Office Hours: By appointment nick.dickenson@usu.edu

Text: There is no required text for the course, but there will be required readings that will be made available by the instructor.

Lecture Overheads - Canvas
We will be using Canvas for the management of Chem 7770. Copies of many required readings and some lecture overheads will be posted on Canvas (https://online.usu.edu/).

Course Withdrawal: Refer to the current academic year registration calendar for details and deadlines concerning withdrawal conditions and deadlines.

Provisions: The administration of Chem 7770 will adhere strictly to the academic policies outlined in the most recent USU General Catalog, which can be found here: http://catalog.usu.edu/index.php
Students not enrolled in the course may sit in only with instructor approval.

Course Content: Chemistry 7770 is a special topics graduate course. It will cover the theory and practical approaches for an array of microscopy and spectroscopy techniques with a special emphasis on biochemical applications. The course is designed to provide the participants with a level of understanding sufficient to guide them in critical reading the literature and in the acquisition and interpretation of data.

Target audience: This course is suitable for any graduate student who has a solid command of fundamental biochemistry or for undergraduate science majors who have taken the prerequisite biochemistry.

Course Assessment: Students in this class are expected to develop an understanding of the techniques and ideas covered in the course. Some will be covered in much greater depth than others and this will be reflected in the testing of the material. While the instructor will guide the course, the students will be responsible for adequately preparing for lecture as well as presenting a significant amount of the material to their peers. Attendance and participation (including presentation) are vital for this type of course and while attendance is not graded, participation is mandatory and is worth a total of 50 points.

Additionally, you will perform 2 “peer reviews” of a published paper that utilizes one or more microscopy/spectroscopy techniques. The reviews will be worth 25 points each.
There will be **two 25 point** short exams/quizzes during the semester. Some will be announced ahead of time and some may not. It is imperative that you come to class full prepared each period.

**Grading:** **There will be NO EXTRA CREDIT awarded in this class.**

Class participation and presentations.........................................................50 points
“Peer reviews” (2 @ 25pt each).................................................................50 points
Short exams/quizzes (2 @ 25pt each) ......................................................... 50 points
Total........................................................................................................... **150 points**

In terms of final assignment of grades, you are guaranteed the following grades if your final class percentage lies within the indicated ranges.

- 100-90%  A through A-
- 89.9-78%  B+ though B-
- 77.9-68%  C+ through C-
- 67.9-59%  D+ through D-

Based on the overall class average at the END of the semester, the percentage cutoffs may be adjusted to be lower than those above at the instructor’s discretion. They will never, however, shift higher.

**OBJECTIVES**

In planning this course, I have identified three main course objectives:

1. **Gaining factual knowledge (terminology, classifications, methods, trends)**
2. **Learning fundamental principles, generalizations, or theories**
3. **Learning to apply course materials (to improve rational thinking, problem solving and decisions)**

Students with ADA-documented physical, sensory, emotional or medical impairments may be eligible for reasonable accommodations. Veterans may also be eligible for services. All accommodations are coordinated through the Disability Resource Center (DRC) in Room 101 of the University Inn, (435)797-2444. Please contact the DRC as early in the semester as possible. Alternate format materials (Braille, large print, digital, or audio) are available with advance notice.