

Physics 357: Intermediate Laboratory (CRN 20128)

Course policies particular to the Writing Intensive attribute

SUNY Cortland policy on writing intensive course requirements

Writing Intensive (WI) courses have the following characteristics:

1. They require students to write the equivalent of 15 typed pages
2. They require at least 2 pieces of writing; or in some courses, one project which will be submitted in multiple drafts.
3. Any writing for a final examination is not included in the 15 pages of writing required.
4. Students must have opportunities to revise their written work.

The assignments

Your 15 pages (minimum) of required writing will be more than covered in 6 lab reports and 6 pre-lab designs. I expect that each lab report will be 3-5 pages in length, depending on the complexity of the experiment. The pre-lab designs can be brief documents and do not need to be polished pieces, but must be complete in terms of information content.

Revisions

You will have the opportunity to revise each of your lab reports in response to instructor feedback. Revisions will be due 1 week from the date on which comments are returned to you.

My expectation for writing

My experience has been that every document (including all of my own writings) needs to be reworked, usually multiple times, before a state of good quality is achieved. I do not expect, nor should you, that your first draft will be your last.

Assessment

We will use the contract grading system for the lab report assignments where you will receive partial credit for your work based on completion of a set of target elements, where quality is of lesser concern. The remainder of your grade will be quality-based.

Contract component = 60%

Each lab report must include some essential elements. A detailed list of these and the specific weighting for these will be provided to you after the first homework assignment is due (it asks you to review this and the report template to create your own list of necessary elements). Successful implementation of each of these components in the first draft of any report will earn full credit for that item. Partially implemented or sloppy implementation of any category can warrant a reduction in the score attributed to that component.

Quality component = 40%

The remaining 40% of the score for each lab report comes from assessment of quality. This includes both the quality of the analysis, presentation of the analysis with graphics and tables, and in the writing. A nicely written first draft can, in principle, be awarded the full 40% for this category. You will have one chance to revise each report and you can earn the full 40% on the second draft regardless of score was awarded on the first draft.

Extra credit

You can earn up to an additional 5% of the total course grade on each of two additional assignments. Use the standard formatting guidelines provided here for these documents.

- A 2-page reflective analysis of the revision process you undertook with the support of the College Writing Center.
- A 2-page analysis describing your experience with peer-editing.

Pre-lab designs

Prior to conducting any experiment you must write a pre-lab design. This can be done and submitted as a team effort (maximum number of team members is 3) as long as everyone on the team has (a) contributed to the pre-lab design, (b) has read the entire document, (c) understands and agrees to what has been written. Credit will be given only to those people whose names are on the document. The core elements necessary for each pre-lab design are

- a description of the general aims of the experiment where you outline the theoretical nature of the problem, defining any relevant equations or prior work;
- a specific question that you will address, where providing an answer to the question is feasible given our resources, necessarily involves quantifiable measurements, and is sufficiently interesting to be deserving of study;
- a list of the equipment you will use in this study;
- an outline of the experimental procedure which includes and calibration steps or important prior work, what exactly you will measure, and how many measurements you estimate that you need to make in order to achieve your desired accuracy;
- an outline of the analysis where you will specify how you will use the measured quantities to obtain the desired information to answer your question;
- and any safety precautions, procedures, or PPE (personal protective equipment) that is needed to safely conduct this experiment, considering both the equipment and the space.

Additional Resources

SUNY Cortland opened its Writing Center last spring. This center is located in Room 216 in Brockway Hall. You can make an appointment with them to review your writing and develop a plan for revisions. You may want to visit here before and after your first draft.

Formatting:

You should use the provided template file, which has the following formatting conditions included:

1. 5 pages of text, not including the figures and references (on separate pages at the end)
2. Includes abstract, introduction, body sections, conclusions, figures, and references
3. 1" margins all around
4. Standard font selections: Times New Roman 12 point
5. 1.5 line spacing
6. Figures must include a caption with a numerical reference
7. A minimum of three citable references. Two of these must be scientific papers, books or equivalent.
8. You must properly cite statements in the paper that are not your own. Note that this includes things that are not exact quotes. You do this anytime you take an idea that is not common or your own.