



SYLLABUS

Chemistry 890, Fall 2024 “Highlights at the Chemistry–Biology Interface”

Credits: 1 Credit
Course time: 2nd Monday, 12:00 pm
Location: 9341 Chemistry (subject to change)

COURSE OVERVIEW

The Highlights at the Chemistry–Biology Interface course, or “colloquium”, is intended for the graduate student trainees in the UW–Madison NIH Chemistry–Biology Interface Training (CBIT) program, to allow them to meet together and share their research progress once a month. This course gives two trainees each month the opportunity to communicate their research results with a diverse scientific audience, and to obtain constructive feedback on their presentation skills. In turn, every trainee benefits by being exposed to a variety of research areas and techniques aimed at understanding and manipulating biological systems at the molecular level. In addition to this focus on research and communication skill development, the 890 course provides all trainees a regular venue to consider critical aspects of research rigor and the responsible conduct of research. This course is offered in both the Fall and Spring terms, and CBI trainees enroll in this course every term from the time of their appointment to the training grant to their graduation.

- The credit standard for this course is met by an expectation of a total of at least 45 hours of student engagement with the course learning activities, which include regularly scheduled instructor–student meeting times (5 times a semester, for one hour each), individual meetings with the instructor, readings, presentation preparation, and application of learning from the seminar to the students' own doctoral research and scientific communication.
- Written requirements include careful preparation of presentation slides and filling out thoughtful feedback forms for each speaker.
- Instruction is delivered in person* once a month, with additional individual meetings to review student presentations and progress.
- This course fulfills the Graduate 50% requirement.

*Students may arrange to meet via Zoom under certain circumstances

COURSE WORKLOAD (per semester)

Learning Activity	Hours per month	Number of months	Total hours
Thesis research, presentation prep	≥9	4	≥36
Class attendance	1	4	4
Readings	1	4	4
Meeting with instructor	0-1	(once during the year)	0-1
Totals	≥11	Grand total	≥45

INSTRUCTORS AND TEACHING ASSISTANTS

Chemistry 890 is coordinated by the CBIT Program Director, Prof. Helen Blackwell, with the assistance of Dr. Cara Jenkins, the CBIT Program Coordinator. Instruction is also provided by the various faculty members who serve as mentors for the trainees.

Appointments for office hours are encouraged:

- Prof. Helen Blackwell: blackwell@chem.wisc.edu
- Dr. Cara Jenkins: clbradfo@wisc.edu

REGULAR AND SUBSTANTIVE STUDENT–INSTRUCTOR INTERACTION

Regular interaction over the course of the student's research activities is provided by the student's research mentor (PI), where weekly (or more frequent) meetings are standard. Course coordination by Dr. Blackwell and Dr. Jenkins also includes individual meetings with students on a rotating basis to assess research progress and to provide instruction and feedback on research talks.

OFFICIAL COURSE DESCRIPTION

Oral presentations on thesis research at the chemistry–biology interface. Includes discussions of reproducibility, rigor, and the responsible conduct of research.

REQUISITES

Graduate/professional standing

LEARNING OUTCOMES

Students in CHEMISTRY 890 will:

- *Identify and clearly present key background concepts relating to their research*
- *Explain experiments leading to research conclusions*

- *Analyze the results of each experiment with the appropriate scientific rigor, and develop skills to justify their analytical choices*
- *Identify short-term and long-term research steps and goals*
- *Provide feedback to other trainees on presentation style and clarity, data analysis, and scientific rigor and the responsible conduct of research*

GRADING

Students are graded on their attendance and participation, as well as on their presentations. Not every student will be assigned to give a presentation every semester, and for those students who do not give talks, their grades will be based 100% on their attendance and participation. For students assigned to give talks, their grades will be based 50% on attendance and participation and 50% on their presentations.

Pre-approved absences may be made up by submitting written feedback within one week. This includes viewing the video of the talks given on the day missed, filling out the feedback form for each speaker, and sending the forms to the instructors.

