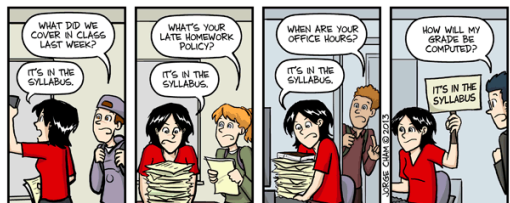


CHEM 0110/410: General Chemistry 1 Fall 2018 (2191) Course Syllabus



Instructor Contact Information

Dr. Tamika A. Madison
Office: 107J CSC
Phone Number: 624 - 8979
Email: tam7@pitt.edu
Office Hours:
Monday 2:00 - 3:00PM
Wednesday 10:00 - 11:00 AM
or By Appointment

Course Information

Course Number: 18670 - 1500 (Lecture)
Meets: M, W, F 4:00 - 4:50 PM
Room: 152 Chevron Science Center

Recitations and Labs

18672: Monday 8AM (117 CSC)
11350: Monday 6PM (117 CSC)
10210: Tuesday 8AM (301 CSC)
10208: Tuesday 8AM (117 CSC)
24783: Tuesday 1PM (117 CSC)
18671: Tuesday 6PM (117 CSC)
18725: Wednesday 6PM (117 CSC)
10217: Wednesday 6PM (106 CSC)
12341: Thursday 8AM (301 CSC)
26792: Thursday 8AM (117 CSC)
25415: Thursday 6PM (114 CSC)
10231: Friday 8AM (214 CSC)

Course Overview

- General Chemistry is a 2 part survey course, which serves the purpose of giving students a solid and diverse introduction to the discipline. General Chemistry 1 covers the nature of matter, stoichiometry, basic chemical reactions, thermochemistry, atomic structure and the periodic table, and chemical bonding. 50% of this course will be taught using the process oriented guided inquiry learning (POGIL) method.
- This course fulfills one Dietrich School of Arts and Sciences Natural Science General Education Requirement (GER) as described for the GERs starting Fall 2018 (term 2191).

Textbook and Materials

- Ebbing and Gammon. *General Chemistry* 11th edition. Belmont: Brooks/Cole Cengage Learning, 2016. (Hardcover, Loose Leaf, or eBook), **(required)**
- Moog and Farrell. *Chemistry: A Guided Inquiry* (Pitt Custom Edition), 2018. **(required)**
- Access to Sapling Learning **(required)**
- Access to Top Hat **(required)**
- A scientific calculator **(required)**

Blackboard (Course Web)

- A Course Web site has been set-up for this course section. You are automatically added to this site if you are registered for CHEM 0110. If you are registered for CHEM 0410, please let me know on the first day of class so that I can add you. Here you will find class handouts and most of your course grades.

Student Responsibilities and Class Policies

- **Class Attendance and Etiquette**
 - Please make every effort to attend all lectures. Not only does your success in this course depend on your attendance, part your grade will be devoted to POGIL activities and Top Hat questions, which require you to be present.
 - Please make sure that you arrive on time to all class on time and remain during its entirety. If you arrive to class late or need to leave early, please use the door and stairs in the back of Room 152.
 - Your full attention in class is a key factor in your success in this course. Please refrain from using cell phones in any way and other electronic devices for reasons that are not connected to the lecture. Not only are these devices distractions for you, they can distract your classmates and myself. You can be asked to leave the class for repeated offenses.
- **Exams**
 - All students must take in-class exams and the final exam on the scheduled day and time. **No “early” or “make-up” exams will be given during the term.** If you miss an exam, I urge that you contact me as soon as possible so that we can discuss your options.
 - If you feel that an error was made in grading your exam, you are responsible for submitting it to me for a re-grade within **five weekdays** after it is returned. To submit your exam for a re-grade, please complete the form provided on Courseweb and attach it to your exam. I reserve the right to re-grade the entire exam as I see fit.
- **Homework**
 - Homework assignments will be assigned and must be completed through Sapling Learning. You are responsible for completing assigned homework problems by the due date. Please check the assignment calendar regularly for the due dates of each assignment. Although homework assignments are typically due every Saturday by 11:59 PM, some assignments may have alternative due dates. **No assignment extensions for individual students will be granted.**
 - It is strongly recommended that you attempt the assigned problems before going to recitation so that you can discuss them with your recitation instructor, who will have access to the homework problems, and will be able to assist you if you have questions. In addition, the recitation quizzes will cover similar material, thus attempting the problems will help you to prepare for the quiz.
- **Recitations**
 - All CHEM 0110 and CHEM 0410 students are required to attend a one hour recitation for this course. The recitation occurs during the first hour of the 4 hour laboratory period. Recitation will be devoted to helping you practice critical thinking and problem solving. A quiz will be given during recitation hour.
 - If you need to miss recitation, you may attend another recitation **within the same week** for make ups (this may mean you have to attend an earlier section). You are limited to two make-up recitation sessions during the semester.
 - The lowest quiz grade will be dropped.

