

Syllabus for CHM 492 – Spring 2023

Seminar in Chemistry

Instructor: Lorenzo Mosca
Class Meetings: M 2:00 pm – 5:00 pm
Where: Lecture: Beaupre 105 / Seminar (@3 pm) Beaupre 105 or on Zoom.

Student Hours: T 10:30 pm – *noon*
If you wish to schedule outside the above time, please notify me with at least 24 hours of advance notice using a method of your choice (in person, email, phone call). Remote office hours are possible as an option (Zoom).

Where: Beaupre 325D
How to contact me: lorenzo@uri.edu: preferred, **put CHM 492** in the object.
(401) 874-2364
Office: 325D Beaupre Center for Chemical and Forensic Sciences

Reference Books: Textbook not required

Other materials: Lecture slides, presentations created by other students, reading assignments. Your classroom and seminar notes.

Course website: Brightspace (<https://brightspace.uri.edu>)

Course description: This course will equip senior-year undergraduate students with the tools needed to perform conduct research with integrity. Scientific integrity is one of the basic tenets for successful graduate and post-graduate careers; its importance extends to all implementations of chemistry in any profession. Being able to write and present succinctly and clearly one's research is a fundamental step in the proper conduct of research. It takes one's lifetime to become an efficient communicator and there is only one method to do it: practice and feedback.

Course pre-requisites: Concurrent enrollment in CHM 432 or permission of the instructor. Required for students in Senior standing.

Course requirements

- Attendance will be taken (*see: Class Policies*)
- Attendance to Chemistry Seminars will be taken (*see: Class Policies*)
- Evaluations of Seminars and Presentations (*see: Seminar Evaluations*)
- One **Scientific Presentation** (*see: Presentation*)

Class Calendar and Topics

01/23/23	M	First day of classes (including CHM 492) Introduction, Syllabus
01/30/23	M	Ethics and scientists
02/06/23	M	Authorship, Peer Review, Plagiarism
02/13/23	M	Record Keeping, Intellectual Property, Presentations.
02/20/23	M	Presidents' Day Class does not meet
02/27/23	M	<i>Scientific presentation topics are due</i>
03/13/23	M	Spring Break (03/11 – 03/19) Class does not meet
04/17/23	M	Final Presentations 1 & 2
04/24/23	M	Final Presentations 3 & 4
05/01/23	M	Final Presentations 5 & 6
05/16/23	T	Final Grades are Due

Notes:

- All classes and presentations will be given in Beaupre 105.
- All seminars will be given in Beaupre 105, occasionally there will be a Zoom-held seminar.
- Class will not meet if a Chemistry Seminar is not planned for that day **UNLESS** a lecture or a presentation is scheduled (*see calendar above*). Use the class period to work on your presentations / papers.

Grading

Your final grade will be computed using against a minimum of 250 points (variable maximum points, depending on the number of seminars), distributed as follows:

- ① Attendance to class and seminars (50 points),
- ② Seminar Evaluations and Presentation Evaluations (10 points each)
- ③ Final Presentation (150 points)
- ④ Class Participation (50 points)

There will be no makeups on presentation work. Presentation calendars will be drafted to accommodate possible absences. In the case of last-minute changes, you are responsible for finding a suitable arrangement-switch with your colleagues. Missed presentations will receive 0 points. I will grade according to a scale no stricter than the one reported below.

Re-grading policy. You may request a re-evaluation of your work for up to 7 days after the return of your evaluation. Extra-credit will not be offered for this course.

93% – 100%	A	4.0	73% – 76.9%	C	2.0
90% – 92.9%	A–	3.7	70% – 72.9%	C–	1.7
87% – 89.9%	B+	3.3	67% – 69.9%	D+	1.3
83% – 86.9%	B	3.0	63% – 66.9%	D	1.0
80% – 82.9%	B–	2.7	60% – 62.9%	D–	0.7
77% – 79.9%	C+	2.3	0% – 59.9%	F	0

Your part – Here are a few points where your full commitment is required:

- Read the assignment papers weekly and certainly before class/seminar. We'll discuss them during class.
- Note-taking during class and seminars – Take plenty of notes, share them with your colleagues, read them/reorganize them before the next class.
- Do your part in the class – this includes obvious things, such as trying not to get distracted, taking part in activities according to what you are comfortable with, ask me to slow down or go over it once again if something is not clear.
- Ask me/your colleagues questions – the *rule of the class* is there is no such thing as a stupid question.
- Practice, practice, practice! Presenting any kind of work is an acquired skill. Practice your presentations.
- Use the opportunity of more facetime during student hours!
- Be ready to challenge yourselves and to critically review your work.

It is my utmost priority to ensure that your learning takes place in a respectful, safe, and constructive environment. I will not tolerate aggressions and any other actions based upon prejudice and intolerance. As a group of people with biases, we shall learn how to understand and work with our differences. Equity and inclusion are critical components for campus community members to thrive and become responsible citizens of the World. If you are a target or a witness of a bias incident, you are encouraged to submit a report to the URI Bias Response Team at www.uri.edu/brt. There you will also find people and resources to help you.