PARTICIPATION GRADE GUIDELINES (A, B, C, D or F)

Up to 10 points will be awarded for attendance and participation for each class meeting.

A (90-100%): Student attends every colloquium meeting, gives excellent and detailed feedback to student speakers, regularly asks thoughtful questions, and engages in discussion.

B (80-90%): Student attends most colloquium meetings, gives good speaker feedback, occasionally asks thoughtful questions, and engages in discussion.

C (70-80%): Student attends most colloquium meetings, gives minimal speaker feedback, may occasionally ask superficial questions, and does not engage in discussion.

D (60-70%): Student attends one colloquium meeting without notifying instructors in advance of absences, and gives minimal feedback to speakers.

F (below 60%): Student does not attend any colloquium meeting, and does not perform make-up work.

PRESENTATION GRADE GUIDELINES (A, B, C, D or F)

Up to 40 points will be awarded for each presentation given during the semester.

A (90-100%): Student prepares excellent slides, practices the talk beforehand, and gives an excellent talk in class appropriate for a broad scientific audience within the

allotted time. The student is also able to effectively answer student and faculty questions.

B (80-90%): Student prepares good slides, gives a good talk appropriate for a broad scientific audience within the allotted time, and effectively answers student and faculty questions.

C (70-80%): Student prepares mediocre slides, gives a talk that is not clear to the audience, and is marginally able to answer student and faculty questions.

D (60-70%): Student does not prepare slides (or uses the exact same slides as the year before) and/or gives a talk not tailored for the audience. The student is not able to answer questions about the science presented.

F (below 60%): Student neither prepares for nor gives the assigned presentation.

FINAL GRADING SCALE

Final grades will be awarded based on the percentage of points earned out of the points possible for each student. For those students who are not assigned to give a presentation, the grade will be based 100% on attendance and participation points (out of 40 points). For those students who are assigned to give a presentation, the final grade will be based 50% on attendance and participation and 50% on their presentation (out of 80 points).

A (90-100%)

B (80-90%)

C (70-80%)

D (60-70%)

F (below 60%)

AB and BC grades are not awarded.

REQUIRED COURSE MATERIALS

Access to a laptop computer and presentation software such as Keynote or Microsoft PowerPoint. (PowerPoint is available for free through the Campus Software Library.)

COURSE WEBSITE, LEARNING MANAGEMENT SYSTEM & DIGITAL INSTRUCTIONAL TOOLS

Chem 890 has a Canvas page that contains information on how to construct an effective research presentation, the syllabus and schedule, as well as general background readings in the field of chemical biology. The Canvas page can be found at <https://canvas.wisc.edu/courses/369709>.

PRIVACY OF STUDENT RECORDS & THE USE OF AUDIO RECORDED LECTURES STATEMENT

See more information about [privacy of student records and the usage of audio-recorded lectures](#).

Lecture materials and recordings for this course are protected intellectual property at UW-Madison. Students in this course may use the materials and recordings for their personal use related to participation in this class. Students may also take notes solely for their personal use. If a lecture is not already recorded, you are not authorized to record my lectures without my permission unless you are considered by the university to be a qualified student with a disability requiring accommodation. [Regent Policy Document 4-1] Students may not copy or have lecture materials and recordings outside of class, including posting on internet sites or selling to commercial entities. Students are also prohibited from providing or selling their personal notes to anyone else or being paid for taking notes by any person or commercial firm without the instructor's express written permission. Unauthorized use of these copyrighted lecture materials and recordings constitutes copyright infringement and may be addressed under the university's policies, UWS Chapters 14 and 17, governing student academic and non-academic misconduct.

