

**CHEMISTRY 120A (SLN 10684), SUMMER 2017**

## SYLLABUS

**Lectures:** MTThF 10:50-11:50 AM, Bagley 154

**Course Website:** <https://canvas.uw.edu/courses/1145525>

**Add or Drop:** Go to Bagley 303 (Chemistry Department's Undergraduate Services)

**Course Instructor:** Kimberly Davidson

Email: [kimdav89@uw.edu](mailto:kimdav89@uw.edu) with CHEM120 in subject line

Office Hours: Tuesdays 2:00 PM to 3:00 PM in (TBD) or by appointment

**Teaching Assistant:**

TA NAME	EMAIL	SECTION
Camille Houferak	<a href="mailto:houferak@uw.edu">houferak@uw.edu</a>	AA, AB

**MATERIALS**

Except where indicated, all items are required and available from the University Bookstore

- **General, Organic and Biological Chemistry, 7<sup>th</sup> ed.**, H. Stephen Stoker
  - Book will be used for CHEM 220 and 221
- **Bound Laboratory Notebook** (same as one for CHEM 142, 152, 162)
- **Lab coat and safety goggles** (NO safety glasses or any other type of goggles)
- **Scientific Calculator.** Text-entry calculators WILL NOT be permitted on exams
- **Online Homework** is available at <http://saplinglearning.com>. Also used in CHEM 220 AND 221.

**COURSE COMPONENTS**

The course consists of:

- 4 lectures per week
- 1 discussion section per week (with a worksheet)
- 1 three-hour laboratory session certain weeks of the quarter (6 labs total)
- Pre-lab and post-lab assignments
- Scheduled homework assignments in Sapling

**GRADING**

The point distribution for the evaluative components of the course is as follows:

2 Midterm exams, 100 pts each	200 pts	40%
Final exam, 150 pts each	150 pts	30%
Homework Assignments, prorated to 75 pts	75 pts	15%
Laboratory, prorated to 75 pts	75 pts	15%
<b>TOTAL</b>	<b>500 pts</b>	<b>100%</b>

**Grade Distribution.** The final mean GPA in Chemistry 120 generally falls within the range 2.6 +/- 0.2. You must earn at least 40% of the total points for a passing grade of 0.7. Earning 95% of the total points guarantees a grade of 4.0. It is the Chemistry Department's policy not to make grade changes of 0.1 after final class grades are submitted to the UW Registrar.

Your scores for the various assignments, reports, and exams will be recorded using the online Gradebook that is part of UW's Catalyst Web Tools which you can access through your "My UW" account. It is not the gradebook in Canvas.

**ACADEMIC ETHICS**

***Original work performed in good faith is assumed on all assignments and course components.***

The student Conduct Code (see <http://www.washington.edu/cssc/student-conduct-overview/student-code-of-conduct/>) outlines the following forms of academic misconduct:

- Intentional misrepresentation of credentials
- Falsification of data
- Plagiarism

Failure to adhere to this code of ethics will result in referral for possible disciplinary action as described in the Student Conduct Code. In short, if you have not done something yourself, do not attempt to pass it off as original work. If you have questions about what might cross the line, please do not hesitate to ask your lab or class instructor. It is presumed that the data you record and report in laboratory is your work. In addition, all data analysis and writing you submit should be yours alone, even if you collected data with a laboratory partner. We often find examples of plagiarism in which lab reports are copied from someone else, or from an earlier quarter.

## LECTURES

**Lecture Schedule.** An approximate schedule for the chapters to be covered each week is at the end of the document. ***You are responsible for material covered in class AND in the textbook*** (whether or not it was covered in lecture). Lectures will cover only highlights of the textbook material.

**Lecture and Discussion Section Etiquette.** Out of respect for your classmates, please observe the following rules:

- Arrive on time. If an emergency causes you to arrive late, please enter quietly through the rear doors of the lecture hall/classroom.
- Do not pack up your belongings before the end of class.
- Keep side conversations to a minimum.
- Keep your cell phone or pager on silent, and refrain from sending or reading text messages.
- Do not browse or read materials that are unrelated to the lecture. This includes – but is not limited to – newspapers, books, magazines and the internet.

