

Chemistry 1990 **1 credit P/F**

Wednesday 2:30-3:20, ENGR 106 and WID 330

Professor Joanie Hevel, Widtsoe 235, 797-1622, joanie.hevel@usu.edu

Course Description: This required course is designed to provide incoming chemistry/biochemistry students with a sound foundation of how to get the most out of their chemistry/biochemistry education, expose students to exciting areas of chemistry and biochemistry, outline opportunities at USU that will help students reach their career goals, and highlight the need for you to master “employability skills” for success. The class includes seminars on topical issues presented by faculty and invited guests, discussions of career options, and activities to learn the best practices at resume writing and professionalism. These topics are essential to success in a chemistry/biochemistry related job, graduate work, or professional school.

Office Hours: by appointment

Times: W 2:30-3:20, ENGR 106 and WID 330 please see the schedule

Requirements: this is a Pass/Fail course

- 1) Attend all Wednesday classes, attendance is mandatory
- 2) Complete all mandatory in-class activities and assignments.
- 3) Perform outside class assignments.

Texts: There is no assigned text for the course.

Canvas: Information essential to the course will be available through the course Canvas page. This site is found at <https://canvas.usu.edu/>. username = banner ID. Only students who are registered for the class will have access to the course Canvas pages. Assignments should be submitted on CANVAS.

Grading: A final Pass or Fail grade will be assigned based on attendance and assignments/activities.

- 1) Attendance at all of the assigned meetings is mandatory.
- 2) Assignments and activities: assignments and activities done in class are mandatory. Assignments turned in after the deadline will have 2 points deducted from the score for the first day that it is late, with 2 points deducted each additional day that it is late. **A student must earn 80% or more of the points associated with these activities in order to pass the class.**
- 3) Activities outside class: a list of activities will be provided at the beginning of the semester. In order to pass the class, **each student must participate in 4 activities.**

Provisions:

This course will adhere to the USU Academic Policies and Procedures Manual found at the web site <http://www.usu.edu/policies/>. Any student with a disability who requires accommodation must contact the instructor. The disability must be documented by the Disability Resource Center. Course materials may be requested in alternative formats.

Outside Class Activities; each student must do at least 7

Chem/Bch Department Seminar	Wednesdays 4-5 ECLS 046 (sometimes WID 330) http://chem.usu.edu/seminars/index
Biochemistry Graduate Seminar	Fridays, 11:30-12:30 WID 330
Chemistry Graduate Seminar	
Chem Club	
Health Professions events	
Interview an alumnus working in the sciences	
Working in a lab	
Science Unwrapped	http://www.usu.edu/unwrapped/
Chem 4880 Biochemistry or Chem 4990 Chemistry Presentations by Undergraduates (talks and poster sessions)	DATES TBA, near the end of the semester; Nov 20th 4-5; Dec 4th 4-5)
Commercial Enterprises on campus	
Have an idea for a new activity?	Send me an email.

Special Events to Consider:

Chemistry & Biochemistry Department Olsen lecture: Xiao-Yang Zhu from Columbia, Oct 16th at 4pm in ECLS 046.

As indicated by the American Chemical Society (ACS), the Employability Skills that you should master before graduation are:

1. Laboratory Safety skills
2. Problem-solving and Critical Thinking Skills
3. **Communication Skills**
4. **Team skills**
5. Ethics
6. **Chemical Information Acquisition and Management Skills**
7. **Career Preparation**

Assignment Details

*****Since communication skills are important for your future success, all assignments will be graded with the following rubric:**

10% Correct grammar, spelling and punctuation

90% Completeness of assignment

Assignment 1 Identify 2 study habits you think will be useful DUE ON 9/4

On 8/28 you will get a chance to chat with several upperclassman and graduate students about the types of study habits and organizational tricks that have been the most useful to them. Identify two from your discussions that you think will be useful for you in your college career.

Assignment 2 Professional Self-Evaluation-5 things you do well, 5 things you need to work on DUE ON 9/11 Career Preparation

On 9/4 we will be talking about what it means to be professionally ready (employable!). Identify 5 things you think you have already mastered (do well) and 5 things that you know you need to work on. Pick one thing off the "I don't do these things well" list and explain how you are going to remedy this deficiency.

