

**CHEM 488**  
**Senior Seminar**  
**Spring 2024**

**INSTRUCTOR**

Michael S. Elioff, PhD  
office: Caputo Hall 320  
phone: 717-871-7417  
email: michael.elioff@millersville.edu

**OFFICE HOURS**

Tuesday: 12:30 – 2:30 pm  
Wednesday: 11:00 – 12:00  
Thursday: 12:30 – 2:30 pm

**MEETING TIMES**

Monday 4:00 pm RODDY 149

**TEXTBOOK AND SUPPLEMENTAL MATERIAL**

No textbook is required for this course. Photocopied handouts may be provided when appropriate. Content will be posted on the Desire2Learn course website. It is your responsibility to stay abreast of due dates and posted materials.

**COURSE ATTENDANCE**

Departmental seminars will be held Mondays at 4pm. Because of the size of the senior class, we will not meet every Monday. You must attend all departmental seminars and evaluate them using nearly the same criteria that will be used to evaluate you. To receive credit, you must arrive on time, behave in a professional manner during the seminar, and submit an evaluation. We will occasionally meet for a few minutes after the seminar is over.

**COURSE CONTENT & REQUIREMENTS**

This is a seminar course in which you will attend seminars and evaluate your peers. You must attend all the seminars and submit the evaluations. On several days, which will seem random to you, I will check attendance and you will be awarded an attendance grade. If you do not attend seminars on those days, you will receive a grade of zero for that day.

Additionally, you will perform problem sets in selected areas of chemistry and perform a major field assessment test (MFAT) on the designated day. You must submit the completed review problem sets which include organic chemistry, inorganic chemistry, analytical chemistry, physical chemistry, and biochemistry. This will help you prepare for the MFAT. You must also submit the completed exit interview on the due date which will be designated later in the semester.

You will practice your seminar at least once before it is presented, during my office hours. I will be in attendance. If you are doing research with a faculty member here, that person will

also be in attendance. You may also invite classmates or other instructors to attend your practice talk if you wish.

You must post seminar advertisements, or flyers, on or before the Wednesday prior to your seminar. Post them on the second and third floors of Caputo Hall in conspicuous places. You should print and post an announcement for your talk one week prior.

You will present your seminar to the chemistry department for a grade. You will be evaluated by your peers and by the faculty members of this department. You may be asked questions at the end of your seminar. If you are doing a thesis defense for departmental honors, you may expect a higher level of scrutiny. Plan on about 20-25 minutes, leaving a few minutes for questions at the end. *If you are still speaking 25 minutes after you begin your seminar, I will stand up and give a signal that you are to end your seminar immediately.* It is the custom in academic seminars for the visiting speaker to be introduced by the host. In your seminars, your host will be your research advisor if you performed research with one of our faculty members. If you did not, I will be happy to introduce you. As a matter of courtesy, you should provide a brief biographical sketch. This may include information about where you grew up or went to school or whether you changed your major, your future plans, or any awards you received or sports or musical instruments you play. It is your choice, but remember that brevity is key.

The seminar should present substantial chemical information at a technical level appropriate for an advanced undergraduate chemistry student. Visuals should illustrate or outline the material. Remember your own comments from last semester: "We hate it when someone reads from their overheads." You are not required to use PowerPoint, but my advice is that you use it.

References used in preparing the seminar should be refereed professional journals. In particular, web resources should be kept to a minimum, and you may not copy and paste material from web sources. The Chemistry Department Internet Policy was created mostly in response to disappointing senior seminars:

*By using an internet source for scientific or class work, the student assumes full responsibility for its accuracy. Some original thinking or synthesis of ideas from various sources is expected in all research assignments.*

*A collection of copied material, even if the sources are cited, does not constitute original work. In particular, it is NOT permissible to copy and paste charts, diagrams, formulas, structures, or text. These must be adapted and recreated by the student, with the source acknowledged.*

*There may be some exceptions in the case of photographs, spectra, and complex structures or charts that cannot reasonably be drawn by the student. However, permission to use these must be granted by the instructor and the source must be prominently acknowledged.*

The requirement for at least 3 refereed journal articles in the references applies to the seminar also. If you fail to meet the minimum requirements, you will be asked to repeat the seminar

for the department to pass the course. This has happened in the past, although it is rare. You may anticipate that the questions asked by the audience in the case of a second attempt are likely to be greater in number and more complex than they were during your first attempt.

## GRADING

We will use a 300-point scale with the highest possible score being 300. The total possible points are as follows:

Seminar presentation	150
Seminar practice	25
Posting of the flyers	10
Seminar attendance and evaluation	25
Made in Millersville attendance	10
Problem sets*	40
MFAT and exit interview*	40
<b>Total</b>	<b>300 points</b>

The items marked with an asterisk (\*) must be completed in order for you to receive a passing grade in CHEM 488. If either of these items is not completed you will receive a grade of F regardless of the number of points you have earned.

*Problem sets submitted not more than two days late will be penalized 25% of the grade. Items submitted more than two days late but less than seven days late will be penalized 50%. Items submitted more than one week late will not be accepted and will result in course failure.*

## TENTATIVE SCHEDULE

<i>Date</i>	<i>Speaker(s)</i>
January 22	Zoom meeting <a href="https://millersville.zoom.us/j/9090359961">https://millersville.zoom.us/j/9090359961</a>
January 29	no meeting this week
February 5	no meeting this week
February 12	no meeting this week
February 19	no meeting this week
February 26	no meeting this week
March 4	Spring Break – no seminar
March 11	no meeting this week
March 18	ACS national meeting – no seminar
March 25	Jesse Pechart & Aaron Maynard
April 1	Emma Witmer & Brooke Taylor
April 8	George Pearson & Peyton Frederick
April 9	(Tuesday) Made in Millersville
April 15	Natalie Weinmann & Katelyn Ebersol
April 22	Tyler Rodenberger & Dylan Tull
April 29	Thalia Lopez Pulido

*“If you can stay awake through a four o’clock seminar, you’re not working hard enough.”*  
 –George Pimentel, inventor of the chemical laser