

Biochemistry Capstone Course, CHEM 4890, Fall 2021, 2 Credit
Prof. Lance C. Seefeldt, W241, 797-3964, lance.seefeldt@usu.edu

- Meeting:** Wed 4-5:00 PM in ESLC 046 or Widt 330 or online; Fri 1:30-2:20 PM in ESLC046.
- Office Hours:** By appointment.
- Course Goals:** This course is designed for senior undergraduate students who are pursuing a BS degree in biochemistry. The goals of this course are to provide training in: oral presentations, literature reviews, and poster presentations. This will be accomplished through a combination of lectures, workshops, reading, interviews, group discussions, and writing assignments. The overall objective of the course is to provide training in areas critical to success in a job or academic pursuit that may not be covered in traditional courses. These topics are essential to success in a biochemistry related job, graduate work, or professional school.
- Texts:** There is no assigned text for the course. Students are urged to purchase a copy of the book *Elements of Style*, Strunk and White, and *The ACS Style Guide: A Manual for Authors and Editors*, Dodd editor. Both are essential books to have on your bookshelf. Additional sections from books, reviews, and primary literature will be handed out as needed.
- Canvas:** Information essential to the course will be available through the course Canvas page. This site is found at canvas.usu.edu. Only students who are registered for the class will have access to the course pages.
- Grading:** This course will be graded based on the points received for the elements presented below (table). Final letter grades will be assigned based on the percentage of the total points possible with the following scale: A's 100%-90%, B's 90%-80%, C's 80%-70%, D's 70%-60%, F below 60%. Attendance at all of the assigned meetings is essential. A missed event can be made up at the discretion of the Professor. Activities required to make-up missed events will be decided by the Professor in consultation with the student. Missing more than two of the events will result in zero points for all missed events with no option for make-up. Assignments turned in after the deadline will have 2 points deducted for each 24 h period late.

Graded Elements: Following are the graded elements (with maximum possible points).

Chemistry 4890 Fall 2021 Points		
Element	Description	Max. Points
Attendance	Attend all assigned class sessions	Required
Seminar Critiques	Critiques (5 x 5 points each)	25
Assignment 1	Literature assignment	10
Assignment 2	Quick presentation	10
Assignment 3	Topic/paper discussion	10
Assignment 4	Key slides	10
Assignment 5	Presentation to group	10
Assignment 6	Poster to department	25
Assignment 7	Seminar to department	30
ACS standardized exam		10
Total		140

- Assessment:** Assessment of the course will be conducted by the online IDEA system toward the end of the semester. Information from the evaluation will be used to improve the course in subsequent years.
- Provisions:** This course will adhere to the USU Academic Policies and Procedures Manual found at the web site <https://www.usu.edu/provost/faculty-life/syllabus>

Chemistry 4890, Fall 2021 Calendar

Date	Day	Time	Location	Topic/Assignment
9/1	W	4 PM	Widt 330	Lecture: Literature + Zotero
9/3	F	1:30 PM	ESLC046	Assignment#1- Literature. Due in 1 week.
9/8	W	4 PM	ESLC046	Seminar – critique in 1 week
9/10	F	1:30 PM	ESLC046	Assignment #2- Quick paper
9/15	W	4 PM	ESLC046	Seminar – critique within one week
9/17	F	1:30 PM	ESLC046	Assignment #2 – Quick paper
9/22	W	4 PM	Widt 330	Assignment #3- paper for seminar
9/24	F	1:30 PM	ESLC046	Assignment #3 – paper for seminar
9/29	W	4 PM	Widt 330	Seminar – critique within one week
10/1	F	1:30 PM	ESLC046	Assignment #3-paper for seminar
10/6	W	4 PM	ESLC046	Seminar – critique in 1 week
10/8	F	4:30 PM	Riverwoods	Seminar – critique in 1 week
10/13	W	4 PM	Widt 330	Lecture: Presentation skills
10/15	F	No class		
10/20	W	4 PM	Widt 330	Assignment #4- slides
10/22	F	1:30 PM	ESLC046	Assignment #4 –slides
10/27	W	4 PM	Widt 330	Assignment #4- slides
10/29	F	1:30 PM	ESLC046	Assignment #5 - Presentation
11/3	W	4 PM	Widt 330	Assignment #5- Presentation
11/5	F	1:30 PM	ESLC046	Assignment #5 - Presentation
11/10	W	4 PM	Widt 330	Assignment#5 – Presentation
11/12	F	1:30 PM	ESLC046	Poster/slide review
11/17	W	4 PM	Widt 330	Poster/slide review
11/19	F	1:30 PM	Widt 2 nd floor	Assignment #6 – Poster presentation
12/1	W	4 PM	Widt 330	Assignment #7- seminar
12/3	F	1:30 PM	ESLC046	Assignment #7- seminar
12/8	W	4:00 PM	Widt 330	Assignment #7 - seminar
12/10	F	1:30 PM	ESLC046	Assignment #7 - seminar
12/15	W	2:30 PM	Widt 330	ACS Standardized Exam