Assignment 2b- Get together with your career panel team (teams will be designated and listed on CANVAS) and offer questions; identify a team leader. Team leaders, send me an email with you are and who is on your team. **DUE before 9/18 Team skills**

Assignment 3 Can you spot a quality science research article? Outline the components of a specific research talk (go to a seminar on campus) DUE ON 10/18 Chemical Information Acquisition and Management Skills, Communication Skills

This assignment has a couple of parts. On 9/11 I will introduce you to how a scientific article gets published and how researchers organize a talk and paper. With this background you will need to 1) identify a research seminar on campus and attend it, 2) write a synopsis of the scientific talk, and 3) look at the "scientific articles" that I have made available on CANVAS—rate them as "primary, peer-reviewed, impact factor = X" or "primary, not peer-reviewed" or "review article"

Assignment 4 Prepare questions for careers panel DUE ON day before panel; prepare profiles DUE ON one week after panel Team skills, Communication Skills, Career Preparation

There will be class periods devoted to ACADEMIC and INDUSTRIAL career opportunities. For this assignment you will pick one and work as a team of 6-8 students to prepare sample questions that you can ask the panel that will be present to discuss a potential career option. A TEAM LEADER should collate the questions and send me (joanie.hevel@usu.edu) a compiled list of questions (with the names of individuals who wrote the questions) the day before the panel meets. After the panel meeting, the Team will be responsible for creating an "XXX Profile"—this will be a flow chart representing the steps one would take if they wanted to work toward that specific career. All members of the team should send me the same final version of the XXXX Profile. Note at the bottom of the Profile the authors of the profile (your team member names). Profiles should be no longer than ONE PAGE.

Assignment 5 Introduce yourself in a professional manner DUE ON 10/2 Communication Skills, Career Preparation

On 9/4 we will have talked about professional conduct and correspondence. For assignment 4 you will need to introduce yourself to either a faculty member, postdoctoral associate, lecturer or graduate student (all have degrees higher than your high school diploma). Use the material discussed in lecture 9/4 to make the best first impression.

Assignment 6 Create your resume DUE ON 11/6 Communication Skills, Career Preparation

On 10/9 Career Service will present on services available to you as a student of USU, including help with writing your resume. Develop your resume, go to career services and have them give you feedback. Revise your resume and submit both the original and the revised versions to CANVAS.

Assignment 7 Create your ePortfolio DUE ON 12/4 Communication Skills, Career Preparation

Given the emphasis of the digital world on today's society, you will need to develop an electron resume. USU has partnered with the company Portfolium to provide you "forever access" to your own ePortfolio. Using Portfolium you can keep track of all your activities and your path toward mastering your "Employability Skills". In the near future, the department will be taking steps to formally track your progress in mastering your Employability Skills in the form of "badges". For example, certain assignments in this 1990 class will be part of showing competency for a particular badge. This is new this year and I hope to give you access to ePortfolio through CANVAS but stay tuned.

Assignment 8 Create a bibliography and a figure DUE ON 11/13 Chemical Information Acquisition and Management Skills

On 10/30 I will go over how to use Zotero (a bibliography and reference managing software) and ChemDraw (software program that allows you to draw chemical structures). Both programs are free to USU students. 1) You will identify three primary research articles that you find interesting and write a short (4-7 sentences) about what was in those three articles and you will use Zotero to reference the paragraph. After the paragraph should be a formal bibliography (Use the "Nature" style). 2) You will pick the structure of either glucose, caffeine, or ethanol and you will use ChemDraw to draw the molecule and paste it onto the same page as your paragraph. Download here: <https://www.zotero.org/> and here: https://usu.service-now.com/usu/catalog_individual.do?sysparm_catalog=cd1eca50e971c200e3b160ec34320c0e search term Chemdraw

Assignment 9 Ask questions for careers panelists; prepare a profile DUE ON 12/4 Communication Skills, Career Preparation

There will be class periods devoted to careers of RECENT GRADS and careers that are less-often thought of, somewhat of a SIDEWAYS track from your science major. During these class periods several professionals will join us through SKYPE or ZOOM. They will introduce themselves, tell you a little bit about their jobs and how they got here, then we will open the floor to questions from the audience. Pick one individual who you thought had a very interesting career and create a Profile for that person (use the template provided on CANVAS). You may work in groups of 4 for this project. All 4 of you will submit the same profile on campus with all 4 names and a description of which member contributed what part of the profile. All the panel members can be contacted for further information (email information is on CANVAS). Be sure to be professional when contacting them.