## ASSIGNMENTS AND QUIZZES

Assignments in CHEM 120, 15% of total points, graded on a 5 point basis, include:

- Online homework through Sapling Learning
- Worksheets in discussion section
- Initial course survey in Canvas

## ONLINE LEARNING (SAPLING)

This course will use the internet-based learning program called Sapling. To enroll in the CHEM 120 Sapling course:

- 1) Go to <http://saplinglearning.com> and click “US Higher Ed” at the top right.
- 2) If you already have a Sapling Learning account, log in then skip to step 5.
- 3) If you have a Facebook account, you can use it to quickly create a Sapling Learning account. Click the blue button with the Facebook symbol on it (just to the left of the username field). The form will auto-fill with information from your Facebook account (you may need to log into Facebook in the popup window first). Choose a password and timezone, accept the site policy agreement, and click “Create my new account”. You can then skip to step 5.
- 4) Otherwise, click the link “Create an Account”. Supply the requested information and click “Create My Account”. Check your email (and spam filter) for a message from Sapling Learning and click on the link provided in that email.
- 5) Find your course in the list:
  - a. Expand the subject, “General, Organic, and Biochemistry.”
  - b. Expand the term, “Quarter 1.”
  - c. Click on the link that reads, “University of Washington – CHEM 120 – Summer17 – DAVIDSON”

- d. If your course requires a key code, or enrollment key, you will be prompted to enter it.
- e. Select a payment option and follow the remaining instructions. CHEM 120, 220, and 221 will all use Sapling. Consider a year-long subscription only if you plan to take all 3 courses this academic year.

Once you have registered and enrolled, you can log in at any time to complete or review your homework assignments. During sign up – and throughout the term – if you have any technical problems or grading issues, send an email to [support@saplinglearning.com](mailto:support@saplinglearning.com) explaining the issue. The Sapling support team is almost always more able (and faster) to resolve issues than your instructor.

Sapling will be the homework system for the Principles of Chemistry course sequence, CHEM 120-220-221.

## **DISCUSSION SECTION**

In the discussion section you will explore the concepts presented in the course and new concepts will be presented. You will collaborate with your colleagues on problems that will help you synthesize the material.

## **LABORATORY**

Laboratory work is important to the understanding of chemistry. Included in the course are 6 laboratory experiments that relate to topics in CHEM 120. The pre-lab assignments, in-lab procedures, and post-lab questions are described in the Laboratory section on the course website.

Safety is a high priority. Be sure to read carefully the safety information included in the handout and follow all instructions from your TA and UW staff.

## **EXAMS**

There are two midterm exams and one final exam in this course. The dates for these exams are provided in the course schedule at the end of this document. Chemistry knowledge is cumulative so questions on exams will often depend on knowledge from earlier chapters.

Exam Protocol:

- Bring a few pencils or pens, your calculator, and a photo ID to all exams.
- Keep your eyes on your own paper!

**KEYS TO SUCCESS**

1. Attend ALL classes, pay close attention, and take notes.
2. Learning chemistry is a sequential process. You must understand today's material before you can understand tomorrow's. As with all courses at UW, your instructors and TAs will assume that you are studying at least two hours for each hour of lecture and one hour for every hour of lab. Find a place that allows for periods of uninterrupted study. Skim through chapters or sections to be covered in the next lecture.
3. Make daily, weekly, and quarterly learning plans and follow those plans.
4. Practice! In addition to the homework and quizzes there are exam practice questions posted on Canvas and end-of-the-chapter problems. Use these to study by focusing on understanding the concepts and general processes, not just memorizing how to solve a specific problem.
5. Talk chemistry with fellow CHEM 120 students. You will not only learn more, but you will probably also enjoy the course more.

