S Y L L A B U S

INSTRUCTOR : Professor J. B. Callis (callis@u.washington.edu) Telephone: 543-1208
Office Hours: M, 10:50 AM - 11:50 AM, and W, 10:50 AM - 11:50 AM, 204 Bagley Hall

MATERIALS: (all available at the University Bookstore)

1. Zumdahl, Steven S., *Chemical Principles*, Fifth Edition, 2005, (required for lecture)
2. Kelter, Paul B. *Study Guide, Chemical Principles*, Fifth Edition, 2005, Houghton Mifflin (optional)
3. *Chemistry 142 Laboratory Manual* (required)
4. *Lecture Notes for Chemistry 142A* (optional)
5. Scientific calculator, goggles, lab notebook and WebAssign access card (all required)

LECTURE TIMES: MTuWF - 9:40 AM - 10:40 AM, Bagley 154

COURSE SCHEDULE:

Week	Zumdahl Chapter	Lecture Topic	Quiz Section Topic	Laboratory Topic
1 6/23-6/27	1, A1.1-2, 5-6, A2.1-2	Keys to the Study of Chemistry (3 Lectures: M, Tu, W). Lab #1 Lecture: Procedures and Statistics (1 Lecture, F).	WebAssign Intro. Review of Basic Mathematical Operations in Chemistry.	Lab does not meet.
2 6/30-7/4	2, 3	Atoms, Molecules and Ions (3 Lectures: M, Tu, W). No lecture F, 7/4 (holiday)	Quiz 1: Ch 1 and Appendices. Discuss Atomic Theory.	Lab does not meet.
3 7/7-7/11	3	Lab #2 Lecture: M. Stoichiometry, cont. (2 Lectures: Tu, W). **Midterm #1, (Ch. 1-2) F, 7/11.**	Quiz 2: Ch 2. Discuss Stoichiometry.	Lab #1 Statistical Analysis
4 7/14-7/18	3, 4	Lab #3 Lecture (M). Stoichiometry, cont. (1 Lecture: T). Types of Chemical Reactions and Solution Stoichiometry (2 Lectures: W, F).	Quiz 3: Ch 3. Discuss Reactions.	Lab #2: Composition of Two Compounds
5 7/21-7/25	5	Lab #4 Lecture (M). Stoichiometry, cont. (1 Lecture, Tu). Gases (2 Lectures: W, F).	Quiz 4: Ch 4. Discuss Gases.	Lab #3: Stoichiometry I
6 7/28-8/1	5, 6	Gases, cont. (2 Lectures: M, Tu). Chemical Equilibrium (1 Lecture, W). **Midterm #2 (Ch. 3-4, 5) F, 8/1.**	Quiz 5: Ch 5. Discuss Gases and Equilibrium.	Lab #4: Stoichiometry II
7 8/4-8/8	6, 7	Lab #5 Lecture (M) Chemical Equilibrium, cont. (2 Lectures, Tu, W). Acids/Bases (1 Lecture, F).	Quiz 6: Ch 6. Discuss Equilibrium and Acids / Bases.	Lab #5: Molar Mass
8 8/11-8/15	7	Lab #6 Lecture (M). Acids and Bases, cont. (2 Lectures, Tu, W). Aqueous Equilibria (1 Lecture F).	Quiz 7: Ch 7. Discuss Acids and Bases.	Lab #6 Titrations
9 8/18-8/22	8	Aqueous Equilibria, cont. (2 Lectures: M, Tu). **Final, Part A (Ch. 1-5) W, 8/20. Final, Part B (Ch. 6-8) F, 8/22.**	Quiz 8: Ch 8. Discuss Buffers and Titrations.	Lab does not meet.

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 this class.

Quiz and Lab Sections

142	**A**	**LC**	**5**	**M**	**T**	**W**	**F**	**940-1040**	**BAG 154**	**CALLIS**
10502	AA	QZ			T			1050-1150	BNS 117	Jessica Pikul
		LB			T			110-410	BAG 291	pikul@u
10503	AB	QZ			T			1200-100	EEB 026	Nam
		LB					F	110-410	BAG 291	enam@u
10504	AC	QZ			T			830-930	ART 006	Jessica Pikul
		LB					F	110-410	BAG 291	Pikul@u

POLICIES AND PROCEDURES

LECTURES - An approximate schedule is given in the syllabus as to the chapters to be covered each week. You are responsible not only for material covered in the text, but also for information delivered in class. You are expected to read the material to be covered ***prior*** to the lecture.

