

## Chemistry 0120/0420: General Chemistry 2 Section 1200 Syllabus Summer 2020

Instructor: Dr. David Ewing

Lecture: MoTuThFr 12:30 – 2:15 pm  
Via Zoom

Contact: [dwewing@pitt.edu](mailto:dwewing@pitt.edu) Email will normally be answered within 24 hours.

Office hours: Sundays and Wednesdays 6-8 pm, and by appointment. The instructor will also be available after most classes.

Recitation Teaching Assistants: Megan Clark [men54@pitt.edu](mailto:men54@pitt.edu) (Section 1210)

Office hour: We 9-10 am and by appointment

Brett Lucht [brl86@pitt.edu](mailto:brl86@pitt.edu) (Section 1215)

Office hour: Tu 2-3 pm and by appointment

Brianna Perris [blp62@pitt.edu](mailto:blp62@pitt.edu) (Section 1220)

Office hour: Mo 2:30-3:30 pm and by appointment

Undergraduate Teaching Assistant: Uthman Fadu [utf2@pitt.edu](mailto:utf2@pitt.edu)

Help session: Th 5-6 pm and by appointment

General Chemistry Tutor (free): Yiwen He [yih77@pitt.edu](mailto:yih77@pitt.edu)

Office hours: MoWe 10-11 and by appointment

Laboratory Teaching Assistants: Chao Zhang [chz62@pitt.edu](mailto:chz62@pitt.edu) (Section 1210)

Manasseh Osei [mko12@pitt.edu](mailto:mko12@pitt.edu) (Section 1215)

Jun Huang [juh68@pitt.edu](mailto:juh68@pitt.edu) (Section 1220)

### Course description:

Chemistry 0110/0410 and 0120/0420 comprise a two-term introduction to the discipline. This term we will cover solutions, kinetics, chemical equilibria, acid-base chemistry, thermodynamics, electrochemistry, transition metal complexes, nuclear chemistry, and preparation for organic chemistry. This corresponds to textbook chapters 11-17, 19 (selected topics), and 21; and a review of chapters 7 and 8 (to help prepare you for organic chemistry).

### Textbooks:

Chemistry 2e, OpenStax (Rice University, 2019) – **required** – available at no charge

<https://openstax.org/details/books/chemistry-2e>

Chemistry 0120 Lab Manual 2019-2020 (University of Pittsburgh, 2019) – **required** – modules will be distributed for each lab at no charge on the lab Canvas site

Student Solutions Guide for the textbook – available at no charge on the textbook website

A couple collections of electronic chemistry textbooks are [Open Textbook Library](#) (the general chemistry books are toward the bottom) and [Chemistry LibreTexts](#) (use the Bookshelves option).

**Canvas:** Course information will be posted at <https://canvas.pitt.edu>. This will include announcements, lecture notes, homework assignments, practice exams, your scores, class schedule, and this syllabus - updated as needed. The lab has its own Canvas site.

**Gradescope:** You will be uploading your completed quizzes and exams to Gradescope, an electronic grading tool which will make grading more efficient for the TAs and me, and will give you quicker feedback.

**Sapling Learning:** Sapling is an electronic homework/learning system. For each chapter in the textbook electronic homework will be assigned. **This homework will be graded** and will count for 10% of your overall course grade. You will get 3 attempts at each problem/question. There is no penalty for not getting the first two attempts correct. Use the hints and feedback to help you get the correct answer. There is no penalty for doing so. You can work with other students on homework assignments. Many people find this a good way to learn, learning from each other. You can also get help from the Instructor and your Teaching Assistant (TA) on Sapling and textbook homework.

Sapling homework due dates are given with each chapter assignment. They will typically be Wednesdays and Sundays at 11:59 pm. To help you balance your time and to have time to get help, these due dates are usually a couple days after the quiz or exam on each chapter, but it's best to try to get all homework done pertaining to a given quiz or exam beforehand.

There are a few quirks in the Sapling system, so it may, very occasionally, say you got the wrong answer when you in fact got it right. If you document this your grade will be adjusted.

To sign up for Sapling go to <https://macmillan.force.com/macmillanlearning/s/article/Sapling-Learning-Registering-for-courses> The \$38 fee is due June 28.

If you're having trouble getting Sapling to work, make sure you have an up-to-date version of Flash Player. You can also try using a different Browser. Or visit the Support Community after logging into Sapling.

If you need direct assistance you can also contact technical support:  
<https://macmillan.force.com/macmillanlearning/s/>.

### **Textbook Homework:**

Homework from the textbook will be assigned, in addition to the Sapling homework. These will typically be all odd numbered problems in the "Exercises" section at the end of each chapter. Exceptions to this will be posted on Canvas. The textbook homework will not be graded but you should do as many of these as possible, as well as the Sapling homework, in order to master the material and do well on quizzes and exams. The assigned textbook problems have answers in the back of the book and worked solutions at the textbook website. You will get a worksheet on each chapter in recitation. These will also help you get ready for quizzes and exams.

**Calculator:**

You will need a scientific calculator for homework, quizzes, exams, and labs.

