Chemistry 644
Graduate Seminar III
Spring 2020 Syllabus

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All presentations will be ~~in Beaupre 105~~ held via teleconference at 2:00 PM on Fridays

UPDATES AS OF 03/19/2020:

In light of the transition to online course instruction beginning March 23rd, students will give their seminars remotely via WebEx. A link to the WebEx meeting will be sent to the Chemistry Department the day of each seminar. At the conclusion of the talk, attendees will be able to ask questions. All seminar dates and corresponding due dates remain unchanged.

I encourage all of you to set up WebEx on your devices well in advance of your presentation so everything proceeds smoothly. URI has a site license for WebEx, and you can get it set up on your device for free by following the instructions here: https://web.uri.edu/its-webex/webex-at-uri/

Overview:

Scientists are required to give oral presentations of their research in a variety of formats throughout their careers, but perhaps the most important to master is the 50-minute research talk. This course provides students the opportunity to present the research they have performed throughout their graduate studies in such an environment. This exercise prepares student for their independent careers by requiring them to synthesize the results of their work into a coherent narrative and to draw upon the scientific communication skills they have carefully honed over several years.

Assignments:

You will be required to prepare and present a seminar covering the research you have performed throughout your graduate studies at URI. Your goal is to tell us a story – a highly technical story, but a story nonetheless. Simply recounting individual research projects is not sufficient. You need to explain to us, in the context of your entire body of work:

- The motivation – what scientific problem does your work aim to address, what larger societal issues is it relevant to…
- The historical context – what previous efforts laid the foundation for your work, what published results does it aim to clarify…
- The approach – what experimental, computational, and/or theoretical techniques did you employ (and why), how do they work, what novel approaches (if any) did you develop…
- The results – what data did you obtain, how do you interpret the data, how do your results build upon, challenge, and/or clarify previous results…
- The conclusions – how your individual projects fit together, how does your work advance the field (and beyond), what important questions remain unanswered…

Your presentation should be ~45 minutes. If you go past 50 minutes, I may have to cut you off. If you finish in less than 40 minutes, you will most likely fail the course. Thus, it is crucial that you prepare an appropriate amount of content and rehearse it thoroughly to make sure that you fit comfortably within that 40-50 minute window. You probably will not have enough time to cover all of your research projects, so carefully choose the material you think will make the best overall presentation. **It is almost always better to present a small number of projects in depth than to speed through a large number of projects!**

You are also forbidden to use handwritten or printed notes during your presentation. You may include reminders to yourself in your slides (e.g. in PowerPoint's "presenter view"), but you may not simply stand in front of your computer and read off the screen. You are expected to engage with the audience, something that is impossible to do when you are looking at a screen!

Finally, you will be responsible for fielding questions from the audience and providing accurate, thoughtful answers**.** Please bear in mind that you will be asked questions by audience members with very different research interests, so they may ask you about your work from perspectives you have never considered. You are welcome to take your time to carefully consider a question before answering and ask for clarification, **but we will not move on from any question until you have addressed it to the satisfaction of the person who asked the question.**

All presentations will be held on Fridays at 2:00 PM in Beaupre 105 and are open to the entire department, and you are welcome to invite anyone you wish from outside the department to your presentation as well. You should schedule your seminar with me as soon as you know when you will be ready to present, but you must do so at least three weeks in advance. **May 8th is the final day you may present to receive credit this semester**.

You must also submit a title and abstract to me as a PDF file through the "Assignments" tool in the Sakai site at least two weeks before your presentation. I will quickly provide feedback, which may include requiring you to revise your work. All revisions are due at least one week before your presentation. Abstracts should be 250 ± 50 words; titles should be concise yet descriptive (e.g. "Observing photoinduced charge transfer in transition metal complexes using X-ray transient absorption spectroscopy" rather than "X-ray transient absorption spectroscopy").

Expectations:

I am always happy to make myself available to meet with you to discuss any aspect of the work for this course. If my office door is open, feel free to stop in to talk. We can also schedule meetings by email.

For you talk, your oral delivery should be clear, confident, and professional. To accomplish this, you must rehearse your talk many, many times, both alone and in front of others. I suggest doing several rehearsals in front of different groups of your fellow graduate students to get a number of different perspectives. **Do not count on one practice presentation in front of your research group to be enough!** Your group members are going to be helpful in some ways, but they will NOT be able to prepare you for questions from members of the department working in very different fields (e.g. me!). If you are nervous about public speaking, you may find that you need to rehearse more than others.

You must make sure that your computer and presentation are compatible with the projector in Beaupre 105 *long before* the day of your talk, as we expect your talk to start promptly at 2:00 PM on the scheduled date. You are responsible for obtaining any adapters that you may need.

Your presentation must look professional and be easy to read. There is no "right" way to give a seminar, but there are certainly an infinite number of "wrong" ways! A very good introduction to the subject of preparing scientific talks aimed at graduate students may be found here:

http://www.cyto.purdue.edu/Education

I am happy to go through slides with you at any point to discuss how to make them more effective, but some general tips to keep in mind are:

- ALWAYS attribute all figures, text, and results that are not your own.
- Aside from broad introduction/summary slides, do not crowd many individual figures into a single slide. Remember, there is a limit on time but not on the number of slides, so let the figures have their own space unless you need to compare them directly.
- Similarly, aside from summary/conclusion slides, do not use long bulleted lists or large blocks of text. The reader should not be reading long passages; instead, it is your job to verbally explain the information contained in the slide.
- Keep fonts, font sizes, font colors, and text block positions as consistent as possible. Be sure to use easily readable fonts, and keep your font size sufficiently large.
- Animations **can** be helpful if used to provide the audience a visual aid in putting a particular piece of content in the context of other content. But otherwise, they are just distracting!
- When at all possible, figures should be displayed as high-resolution images. Figures should be positioned logically within their slides and displayed at an appropriate (i.e. readable) size.
- You should almost never spend more than a minute or two on any particular slide.
- Never put anything in a slide that you cannot explain, as you may be asked to do exactly that!
- Always keep your audience in mind – their familiarity with the material, their interests that overlap with the topic, etc.

I also expect the majority of your presentation to be your own original content. You will, of course, need to include an introduction explaining the background and historical context using results and figures from the literature, but this should comprise at most 20% of your talk.

Plagiarism of any kind and to any degree will not be tolerated. Even a single missing attribution of figures, text, and/or results can and will be considered plagiarism – even if it is your own published work! Plagiarism also includes substitutional paraphrasing of EITHER text or figures, i.e. rewriting a direct quote by substituting with synonyms or simply rearranging parts of the sentence, or copying the concept of a figure when making your own. If you do feel the need to make a figure based upon someone else's (e.g. if the published resolution is too low, you want to overlay data from different figures, etc.) you must attribute the original by saying, "Figure adapted from [citation]." If I determine that any part of a presentation or abstract is plagiarized, I will give you a failing grade for the course and pursue further disciplinary action.