MIDTERM EXAMS - There will be two midterm examinations to be given on the dates listed in the syllabus. You must sit according to the seating charts, which will be posted on the walls in the front of the classroom a few days before the exam. The material to be covered will be described in lecture. In advance of each midterm you will be provided with a practice exam.

FINAL EXAM – The final exam in this class will occur on the two dates given in the syllabus. The first part will be concerned with Chapters 1-5 (50%) and the second part will be concerned with Chapters 6-8 (50%).

QUIZ SECTIONS – The first part of the quiz section is devoted to a quiz on the material covered the previous week. Be on time! The last part of the quiz section is devoted to helping you with difficulties in understanding the lecture material, in doing the assigned problems and performing the laboratory write-ups.

HOMEWORK: This course uses internet-based homework exclusively. You will both receive and submit your assignments online via the internet. The internet interface is called "Webassign' and can be found at http://www.webassign.net/washington/login.html. Webassign is operated by a third-party organization and is not the property of the University of Washington. Webassign is available from any computer connected to the internet provided you have Internet Explorer or Netscape Navigator. It does NOT work with the standard AOL browser. To use WebAssign, you need to purchase an access card from the University Bookstore. The internet-based homework is designed to give you individual assignments (the numbers used for variables in the assigned problems will change each time). Grading of the assignment is instantaneous and automatic. You will also have the ability to re-work and re-submit problems until the due date of the assignment. See page 5 of this document for further instructions.

EXPERIMENTAL LABS: The policies and procedures for the labs are covered in the lab manual available for purchase at the University Bookstore. Please pick up your C142 Lab Manual well in advance and read it over carefully.

Do not take the laboratory sessions lightly:

1. You will not pass Chem 142 without passing the laboratory portion of the course. Passing means 60% or higher. Plan to attend every laboratory session. If an absence is unavoidable, please contact your TA (if possible in advance of the lab) and the stockroom (Bagley 271). A written note from a doctor is needed in the event illness prevents attending laboratory. Excused absences will receive a written makeup assignment. See the laboratory manual for more details
2. On average, expect to spend one hour of out of lab time for each hour in lab. About one third of this time should go into pre-laboratory work.
3. We have designed the experiments such that they reinforce the lecture portion of the course. You must stay current with the lecture portion of the course in order to have any chance of understanding the

experiments. These experiments are not cookbook recipes. There is a reason and logic behind each of the operations.

Lab Work

Perform only assigned work. If any deviation from published procedures becomes necessary, first consult your TA.

Safety: There is an element of hazard in any laboratory course. You are required to follow the safety rules as outlined in your laboratory manual. In particular you are required to wear **approved safety goggles** during all the experiments. If you do not wear your goggles while in the laboratory, you will not be allowed to perform the experiment and will receive a grade of 0 for that report. **In addition you must wear an approved lab coat.** The items you need and the rules you must follow are described in the lab manual. No exceptions.

Pre-lab Tasks:

1. WebAssign pre-lab exercises must be completed by the deadline posted on WebAssign.
2. The Purpose and Procedure sections of your notebook must be completed before your lab period.

If you do not complete either one of the two, you will not be allowed to perform the experiment.

Lab Notebook: Use only an approved bound laboratory notebook with numbered pages and carbonless copies (not loose leaf). All recording and reporting must be in this notebook IN INK. Line through your errors neatly instead of erasing or whiting out. On the first page of your notebook write (i) your name and student number, (ii) Summer Quarter 2008, (iii) the course number, Chem. 142. Start the experiments on page 2. Write only on the right-hand page of the notebook while in the laboratory and for the purpose and procedure sections.

During the lab: Record observations (data), perform all necessary calculations, and based on your results, come to some conclusion.

Before You Leave the Lab: Your TA will check that you have completed all assigned work and collect the duplicate pages.

Your Lab Partner: Other than the data being the same, your report should be different from that of your partner. You will be assigned zero for the lab component of the course if we find that you copied any part of somebody else's report. We do check across different sections and different classes.

REGRADING OF HOMEWORK, LAB REPORTS AND EXAMS- All regrading requests are to be handled *in writing*. If you wish your homework, lab report or exam to be regraded, it must be given to your teaching assistant within 48 hours of its return to you, along with a note explaining what you want changed and why. BE BRIEF. If you are still not satisfied, you may submit the regraded material to Professor Callis. Note: We save copies of many of the student exams before returning them, to make sure that the returned exam has not been altered (which can constitute a Conduct Code violation). We reserve the right to regrade the entire homework, lab report or exam.

