

Writing Across the Curriculum (WAC) for PHYS 4780

Communication of background, experimental methods, results, analysis approach, and conclusions is a critically important aspect of scientific research and experimental activity. It is this writing that puts your results in context and gives them much of their meaning and impact. Effective written communication requires hard work to establish a clear line of reason, from which you can prepare efficient and careful text to clearly, colorfully, and effectively convey your information and ideas. Although writing should certainly not be *under-emphasized* for students who have *not* signed up for the WAC section, those of you who are WAC students in this class will have one additional assignment that is focused on further developing your written communication skills.

I indicated in class that this assignment would be a “science history” paper, focusing on the history of one of our specific experiments. I’d like you to consider choosing from among these topics:

1. History of solar observing and the heliostat
2. Early atomic (light) emission spectroscopy
3. The discovery of radioactivity (touching on various forms, including x-Ray, and others)

There will be three basic steps (note the deadlines) in the process of writing the paper:

- a. Propose the topic and an outline to me (i.e., first, put some thought into how the paper can be sketched out to make it interesting and useful); **by September 24**
- b. Based on my feedback, prepare a first draft that you feel captures the essence of the topic, and that you feel good about (takes some work). Provide this to me (**by November 1**) and I’ll return it with comments;
- c. Based on my feedback and your own ideas, complete the final draft. **By December 1**

Note: For WAC section students, the final grade will be based on a weighted average of the lab reports (75%), the science history paper (10%), and the final exam (15%). For reference, the non-WAC section students’ final grade will depend on a weighted average of the lab reports (85%) and the final exam (15%).