09-911 Graduate Seminar  
Fall 2015  
Fridays at 9:30-11:20 AM, MI Conference Room

Before the start of the seminar presentations, an organizational meeting will be held with all students on Friday, Aug. 28 at 10:30 a.m.-11:30 a.m. in the MI Social Room. Attendance is required.

Course instructor: Professor Rongchao Jin  
rongchao@andrew.cmu.edu, X89448

Scheduling & general questions: Valerie Bridge  
vb0g@andrew.cmu.edu, X83150

Overview and Purpose:

Each Ph.D. student is expected to present a formal literature seminar during the third semester of residence. Per the Ph.D. requirements, “The purpose of the seminar is to train students to speak publicly about science and to read the research literature appropriately.” For those students who have elected the 2015 Ph.D. requirements, the learning objectives are to demonstrate that the student has:

- mastered a topic in the current chemistry literature sufficiently to speak effectively to a general audience of faculty and peers about it and
- read the research literature appropriately and critically to provide a synthesis with implications and/or to identify open questions in the area.

To accomplish this goal, the student must:

1. Give a 30-40 min. seminar based on published work done in other laboratories and, if an interdisciplinary topic is of interest, include a substantial amount of chemistry research. Good seminars include recent literature (last 2-3 years).
2. Submit a bibliography that reflects solid literature search skills and the ability to summarize the reading in brief annotations such as those that they may make in their own EndNote files throughout their graduate studies and research careers.

Note that students presenting their seminars are typically in their third semester in residence. Earlier presentations are possible with prior agreement of the advisor and the 09-911 instructor.

The format of the Graduate Seminar is that of a departmental colloquium or a presentation of a paper at a typical scientific meeting. A student chairperson will introduce the speaker and the topic, and will lead the discussion after the talk. To enhance students’ professional development in the course, students are also required to:

3. Conduct him/herself professionally
   a. as a speaker by submitting the required materials for approving the topic and announcing the seminar in a timely way, and
   b. as a chairperson by facilitating the speaker’s set up (i.e. checking that the necessary equipment works) and leading the question and answer period.
4. Attend consistently, ask appropriate questions, and provide specific, helpful feedback for the speaker.

First-year and second-year Ph.D. students are required to attend Graduate Seminar with the following learning objectives in mind:

1. Observe strategies for giving an effective literature-based seminar and reflect on them through thoughtful, constructive feedback for fellow students’ presentations.
2. Broaden knowledge of the research literature through the wide range of topics addressed.

Instructor

Dr. Rongchao Jin will oversee the course and be responsible for topic approval. He is also willing to discuss preliminary topic ideas and provide feedback on draft slides. Members of the Graduate Program Committee (GPC) will sometimes attend the seminar in Dr. Jin’s place to assist with providing feedback and working with non-native speakers who have not yet met the departmental English Proficiency requirement of Restricted II category on the ITA test.

Preparation and Presentation

In general, seminars should draw on many articles from the literature and represent a synthesis of ideas that goes beyond summarizing individual pieces of research. It should include a good introduction to the subject, motivation for the experiments or theory, a description of the theory and experiments, specific results, and a discussion of the significance of those results.

The student must organize the material into a coherent whole: it is not acceptable merely to recite from a relevant review article. Presentations are expected to be approximately 30-40 minutes in length, with 10-20 minutes of questions and discussion with peers and faculty. Students in the course are strongly encouraged to ask questions based on the presentations both to develop their own listening and discussion skills and to assist the speaker with practice in answering questions.

It is essential that the talk be rehearsed before a live audience before the final presentation. The research advisor and research group can serve as the trial audience, and the student should invite unsparing criticism from them. The use of Powerpoint as the lecture format is strongly encouraged.

