Objective

In Chemistry 120A you will learn some basic chemical concepts and their relationship to your life. The goal is to gain an understanding of relationships between chemical elements and their compounds, the chemical reactions that they undergo, the energy involved, the theories that are used to explain various observations, and the importance of this information to modern existence. Be aware that emphasis will be placed on process, that is, how do we know and do, rather than memory of what we think we know.

Class Meetings

The regular lecture period will be used to supplement and explain the textbook material. Material covered in lecture will not necessarily follow the textbook. You will be responsible for material covered in class, including demonstrations and videos, as well as in the textbook. All of the material in the textbook will not be covered in class. The presentations will include a number of instructional media along with lecture and demonstrations. You will also be given quizzes and other written exercises during the class period. You are expected to read the material to be covered Before the lecture so that we can build on and enhance reading experience by focusing on the more difficult concepts as well as applications relating to the world around you.

Homework

Homework assignments are given on the tentative schedule for the class. Homework assignments are to be turned in at the beginning of your laboratory period during the week following the assignment listing. Graded papers will be returned one week later. The assignments will be graded on a two-part basis. First, several points will be given for an overview of the work accomplished. The number of points given will depend upon the fraction of the work completed. Another few points will be given for ***one*** question that will be rigorously graded. No late homework will be accepted!

Examinations

The emphasis of the exams will be on your ability to understand the concepts and apply them to new situations. Examinations are scheduled for October 20 and November 17. A third exam that covers the same material as the first two exams (about 50% from each) will be given on December 3. This third exam is optional but may be taken to make-up a missed exam or replace a low score on one of the other two. The best two of the three exam scores will be used for computing your grade. Exam questions will be based largely on questions at the end of the pertinent chapters in the textbook. A comprehensive final exam will be given at the end of the term. No further make-up exams will be given.

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One-half of each exam will be machine-graded multiple-choice questions, and the other half will include short answer questions and numerical problems that you must respond to in writing. All of the exams are closed-book. Bring at least two soft-lead pencils (#2), a good pencil eraser and an 8-1/2 X 11 standard mark-sense form to each exam. Your multiple-choice answers may be supported by written explanations if you feel it necessary. These will be consulted in the case of a question about the grading of your exam. At least *one-half* of each hour-long exam will be taken directly from the questions at the end of each chapter and from lecture notes with little or no change. Questions about the laboratory experiments will also appear on the exams and quizzes. Each of the first two exams will emphasize the chapters covered since the last exam, but questions on material covered earlier also will be asked as chemical principals build upon what has been covered earlier. Only your written stepwise procedure used to solve numerical problems will be graded. No answers will be graded unless associated with a complete written solution. Note again, that emphasis is on application, not memory. If you wish your exam to be regraded, it must be turned in, along with a note explaining what you want changed, to the professor within 48 hours of its return to you. There are no exceptions to this rule. (I cannot help you with unfair grading unless I know about it!).

Supplies for Laboratory

You will need (1) A bound laboratory notebook with numbered pages (not loose-leaf or spiral), available at University Bookstore and an ink writing implement for recording in the notebook. (2) Safety goggles (only approved goggles are allowed), available at University Bookstore. (3) The Chemistry Department 120 laboratory manual which is available at the Copy Center in Odegaard Library.

Laboratory Safety

There is an element of hazard in any laboratory course. You are required to follow the safety rules as outlined in the beginning section your laboratory manual. In particular **you are required to wear approved safety goggles and appropriate clothing during all the experiments,** that is, no short pants, short skirts or open-toed shoes. If you do not come to lab appropriately dressed and wear your goggles in the laboratory, you will not be allowed to perform the experiment during that laboratory session and will receive a grade of 0 for that report! Lab points for the course are easily earned simply by following the safety rules.

Laboratory Grade Requirements

You will not pass the course unless you show up for all laboratory periods, complete the lab work and receive at least 60% of the lab points on each of the experiments! If you have a question, talk to your professor. Please note that in accordance with departmental policy for this class, an incomplete grade can not be given!

Laboratory Reports

The laboratory report due for each laboratory experiment is described on pages 9-12 in your laboratory manual. At the beginning of each laboratory session you must turn in your homework assignment and the report from the previous week's lab within the first few minutes of the laboratory session or you will not receive credit for the assignment. Neatness and organization of your notebook will be considered in grading your laboratory report.