LATE POLICY - *No late work will be accepted.*

MISSED EXAM POLICY - If you are absent from a midterm (one hour) examination through sickness or other cause judged to be unavoidable, we will give you a make-up exam. Examples of unavoidable cause include illness, death or serious illness in the immediate family, and, provided previous notification is given, observance of regularly scheduled religious obligations and attendance at academic conferences or field trips, or participation in university-sponsored activities such as debating contests or athletic competition. You must report your absence from an hourly examination within 72 hours to Dr. Tracy Harvey (harvey@chem.washington.edu) in Bagley 294, and bring proof of your unavoidable cause (a doctor's note, an accident report, a memorial folder, or similar documentation). The documentation must include a contact name and telephone number. Dr. Harvey will notify the instructor of the status of your absence. If your absence does not meet the above criteria, you will be given a zero for the exam.

GRADING		
	2 Midterm exams (1 hr. each, 100 pts. each)	30 %
	Quizzes (lowest quiz score dropped)	10 %
	Homework (lowest HW score dropped)	10 %
	Laboratory	20 %
	Final exam (2 hr.)	30 %
	TOTAL	100 %

GRADE DISTRIBUTION – The undergraduate program committee policy states that the final mean GPA in Chemistry 142 should fall within the range 2.6 +/- 0.2. It is the Chemistry Department's policy not to make grade changes of 0.1 after final class grades are submitted to Records.

WORLD WIDE WEB SITE - http://faculty.washington.edu/callis/Chem142/Au-02. This is where the latest course information is posted. All lab information can be accessed by the Chem 142 Labs link on the Chemistry Department's course page: http://depts.washington.edu/chem/courses

BULLETIN BOARD - A bulletin board in Bagley Hall (just outside the classroom) has been reserved for this class. The exam answer "keys" will be posted following each examination. The homework keys will also be posted there. Grades will be posted following each examination, listed by the last four digits of the student number. Students are asked to check their grades for correct recording. Any discrepancies noted should be brought to the attention of your TA.

TA OFFICE HOURS - The TAs office hours will be posted on the Chem 142A bulletin board. You are free to attend any of the TA office hours. One of the advantages of having a linked class is that you have the same TA for the lab and lecture course. **The TA is an important person to your success.** Be sure to use the resources offered by the TAs. They can clarify any questions you might have about the text (e.g., What do these words mean?) or the lecture material (e.g., I missed something or don't follow his logic here in my notes.) They can also spot your background weaknesses and help.

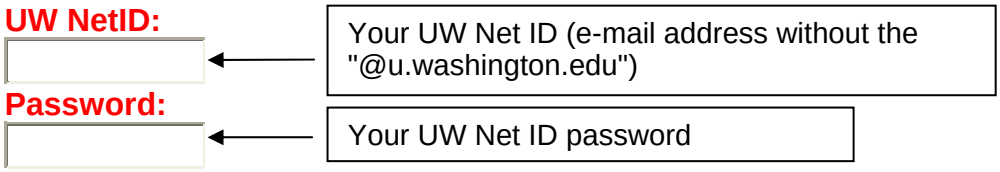
CHEMISTRY STUDY CENTER - The study center is located in BAG 330. The study center provides you an opportunity to work and learn from fellow Chem 142 students as well as receive help from TAs. The hours are posted outside the door. The study center has 27 computers for your use.

KEYS TO SUCCESS:

1. Attend ALL classes, pay close attention and take notes.
2. Chemistry is sequential and hierarchical. You must learn and digest today's lecture before you can expect to understand tomorrow's. Study at least two hours for each hour of lecture. Find a place that allows for periods of uninterrupted study. Come to class prepared. Read the assigned material in your text and study the lecture notes in advance of class.
3. Practice what you are to do on the exams. Work many problems.
4. Use the Chemistry Study Center.

WebAssign Login Instructions

1. **Go to** www.webassign.net/washington/login.html
2. Click on the button labeled “Log In” which takes you to the UW NetID weblogin page:



3. Click on the “Log In” button which takes you back to WebAssign.

NOTES:

- WebAssign login now uses UW’s authentication server (UW Net ID) to obtain access.
- Each student must purchase an access code (~$6) to use WebAssign.
- Access codes can be purchased either in person at the UW bookstore, or online at WebAssign's website. Enter the code in the assignment titled "WebAssign Registration". There is a 2-week grace period before access codes are enforced.
- Click on the "Student Guide" for helpful information about how to use WebAssign.
- If you need additional help, see your TA or go to the Chem Study Center (BAG 330).