

**CHM 644**  
**Graduate Seminar – Research Seminar**  
**Spring 2012**

## **Course Aims**

You are expected to deliver a ~50 minute talk on your independent research and handle 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 your research results. You should be sufficiently prepared to handle questions from the audience, especially since people unfamiliar with your research will always ask the most exotic, unexpected and challenging questions.

The preparation of this seminar should involved a lengthy and considered evaluation of the importance of your research to your particular research area, to the field of chemistry and to humanity.

## **Professor**

Dr. Jason R. Dwyer  
318 Pastore  
[jdwyer@chm.uri.edu](mailto:jdwyer@chm.uri.edu) (Please put CHM644 in the subject line)  
Office hours: By drop-in (if I am available), or by appointment

## **Seminars**

Fridays, 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.

You will deliver a ~50 minute presentation on your independent research and answer questions during and after the presentation. 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 your results. In particular, you must ensure that you must justify your conclusions with reference to the experiments performed: there must be a logical (scientific) progression that binds your presentation together.

Your presentation should be planned in coordination with your major professor. While I therefore do not require consultation during the preparation of your presentation, I offer it. You are most welcome to meet with me to discuss your presentation at any point during the preparation or polishing. The information at <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.

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 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 (eg. "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.
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.
13. Practise. Rehearse.
14. Repeat 13 as needed.