See page 8 of the laboratory manual to find what is to be included in your laboratory report. Before your laboratory you must write the Title, Objective and Procedure sections in your notebook at the beginning of your laboratory record which also constitutes the beginning of your laboratory report. The remainder of the lab report (see pages 8 to 12 of the lab manual) consists of your Data, Calculations, Results and Conclusions. Answers to questions found in the laboratory manual are to be included in the conclusions section of your report. Your TA will check your notebook at the beginning and end of each lab session and deduct points from your report if it is not complete and clearly presented.

All laboratory work must be written in the bound notebook. All recording and reporting must be in this notebook **IN INK**. Line through your errors neatly instead of erasing. Writing data on anything other than your notebook is unacceptable.

Your teaching assistant will evaluate your attention to the above details along with your adherence to the safety rules, preparedness for laboratory work, demonstration of laboratory skills and your general attitude and cooperation in the lab to give up to 5 points each lab for your performance in the laboratory.

Be sure to include a Table of Contents In the beginning of your notebook to facilitate quick reference to the write-up of each experiment.

Chemistry Study Center

A Chemistry Study Center has been established in 330 Bagley Hall. The hours will be posted on the door of Bagley 330. Computers are available in this area to enable you to access extensive information about and practice exercises for the chemistry that you are studying.

Grading

Your grade will be based upon the sum of the following scores: The highest two of the three mid-term exam scores, the sum of the quiz scores, the homework grades, the laboratory grade (which must be above 60% for each experiment) and the final exam score. The mid-term exams and sum of quizzes will each contribute 15% and together constitute 45% of your grade, the laboratory 20%, the final exam about 25% and the remaining 10% will depend upon homework scores. A numerical grade between 0.7 and 4.0 will be assigned corresponding linearly with sum scores in the range 36% of the total possible score to 94% and above; that is, 36% is 0.7 and 94% and above = 4.0. Use the following equation to estimate your grade:

$$\frac{\%\ \text{Score}-36}{58}\ 3.3 + 0.7 = \text{grade}$$

The % Score for each activity on which the grade is based = the % of its contribution (given above) multiplied by points you earned divided by the total number of points possible. For example, if your grade was 40 on a 50 point exam, the contribution to the % score for your final grade is 15 x 0.8 = 12 percentage points. The sum of these for all grade contributions gives the total % score for your final grade. Note that this is not curve grading. There is no competition with other students in the class.

Homework will be graded based upon neatness of presentation as well as the correct solutions. At least one, the lowest, of the quiz scores will be dropped before summing them. Again, an incomplete can not be given as a grade for the course.

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Office Hours

The professor will be available to assist you with questions during office hours or by appointment. The scheduled times are Monday and Tuesday 11:30 to 12:20 am and Wednesday 10:30 to 11:20.

Miscellaneous

Class information will be posted on the bulletin board for 120A on the first floor of Bagley Hall.

The exam keys will be posted following each exam. A list of grades will be posted following each exam. Students are asked to check their grades, which are listed by the last 4 digits of your student number, to make sure they are correct. Any discrepancies noted should be brought to the attention of the professor.

Class information will also be made available through the web site for Chem 120A: courses.washington.edu/machem/chem120.htm

Laboratory Sections

Section	Lab	Time	Location	Instructor
AA	M	12:30—2:20	Bag. 133	Liang/Bondzie
AB	M	2:30—4:20	Bag. 133	Anderson/Lockwood
AC	M	4:30—6:20	Bag. 133	Lincoln/Babic
AD	T	12:30—2:20	Bag. 133	Lu, Rita/Bondzie
AE	T	2:30—4:20	Bag. 133	Chou, M./Conners
AF	T	4:30—6:20	Bag. 133	Kehl-Fie/Bondzie
AG	W	12:30—2:20	Bag. 133	Perry/Babic
AH	W	2:30—4:20	Bag. 133	Farajallah/Conners
AI	W	4:30—6:20	Bag. 133	Moen/Babic

If you would like to request academic accommodations due to a disability, please contact Disabled Student Services, 448 Schmitz, 543-8924 (V/TDD). If you have a letter from Disabled Student Services indicating you have a disability that requires academic accommodations, please present the letter to me so we can discuss the accommodations you might need for class.