

PHYS 3600 – Seminar in Presenting Physics Research
Mon 2:10 - 3:00 pm
Stevenson Center 1117 (Math Bldg)

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Office Hours: Fri 2-3pm

Course Description

Scientists do not work in isolation. Whether working in industry, academia or government, scientists spend a significant fraction of their time writing papers and giving talks. Frankly, a scientific research program is incomplete until its methods, results and conclusions are successfully communicated to others. This course will be directed towards that meta-content, i.e. helping you learn to communicate effectively as a scientist. To that end, you will spend most of your time for this class reading abstracts and papers, listening to and critiquing scientific talks, writing your own talk abstract, and giving your own oral presentations.

You will be expected to attend and critique one scientific talk each week. It is highly recommended that this talk be the weekly Physics & Astronomy colloquium; however, if you have a conflict with the colloquium time (Thursdays 4-5pm in Stevenson 4327), then you are welcome to substitute another talk (there are dozens across campus each week; talk to me about selecting an appropriate one). You will be given a critique sheet that you will be expected to fill out and submit electronically by Friday at 5:00pm. This will give me time to compile the information in your critiques to jumpstart discussions of your critiques in the next Monday's class.

In addition, we will spend the first $\sim 2/3$ of the semester working on various presentation skills. During this time, each of you will give several VERY short (3-5 min) presentations that the rest of us will critique to help you improve your skills. These presentations should require a little advanced preparation – usually in the form of reading a scientific paper and choosing a figure from that paper to present and explain in detail. We will then spend the last $\sim 1/3$ of the semester with each of you giving an APS-style talk (10 min + 2 min for questions) on a specific research topic – either your own project or that of a faculty member whose research interests you. These longer talks will certainly require significant preparation time. You will also be expected to write an engaging title and abstract for your talk – an overlooked, but important skill.

Overall, your grade will be determined by

- 30% your weekly attendance at and critique of scientific talks
- 20% your participation in class discussions and critiques of others' presentations
- 10% your short presentations (graded on effort; these are learning experiences)
- 10% title and abstract of your APS-style talk
- 30% your APS-style talk

Note that this course is now a required part of the Immersion Experience in Physics & Astronomy, so please let me know if you are completing such an immersion experience, in which case you are expected to make a presentation on your own research project.

Note also that there is no textbook for this course, but selected readings will be provided.