Seminar Evaluations

Attendance to Chemistry Seminars is mandatory (see: *Class Policies*). Before each seminar, please read a the 2–3 papers that I will post on Brightspace. These papers are authored by the Seminar Speaker and will help you to familiarize yourself with the topic of the seminar. Write a short evaluation of the seminar online at the Google Form link that will be provided to you. You will be asked the following:

- Seminar date, Speaker name and institution(s)
- Identify at least one (or more) scientific fact (a reaction, a technique, a method of analysis, a theoretical description, a concept, etc.) that you learned during the presentation and that can be applied to your own research project and why
- Identify at least one strength in the presentation. These could be anything from style, design, logical organization, to background information, data presentation, speech style, and so on.
- What was one weakness in the presentation?

You must provide action points: *i.e.*, “the speaker could have made better use of the introductory part to explain the audience about the underlying physics of nano-acoustic resonators” instead of “there was too much physical chemistry in their presentation, and I couldn't care less”.

Your evaluation is **due on the Friday following the Seminar or Presentation** and no later than 12:00 pm (timestamp on the Google Form). Failure to submit an evaluation without a justification will be graded as 0. Each evaluation is

worth 10 points and will be graded as 0 (no evaluation, late), 5 points (information missing, lack of actionable points), 10 points (all information is present, actionable points are discussed). The number of Seminar presentations and student presentations might change during the semester and thus there is no maximum specified number of points.

Presentation

To complete this course, you will need to prepare and present a scientific presentation. The general topic of the presentation is of your choice, but I encourage you to present on a topic that is relevant to your research. This presentation is not a seminar on your research work / accomplishments. Rather, it is a review on the state-of-the-art of a topic that may include references to your research. All the topics must be discussed and approved by the instructor on or before Monday, February 27. An order of presentation that accommodates everyone needs will be drafted after that.

- Topics for your Presentations are due on Monday, February 27 by 10:00 pm.
- There should be no repeats or topic overlaps within the class, so please discuss among yourselves to avoid possible repeats.
- Aim for a 25-minute presentation with about 5–7 minutes of Q&A.
- Use whatever style and design you want. However, the presentation must be pleasing and commensurate with the scope of the class.
- Please provide me with as many presentation drafts so that you can get feedback and improve your presentation while you are working on it.
- A carefully constructed presentation leaves space for a few questions.
- Students who are not presenting should pay attention and participate in the discussion. Your peers evaluations on your presentation are required.

See at the end of the syllabus for a grading rubric.

Class Policies

A. Attendance to Class and Seminars

You are required to attend this class and attendance will be taken at each class period and during the Chemistry Seminars. You must notify the instructor with sufficient advance if you are unable to attend class / seminar. Justifiable absences include illness or injury, religious observances of holy days, grievance, or participation to school-mandated events. It is your sole responsibility to communicate with me prior to the classes. For classes, it is your duty to make-up for the missed work. I will be offering you to makeup in-person or virtual lectures during the next available student hours or at a time that suits both of us. **Important!** You **do not need to present a doctor note**, or a justification letter. It suffices for you to let me know that you have a reason, and you won't be coming to class. Justified absences from Chemistry Seminars will not be counted against your final point score.

B. Class participation

This class is built upon a discussion of topics involving ethics, chemistry seminars, and your very own presentations. You should participate in the discussion. Questions, comments and rebuttals are more than welcome. Say something in each class period. Remember the class rule: *no such thing as a stupid question!*

C. COVID-19

Masks are required in this class, regardless of your vaccination status. Please wear your mask! The University is committed to delivering its educational mission while protecting the health and safety of our community. While the university has worked to create a healthy learning environment for all, it is up to all of us to ensure our campus stays that way.

As members of the URI community, students and instructors are required to comply with standards of conduct and take precautions to keep themselves and others safe. Visit web.uri.edu/coronavirus/ to keep yourself up to date with the latest guidance about the URI COVID-19 response. **Important!** Do not attend class if you show any symptoms of COVID-19 or related respiratory illness. Instead, you should go get tested. Notify me of your absence before the start of class by email: lorenzo@uri.edu, or phone: (401) 874-2364, or through Slack.

D. Communication with the Instructor

Phone: (401) 874-2364

Email: lorenzo@uri.edu, **must include CHM 492** in the object.

I expect to get back to you as soon as possible within 24 hours during weekdays. Emails and messages received after 8:00 pm will be addressed at my earliest convenience or on the next available weekday.

E. Drops and Withdrawals

Missing attendance for the first two class meetings (without notifying me) will result in removal from the class roster. You can drop this class until the third week of classes (02/13/2023). You can withdraw (W on transcript) until 03/06/2023.

