

Course Syllabus
Chem 692: Chemistry Seminar

- Course Name:** Chem 692 Graduate Chemistry Seminar
1 credit
- Prerequisites:** Currently enrolled in either a Doctoral or Masters program in Chemistry.
- Location:** Reichardt Building 201B
- Meeting Time:** Tues 4:00 - 5:00, Thurs 4:00 - 5:00
- Blackboard Link:** <http://classes.uaf.edu>
- Please note: Check your blackboard information – **particularly your e-mail address**. Important course information and reminders will be e-mailed via this system. All course materials will be available through Blackboard.
- Instructor:** Dr. Tom Trainor
- Faculty Mentors:** In general all Chemistry and Biochemistry faculty can serve as mentors.
- Office Hours:** T&TH 2-4PM (other times by appointment).
- Office:** Department of Chemistry and Biochemistry
Reichardt Building
Room 176
- Phone:** 907 474-5628
- E-mail:** tptrainor@uaf.edu

Text and Reference Materials:

Recommended reference text:

The Craft of Scientific Presentations
Michael Alley
Springer -Verlag, New York
ISBN: 0387955550
Publication Date: 2008

Course Description:

This is a course in oral communication for graduate students in Chemistry. It is intended to provide graduate students with experience in presentation of scientific data with an emphasis on defense of data and interpretation. Presentations may be based on published peer review publications or original research conducted by the student or within the student's laboratory. The class will meet two hours per week along with the Chem481 and Chem 482 undergraduate students. The Tuesday session will be open to the public and feature a presentation by an undergraduate, grad student, faculty or invited speaker. The Thursday session will be a closed session open only to registered students in Chem481, 482 or 692. Students are required to give one 40 minute oral presentation during the semester on a date scheduled by the instructor, attend all of the other public seminars (Tuesdays) and participate in critiquing presentations during the Thursday session.

Course Goals:

Develop an overall understanding of the principles of oral communication in science including accepted presentation techniques, listening skills, critical analysis of scientific presentations, participation in scientific discussions and introduction of speakers and invited guests. In addition, Chem 692 students are expected to actively defend the research results they present including methodology, data and conclusions.

Learning Outcomes

1. Demonstrate the ability to present scientific material during a 40 minute presentation of a peer-reviewed research article.
2. Demonstrate the ability to critically evaluate the research presented in a peer-reviewed article and to answer questions posed by the audience on this research at the end of the presentation.
3. Demonstrate an ability to defend research approaches and conclusions by providing answers to questions on experimental rationale and alternate interpretations of data.
4. Demonstrate an ability to listen to a scientific presentation and to ask pertinent questions regarding the material presented.
5. Actively participate in a discussion of strengths and weaknesses of a speaker's presentation and/or the scientific merit of the research presented.
6. Provide clear concise written critiques of research and/or journal presentations with respect to presentation style, multimedia and content.

Instructional Methods:

Chem 692 students are required to attend at all class sessions and participation in all class activities in addition to preparing and presenting their individual seminar. Students will be expected to listen to all presentations during the Tuesday public seminar session and to ask relevant and probing questions during the question/answer period. In addition detailed, written critiques of all presentations will be required and all Chem 692 students will be expected to attend and participate in the discussion of these critiques during the Thursday closed session.

For graduate students, Chem 692 provides an opportunity to present research in a format similar to a professional meeting. The Thursday session will be used to extend the questioning and offer constructive criticism for improvement. Students are expected to present original research if possible, however, studies from other laboratories or from the students laboratory may also be used as a source of research data. Students are expected to critically analyze the approaches, data and conclusions and answer questions that may challenge assumptions of the study.

For Chem692 it is expected that the mentor will be the students Major Advisor although exceptions are allowed with instructor approval. Chem692 students are expected to invite their thesis committee members to the presentation, particularly if they are presenting their own research.

Since a component of Chem692 is participation in a critical discussion of your presentation and defense of the research you present you should be prepared to accept criticism. This is an essential part of scientific communication and you are expected to conduct yourself in a professional manner during these discussions.

Responsibilities of Major Advisor:

For Chem 692 the Major Advisor is responsible for assisting a student in preparing for the seminar. It is expected that your advisor will listen to your seminar at least once and offer critical analysis for improving your presentation. You are not required to submit a signed form from your advisor approving your topic but you should provide the title of this topic and the name of your major advisor on the due date indicated on the class schedule. You will be required to submit a form verifying that your advisor believes you are prepared for your presentation and are ready for presentation on your assigned date. This form is due one week prior to your scheduled seminar date.

Course Policies:**Attendance:**

Due to the dependence on participation, students are expected to attend all class sessions. Exceptions will be made when necessary to accommodate graduate student research.

Exams:

There will be no examinations in this course. Grading will be based on attendance, quality work and timely completion of requirements.

Plagiarism Policy:

Plagiarism is defined as the use of another's intellectual property without correct citation of the author. Intellectual property includes all electronic, spoken or print media. Students are expected to cite all sources used in oral and written presentations.

Citations should be cited according to the Columbia Guide to Style (see: http://www.columbia.edu/cu/cup/cgos/idx_basic.html for more information).

Cases of plagiarism will be dealt with severely with the minimum penalty being a grade of 0 for the assignment in question. Cases may be referred to the Department Chair or Dean for further action.

Conduct:

Your conduct in this course is expected to be professional and respectful at all times. Disruptive or abusive students will be removed from the classroom and may be subject to disciplinary action.

Grading and Evaluation of Performance.

It is expected that students will complete all of the Learning Objectives listed above. Grading in this course is A-F. Grades will be assigned based on successful completion of course requirements as described below. Each course requirement will be assigned a point value and you will receive all or a portion of these points depending upon the quality of your work. Oral presentations will be graded according to the rubric distributed in class. A minimum passing grade will be given to students who have completed the following requirements:

Required Activities and scoring:

Topic form completed on time:	5
"Ready to Present" form signed by Advisor and returned on time:	5
Seminar grade	60
Attendance and critiques:	30
	Total Points: 100

Letter Grades:

- A: 90 - 100 points**
- B: 80 - 89 points**
- C: 70 - 79 points**
- D: 60 - 69 points**
- F: <60 points**

Speaking Lab. Students are strongly encouraged to make use of the Speaking Lab. The Speaking Center is a student-oriented service provided to facilitate preparing public presentations. Students can receive coaching in refining their presentation topic, in organizing their presentation effectively, and in practicing their presentation. The Center makes it possible to digitally record and to watch one's practice presentation, receiving constructive feed back from a Speaking Center coach. The Speaking Center is open to all students enrolled in an oral intensive course. The center is located in the Department of Communication (Gruening Rm 507).
<http://www.uaf.edu/comm/>

Disabilities Services:

We will work with the Office of Disabilities Services (203 WHIT, 474-7043) to provide accommodations for students with disabilities. If you have a disability and require special assistance, please contact the instructor within the first week of the course so that special arrangements may be made early.