

Chemistry 6A Course Syllabus

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Course Description: CHEM 006A: *Introduction to General Chemistry*

5 units. Lecture three hours, laboratory discussion & laboratory three hours (one day per week).

Text: [Introduction to General, Organic, and Biochemistry, by Hein, Best, Pattison, and Arena \(8th Edition\)](#)

Lab: [Introduction to General, Organic, and Biochemistry, Laboratory Manual, 8th Edition](#)

Prerequisite: None, however one year high school algebra; high school chemistry strongly recommended. (CAN CHEM 006)

Course topics include: The structure of atoms, molecules and ions; their interactions including stoichiometry, chemical equilibrium, and oxidation-reduction reactions. **This course does not fulfill the requirements for more advanced study in chemistry and cannot be counted toward a major or minor in chemistry.**

Learning Goals:

For those who have never experienced “chemistry,” the discipline can be viewed as a type of “foreign language.” As with any foreign language, one must learn to read and speak the vocabulary and grammar of the language. The vocabulary of chemistry consists of the elemental names and symbols found on the Periodic Table. The Grammar of chemistry involves a series of rules used to name chemical compounds and molecules. These rules are collectively known as chemical nomenclature. In order to pass this class one must become proficient with the use of proper chemical nomenclature. Another important skill that you will be required to attain is that of problem solving using dimensional analysis. Dimensional analysis a systematic approach to problem solving that uses units or dimensions and conversion factors.

1. Learning and appreciating the “scientific method” and being able to apply it to both theoretical/actual chemical situations and “real-life” non-chemical problems.
2. Understanding the “basic chemical building blocks” of atoms and molecules and the types of forces that hold together or stabilize their structures.
3. To develop a proficiency in writing chemical equations that express, in a shorthand manner, what products are generated, under given conditions, from specific starting reactants.
4. To becoming familiar with the basic states of matter and the energies related to cooling, heating, and converting one state of matter to another.
5. Comprehending the role of the electron in oxidation/reduction reactions.
6. To becoming familiar with not only the “acid/base” relationship, but how this relationship constantly appears in everyday life.

Required Writing Component: Chemistry 6A is listed in Area B, Sub areas B1 and B3 of the G.E. Program. Area B, Sub area B3 requires that a writing component be included in the course. Hence, a writing component is included within the laboratory portion of Chemistry 6A. *In other words part of your grading in the course will include the use of proper English grammar in answering pre and post laboratory questions.*

Adding Chem. 6A

This course may be added only through the Laboratory as we are limited by locker space. You may be required to visit more than one lab section in hopes of finding an open slot. Each laboratory instructor will decide who and how many may be added. The instructor will sign add slips by the third meeting; all individuals adding must return the signed add–slip to the Chemistry Department office, SQU 506.

Dropping Chem. 6A

Each student has the responsibility of dropping any courses in which he/she is enrolled, but did not attend or stopped attending. Students drop courses by telephone or on-line during CASPER or CASPER Plus. The Class

Schedule lists deadline dates and procedures. Instructors have the authority to administratively remove any student who, during the first two weeks of instruction, fails to attend any two class meetings (for courses that meet two or more times a week) or one class meeting (for courses that meet once a week). All drops after the second week of instruction must have the approval of the instructor and department chair and are allowed only for serious and compelling reasons (such as illness, change in employment schedule, carrying an excessive load or inadequate preparation for the course). All drops after the sixth week of instruction must have the approval of the instructor, department chair, and college dean and are allowed only for career-related or medical reasons beyond the control of the student. No drops are allowed after the last day of instruction. Courses officially dropped during the first four weeks of instruction will not be recorded on the student's permanent record. A grade of "W" will be recorded for courses in which a drop has been authorized after the fourth week of instruction. Students will receive a final grade of "WU" or "F" in course(s) they fail to officially drop. *Students who fail to check-out of their assigned locker will have a hold placed on their records. You will not be allowed to enroll in subsequent semesters until a fine is paid.*

Laboratory Fees: Students enrolling in chemistry laboratory courses or supervisory courses involving laboratory research are required to pay a laboratory fee for each course (\$10). In addition, if a student breaks an item in a laboratory, s/he is required to replace it or pay a breakage cost. An administrative hold is placed on a student's academic record if either is not paid. Details are given at the first class meeting.