F. Academic Honesty and Integrity

You are expected to be honest in all academic work. Your name on any written work or exam shall be regarded as assurance that the work is the result of your own independent thought, study and effort. You have an obligation to know how to quote, paraphrase, summarize, cite and reference the work of others with integrity. The following are examples (non-comprehensive) of academic dishonesty:

→ Using material, directly or paraphrasing, from published sources without proper citation

- Claiming disproportionate credit for work not done independently
- Unauthorized possession or access to exams
- Unauthorized communication during exams
- Unauthorized use of another's work or preparing work for another person
- Taking an exam for another person
- Altering or trying to alter grades
- The use of notes/text or electronic devices to gain an unauthorized advantage during exams
- Fabricating or falsifying facts, data, or references
- Facilitating or aiding another's academic dishonesty

The university policy on academic honesty is clear. Any incidence of academic dishonesty (see above or URI's Student Handbook), will result in either one or all of the following: a grade of zero, failure of the course, formal notification to the Dean.

G. Electronics and Recording

You may not record any audio and/or video of lectures, student presentations, or student hours without in-writing permission from all individuals present. You may choose to take your notes in writing or typing, but your use of electronic devices (laptop, iPad, tablets) should not disrupt the lecture, the instructor, or your colleagues. The use of electronic devices must be limited only to course-specific tasks. Refusal to comply will result in dismissal from the course.

H. Disability Accommodations

Please notify me with your Disability Access and Inclusion (DAI) accommodation letter as early as possible. I will be happy to discuss and arrange for your approved academic accommodations. If you have not yet established services through DAI, please contact them to engage in a confidential conversation about the process for requesting reasonable accommodations in the classroom. DAI can be reached here: (401) 874-2098, web.uri.edu/disability, <https://web.uri.edu/disability/request-form/> email: dai@etal.uri.edu.

I. Student Resources

Your success in this class and as senior student is very important to me. If you struggle with the course materials or requirements do not hesitate to contact me so that we can discuss possible solutions. Feel free to reach out to me and book an appointment for Student support hours anytime; we can talk about study, work, future study and career, and virtually anything chemistry related.

- Academic Enhancement Center (AEC) – offers free face-to-face and web-based services to undergraduate students seeking academic support. Peer tutoring is available for STEM-related courses by appointment online and in person. The Writing Center offers peer tutoring focused on supporting undergraduate writers at any stage of a writing assignment. The UCS160 course and academic skills consultations offer students strategies and activities aimed at improving their studying and test-taking skills. Complete details about each of these programs, up-to-date schedules, contact information and self-service study resources are all available on the AEC website: uri.edu/aec.
- Wellness Resource Center (WRC) – provides a relaxing atmosphere and a safe, comfortable space for you to escape the stresses of life. The WRC is located on the lower level of the Anna Fascitelli Fitness and Wellness Center.
- Campus Recreation offers free memberships to their facilities (included in your tuition). Access includes the Fascitelli Fitness and Wellness Center, Mackal indoor courts, cardio and weight rooms, Tootell Aquatic Center, and numerous other facilities and group classes. <https://web.uri.edu/campusrec/facilities/>
- *Well-being Coaching* offers one on one meetings with a certified Well-being Coach, who is trained to identify your strengths and support you with a goal or behavior change. Your coach will guide you

holistically and support you through day-to-day struggles. <https://web.uri.edu/campusrec/well-being-coaching/> or wellcoach@etal.uri.edu

J. Changes to the Syllabus

Due to unforeseen circumstances, the contents of the syllabus and the content of the course may be subject to changes. You will be notified of any change in advance.

Scientific Presentation (150 pts)

1. **Timing.** _____ / 20 pts
Aim for a total of 25 minutes. You must deliver an effective presentation in 18–20 minutes and allow about 5–7 minutes of discussion (ca. 15 slides).

2. **Slides.** _____ / 30 pts
Your slides should be carefully crafted and visually pleasing. Your presentation must be logically flawless in its progression from the beginning to the end. In addition to those, keep in mind that your score will be evaluated by checking the following parameters: ① Consistency, ② Balanced use of text and graphics, ③ Why is something there if you are not talking about it? / Why are you talking about something if it's not there? ④ General layout and design elements (e.g., positive/negative space, color use, fonts, organization).

3. **Contents.** _____ / 40 pts
Your presentation should deliver a selected topic of research that is relevant to your own research experience. Your content should be technical and focus on the following outline. ① Why am I interested in this specific topic? ② Why is this topic important in general? ③ Historical perspective and premise? What is the problem and why we are solving it in this way? ④ Present selected research, ⑤ How and where does my research become relevant to this topic? ⑥ Your final comments / remarks. Your delivery must show that you master the content of your presentation and that you can field reasonable questions.

4. **Delivery.** _____ / 40 pts
Delivery of your presentation should be adequate to the classroom. Content should be explained at a level understandable by everyone in the audience. Are you delivering a tailored presentation? *Note: I prefer to use the term “integrity”, which is much more encompassing, instead of “professionalism”.*

5. **Citations and Referencing.** _____ / 20 pts
You must cite sources, reference images, and give credit where it's due.