Assignment 10 Attend second science seminar on campus DUE on 12/4 Chemical Information Acquisition and Management Skills, Communication Skills

Submit a synopsis (use template available on CANVAS).

Grading Elements

Chemistry 1990 Points				
Element		Description	Points	SKILLS
Attendance		14 classes, 3 points each class	42	
Assignments		1 Identify 2 study habits you think will be useful	5	
	2	Professional Self-Evaluation-5 things you do well, 5 things you need to work on	5	7
	3	Can you spot a quality science research article? Outline the components of a specific research talk (go to a seminar on campus)	10	3, 6
	4	Prepare questions for careers panel; prepare profiles	10	3, 4, 7
	5	Introduce yourself in a professional manner	5	3, 7
	6	Create your resume	10	3, 7
	7	Create your ePortfolio	10	3, 7
	8	Create a bibliography and a figure	10	6
	9	Ask questions for career panel; prepare a profile	10	3, 7
	10	Attend second science seminar on campus	10	3, 6
Total			127	
Outside Class Activities		Varied, see approved list and fill out the appropriate form	4	
			REQUIRED	

Grading scale: 80% of class points + 7 outside activities = Pass

Calendar for the semester

Date	Building	Topic/Title	Presenter	Notes, Assignments INTRODUCED
8/28	E	Organizational meeting/syllabus/Best study/organizational habits	Hevel Various students	Speed Meetings with Upperclassmen: Best study/organizational habits Assignment 1 - Identify 2 study habits you think will be useful
9/4	E	What does it mean to be professionally ready? conduct/correspondence Meet with your Career panel team to discuss questions	Hevel/ group work	Group work to create best practices Assignment 2 - Professional Self-Evaluation-5 things you do well, 5 things you need to work on
9/11	E	Scientific talks/Scientific literature / scientific seminars /peer review	Hevel	Assignment 3 - Can you spot a quality science research article? Go to a seminar. Outline the components of a specific research talk.
9/18	W	Professions 1 FACULTY and LECTURERS A Professions 1 FACULTY and LECTURERS B	Hevel	Assignment 4 – prepare questions for panel; prepare profiles
9/25	W	Professions 2 INDUSTRY A Professions 2 INDUSTRY B		Assignment 4 – prepare questions for panel; prepare profiles
10/2	E	Class choices/Use of extracurricular activities	Hevel Various students	Speed Meetings with Upperclassmen: class choices/activities/introductions Assignment 5 –Introduce yourself in a professional manner
10/9	E	Resume building/ Opportunities on campus with Sophie Bassett	Bassett	Bring your lap top if you have one Assignment 6 Create your resume Assignment 7 ePortfolio
10/16	E	Research at USU-4 mini talks from Chem/ Biochem faculty	Various faculty	
10/23	E	Preparation for Health Professions - Yvonne Kobe	Kobe	
10/30	E	Advising with Jordan Truex, Zotero and ChemDraw	Truex & Hevel	Bring your lap top if you have one Assignment 8 – Create a bibliography and a figure
11/6		Professions 3 RECENT GRADS Chad Apuli and Brenda Suh-Lailam SKYPE/ZOOM		Assignment 9 ask questions for panel; prepare a profile
11/13		Professions 4 SIDEWAYS Joanne? Brooke? Amy? SKYPE/ZOOM		Assignment 9 ask questions for panel; prepare a profile
11/20	E	Research at USU-4 mini talks from Chem/ Biochem faculty	Various faculty	
11/27		NO CLASS, Thanksgiving Holiday		
12/4	E	Mini-session on public speaking Pharmacy School-Hevel	Hevel / group work	Take the end of class survey
NO FINAL EXAM				

Participants

Speed Meetings with Upperclassmen: Best study/organizational habits

Tatiana Soboleva
Bo Price
Camden DeBruler
Abigail Jones
Drake Comer
Alex Lish
Hannah Taylor
Hannah Domgaard

Speed Meetings with Upperclassmen: class choices/activities/introductions

Tatiana Soboleva
Bo Price
Drake Comer
Hannah Taylor

Professions 1 FACULTY and LECTURERS

Melissa Kofoed
Nick Dickenson
Kimberly Hageman
Sean Johnson

Professions 2 INDUSTRY

Ned Weinschenker