Grading:

- A:** Exemplary achievement of the course objectives. In addition to being clearly and significantly above the requirements, work exhibited is of an independent, creative, contributory nature.
- B:** Superior achievement of the course objectives. The performance is clearly and significantly above the satisfactory fulfillment of course requirements.
- C:** Satisfactory achievement of the course objectives. The student is now prepared for advanced work or study. Note: The letter grade "C" does not imply satisfactory achievement at the graduate level.
- D:** Unsatisfactory achievement of course objectives, yet achievement of a sufficient proportion of the objectives so that it is not necessary to repeat the course unless required doing so by the academic department.
- F:** Unsatisfactory achievement of course objectives to an extent that the student must repeat the course to receive credit.
- WU:** Withdrawal Unauthorized indicates that the student did not withdraw from the course and also failed to complete course requirements. It is used when, in the opinion of the instructor, completed assignments or course activities or both were insufficient to make normal evaluation of academic performance possible. For purposes of grade point average this symbol is equivalent to an "F".

Please review the University's [Academic Policies](http://aaweb.csus.edu/catalog/02-04/IntroductoryPages/02-04__Academic%20Policies.pdf) for further information.
(http://aaweb.csus.edu/catalog/02-04/IntroductoryPages/02-04__Academic%20Policies.pdf)

Grade Scale:	90–100%	A– / A	
	80–90%	B– / B+	
	67–80%	C– / C+	
	66–50%	D	
	50 – 0%	F	
Point total:	Exams:	(3 x 100 pts)	300
	Quizzes:	(best 9 of 11 x 15pts)	135
	Final:	(cumulative)	200
	Lab:	(your % x 200)	200
	Safety:		15
	HW		50
Total:			900 pts

Exams:

Exams will be taken in lecture, they will be cumulative: i.e. material covered in units I & II may appear on exam III etc... There will be no make-up exams given. If you miss an exam due to a valid situation, your percentage of points will be adjusted as to not include that exam.

Quizzes:

Quizzes will be administered in the lab at the beginning of the discussion section. You will have only 15 minutes to complete the quiz. If you are late, you will have only the fraction of the 15 minutes left to complete the quiz. If you miss a quiz, you will receive a zero. Quizzes will cover the previous weeks material in lab and lecture.

Final Exam:

The Final exam is comprehensive. Failure to take the final will result in an automatic "F" in the course.

Homework:

Homework will be collected and graded for completeness. I will post the HW solutions on line for you to review. Each HW will be graded out of 20 points, then those points will be normalized to the fraction of a total of 50 points that each HW represents. In other words, at the end of the class you may obtain a maximum of 50 points toward your score. This corresponds to ~ 6 % of the total 900 points available in the course. This amount may mean the difference in +/- one grade. **YOU CANNOT PASS THE COURSE BY COPYING SOMEONE ELSE'S HW. YOU MUST ATTEMPT AND CORRECT YOUR OWN WORK TO MAKE IT WORTH YOUR WHILE.** HW that appears to be a "copy job" will not be accepted.

Classroom Etiquette:

Any student who disrupts the class will be asked to leave. This is a college course and I expect you to behave with the maturity and respect that adults afford one another. No talking will be permitted unless it concerns class business. Your cell phone must be turned off prior to class. Repeated disruptions will result in dismissal from the course. Please also treat your teaching assistants with the respect that you would give any professor. Remember, if you treat others with respect, then they in turn will treat you with respect.

Laboratory:

- Safety is a priority. You will wear your approved safety goggles at all times when your locker drawer is open. Repeated violations of safety policies may result in removal from the class. Points will be deducted for repeated safety violations.
- Each lab is worth 20 points, 2 points of which are the pre-lab discussion. You must submit a pre-lab discussion to your lab instructor at the beginning of each lab. If you are late, then your pre-lab is late and it will not be accepted. (you lose the 2 pts.)
- Lab write-ups are due at the beginning of the following lab. Late labs shall be penalized 4 points per day that they are late. A lab turned in blank (or incomplete) will not be accepted.
- Any lab submitted after one week of its due date will receive a score of zero. The lab still must be complete.
- You must complete all of the assigned labs in order to pass the course. Failure to do so will result in a grade of "F".
- No one will be allowed to submit more than two (2) missing labs at the end of the semester.
- If you miss a lab due to a documented reason*, you may make up the lab within a period of no more than one week. It is your responsibility to find the time to do so. Failure to do so will result in failing the class. You are responsible for contacting your lab instructor to explain your absence.

* Documented reasons: verifiable illness, work related change in schedule, unforeseen emergency etc...
Oversleeping, parking and laziness are not valid excuses.