

LAST DAY TO DROP 20L: October 12

Course Instructor & Office Location: Dr. Johnny W. Pang (1041 Young Hall)

Office Hours: T 2-3pm & W 1-2pm in 1041 Young Hall

E-mail: pang@chem.ucla.edu

Lecture(s): Tuesdays 9am in CS 24

Laboratory Room(s): 1370 Young Hall

Section Instructor:

Teaching Assistant. Times and locations of all TA office hours will be posted on the bulletin board outside 4016 Young Hall. You are encouraged to attend office hours. You may go to any TA's office hours.

Virtual Office Hours:

Chemistry 20L will have a "web page" on the Department's "Virtual Office Hours" The address is <http://voh.chem.ucla.edu/>.

Grading: (*To receive a passing grade (C-), you must complete all the experiments and reports and receive at least 50% of the points in the exam category.*)

NOTE: *The instructor reserves the right to modify the 50% rule in the exam category at the end of the quarter after all the scores are tabulated.*

Preparation for lab - prelab assignments	55	16.2%
performance in lab - technique and accuracy of work	35	10.3%
Documentation of lab work - lab reports	125	36.7%
Understanding of lab -		
Midterm (60 points); Final (60 points)	120	35.3%
End of Quarter Clean Up	5	1.5%
Total Points	340	100%

Lecture Schedule:

Sept. 25	Introduction; Concentration/Errors	Nov. 6	Acid Base Equilibrium (I)
Oct. 2	Theory on Beer's Law	Nov. 13	Acid Base Equilibrium (II)
Oct. 9	Beer's Law – Data and Error Analysis	Nov. 20	Buffers
Oct. 16	Introduction to Acids & Bases	Nov.27	Using EXCEL to analyze titration Data
Oct. 23	Phosphate in Detergent		
Oct. 30	Midterm* (NO MAKE UP EXAM)	Dec. 4	Final* (NO MAKE UP EXAM)

**Exams must be taken during the lecture section in which you are officially enrolled. Any missing exam will count as ZERO.*

Lab Preparation: You must be prepared for the experiment before you come to lab if you wish to complete the experiment in the time allotted. The course is impacted; there is neither make-up time in the course nor space for you to work in other sections. You must do your lab work in your scheduled period. In preparation for the lab, you should first study the pertinent sections in the text, review the lecture notes pertaining to the experiment, then view (and possibly review) the appropriate videotapes (refer to lab schedule) for any new techniques to be used in the experiment. For the prelab reports, you should write the introduction, procedure (including a reference to the original source and a flow-chart summary of the experimental steps), and data tables for the experiment in the notebook before the lab section meets. Pre-lab study problems must also be completed (if assign) before your lab section meets. During lab, you will complete the data tables and record any other observations about the experiment. In addition, you may be required to obtain physical properties as well as safety information for different chemicals for each experiment from the on-line MSDS (Material Safety Data Sheets) database. MSDS are available on-line (refer to the MSDS handout). If a prelab report is required for the experiment, you **MUST** turn in the **duplicate copy** of the pre-lab report to your TA at the *beginning* of the lab period. A copy of the in-lab data is to be turned in to the T.A. at the end of the lab period. Late pre-lab work will count as ZERO.

NOTE: *Techniques videotapes can now be viewed on the internet (refer to the lab schedule).*

Post-lab Reports: The remainder of the lab report, - the data analysis, error analysis, and conclusions - are to be completed in the lab notebook after the experiment is completed. The **original** copy of this portion of the report is turned in to the T.A. at the start of the following lab period along with any graphs that have been prepared on fine-grid (millimeter) graph paper. Unexcused late post-lab portions of the reports, will accrue a penalty of five percent of the grade per day for unexcused late reports. No reports will be accepted after 5:00 p.m. on the last day of instruction. Computer programs used to analyze data must be referenced and copies may be requested by the instructor.

Bulletin Board: The course bulletin board is located on the wall across from rooms 1217 and 1225. Information on the course, study questions, and for questions and answers regarding the course materials will be posted on the bulletin board. You should check this board at least weekly.

Required Texts: Chemistry 20L Lab Manual & Lab Notebook (see below)

Recommended Text: Peter Atkins and Loretta Jones, Chemical Principles - The Quest for Insight (1st Ed) (*or any other equivalent general chemistry text*)

Safety Goggles and Protective Clothing:

Eye protection **must** be worn in all laboratories whenever any laboratory work is in progress. Recommended safety goggles may be purchased from the Undergraduate Chemistry Fraternity - AXE - Room 1275 Young Hall. Other styles of goggles are available at local bookstores. A heavy vinyl or rubberized apron or full-length lab coat, closed-toe shoes, and long pants must be worn when doing experimental work. Aprons may be purchased from AXE or the student store. Shorts and sandals do not provide adequate protection for laboratory work. You will be barred from the laboratory if you are not wearing appropriate protective clothing. Latex gloves will be provided for those experiments using chemicals that are hazardous to skin.

Laboratory Notebooks:

Laboratory notebooks designed for duplicate records are available from the Undergraduate Chemistry Fraternity - AXE - Young Hall 1275 and the student store. All experimental data and complete reports will be recorded in this laboratory notebook.

Note: AXE only accepts personal check when purchasing lab equipment. AXE DOES NOT accept cash or credit card!

Grading Criteria:

Your mastery of the course will be measured through your performance on the exams, reports, experimental accuracy, calculations and analysis of data; and your lab technique. Qualities that will be considered in this latter category include your performance in observing safety regulations such as wearing eye and personal protection in lab, following safe lab procedures, working independently and coming to lab prepared, completing the assigned work within the scheduled laboratory periods, coming to lab on time and turning in assignments promptly, and disposing of waste in proper receptacles.

Chemistry 20L is graded on a mastery basis. Letter grades are based on the course point total. (Please note these grades are assigned only at the end of the quarter when all items have been graded; the percentage on a portion of the course is not a meaningful measure of your total performance.) Plus and minus grades are frequently assigned, but final decisions to award these grades are not made until the end of the quarter when all the student data have been evaluated. As a rule of thumb, the course grades are assigned as follows:

90	-	100%	=	A
80	-	90%	=	B
65	-	80%	=	C
50	-	65%	=	D
0	-	50%	=	F

Cheating, Plagiarism, Dishonesty:

All cases of cheating, plagiarism, or dishonesty will be reported to the Dean of Students. All work that you submit for grading must be your own work. Reports based on group data must acknowledge the individual contribution of each person who contributed data. Any work that is not cited is presumed to be your own.