

Chem 7770 Fall 2019-Advanced Methods in Biochemistry

Professor Joanie M. Hevel

Office: Widtsoe 235 Lab Widtsoe 202

Phone: 797-1622

A. This class is going to be a little different than many of your previous graduate classes. The department has a used surface plasmon resonance (SPR) instrument that has never been used here at USU. The plan for Chem 7770 is:

- 1) to learn the steps to take to get a piece of equipment up and running
- 2) use those steps to get this SPR up and running and
- 3) hopefully test it

B. I'll be opening up a folder on BOX called Chem7770 fall 2019 and inviting you all. There will be documents, checklists, all kinds of things that we will need to share and I thought Box would be the easiest way to do that. Please accept the invitation when it comes.

C. There is no set time for this course. The general plan will be to meet soon, identify a set of questions that need answers, post a document on Box to record these things and then we will disperse, each person, or a group of people collecting the information. Once retrieved, the information should be placed on BOX and then we will plan a second meeting to figure out where to go from there. I will send out a doodle poll shortly to figure out when we could meet.

Office Hours : by appointment joanie.hevel@usu.edu

Other: You will need computer access to read scientific articles and access CANVAS and BOX

Prerequisites: A grade of B- or better in Chem 5700/5710 or equivalent

Grading:	Class participation	100pts
	Presentations	100pts
	Tutorial	<u>100pts</u>
		300pts

OBJECTIVES: Using the new IDEA evaluation system, I have identified 5 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)*
4. *Developing specific skills, competencies, and points of view needed by professionals in the field most closely related to this course*
5. *Learning how to find and use resources for answering questions or solving problems*

Specific Objectives:

1. Be able to explain how SPR works and how this specific instrument works
2. Be able to design and describe how an SPR experiment should be set up, including positive and negative controls
3. Be able to identify the steps one needs to take in order to establish a new methodology in the lab.
4. Create a Tutorial for this instrument for the Department

In accordance with the Americans with Disabilities Act, reasonable accommodations will be provided for all persons with disabilities in order to ensure equal participation in Chem 6740. In cooperation with the Disability Resource Center, reasonable accommodation will be provided for students with disabilities. Please meet with the instructor during the first week of class to make arrangements. Alternative format print materials, large print, audio, diskette or Braille, will be available through the Disability Resource Center.