Course Aims
You are expected to deliver a ~50 minute talk on a literature topic and handle subsequent questions from the audience. Your delivery should be smooth and confident and adhere to accepted scientific practice. You will be expected to present without reading off of notes. The desired goal is for you to engage the audience—inspiring their interest with a compelling, well-crafted and scientifically correct and credible presentation of the literature articles. You should spend a lot of time thinking about the background scientific principles that underpin the research that you are talking about—an audience will often ask questions about these fundamental issues and it’s a problem if you cannot answer them. You are expected not just to “present” a handful of papers—you are expected to craft a presentation that:

- Provides an overarching explanation of the particular research area. Not “paper A reported this, paper B reported this, paper C reported this” but “Here is an important area of research because ... One approach to these challenges are to ... Recently a new technique has been proposed to address these challenges, namely...”. You are our guide on a scientific explanation, and this requires work—you should read the key papers cited in the references of the papers. Don’t gloss over things that you don’t understand—work to understand them.

- Addresses details such as “why”, “how” and “did it work”, “is it reliable/trustworthy”? You should be sufficiently prepared to handle questions from the audience, especially since people unfamiliar with the topic will always ask the most exotic, unexpected and challenging questions, and you are moreover not daily working in this research area.

Overall, you are expected to dramatically transcend the sort of simple summary of a paper that you may have previously given as an undergraduate. You are expected to make a unified whole of interesting research papers and guide us to understand them.

Professor
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Office hours: By drop-in (if I am available), or by appointment

Seminars
Wednesdays, 15:00-17:00, Pastore 234.

Grading and Requirements for Seminar
Plagiarism (see below) will result in a failing grade in the course and the initiation of disciplinary action.

Your grade will be determined by me using the criteria below and considering feedback from your audience. You should carefully read through the following to understand the criteria.
You will deliver a ~45 minute presentation on a literature topic and answer questions during and after the presentation. Practise to not be under 40 minutes. You will be graded on your preparedness, the quality of your presentation slides and the quality of your presentation. You are expected to present without reading off of prepared notes, to have slides that are professional in appearance and clearly and accurately capture the content of your presentation. You will be evaluated on these elements in addition to your ability to clearly and scientifically explain the papers. In particular, you must ensure that you must justify all conclusions with reference to the reported results: there must be a logical (scientific) progression that binds your presentation together.

You may select your own literature topic that is not “too closely related” to your own research, but must clear your selection with me. Your topic should be chosen to satisfy:

1. You must have at least 3 modern (last 3 years) papers from good peer-reviewed journals (ACS journals, Nature, Science, etc.) that will serve as the major focus of your presentation. Use Web of Science or SciFinder to find articles—don’t just use the ACS website.

2. You must have at least 2 more ancillary articles that provide historical context or theoretical underpinning of the paper that you will be presenting. These articles may be older than the 3 modern papers.

While it’s not a requirement, I encourage you to find an interesting topic. It makes everything go so much more smoothly. You need to choose a topic within the first week of class and then within the next 1-2 weeks you should clear the papers with me. Be prepared for this meeting—come with the papers printed out and have a working knowledge of them, including a statement of why you chose them. To find a topic, I recommend you scan the table of contents of a good journal in your field or read a few recent issues of C&EN news or Science or Nature to find papers that the editors thought were interesting (and usually were).

At least 2 weeks before your presentation, you should meet with me to go over your slides and rehearse your first ~5 slides of the presentation. Each student must choose at least one partner in the course. You will practise your talk at least twice in front of this partner in the week before your seminar. Your partner must supply written comments (copies to me) evaluating your presentation and you are encouraged to brainstorm possible questions from the audience together.

The information at [http://www.cyto.purdue.edu/Education](http://www.cyto.purdue.edu/Education) contains some very good advice on presenting, although I do differ with the author on a number of points. In my view, there are a number of key points to keep in mind:

- Reference any figures, text and/or work that is not your own
- Don’t have information on your slides that you don’t explain or even talk about
- Plan for spending 1-2 minutes per slide. Some slides will take less and that is fine. If you’re going to spend more than 2 minutes on a particular slide, think about how you could break that slide up into different pieces or at least provide the audience with a small break in the onslaught of information
- Don’t overload your slide with text—if your whole spoken presentation is on your slide, why do you even need to be there?
- It’s best to keep the audience interested and excited. Even if you (or your major professor) do not approve of “curing cancer” introductions, you nevertheless need to provide context for your work so that it can be understood by the general scientific audience in attendance.
- If you don’t understand a question, ask for clarification. If you still don’t understand, “I don’t know” is a far better answer than an answer that is terribly wrong.
I have pasted in at the end of this document the presentation advice I wrote for my students 2 years ago.

