

## CHEM 446 (substitute for CHEM 491), Chemistry Seminar II, Spring 2023 (1 Credit)<sup>1</sup>

### 0.1 | Basic Course Information

**Seminar meeting time and location:** Friday 1:50 – 2:50 p.m., Halsey Science 456

**Instructor** Dr. Jonathan Gutow Halsey 412 424-1326 [gutow@uwosh.edu](mailto:gutow@uwosh.edu)

#### *Course Description*

The student will work with a faculty adviser to prepare and give an oral presentation involving the student's own research or a critical analysis of recent scientific literature on an agreed-upon chemical topic. Students will also complete the MFAT (Major Field Assessment Test) and an updated resume. Prerequisite: Chemistry 490.

#### *Learning Objectives -- Upon successfully completing CHEM 491 you will be able to:*

1. read and understand technical material;
2. prepare effective scientific talks;
3. find career opportunities for persons with chemical training.

#### *Attendance Policies*

Whenever possible, you are expected to attend class synchronously, either onsite or virtually. There are several excused reasons for which you may need to miss class, including health issues, childcare issues, and university-sanctioned activities such as field trips. If you need to miss a class during our regular meeting time, please notify your instructor before class via email. To make up an excused absence, a student must (1) watch the podcast; (2) complete an evaluation form for the seminar (if a student seminar); and (3) write a two-page report (double spaced, 12 point font, 1 inch margins) containing a summary of the presentation, and at least two questions that you would have liked to ask the speaker. This report will be due within one week of the absence.

### 0.2 | Academic Honesty, Integrity, and Fairness

The University of Wisconsin Oshkosh is built upon a strong foundation of integrity, respect, and trust. All members of the university community have a responsibility to be honest and the right to expect honest from others. Any form of academic dishonesty is unacceptable to our community and will not be tolerated. The State of Wisconsin Administrative Code states: “Students are responsible for the honest completion and representation of their work, for appropriate citation of sources and for respect of others’ academic endeavors.” (§ UWS 14.01)

Plagiarism (representing the work/words of others as your own) or cheating on any assignment will lead to a zero on that assignment, with no opportunity for a make-up or extra credit. The best way to avoid issues of plagiarism is keep track of all sources you read or skim, and work through multiple rough drafts with your advisor. Offenses will be reported to the Dean of Students. A second offense will lead to an F in the course and disciplinary action by the Dean of Students. These sanctions will be applied in accordance with state statutes as specified in UWS 14.01 – 14.06. For more details see the information on the [Dean of Students Office website and the portions of Wisconsin State Law referenced there.](#)

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<sup>1</sup> This syllabus is based on syllabi shared by past instructors of the Chem 491 seminar course. It has been highly edited/cut due to being run as Chem 446 instead of Chem 491 during Spring 2023.

### 0.3 | Participants and Responsibilities

#### ***Role of the Seminar Director:***

The seminar director is responsible for scheduling seminars and collecting evaluations from students and faculty. The seminar director has the ultimate responsibility for assigning course grades.

#### ***Role of the Faculty Advisors***

The faculty advisor will guide the student in preparing an oral presentation. Additionally, the faculty advisor has the responsibility of "rehearsing" the presentation with the student. The faculty advisor will report to the seminar director whether the student has met the deadlines.

#### ***Role of the Student***

Students are required to attend all seminars and evaluate the student speakers. Students attending via Zoom are required to post a question for the speaker in the chat. Each student is responsible for scheduling all appointments with his/her advisor, and for meeting all deadlines (see schedule). The student must ensure that the seminar is professionally done and meets all the requirements described in this syllabus. Rescheduling may only be arranged in the case of illness or other excused absences.

### 0.4 | Evaluation of Performance

Students and faculty attending your seminar will be asked to evaluate your seminar and to recommend an overall grade. A copy of the evaluation form appears at the end of the syllabus. The seminar director will consider these recommendations, especially those of faculty, and assign a preliminary grade. Note that grades will be lowered if the minimum 40 minute length is not met. Those deductions can be found at the bottom of the Seminar Paper Evaluation form.

The preliminary grade will be reduced by any demerits due to late assignments or unexcused absences. Each absence that is not made up will result in a reduction by one-third of a letter grade. Five absences, whether excused or not, may constitute failure for the course. See above for more information on the attendance policy.