The student presenter should remind his/her advisor and the additional faculty member of the seminar on the day before it is to be presented.
Seeking Eligibility to Present if Not Yet Restricted II Category on ITA Test

If a student who is a non-native speaker of English has not yet reached Restricted II category on the ITA test, he/she must seek written permission to proceed with the seminar from the GPC Co-Chairs. Permission will be granted based on a combination of his/her hours of training at the ICC, and faculty observations in the department. The formal seminar presentation may be delayed based on fewer than 15 hours/semester effort at the ICC in any semester or summer. Students who have not yet achieved Restricted II category on the ITA test should contact Rea Freeland about how to work toward eligibility to present their seminar. *The requirements for tentative scheduling of the seminar needs to be discussed with Rea Freeland as soon as possible.*

**Due Dates**

**Preferred Dates due no later than Aug. 21:** The challenge of selecting a date agreeable to your advisor, another committee member and yourself should not be underestimated - start now. Dates will be assigned on a “first-come, first-served basis.” Students must send via email 2-4 dates with start times to Valerie (vb0g@andrew.cmu.edu) no later than August 21. Note that seminars will be scheduled at either 9:30 or 10:30 start times. When selecting a date for your seminar, please be sure to verify that your advisor and at least one member of your committee will attend. Please keep in mind that students often choose the same dates so do not limit yourself to one date only.

Preferred dates and start times must be selected from the following schedule:

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Note: Seminars will be scheduled at either 9:30 or 10:30 start times.
Advisory Committee Formed no later than Aug. 31: Students must form their advisory committees by the start of their third semester in residence. This information will be important when you invite a faculty member in addition to your advisor to give you feedback at the seminar. Note that one additional faculty member to provide feedback is sufficient; the entire advisory committee does not need to attend. Students are encouraged to schedule the seminar based on a date that works for their advisor and one other faculty member.

Draft Abstract and Partial Bibliography due Aug. 28: In order to get the topic approved and schedule a seminar date, each student must submit a seminar topic, with a draft title, 100-150 word abstract (single line spacing, font: Time New Roman 12 pts), and a partial bibliography (~ 5 references using the format described below for the annotated bibliography), as well as 1-2 sentences on your current research to Dr. Jin for approval at the (required) organizational meeting on August 28. A hardcopy is preferred. Students are advised to discuss the topic with their advisor prior to this date. Topics may be in the student’s general research area but not on the student’s current research topic. An interdisciplinary topic should be discussed with Prof. Jin during the summer to be sure it has sufficient chemistry content. Students may choose a seminar topic to serve as a foundation for the original proposal.

Title, abstract and annotated bibliography due one week in advance of the presentation: The information is to be sent to Dr. Jin, the student’s advisor, and Valerie. The final title and abstract for the seminar will be circulated to advertise the seminar. The goal of the complete annotated bibliography is both to help the speaker organize how to use the sources and to allow the course instructor and student's advisor to review the scope of the presentation in a timely way. For each source used to prepare the seminar, the annotated bibliography must provide: the authors, title, and journal or text reference, and a brief summary of the main point(s) and/or how that source is being used (1-2 sentences).

Feedback

Presenters may request feedback on draft presentation slides from Dr. Jin by asking at least one week prior to the seminar.

The student presenting will receive written feedback filled out by the general audience. The student should also receive feedback and constructive suggestions on the seminar in writing (which may be written during the seminar and signed by the faculty member) and/or in person from at least two faculty members. Students are encouraged to set up an appointment with faculty members to request further feedback if they wish.

At the end of the seminar, the written feedback from the general audience and faculty members in attendance will be collected by Dr. Jin or GPC member and provided to Valerie for copying. The student may pickup up the written feedback from Valerie in 1-2 days.
Outcomes for Ph.D. Requirement

Should the seminar be determined to be deficient (recorded as failure), the advisor may allow the student to repeat the requirement before their Advisory Committee or in the Graduate Seminar setting. In this case, the deficiencies must be communicated in writing by the course instructor and advisor to the student and the Graduate Program Committee, along with a new deadline for re-presenting the seminar. The student may not proceed to defend the research progress report without a satisfactory performance on the formal seminar.

Grading

A letter grade (A, B, C, or D) is assigned to all students registered for the class. The requirements to receive a B or higher are as follows, with deductions described below:

- consistent attendance with no more than one unexcused absence (for first-year and second-year students),
- constructive written feedback to the presenters for all seminars attended (for first-year and second-year students), and
- an acceptable seminar presentation and responsible follow-through as a chairperson (for second-year students)

Quality of seminar presentation and outcome: Your research advisor, at least one advisory committee member and the instructor or GPC member attending the seminar will determine whether each presenter passes or fails his/her seminar. The presenter will receive a copy of the Formal Seminar Outcome and Feedback form signed by faculty members in attendance indicating the result. A grade will be given for the seminar based on faculty written feedback.