**ACCESS AND ACCOMMODATIONS**

Your experience in this class is important to us, and it is the policy and practice of the University of Washington to create inclusive and accessible learning environments consistent with federal and state law. Disability Resources for Students (DRS) offers resources and coordinates reasonable accommodations for students with disabilities. If you have not yet established services through DRS, but have a temporary or permanent disability that requires accommodations, you are welcome to contact DRS at 206-543-8924 or [uwdrs@uw.edu](mailto:uwdrs@uw.edu) or visit [disability.uw.edu](http://disability.uw.edu). If you have already established accommodations with DRS, please use the information provided on the website for this course. Students with accommodations are solely responsible for initiating the Alternative Testing Contract and scheduling the exams with DRS well in advance of the exam dates. If you require accommodations in the laboratory (including assistants and/or interpreters), please contact the Undergraduate Services Director (Bagley 303D) *in person* in the *first week* of the quarter to discuss your accommodations.

**COURSE SCHEDULE**

This schedule is tentative and subject to change. Any changes will be announced in class.

Week	LECTURE TOPICS, LABORATORY, QUIZ SECTION, AND EXAMS	ASSIGNMENTS – due at 11 pm
<b>1</b> 6/19	LECTURES: Intro, CH 1, 2 & 3 LAB: Orientation (wear all safety gear!) WED Discussion Section: Worksheet on CH 1	Initial Course Survey on CANVAS (due FRI by 11:59 PM) THU: Sapling HW #1 (Chapter 1)
<b>2</b> 6/26	LECTURES: CH 3, 4 & 11.1 – 11.3 LAB: Lab #1 Density Determination WED Discussion Section: WS on CH 3 and 11.1-11.3	TUE: Sapling HW #2 (Chapters 1 & 2.5 – 2.9) FRI: Sapling HW #3 (Chapter 3.1 – 3.5)
<b>3</b> 7/3	LECTURES: (Tuesday Holiday) CH 3, 4 & 5 LAB: No Lab WED Discussion Section: WS on CH 3 & 4 <b>EXAM 1, Thursday, 7/6, CH 1, 2, 3 &amp; 11.1 – 11.3</b>	TUE: Sapling HW #4 (Chapter 3.6 – 3.9) FRI: Sapling HW #5 (Chapter 4.1 – 4.3)
<b>4</b> 7/10	LECTURES: CH 4 & 5 LAB: Lab #2 Heating Curve & Calorimetry I WED Discussion Section: WS on CH 4 & 5	TUE: Sapling HW #6 (Chapter 5) FRI: Sapling HW #7 (Chapter 4)
<b>5</b> 7/17	LECTURES: CH 5 & 6 LAB: Lab #3 Molecular Geometry WED Discussion Section: WS on CH 5 & 6	TUE: Sapling HW #8 (Chapters 4 & 5) FRI: Sapling HW #9 (Chapter 6.1 – 6.4)
<b>6</b> 7/24	LECTURES: CH 6 LAB: Lab #4 Stoichiometry WED Discussion Section: WS on CH 4, 5, & 6 <b>EXAM 2, Thursday, 7/27, CH 4, 5 &amp; 6</b>	TUE: Sapling HW #10 (Chapter 6.5 – 6.9) FRI: Sapling HW #11 (Chapter 6)
<b>7</b> 7/31	LECTURES: CH 7 LAB: Lab #5 Classes of Chemical Reactions WED Discussion Section: WS on CH 6 & 7	TUE: Sapling HW #12 (Chapter 7.1 – 7.2) FRI: Sapling HW #13 (Chapter 7)
<b>8</b> 8/7	LECTURES: CH 8 & 9 LAB: Lab #6 Calorimetry II WED Discussion Section: WS on CH 7 & 8	TUE: Sapling HW #14 (Chapter 9.1 – 9.3) FRI: Sapling HW #15 (Chapter 8.5 – 8.7)
<b>9</b> 8/14	LECTURES: CH 9 & 10 <b>FINAL EXAM: FRIDAY, AUGUST 18<sup>TH</sup>, 10:50-11:50 AM, BAGLEY 154, 50% on CH 1-6 &amp; 11 and 50% on CH 7, 8, 9 &amp; 10</b> LAB: No Lab WED Discussion Section: WS on CH 8, 9 & 10	TUE: Sapling HW #16 (Chapter 9) FRI: Sapling HW #17 (Chapter 10.2, 10.5, 10.8, 10.9)