Communication Intensive

This course qualifies as Communication Intensive (CI) being focused on developing both scientific writing and presentation skills. The assignments described below are designed to allow you to present and write, with feedback from the instructor and your peers. All of the assignments are designed to provide feedback as you develop these presentation skills.

Assignment Overview:

Attendance

Role will be taken and attendance at all of the assigned events is expected as outlined above.

Discussion of Papers, Seminars, and Critiques

You will attend seminars by outside speakers this semester as one way to learn effective presentation skills. You will attend the seminar and fill out a critique of strengths and weaknesses and turn in the critique on the due dates noted in the calendar. Critiques will be awarded points for careful evaluation.

Assignment 1: Finding and organizing literature

The assignment is meant for you to practice gathering and organizing literature using the major databases and collecting citations and papers using Zotero. Details of the assignment are provided in a separate document.

Assignment 2: Quick presentation of a paper

In this assignment, you will do a quick presentation to the group of a recent biochemistry paper you have pulled from the literature. No formal presentation. The emphasis is on organizing thoughts and presenting clearly.

Assignment 3: Discussion of paper/topic for seminar

In this assignment, you will present the essence of the paper/research you will do your poster and presentation on. No slides. Emphasis is on having a clear story. You will meet with one of the biochemistry faculty to discuss the selection of your paper.

Assignment 4: Key Slides for poster and talk

You will present the key slides that will be the heart of your talk and poster. The format will be slide-by-slide discussion among the group to improve the slides and logic.

Assignment 5: Presentation to group

You will give your 10 min presentation to the group without interruptions to gauge timing and delivery. The group will give critiques following each presentation.

Assignment 6: Poster

You will present a poster to the entire department. Poster details will be provided on a separate assignment description.

Assignment 7: Department Seminar

You will give a formal presentation to the department. Grading will be on clarity of presentation. Grading details are in a separate document.

ACS Biochemistry Exam – Wed Dec 15, 2:30-4:30 PM, ESLC 046

Because this is the capstone course for all of our biochemistry majors and it is important for us to understand the preparedness of our graduating majors, you will take the standardized ACS Biochemistry exam as a part of this course. The exam is worth a total of 10 points and will be taken in person during the final exam period for this course.

Additional Provisions:**COVID-19 Classroom Safety**

While not mandated, USU encourages and welcomes the wearing of masks in all university buildings, especially within 6 feet of others. Furthermore, it is strongly encouraged to take measures to mitigate risk as recommended by federal and state public health officials. These measures include getting fully vaccinated, staying home if you are sick (even with mild symptoms), and maintaining good hygiene including frequent hand washing. Testing will be provided, without charge, throughout the semester and the USU COVID Webpage will provide up-to-date information. Please remember; COVID can have significant impact on the health and safety of those around you so remain vigilant and respectful.

Academic Freedom and Professional Responsibilities

Academic freedom is the right to teach, study, discuss, investigate, discover, create, and publish freely. Academic freedom protects the rights of faculty members in teaching and of students in learning. Freedom in research is fundamental to the advancement of truth. Faculty members are entitled to full freedom in teaching, research, and creative activities, subject to the limitations imposed by professional responsibility. USU Policy 403 further defines academic freedom and professional responsibilities.

Academic Integrity - "The Honor System"

The University expects that students and faculty alike maintain the highest standards of academic honesty. The Code of Policies and Procedures for Students at Utah State University (Student Conduct) addresses academic integrity and honesty and notes the following:

Academic Integrity: Students have a responsibility to promote academic integrity at the University by not participating in or facilitating others' participation in any act of academic dishonesty and by reporting all violations or suspected violations of the Academic Integrity Standard to their instructors.