**Academic Honesty**

Academic dishonesty in any form is considered a serious offence, and disciplinary action will be taken immediately. The URI policy on academic honesty is detailed in the student handbook (available online), and it is summarized below:

*Students are expected to be honest in all academic work. A student’s name on any written work, including assignments, lab reports, papers, or exams, shall be regarded as assurance that the work is the result of the student’s own thought and study.*

*Work should be stated in the student’s own words, and produced without assistance (or properly attributed to its source). When students are authorized to work jointly, group effort must be indicated on the work submitted.*

The following are examples of academic dishonesty:

- Unauthorized communication during exams.
- Unauthorized use of another’s work or preparing work for another student.
- Taking an exam for another student.
- Altering or attempting to alter grades.
- The use of notes or electronic devices such as calculators, computers, or cell phones to gain an unauthorized advantage during exams.
- Fabricating or falsifying facts, data, or references.
- Facilitating or aiding another’s academic dishonesty.

When there is an allegation of academic dishonesty, the instructor may:

- Fail the student for the assignment, or recommend that the student fail the course.

While you are encouraged to discuss the seminars, the abstract must be written by you and in your own words: no shared text is permitted. Direct quotations are not permitted, either. Simply making small text substitutions (e.g., “But” instead of “However”) or rearranging sentences, for example, are not consistent with the expectation that you are reporting your work in your own words.

It would be rather unusual for you to include a direct quotation from the seminar speaker (take a look through the scientific literature and see how often you see quotation marks around a sentence), but if you feel that you must do it, then put the text in quotation marks and clearly attribute it to the speaker. It is the more usual style in the scientific literature to state, in your own words, what the speaker said and meant.

*It is your duty to avoid even the appearance of plagiarism. If you “cut and paste” text—even if you do it only in your head—you must not leave the reader with even the impression that you wrote that text. You must attribute the text to its owner (and remembering that direct quotation in science is really an unusual thing to do). “Cut and paste text” here means whole documents, images, paragraphs, groups of sentences, single sentences and even phrases—especially unique phrases. Standard scientific terms are collectively owned and need not be rearranged—it is, in fact, unhelpful to reword standard scientific phrases.*
Advice to the Dwyer Group

1. Prepare your talk at least one week in advance*. Then rehearse that day. You will probably have to make 2 or 3 major changes after people make suggestions. Do not be embarrassed at criticism from your group mates—presenting a scientific talk is an art and takes practice. The first time you present in front of me, the chances are that I will have a lot of ideas for you. Write them down—you will not otherwise remember them.

   *Note to CHM642 students: Start your research IMMEDIATELY—you are not presenting your own research, so you will need the research and thinking time!!!

2. Always, always, always, sign out the projector and make sure that your slides look the way that they’re supposed to, and that your computer doesn’t crash because your presentation is too big.

3. Practise. Rehearse. Alone and in front of people. If a non-scientist thinks it sounds good (even if s/he doesn’t understand it), then it probably does sound good. Ask your colleagues to screen your talk.

4. Make it look professional: clear and crisp images and layout.

5. Do not ever read off of your slide. Face your audience. Engage them. Look for confusion and adjust your talk accordingly.

6. Do not have anything on your slide that you will not talk about.

7. Don’t assume a high-level of background understanding from your audience unless it’s a highly specialized conference/meeting.

8. Explain things clearly. Point out important features—even obvious ones may not be obvious to someone not having stared at your data for hours upon hours.

9. Do not overload an individual slide with a lot of text and figures. Usually 1-3 critical features per slide. Use animation to control the flow of information (eg. have each point appear as you are making it). Use bullet points and sentence fragments. If you’re highlighting an important value, just write the value, not the value’s name and the value. This requires more of your memory, but that’s good.

10. Use a minimum of text. The audience is there to look at pretty pictures and to listen to you. Don’t make them read an article—they could have done that at home. It’s fine if you want to write out a script ahead of time. Just don’t use it during the talk.

11. I am not a big fan of having the first slide be an outline of your talk. Your talk should be a well-crafted story. When you watch a movie, they don’t outline in the first frames what is going to happen in the rest of the picture.

12. You should typically spend about 1-2 minutes per slide. Construct your slides accordingly.


14. Repeat 13 as needed.