If you are not prepared to present your seminar on the date assigned to you, then your course grade will be reduced by two letter grades. Exceptions will be made only in cases of illness or injury that is officially excused through the Dean of Students Office. If missed presentation deadlines result in a failing grade, you will be required to repeat CHEM 491 and meet all course requirements to graduate.

Incompletes will be granted only when required by University policy. Specifically, the student must have completed two-thirds of the assigned work. This consists of a rough draft of the seminar presentation, which the student's advisor and the seminar director deem acceptable.

#### ***Additional Requirements***

You must also complete a *career planning exercise*, the *Major Field Assessment Test* (MFAT), and *turn in an updated resume* to pass the course. The MFAT covers all areas of the UW Oshkosh Chemistry curriculum and is designed to assess the factual and theoretical knowledge of chemistry majors. There are different versions for students in the biomolecular science option and the professional option. This open book test is a primarily multiple choice exam, with one essay question. You will take it in Canvas. As long as you take the MFAT, the results will not affect your grade for this course, but will be used in the Department's assessment of its courses and programs.

## 0.5 | Process for Creation of the Seminar Presentation



There are required deadlines for each of these steps. See section 0.6 for due dates.

### ***Outline***

You will develop a presentation outline with your advisor, which will probably include:

- I. a short introduction of yourself, usually performed by the seminar director;
- II. a brief overview of the presentation;
- III. background – important definitions, historical work, placement of the topic within the field of chemistry;
- IV. detailed descriptions of experiments, the data they produced, and how they confirm or contradict hypotheses (this may be from published papers and/or your own research);
- V. conclusions – what does it all mean, where is it going in the future, etc.;
- VI. acknowledgements;
- VII. references.

### ***Slides***

- Keep it simple, elegant, and professional. Limit the use of elaborate backgrounds, animations, transitions, and sounds.
- Practice the “no more than 4 by 4” rule when possible = 4 bullets with maximum 4 words each.
- Do not plan to read your slides to the audience. There should be a balance between you and the slide content, otherwise, you are not needed!

### ***Abstract/Announcement***

Use the Seminar Announcement Template (.dotx) in Canvas. It can be edited in Word. Do not reduce the font sizes. You will need to provide the following information:

1. Date, seminar title, speaker’s name, advisor's name
2. Abstract. This will normally begin with a few sentences of background information to orient the reader to your topic and one or more sentences discussing the relevancy of your topic. The abstract will then conclude with a brief discussion of the major points you intend to make. (Be sure to cite appropriate literature in your text.)
3. Five selected references, preferably from recent primary literature, in ACS format.

You must upload a final version to Canvas 10 days before your seminar (Tuesday of the week before the week of your seminar). Ms. Rosemary Ragenoski-Campbell, the Chemistry ADA, will duplicate and distribute your seminar announcement one week before your seminar. A copy will be distributed to each faculty member and seminar student. Announcements will also be posted on bulletin boards in the Departments of Chemistry, Physics & Astronomy, and Biology.

## **General Guidelines for Seminar Presentations**

Each student will present a well-rehearsed, professional quality seminar. Students will construct and make effective use of appropriate visual aids (usually PowerPoint or Google Slides). Students are not to use a written script and should keep use of notes to a minimum.

The seminar presentation should last 40-50 minutes. It will be followed by a question and answer period of 10-15 minutes. The use of videos for illustrative purposes is permitted but these should not take up more than 5 minutes of presentation time. Seminars will be streamed and recorded using Zoom.

*Student Appearance:* Students should treat their seminars as formal, professional presentations; this should be reflected in personal appearance. The Career Closet at Career Services will give each student four free clothing items per semester, if you do not have appropriate professional attire.

### **0.6 | Specific Activities in Chem 491**

Due Date	Assignment
1 <sup>st</sup> Class	Select seminar date
2 <sup>nd</sup> Class	Submit outline and draft of seminar announcement. Share with advisor.
Before 3 <sup>rd</sup> Class	Complete Negotiation Prep. Discuss outline and abstract with your advisor.
Before 4 <sup>th</sup> Class	Submit slides draft. Share with advisor.
Before 5 <sup>th</sup> Class	Discuss slides with your advisor. Submit updated resume.
2 weeks before seminar	First practice talk with your advisor completed.
10 days before seminar	Submit final version of seminar announcement.
1 week before seminar	Second (or more) practice talk with your advisor completed. Submit revised seminar slides.
Seminar day	Present a well-rehearsed, professional seminar.
1 week after seminar	Meet your advisor for a "debriefing".
Before semester ends	Take MFAT

