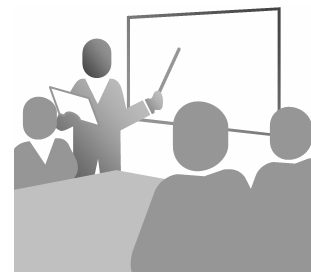


Seminar in Physics

(Phys 341-02)

Spring 2006

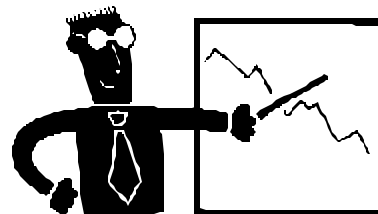


What am I doing here? The purpose of this course is to give you experience at delivering oral presentations of scientific material and technical information. You will be required to give three different presentations and to critique those of your peers. At the end of this course, you should be more confident 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, video, 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, I will distribute three short articles on public speaking, taken from *Physics Today*, *The Physics Teacher*, and from the *CUR Research Quarterly*. You must read all three articles before January 25.

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

First Presentation:	10%
Second Presentation:	25%
Third Presentation:	35%
Self Evaluation and Interview:	10%
Critique of your Peers:	10%
Critique of Colloquia Speakers:	10%
	<u>100%</u>



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 presentation will be different:

Your first presentation must be about a recent (1990-present) experiment that won a Nobel Prize in Physics. You must focus on the experiment, rather than the experimenter. The talk will be 10 minutes long with an additional 2 minutes for questions.

The second presentation must be about a journal article from either *Scientific American*, *Physics Today*, or *Physics Teacher*. Be aware that this talk must focus on the information in the article itself, rather than information from another source on the same subject as the article. The talk will be 12 minutes long with an additional 2 minutes for questions.

The third presentation must be about a successful experiment that *you* did (for example, in Intermediate Lab I, or in a summer REU). The talk will be 15 minutes long with an additional 3 minutes for questions.

Twenty Tips for Oral Presentations

1. Know the science of your talk inside and out.
2. 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.
3. 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.
4. 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.
5. Memorize your script.
6. Practice and time your talk out loud several times.
7. Feel free to use a reminder (3 × 5 cards, or even 8½ × 11 paper), but don't stare at it! This note card is for *emergencies only*, since you'll have your talk memorized.
8. Make eye contact with your audience.
9. Avoid embedded animations and sound effects. These almost always detract rather than support a talk. They suggest that you are filling up time because you have nothing relevant to say.
10. 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.
11. Artwork should be clear and as simple as possible to communicate the concepts.
12. 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.
13. 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.
14. End on time. A 10:00 minute talk should last between 9:45 and 10:15 minutes.
15. 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.
16. Be careful to not assume that your audience knows more than they actually do.
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! 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.