SUNY Geneseo
Department of Physics and Astronomy
Class: R 2:30am; ISC 229
Web: www.geneseo.edu/~pogo

Online Office Hours:
MW 8:30-10:20;T 8:30-9:20; M 1:30-2:20

Dr. Pogo
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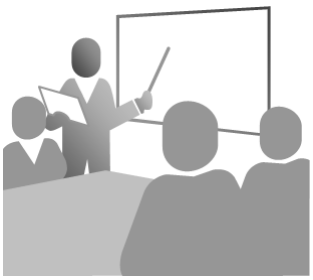
Seminar in Physics

(Phys 341-02)

Spring 2024

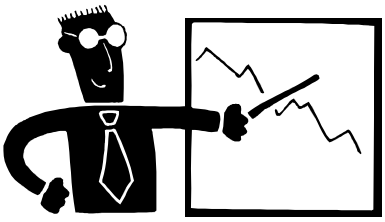


What am I doing here? The purpose of this course is to give you experience at delivering oral presentations of scientific material and technical information. You will be required to give four different presentations and to critique those of your peers. At the end of this course, you should be more confident when speaking in front of your peers, you should have developed prioritization and time management skills for presentations (since professional talks are frequently only 10 minutes long), you should be more aware of the strengths and weaknesses of technological aids used in presentations (PowerPoint, Zoom, etc.), and you should be more capable of critiquing and assisting your peers with these same skills.

There is no formal textbook for this class. However, the website has four very short articles on public speaking, taken from various sources. You must read all four articles before class on February 1, 2024.

How will I be graded? Your grade will be determined by:

Short Assignments	9%
First Presentation:	9%
Second Presentation:	14%
Third Presentation:	19%
Fourth Presentation:	24%
Self Evaluation and Interviews:	9%
Critique of your Peers:	10%
Critique of Colloquia Speakers:	6%
	100%



Your presentations will be graded on clarity and scientific content, appropriateness of your visual aids, time management, ability to answer questions, and poise. Design your presentation for an audience having the same knowledge as competent junior physics majors. Your critiques of others will be graded on helpfulness and integrity. Furthermore, the questions you ask of other presenters will be included in your "Critique" grade.

What are the presentations about? Each topic must be individually approved. You may not give a talk on the same subject already given by you or another student this semester. In all cases, you must create *all* graphics from scratch yourself.

Talk 1: 10 minutes long + 2 minutes for questions. Select a talk from category 1.
Talks 2: 12 minutes long + 3 minutes for questions. Select a talk from category 1, 2, or 3.
Talks 3: 15 minutes long + 3 minutes for questions. Select a talk from category 1, 2, or 3.
Talk 4: 17 minutes long + 4 minutes for questions. Select a talk from category 1, 4 or 5.

Category 1: A simple experiment that you design and perform this semester. At a minimum, you must create at least one relevant plot (e.g., y vs x) with at least 10 data points.

Category 2: A repeated experiment from sophomore physics lab, *performed again this semester*. You may not choose an experiment for which you already gave an oral presentation in another course. You may not choose from this category twice.

Category 3: An article from *Scientific American*, *Physics Today*, or similar journal. The talk must focus on the *article* itself, so you may not incorporate information from other sources about the same topic.

Category 4: An experiment that you performed in Intermediate Lab experiment. You do not need to repeat the experiment. You may not choose an experiment for which you already gave a talk. You may not choose from this category twice.

Category 5: A more complex experiment that you have never presented to a class before, such as a summer REU project or a PHYS 372 (Undergraduate research) project.

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Twenty Tips for Oral Presentations

1. Know the science of your talk inside and out.
2. Be careful to not assume that your audience knows more than they actually do.
3. Stay on topic. Although you may discover interesting biographical material about the scientists who did the work, that is not the subject of your talk.
4. Don't include a lot of text in a slide. Visual aids should be visual, not textual. Slides should be primarily for pictorial information and summary points. Whenever you have a lot of text, say it aloud rather than showing it.
5. When you do have text (such as titles or bullet points), don't read it to your audience. For the most part, the audio (spoken) and visual components should complement rather than repeat each other.
6. Memorize your script.
7. Practice and time your talk aloud several times.
8. You may bring notes (i.e., 3×5 cards, or even $8\frac{1}{2} \times 11$ paper), but they are for *emergencies only*, since you'll have your talk memorized. Well designed slides provide all the prompting that any speaker needs.
9. Make eye contact with your audience.
10. Avoid embedded sound effects, and animations that are cute rather than insightful. These suggest that you are filling up time because you have nothing relevant to say.
11. Make sure that visual aids have excellent (not merely adequate) contrast. Nobody can read a black font on a blue background. Projection images rarely have the same contrast as a monitor seen up close.
12. Artwork should be clear and as simple as possible to communicate the concepts.
13. Don't plagiarize! If you borrow artwork, you must cite the source. You may never "borrow" text of any kind. This is supposed to be *your* talk, not some web site's.
14. Begin on time. You will be given a 59 second grace period to start your technology. If you start late, it is *your* fault, not the speaker who went before you.
15. End on time. A 10:00 minute talk should last between 9:45 and 10:15 minutes.
16. Avoid inappropriate humor. This includes, but is not limited to, "inside jokes", comments about how the talk is going, and all slides having no purpose other than humor. In a real presentation, your audience will be comprised of 99% people you've never met.
17. Spend absolutely no more than 4% of your preparation time adjusting the layout of slides (borders, backgrounds, etc.).
18. Be prepared to give your talk even when there is no network connection! This probably means that you have a "physical" copy on a thumb drive when you arrive to class. You will be permitted to reschedule only on days when SUNY closes the campus.
19. Practice with the actual hardware. Software may be missing, different, or too slow.
20. Dress appropriately for a formal presentation.