Your report will be graded on clarity and completeness. The length and format of the report is up to you. You chose how to describe the setups (e.g., with text descriptions, hand draw sketches or computer generated diagrams, or photographs). Most reports are written on a computer and printed, a few pages long, and contain the following sections:

Objective – A brief description of the goals of the lab.

Procedure – A detailed description of what was done in the lab in paragraph form. Do not simply copy the lab manual’s procedure. This should include any differences from the lab manual and always include specific values (e.g. a lens with a focal length of 200mm… the image plane was placed 40cm from the lens, etc.). Be sure to include a drawing of optical setup for each part (unless the optical setup remained the same). The idea is for someone to be able to replicate your lab measurements.

Data/Results – This part should include any and all relevant data that was recorded in some shape or form (i.e. tables, graphs, sketches, etc.). Each table or figure should be clearly labeled so that they can be referred to easily.

Analysis – This part should answer all of the questions in the lab handout as well as detail any observations that was not/could not be included in Data/Results. As the name of this part suggests, you should analyze the data find its significance. (Why was this important?)

Conclusion – This should be a quick summary of if and how the goals of the lab were achieved. This is where you can make a note of any errors or discrepancies that may have occurred.