
Senior Seminar I (CHEM 488) Spring 2026

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Seminar/Activities: Roddy 149 (& 153)
Mon: 4:00 - 5:00 (& 5:00 - 5:30)

Office Hours: Caputo 325 (Alt by Appt)

Mon: 9:00 – 10:00

Tue: 12:00 – 1:00

Wed: 11:00 – 12:00

Fri: 9:00 – 10:00 & 11:00 – 12:00

Course Description

CHEM 488 is the second semester course of Senior Seminar (building on CHEM 487). Students take CHEM 487/488 during their senior year to prepare for completion of their chemistry degree and transition to the professional world. During CHEM 488, students will deliver their senior oral presentation and must attend all other Chemistry Department seminars. Completion of activities used for departmental assessment are also required. GRAD 999 is co-requisite.

Learning Outcomes

Students who complete CHEM 488 should be able to:

- Effectively deliver an oral presentation related to scientific information and research, using scientific literature to support background, data, and conclusions.
 - Appropriately evaluate oral presentations of scientific work and engage in related discussion.
 - Summarize their educational experience in chemistry.
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Course Policies

Course conducted according to all Millersville policies/guidelines (links to full info in D2L).

Course Attendance: Students are required to attend ALL Chemistry Department seminars scheduled during the semester. To receive credit, you must arrive on time, behave in a professional manner, and submit an evaluation of the session. Other required class activities will be conducted during other weeks. Students are expected to complete all assignments.

Academic Honesty: Students are expected to conduct all course work in an honest and ethical manner, consistent with Millersville policy. Presentations should adhere to appropriate professional use of authentic work, citations, and artificial intelligence.

Cooperative Environment: Students are expected to be respectfully and actively engaged in seminars and activities. Repeated disruptive behavior (like tardiness, chatting, or cell phone noise/use) may be cause for dismissal from class and may affect final grade assignments. Students with special concerns are encouraged to speak with me and/or take advantage of student resources available on campus, including the Office of Learning Services, the Tutoring Center, or the Counseling Center.

- *Millersville University and its faculty are committed to assuring a safe and productive educational environment for all students. In order to meet this commitment and to comply with Title IX of the Education Amendments of 1972 and guidance from the Office for Civil Rights, the University requires faculty members to report incidents of sexual violence shared by students to the University's Title IX Coordinator. The only exceptions to the faculty member's reporting obligation are when incidents of sexual violence are communicated by a student during a classroom discussion, in a writing assignment for a class, or as part of a University-approved research project.*

Faculty members are obligated to report sexual violence or any other abuse of a student who was, or is, a child (a person under 18 years of age) when the abuse allegedly occurred, to the person designated in the University [Protection of Minors policy](#).

Information regarding the reporting of sexual violence and the resources that are available to victims of sexual violence is set forth at: www.millersville.edu/titleix

- *If you have a disability that requires accommodations under the Americans with Disabilities Act, please discuss your preferences for related strategies with me as soon as possible so that I can support your success in an informed manner. Accommodations cannot be granted retroactively.*
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Course Assignments

Department Seminar Presentation:

Each student will give a 25-minute oral presentation to the Millersville Chemistry Department. This serves as a capstone experience for each chemist to research a chemistry topic and present their discoveries. Presentations may be an experimental research project conducted during your undergraduate career, either at Millersville or another institution. If you are presenting research, you should work closely with your research advisor on appropriate material and data. Students may also choose to present on another topic of interest. In this case, content must include substantial chemical detail and published data related to the topic. An appropriate faculty member should be identified for consulting on any topic-based seminar.

Department faculty members will collectively provide assessment of seminar content, quality, and delivery that will be used to determine the overall presentation score.

Presentations must be supported by appropriate scientific work. Students must have **at least five** resources identified to provide context and evidence related to the topic. **At least three** of these resources must be peer-reviewed scientific publications, either primary research or journal review articles. Internet sources must be from high-quality, reputable organizations or experts in the field. Figures and supporting diagrams should be original as reasonable or used from appropriate sources with clear citation.

If you fail to meet the minimum requirements of the seminar, you will be required to repeat the seminar for the department to successfully complete CHEM 488. While rare, this has happened in the past. More rigorous questioning from faculty members is to be expected during a revised talk.

Seminar Preparation:

Students will expand and/or polish their initial practice presentation given during CHEM 487. Each student must complete a rehearsal of their talk with the CHEM 488 instructor and their research/advising faculty member. You are welcome to invite peers or others that can provide helpful insights. This final practice must be completed **at least one week** prior to their scheduled presentation date to allow for making final adjustments based on feedback from the practice session.

Each student will be introduced at seminar by your research advisor, academic advisor, or the CHEM 488 instructor, as appropriate. To assist them in providing this introduction, each student will provide a brief biographical sketch **at least one week** prior to their scheduled presentation date. This may include, but is not limited to, information about professional experiences before coming to Millersville, activities, publications, or awards from your chemistry training, and/or plans for after graduation.

Students will assist in communicating seminars by preparing and posting announcements for the department. This flyer should include the presenter name, presentation title, date/time/location information, and a supporting visual. The file must be submitted and posted **at least one week** prior to the scheduled presentation date. The department secretary or CHEM 488 instructor will assist with preparing copies. These should be put up in conspicuous places in the 2nd and 3rd floors of Caputo Hall.

Seminar Attendance & Engagement:

Senior seminar students must attend **ALL** Chemistry Department seminars scheduled during the semester and be respectfully engaged in each session. In addition, students must complete a thoughtful evaluation of the various aspects of presentations given by each of their peers. Seniors must also regularly participate in the questions time during seminars.

Departmental Assessment Activities:

Graduating seniors are also required to participate in activities that contribute to Chemistry Department evaluation of its programs. This will include completing the Major Field Test (MFT) in Chemistry near the end of the semester. Review topics and problems in various sub-disciplines will be provided by the department to help prepare for the MFT. Review sessions with department faculty may also be scheduled for guidance. Students are expected to attend **ALL** related sessions and participate fully. Students must also complete an exit survey related to your education experiences in the Millersville Chemistry Department.

Grading

Department Seminar Presentation	40 %
Seminar Preparation	20 %
Seminar Attendance & Engagement	20 %
<u>Departmental Assessment Activities</u>	<u>20 %</u>
Total	100 %

Letter Grade Correlation

<i>Grade</i>	<i>Total %</i>	A	93.0-100	A-	90.0-92.9
B+	87.0-89.9	B	83.0-86.9	B-	80.0-82.9
C+	77.0-79.9	C	73.0-76.9	C-	70.0-72.9
D+	67.0-69.9	D	63.0-66.9	D-	60.0-62.9
F	<60.0				

Tentative Semester Schedule

Date	Activity/Seminar
Jan 26	Course Introduction
Feb 2	Rehearsals
Feb 9	Rehearsals
Feb 16	Seminars: Tim Lerch & Jessica Rarick
Feb 23	Seminars: Nathan Ferguson & Olivia Terrazas
Mar 2	Seminars: Rachel Bonner & Sam Bauer
Mar 9	<i>Spring Break (no class)</i>
Mar 16	MFT Review
Mar 23	<i>ACS National Meeting (no class)</i>
Mar 30	Seminars: Chaz Eavenson & Amber Nickey
Apr 6	Seminars: Mitchell Hoffman & Stefano Astudillo
Apr 13	MFT Review
Apr 20	MFT Completion
Apr 27	<i>TBD</i>
May 4	<i>TBD</i>
May 6	Course Wrap Up