### **0.7 | Required Regulatory Statement**

“Students are advised to see the following URL for disclosures about essential consumer protection items required by the Students Right to Know Act of 1990:

[https://uwosh.edu/financialaid/consumer-information/.](https://uwosh.edu/financialaid/consumer-information/)”

### **0.8 | Other Useful Information**

#### ***Respecting the diversity of our community***

Diversity drives innovation, creativity, and progress. At the University of Wisconsin Oshkosh, the culture, identities, life experiences, unique abilities, and talents of every individual contribute to the foundation of our success. Creating and maintaining an inclusive and equitable environment is of paramount importance to us. This pursuit prepares all of us to be global citizens who will contribute to the betterment of the world. We are committed to a university culture that provides everyone with the opportunity to thrive. Therefore, all members of our community are expected to treat each other with respect and apply intellectually rigorous critical analysis to all their interactions with others (e.g. activities, discussions, arguments, etc...).

#### ***There are lots of support services on campus***

If you have an emergency, mental health issue, suffer harassment, have food insecurity, ..., see the campus resources information (“Where to get help...”) in the class Canvas site.

### **0.9 | STUDENT SEMINAR EVALUATION FORM**

Speaker \_\_\_\_\_ Reviewer \_\_\_\_\_

**I. Rating:** Please rate the seminar on each of the following items using the grade scale below:

Advanced	Intermediate	Novice		Not Applicable
A	A or B	C or D	F	NA

**Evaluation Criteria** (Assessment level--leave blank if NA)

Adv I N	Abstract Quality
Adv I N	Literature references ( <b>N</b> : no primary or recent sources; <b>I</b> : some primary and recent sources; <b>Adv</b> : mostly primary and recent sources)
Adv I N	Organization of Seminar ( <b>N</b> : no clear organization, <b>I</b> : followed an outline, <b>Adv</b> : very logical)
Adv I N	Delivery ( <b>N</b> : volume and/or speed problems, grammatical errors, extra words, reading from visual aids; <b>I</b> : fewer problems; <b>Adv</b> : almost no problems)
Adv I N	Quality of figures ( <b>N</b> : hand drawn, poor photocopies, <b>I</b> : photocopies related to topic, <b>Adv</b> : clear figures that support the presentation)
Adv I N	Depth of coverage ( <b>N</b> : common knowledge; <b>I</b> : not familiar to most undergraduates; <b>A</b> : not familiar to many professors)
Adv I N	Scientific accuracy ( <b>N</b> : errors that undergraduates should not make; <b>I</b> : errors that professors should not make; <b>Adv</b> : no significant errors)
Adv I N	Work in context of discipline ( <b>N</b> : No connection; <b>I</b> : generalized connection; <b>Adv</b> : technical % logical connection of topic to collective field)
Adv I N	Synthesis & application of knowledge ( <b>N</b> : Ignores need for interpretation or conclusions; <b>I</b> : Interpretations provided without conclusions or conclusions drawn without interpretation; <b>Adv</b> : Interprets and draws conclusions of own or other's work)
Adv I N	Ability to answer questions ( <b>N</b> : uncomfortable or can't answer appropriate questions; <b>I</b> : can answer some questions and not upset if can't answer; <b>Adv</b> : can answer questions or give leads to find information)
Adv I N	Use of appropriate nomenclature, mechanisms and/or mathematical representations ( <b>N</b> : incorrect, <b>I</b> : correct on standard usage, <b>Adv</b> : correct on uncommon usage)

**Recommended Grade** (circle one)

A	A-	B+	B	B-	C+	C	C-	D+	D	F
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**III. Comments** \_\_\_\_\_  
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**IV. Overall Grade Calculated by Seminar Director:**

Average of above grades \_\_\_\_\_ + length demerit \_\_\_\_\_ + missed deadline demerit \_\_\_\_\_  
 Maximum Length Demerit listed as fraction of a letter grade (can be less at director's discretion)

40-50 min	35-39 or > 50 min	30-34 min	25-29 min	20-24 min	<20 minutes
0	-1/3	-1	-1 2/3	-2 1/3	-4 (auto F)

Calculated Grade \_\_\_\_\_