Attendance at the Graduate Seminar is required for first and second year students as part of learning to give effective presentations and as an opportunity for broad exposure to the scientific literature. First and second year students are registered for the course and are to sign the attendance sheet provided for each class.

- If you need to miss a class due to illness or emergency, please email Prof. Jin (cc: Valerie Bridge) in advance with an explanation. Each unexcused absence will lower the course grade by one letter grade for both first-year and second-year students.
- Late attendance will count as an unexcused absence; departure without providing written feedback will also count as an unexcused absence. If a student is late for the first seminar but arrives on time for the second seminar on a particular date, he/she can talk with the instructor during the break about whether this count as ½ absence, depending on the circumstances. A follow-up email from Dr. Jin is needed to indicate how the late arrival will count toward the grade.

Feedback forms: Constructive audience feedback is an essential part of the learning process for both presenter and audience. Simply circling the numbers is not sufficient to
be constructive. A constructive feedback form is required for each presentation that includes at a minimum:
- At least one memorable point in the seminar content,
- At least one comment about strengths in the seminar content or method of presentation, and
- At least one suggestion for improvement or thoughtful question about content.

*It is the student's responsibility to sign the back of the form to receive credit for submitting feedback; only anonymous photocopies will be returned to the presenters.*

High-quality written feedback to the presenters and asking appropriate, thoughtful questions can favorably affect your grade by up to one letter (to be assessed at the end of the semester). Poor quality written feedback that does not meet minimum requirements will be brought to the student’s attention so that improvements can be made in future feedback. The student will not receive credit for attending the seminars where they provided below-standard feedback, so students should take care to complete feedback forms thoughtfully each time.

*Chairperson's responsibilities:* Chairpersons are required to check that all necessary audio and visual equipment is in place and functioning for the speaker's use at least 15-30 min. prior to the seminar. Microphones must be reserved with Sara Wainer, MI 408, swainer@andrew.cmu.edu, 1-2 days in advance. Because the failure to complete these duties can adversely affect the presenter’s efforts, the chairperson’s grade will be reduced by one letter if he/she does not complete them adequately.

**Policies for exceptional situations**

**Extensions.** An extension to present the seminar in the fourth semester in residence may be requested by petitioning the Graduate Program Committee, explaining what makes the circumstances exceptional and proposing an alternate deadline. For example, if your advisor cannot be available on any Fridays for your presentation, you may request an extension to early in the following semester.

**Changing dates if needed:** *Switching dates should be avoided if at all possible.* If you encounter a conflict with your seminar date, it is primarily up to you to resolve it by switching dates with another presenter or by choosing another open date and informing Valerie of the change. Should a conflict arise with a date and a student wishes to exchange a date with another student, the reason for the request must first be sent to Dr. Jin in email for approval and copied to Valerie. If approved, you are expected to contact the student with whom you wish to exchange dates and make arrangements. Confirmation of the date change should be sent to Valerie as soon as possible so the schedule can be adjusted accordingly. Valerie may be able to help you if your own efforts are unsuccessful, but the primary responsibility for the scheduling resides with you.

**Unavoidable schedule conflict.** Occasionally, students' group meetings or TA assignments are in conflict with the meeting time for Graduate Seminar. In these cases, students must inform Dr. Jin no later than August 28. With Dr. Jin’s permission, the
student may then attend and provide write-ups for alternative research seminars such as departmental seminars, original research proposals, dissertation defenses, or faculty seminars in related department/programs. **In order to receive credit for Graduate Seminar by attending substitute seminars, the student must submit summaries of each of 10 presentations by Dec. 11 including:**

Title
Speaker Name
Date/Time
Type of presentation (departmental seminar, original proposal, etc.)
Brief summary of presentation (approximately 100-150 words not overlapping significantly with any published abstract for the talk)