

**Section 01**  
**0 Credit Hours**  
**306 De La Roche Hall**  
**Friday from 2:30 to 3:20 PM**

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Chemistry Seminar is a 1-semester, zero-credit class that is a graduation requirement for senior Chemistry majors. The class will not meet every week, only when there is a scheduled activity.

The primary requirement of CHEM 427 is to present either a research seminar or a literature seminar orally to your classmates and the Chemistry faculty. To prepare for that task, you will also (1) attend a research introduction and any talks given by visiting professors and (2) dissect and discuss one or more recent, important papers describing new developments in chemistry. In this way, you get exposed to other areas of Chemistry – organic, inorganic, analytical, physical, biochemical, environmental, *etc.* – beyond your personal interests.

This course provides a unique opportunity to enhance your skills in library research, in critical examination of chemical data and logical organization of ideas, and in oral presentation. However, what you gain from this experience will depend on your degree of effort and preparation. In particular, early and thorough preparation is a necessary component of a successful seminar experience. Most likely, you will give a seminar that explains some ideas/data, or contrasts a related body of ideas/data, that have been published recently in a chemistry or interdisciplinary journal. More specifically, your seminar may focus on:

- (a) The scientific and practical relevance/use of a chemical process, phenomenon, theory, *etc.* OR
- (b) A single scientific paper that presents a comprehensive report of a line of chemistry research but points toward the need for continuing study, OR
- (c) Related papers from several research labs, which refute, support, or build upon a common thread of scientific research.

Other chemistry instructors might be able to suggest several contemporary lines of research from which you can choose what most interests you. Also, interdisciplinary topics are welcomed, even encouraged. Please make an appointment soon to talk about the possibilities.

**You must choose your topic and get the instructors' approval on it by Friday, February 28<sup>th</sup>**

**You must meet with the instructors at least two weeks before your seminar date, to update us on your search for appropriate resources and discuss a tentative talk outline.**

**You must display an abstract outlining the time, date, and purpose of your seminar at least a week in advance before your seminar date.**

Your seminar should be based on research that has been published in widely accepted, peer-reviewed scientific journals (*i.e.*, the "primary literature"), although much background information can be found in textbooks or online. Please be critical in evaluating information downloaded from the Internet. Ask other faculty members, or one of the Reference Librarians for help, if you're not sure whether the information is from a widely-respected, reviewed source.

The easiest way to make the presentation interesting to your audience [professors, other Chem seniors, underclass students, *etc.*] is to choose a *current* topic that is of *great interest to you*.

## Course Grading

In order to pass CHEM 427, you must accomplish the following:

- (1) Attend scheduled events
- (2) Arrive adequately prepared for discussions
- (3) Submit the typed title/abstract/reference list by noon on the Friday one week before your seminar date - exactly what you submit will be posted in the Department and distributed to faculty.  
(typically, < 1 page, 8.5 x 11 in.)
- (4) Give your presentation on the assigned date - this affects your grade directly; no makeup work.
- (5) Give a 15 minute Practice Talk of a topic of from a list
- (6) **Meet with a chemistry faculty member to discuss your presentation or material relating to your presentation three separate times.**
- (7) Satisfactory delivery of oral seminar
- (8) Completion of the Major Field Test (MFT) in chemistry prior to graduation

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If your accomplishment/performance in any of the above areas is deemed unsatisfactory, you will be required to do makeup work. "Failure" of the actual seminar (Item 4) can occur, and you will be required to repeat the oral presentation satisfactorily, either to the CHEM 427 instructors or to the entire Chemistry faculty. Shortly after the seminar, a pass/fail grade will be assigned by the instructor, after consultation with the Chemistry faculty. At semester's end, the instructor will ordinarily assign a letter grade for the entire course, taking into account your performance on the items above.

Friday's Date	Scheduled Event
Jan. 29	Initial meeting of class
Feb 5	Academic Journals, Journal Articles, and Online Resources
Feb. 12	Best Practices for Scientific Talks and Ethics
Feb. 19	<b>Practice Talk</b>
Feb. 26	<b>Speaker:</b> Konstantinos Plakas ,NJ Bio
Mar. 5	<b>Submit your seminar topic; Speaker:</b> Zachary Falls, University at Buffalo
Mar. 12	Possible Speaker
Mar. 19	<b>Speaker:</b> Kasia Cummings, Buffalo Gal Organic Skin Care
Mar. 26	<b>Speaker:</b> Paige Hinnens, Renewable Energy Group Inc
Apr. 2	Easter Break: <b>NO CLASS</b>
Apr. 9	Final Presentation
Apr. 16	<b>Speaker:</b> Mary Dailey, Allegheny Department of Health
Apr. 23	Possible Speaker
Apr. 30	Possible Speaker
May 7	MFT Exam
TBA	End-of-the-Year Dinner with Chemistry Faculty