STUDENT RIGHTS AND RESPONSIBILITIES

Every member of the University of Wisconsin–Madison community has the right to expect to conduct his or her academic and social life in an environment free from threats, danger, or harassment. Students also have the responsibility to conduct themselves in a manner compatible with membership in the university and local communities. UWS Chapters 17 and 18 of the Wisconsin Administrative Code list the university policies students are expected to uphold and describes the procedures used when students are accused of misconduct. Chapter 17 also lists the possible responses the university may apply when a student is found to violate policy. The process used to determine any violations and disciplinary actions is an important part of UWS 17. For the complete text of UWS Chapter 17, see [this link](#), or contact the on-call dean in the Dean of Students Office, 608-263-5700, Room 70 Bascom Hall.

No student may be denied admission to, participation in or the benefits of, or discriminated against in any service, program, course or facility of the [UW] system or its institutions or centers because of the student's race, color, creed, religion, sex, national origin, disability, ancestry, age, sexual orientation, pregnancy, marital status or parental status.

ACADEMIC INTEGRITY

By enrolling in this course, each student assumes the responsibilities of an active participant in UW–Madison's community of scholars in which everyone's academic work and behavior are held to the highest academic integrity standards. Academic misconduct compromises the integrity of the university. Cheating, fabrication, plagiarism, unauthorized collaboration, and helping others commit these acts are examples of academic misconduct, which can result in disciplinary action. This includes

but is not limited to failure on the assignment/course, disciplinary probation, or suspension. Substantial or repeated cases of misconduct will be forwarded to the Office of Student Conduct & Community Standards for additional review. For more information, refer to: studentconduct.wiscweb.wisc.edu/academic-integrity/.

ACCOMMODATIONS FOR STUDENTS WITH DISABILITIES

McBurney Disability Resource Center syllabus statement: “The University of Wisconsin–Madison supports the right of all enrolled students to a full and equal educational opportunity. The Americans with Disabilities Act (ADA), Wisconsin State Statute (36.12), and UW–Madison policy (Faculty Document 1071) require that students with disabilities be reasonably accommodated in instruction and campus life. Reasonable accommodations for students with disabilities is a shared faculty and student responsibility. Students are expected to inform faculty of their need for instructional accommodations by the end of the third week of the semester, or as soon as possible after a disability has been incurred or recognized. Faculty will work either directly with the student or in coordination with the McBurney Center to identify and provide reasonable instructional accommodations. Disability information, including instructional accommodations as part of a student's educational record, is confidential and protected under FERPA.” For more information, refer to: <http://mcburney.wisc.edu/facstaffother/faculty/syllabus.php>

DIVERSITY & INCLUSION

Institutional statement on diversity: “Diversity is a source of strength, creativity, and innovation for UW–Madison. We value the contributions of each person and respect the profound ways their identity, culture, background, experience, status, abilities, and opinion enrich the university community. We commit ourselves to the pursuit of excellence in teaching, research, outreach, and diversity as inextricably linked goals.

The University of Wisconsin–Madison fulfills its public mission by creating a welcoming and inclusive community for people from every background – people who as students, faculty, and staff serve Wisconsin and the world.” For more information, refer to: <https://diversity.wisc.edu/>

CHEM 890 SCHEDULE (2024–2025)

August 28, 2023 (James Madison park)
Program update, introduction of new trainees
Group activity

September 9, 2024
Irene Stoutland (Blackwell)
Holly Weilbaker (Buller)

October 14, 2024

Invited speaker(s)

November 11, 2024

Jennifer Whetter (Boros)

Lupe Aguirre (Blackwell)

December 9, 2024

Minhua Cao (Boros)

Yareslie Cruz-Rivera (Song Jin)

January 13, 2025

Chris Roberts (Bugni)

Alex Cruz (Weix)

February 10, 2025

Isabel Cannell (Blackwell)

Carlos Huang-Zhu (Van Lehn)

March 10, 2025

Lauren Tran (Gellman)

Ethan Aubuchon (Hoskins)

April 14, 2025

Natalie Gonzalez-Velazquez (Wenthur)

Will Leiter (Weeks)

May 12, 2025

La'Darious Quinn (Lynn)

Jackie Spieles (Hull)