- **Laboratory**

- All CHEM 0110 students are required to attend a three hour laboratory for this course. Laboratory is an important component of this course as it is where you will put your chemical knowledge to practical use. To make-up a lab, please refer to the instructions in your lab manual. Again, **you are limited to two make-up lab sessions.**
- If you are repeating CHEM 0110 for a better grade, you may be exempt from taking the laboratory portion this term, if you have a previous lab score above 70%. You should fill out a lab repeat form and return it to me on the first day of class.
- You are responsible for coming to lab prepared. This includes bringing your lab manual and safety goggles. In addition, you should be dressed appropriately for lab. This means you need to wear long pants (that go past your ankles), a shirt that covers your entire torso, and shoes that completely enclose your entire foot. In other words, no skin on your torso, legs, or feet should be visible.

Grading

- Your course grade has the following components:

Course Components	CHEM 0110	CHEM 0410
In-Class Exams	30%	35%
Final Exam	30%	35%
Recitation Quizzes	15%	20%
Homework	5%	5%
In-class activities (POGIL and Top Hat)	5%	5%
Laboratory	15%	N/A

- Letter grade cut-offs are determined based on the average total percentage and the distribution of percentages for the class.
- **Academic Integrity.** Cheating/plagiarism will not be tolerated. Students suspected of violating the University of Pittsburgh Policy on Academic Integrity, from the February 1974 Senate Committee on Tenure and Academic Freedom reported to the Senate Council, will be required to participate in the outlined procedural process as initiated by the instructor. A minimum sanction of a zero score for the quiz, exam, or assignment will be imposed.
- **Students with Special Needs.** If you have a disability for which you are or may be requesting an accommodation, you are encouraged to contact both myself and Disability Resources and Services, 140 William Pitt Union, 412-648-7890 or 412-383-7355 (TTY) as early as possible in the term. Disability Resources and Services reviews documentation related to a student's disability, provides verification of the disability, and recommends reasonable accommodations for specific courses.

Tentative Course Schedule

Week of	Ebbing Chapters	Lecture Topics	POGIL Exercises	Quiz?
8/27	2	The Periodic Table and Nomenclature	#1: Atomic Structure	No
9/3 (W, F)	3		#26: The Mole Concept #29: Empirical Formula	Yes (no M)
9/10	3,4	Limiting Reactants	#27: Chemical Equations #30: Molarity	Yes
9/17	4	Solution Stoichiometry Reactions in Solution		Yes
9/24	5	Kinetic Molecular Theory of Gases	#31: The Ideal Gas Law	No
9/26 Exam 1 (Chapters 1 - 4)				
10/1	6	Thermochemistry	#33: Enthalpy Changes in Chemical Reactions	Yes
10/8	6, 7	Thermochemistry Quantum Theory	#7: Electromagnetic Radiation	Yes
10/15 (T,W, F)	7	Quantum Theory	#8: Photoelectron Spectroscopy #9: The Shell Model III	Yes (no T)
10/22	8	Periodic Trends	#10: Electron Configurations and the Periodic Table	Yes
10/29	9	Ions and Ionic Bonds	#13: Lewis Structures I	No
10/31 Exam 2 (Chapters 5 - 8)				
11/5	9	Exceptions to the Octet Rule	#14: Lewis Structures II #15: Lewis Structures III	Yes
11/12	10	Bonding a la Pauling: Valence Bond Theory	#17: Molecular Shapes #21: Covalent Bonds and Dipole Moments	Yes (no W-F)
11/19 (M)	10		#19: Hybrid Orbitals	No
11/26	10	Molecular Orbital Theory	#25: Intermolecular Forces	Yes
11/30 Exam 3 (Chapters 9, 10)				
12/3	11	Phase Transitions		No
12/12 Cumulative Final Exam 4:00 - 5:50PM				