**Laboratory and Recitation:**

There is a 4 hour per week lab period that is part of this course. The lab grade will contribute 15% to your overall course grade. You will get details about the lab at your first lab meeting (via Zoom), date and time TBA. The labs and recitations are taught by TAs. If you are retaking this course and previously earned 70% or better in the lab portion of the course, you may not have to retake the lab. You must contact Mr. Paul, Lab Manager, to get approval: [stanpaul@pitt.edu](mailto:stanpaul@pitt.edu). Give him your PeopleSoft number. If approved, your previous lab grade will be used this term in the calculation of your course grade.

Recitation will be held each Monday and Thursday 9-10 am. The first recitation period, June 22, will be used for an introduction to the lab portion of the course. Starting with the second recitation period, June 25, your TA will answer questions about the chapter you'll be quizzed on later in the recitation. The quiz will start at 9:30. Access the quiz on Canvas. You will have 20 minutes to do the quiz, then you must scan your answers as a pdf file and submit the file to Gradescope. If you don't have a scanner, instructions for creating a pdf file are on the Web. Common apps that will do this are GoogleDrive, CamScanner, or Adobe Scan Mobile. You should practice this before your first quiz so you can quickly submit your quiz. If you haven't yet submitted a file to Gradescope, see this tutorial: [https://www.gradescope.com/get\\_started#student-submission](https://www.gradescope.com/get_started#student-submission) (For Students: Submitting PDF homework).

You should do the worksheet for the chapter you will be quizzed on before recitation, so you can get your final questions answered before the quiz.

Connections for the recitation meetings (via Zoom) will be listed in the Announcements section of Canvas.

**CHEM 0420 students must attend recitation.****How to do well in this course:**

To do well you should come to all lectures, recitations, and labs. What's done in these three components of the course reinforce each other. Read the textbook. Done right this is a slow process – there is a lot of information packed into a science textbook. Be prepared for lab and recitation. Do the homework, do the homework, do the homework! You can't just look at worked out solutions to the homework problems – you must struggle through them. That's how you will internalize the material. While you will need to memorize a few things, understanding the material is the goal. Trying to memorize everything won't work well.

Ask questions when you need to. There is plenty of help available

- Your lecture Instructor (office hours on p. 1 of this syllabus)
- Your Recitation TA (office hours on p. 1 of this syllabus)

- Mr. Yiwen He, General Chemistry tutor (free) – office hours TBA

Many students also find it beneficial to form informal study groups.

**Grading policies:**

The 7 highest quiz scores (of 8) will count toward your grade. If you miss a quiz that will be the dropped score. **No make-up quizzes will be given** due to the time constrictions of the summer term.

**There are no make-up labs** due to the time constrictions of the summer term.

**There are no make-up exams.** If you miss an hour exam for a valid reason your final exam grade will be prorated accordingly. If you know you will miss an exam for a valid reason, or if an emergency situation caused you to miss an exam, talk to the instructor as soon as possible. In exceptional circumstances an exam may be taken early, at the discretion of the Instructor.

Course grades will be determined as follows:

Hour exams	100 pts. each = 200 pts.
Final exam (cumulative)	150
Quizzes	100
Laboratory	90
Sapling homework	60
TOTAL	600 pts.

For CHEM 0420 students, or students who have already taken the lab, the total number of points is 510.

The **tentative** grading scale for the course is as follows. The Instructor reserves the right to modify this scale, up or down.

A+ = 97-100%	B+ = 87-89%	Similarly for the C and D ranges
A = 93-96%	B = 83-86%	
A- = 90-92%	B- = 80-82%	Minimum passing grade is 60%

All exams will consist of a mixture of multiple choice and short answer questions/problems. You will have 1 hour to complete Exam 1 and Exam 2, then you must immediately post your answers to Gradescope as a pdf file. The final exam will take the entire period, and will be cumulative, with emphasis on material covered since Exam 2. Quizzes will consist of a couple/few multiple choice questions and one or two problems, and are to be completed in 20 minutes, then you must immediately post your answers to Gradescope as a pdf file. **The final exam for this class will be on Friday, July 31, during the regular class period.**

There is no extra credit available for this course.

**Other policies:**

Attendance will not be taken in lecture. However, research has shown that students who attend all class and recitation periods do better than those who do not.

**The Instructor reserves the right to change this syllabus as needed, and will inform the class verbally and on Canvas of any changes.**

Academic Integrity Statement: Cheating/plagiarism will not be tolerated. Students suspected of violating the University of Pittsburgh Policy on Academic Integrity will be required to participate in the outlined procedure. A minimum sanction of a zero score for the quiz, exam, or lab report will be imposed. See [www.cfo.pitt.edu/policies/policy/02/02-03-02.html](http://www.cfo.pitt.edu/policies/policy/02/02-03-02.html).

Disability Resources: If you have a disability for which you are or may be requesting an accommodation, you are encouraged to contact both the instructor and the Office of Disability Resources and Services as early in the semester as possible, 140 William Pitt Union at 412-648-7890 or <http://www.studentaffairs.pitt.edu/drs/>

Use of Zoom recordings is limited to the student's own private use.

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