The Honor Pledge: To enhance the learning environment at Utah State University and to develop student academic integrity, each student agrees to the following Honor Pledge: "I pledge, on my honor, to conduct myself with the foremost level of academic integrity". Violations of the Academic Integrity Standard (academic violations) include, but are not limited to cheating, falsification, and plagiarism

Plagiarism

Plagiarism includes knowingly "representing by paraphrase or direct quotation, the published or unpublished work of another person as one's own in any academic exercise or activity without full and clear acknowledgment. It also includes the unacknowledged use of materials prepared by another person or agency engaged in the selling of term papers or other academic materials." The penalties for plagiarism are severe. They include warning or reprimand, grade adjustment, probation, suspension, expulsion, withholding of transcripts, denial or revocation of degrees, and referral to psychological counseling.

Grievance Process

Students who feel they have been unfairly treated [in matters other than discipline, admission, residency, employment, traffic, and parking - which are addressed by procedures separate and independent from the Student Code] may file a grievance through the channels and procedures described in the Student Code: Article VII Grievances

Sexual Harassment

Utah State University is committed to creating and maintaining an environment free from acts of sexual misconduct and discrimination and to fostering respect and dignity for all members of the USU community. Title IX and USU Policy 339 address sexual harassment in the workplace and academic setting.

The university responds promptly upon learning of any form of possible discrimination or sexual misconduct. Any individual may contact USU's Affirmative Action/Equal Opportunity (AA/EO) Office for available options and resources or clarification. The university has established a complaint procedure to handle all types of discrimination complaints, including sexual harassment (USU Policy 305), and has designated the AA/EO Director/Title IX Coordinator as the official responsible for receiving and investigating complaints of sexual harassment.

Students with Disabilities

USU welcomes students with disabilities. If you have, or suspect you may have, a physical, mental health, or learning disability that may require accommodations in this course, please contact the Disability Resource Center (DRC) as early in the semester as possible (University Inn # 101, 435-797-2444, drc@usu.edu). All disability related accommodations must be approved by the DRC. Once approved, the DRC will coordinate with faculty to provide accommodations.

Withdrawal Policy, "I" Grade Policy and Dropping Courses

If a student does not attend a class during the first week of the term or by the second class meeting, whichever comes first, the instructor may submit a request to have the student dropped from the course. (This does not remove responsibility from the student to drop courses which they do not plan to attend.) Students who are dropped from courses will be notified by the Registrar's Office through their preferred e-mail account.

Students may drop courses without notation on the permanent record through the first 20 percent of the class. If a student drops a course following the first 20 percent of the class, a W will be permanently affixed to the student's record (check General Catalog for exact dates).

Students with extenuating circumstances should refer to the policy regarding Complete Withdrawal from the University and the Incomplete (I) Grade policy in the General Catalog.

No-Test Days Policy

For classes that meet for a full semester, a five-day period designated as "no-test" days precedes final examinations. During this time, no major examinations, including final examinations will be given in order that students may concentrate on classwork, the completion of special assignments, writing projects, and other preparation for duly scheduled final examinations. Approved exceptions include final papers, weekly chapter quizzes, quizzes, projects, and examinations associated with a lab that does not meet during final examinations. This policy does not apply to classes that meet only during the second 7-week session of the semester or to classes offered during the summer term. Complete information related to Final Examination Policies can be reviewed in the General Catalog.

Assumption of Risk

All classes, programs, and extracurricular activities within the University involve some risk, and some involve travel. The University provides opportunities to participate in these programs on a voluntary basis. Therefore, students should not participate in them if they do not care to assume the risks. Students can ask the respective program leaders/sponsors about the possible risks a program may generate, and if students are not willing to assume the risks, they should not select that program. By voluntarily participating in classes, programs, and extracurricular activities, students do so at their own risk. General information about University Risk Management policies, insurance coverage, vehicle use policies, and risk management forms can be found at <http://www.usu.edu/riskmgt/>.

Mental Health

Mental health is critically important for the success of USU students. As a student, you may experience a range of issues that can cause barriers to learning, such as strained relationships, increased anxiety, alcohol/drug problems, feeling down, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may lead to diminished academic performance or reduce your ability to participate in daily activities. Utah State University provides free services for students to assist them with addressing these and other concerns. You can learn more about the broad range of confidential mental health services available on campus at Counseling and Psychological Services (CAPS).

Students are also encouraged to download the "SafeUT App" to their smartphones. The SafeUT application is a 24/7 statewide crisis text and tip service that provides real-time crisis intervention to students through texting and a confidential tip program that can help anyone with emotional crises, bullying, relationship problems, mental health, or suicide related issues.