

Analytical Chemistry Seminar, Chem 7800, Spring 2009
Monday 12:40 pm – 1:30 pm

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Course Web Site: <http://mccarley.chemistry.lsu.edu/chem7800.html>

Attendance:

Your attendance of seminars is exceedingly important in your development as a professional chemist. It would behoove you to attend this seminar program on a consistent basis and in an on-time manner.

Class Room Etiquette:

Be considerate of others – use common sense as it applies to formal social events. The use of phone, beeper/pager/PDA communication, and MP3 devices is prohibited and can lead to assignment of a failing grade.

Reference Materials:

See the course web site for more details.

General Guidelines:

1. Seminar Format

- Each week's meeting will involve one presentation.
- The duration of all presentations will be a minimum of 40 minutes and a maximum of 45 minutes.
- Literature seminars will focus on recent advances in analytical chemistry, and they will be based on more than one article published within the past 2 years. Acceptable journals from which to select articles include *Analytical Chemistry*, *Analytical Biochemistry*, *PNAS*, *Science*, *Nature*, or any refereed journal relevant to analytical chemistry.
- Literature presentations cannot be related closely to your own area of research; you must receive, from the seminar program chair and well in advance of your presentation, approval of your topic area for seminar. In addition, you may not give a presentation at LSU that is based on one from another institution you have given previously.
- Research seminars will be on your own research at LSU.

2. Seminar Requirements

- All analytical students are to register in, participate in, and attend the seminars in this program. This also includes attendance at seminars of visiting scientists when announced by the seminar chair.
- Students enrolled in the course are required to keep a notebook with detailed notes on each presentation. Students will be prepared to ask questions during

seminars; it is good practice to write down in your notebook a series of questions for the speaker or for your own review at a later date.

- Students will take advantage of the opportunity afforded to them during the question and answer session of seminars by asking the first set of questions.
- Topics for seminars will be approved by the student's research advisor, and the journal articles to be presented in the 40–45-minute literature seminars must be approved by the seminar chairman. Seminars should not be on specific topics that have been discussed within two years prior to the proposed seminar. The topic of the seminar must be one appropriate for a professional analytical chemistry seminar, presented to an audience of chemistry Ph.Ds. Very general presentations are not acceptable. The topic must be specific and covered in depth.
- A title/abstract document (PDF format only) that summarizes the contents of the seminar will be provided to the seminar chair. With 12-point Arial font and 1" margins, the abstract will contain no less than one-half and no more than one page of double-spaced text that concisely describes the topic to be discussed. The abstract will be written IN YOUR OWN WORDS. Do not copy the abstracts from the literature articles you will discuss. The abstracts will have proper citations for the topics to be discussed.
- Individuals who are to present research seminars are required to provide to the seminar chair, in PDF format, their abstracts (with title), resume/CV, and electronic versions of the publications or url links to be used in the presentations for posting at the beginning of the semester (already achieved).
- Students who are to present literature seminars are required to provide to the seminar chair, in PDF format, their abstracts (with title), electronic versions/url links to the publications to be used in the presentations, and two-page resume/CV for posting a minimum of two weeks ahead of time.
- Students who are to present literature seminars are required to present on more than one publication. What this means is that literature seminars are to focus on an analytical approach to a particular challenge or focus on a particular analytical methodology and how it can address analytical challenges not previously addressed. This can be broken down into two paths for a seminar: either an analyte/analysis protocol that has not been addressed/solved previously or a novel instrumental methodology and its application to various analytes. Thus, through your seminar you will teach the audience how analytical chemistry solves chemical problems/challenges, and you will do so by providing significant background/significance so as to set the stage for why an analyte/methodology is important, show what are the current state-of-the-art approaches in a thorough and meaningful manner (limitations, advantages and why they exist - not just a table!), discuss several current approaches to the challenge at hand or what the novel instrumental approach offers by example (approaches/results from 2–3 publications) with their outcomes, and then offer your in-depth evaluation of what you have found (what is the best route to determining a target analyte? or what is so valuable about the new technique/instrument?).
- Individuals who are to present research seminars will focus on no more than two of their projects so as to allow for proper development of

background/significance, prior art in the context of the studies at hand, education of the audience about what it is you are studying and how you did it, discussion of the results/outcomes and how they compare to that learned from other work (from your background/significance), and forecasting on the next generation of work in this area.

- All students will turn in to me by email their electronic versions of their presentations one week ahead of their slated seminar date so as to encourage timely preparation; a PDF version of the presentation will be posted on the web site ahead of time. This "up-front" work will hopefully allow augmented participation by all involved.
- We will have coffee/juice/snacks available before seminar in room 211 Williams. It will be the responsibility of the most recent previous presenter (person from previous week or the last person of the previous semester) to get the coffee/juice/snacks set up in time for the current seminar.
- The previous seminar presenter (previous week or semester) will introduce the presenter of the day. Student resumes will be available on the course web site listed above (hyperlink of their name) to assist all involved in this.

3. Seminar Grading

- Grading will be on a "P/F" basis. A passing grade will require both a satisfactory performance on a written final examination (May 12, 10:00 AM) and the seminar presentation as judged by the faculty participants. The grade will be obtained from faculty evaluations that are composed of comments and numerical scores.
- A grade > 75% for a seminar will result in successful completion of a given seminar requirement (literature or research).
- Students will be asked to give an additional seminar the following semester if the faculty members evaluating the talk note serious deficiencies (grade \leq 75%).
- Numerical scores and comments from the evaluations will be available to the presenters within two weeks of the presentation. Please contact the seminar chair to obtain the scores and discuss the evaluations.
- Criteria for the grades are as follows:
 - Quality of Presentation
 - Speaking clearly, slowly, loud enough? (5 points)
 - Slides legible, easy to understand? (10 points)
 - Is the speaker enthusiastic, aware of the audience? (5 points)
 - Is the content and length of the presentation appropriate? (10 points)
 - Essential Points of Presentation
 - Goals: (10 points)
 - Background and Significance: (10 points)
 - Methodologies and Instrumentation: (10 points)
 - Outcomes: (15 points)
 - Does the presentation communicate the speaker's mastery of the topic and its value in the context of the state-of-the-art (broader significance, recognizing other methods, aims)? (15 points)
 - Question and Answer Period
 - Does the speaker adequately address questions from the audience? (10 points)