

Chemistry and Society, CHE100L-012
Spring 2005

M 1:00-2:40p.m. SC 464

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corequisite: Che 100 lecture ****If you withdraw at any time from the lecture, you MUST also withdraw yourself from the lab****

Required supplies: "Chemistry and Society Laboratory Manual" and Safety Goggles.
-A nonprogrammable scientific calculator
-Safety goggles with side shields

Course Objective: To apply the theory learned in lecture to experimental chemistry in everyday life. Some of these applications will include the synthesis of aspirin and cloth dyes, as well as testing the acidity and basicity of common household products.

<u>Date</u>	<u>Experiment</u>	<u>Page #</u>	<u>Additional Pre-Lab Reading</u>
1/10	Check-in / Measurements	1-1	p. 6-8ii, 10d, 17-19
1/17	No lab - Martin Luther King Jr.		
1/24	Properties of a Substance	2-1	p. 14-16
1/31	Emission Spectra	5-1	p. 8b, 9 & 10c
2/7	Separation and Purification	3-1	p. 11-13
2/14	Nuclear Chemistry	11-1	appendix A-3 to A-6
2/21	Special Reactions	7-1	
2/28	Midterm Exam		
3/7	Spring Break - No Lab		
3/14	Chemical Analysis	10-1	
3/21	Observations and Scientific Method	4-1	
3/28	Acids and Bases	6-1	
4/4	Synthesis and use of Dyes	12-1	
4/11	Prep of Aspirin and Wintergreen	8-1	
4/18	Synthesis of Macromolecules	9-1	
4/25	Final Exam		

Grading Scale

Each Experiment is worth 50 pts.	50 x 12 = 600 pts.	75% of grade
Each test is worth 100 pts.	<u>100 x 2 = 200 pts.</u>	25% of grade
	Total = 800 pts.	

A	90-100%	716-800 pts.
B	80-89%	636-715 pts.
C	70-79%	556-635 pts.
D	60-69%	476-555 pts.
F	59% ≥	475 pts. ≥

Preparation for class: Each week you must come to class having thoroughly read and understood the experiment that you will perform that day. To ensure that you are prepared, a pre-lab quiz worth 10 points will be given at the start of the period. This quiz is 10 of the 50 points that each lab report is worth, or 20% of each lab. **If you are late for lab or miss that lab you MAY NOT make-up the quiz under any circumstances!!!!**

Data collection: Your report will also be graded on the accuracy with which you collect and record your data. Any data collected must contain the appropriate units, eg. g for grams, C for degrees Celsius, cm for centimeters etc., as well as the appropriate number of significant figures or decimal places. For instance, if you use a balance which gives a mass to two decimal places, you must record both decimal places and not leave one or more out.

Calculations: You must show the work for any calculations done in the lab report. Points will be deducted if only the answer appears. There is not much space available on the supplement sheets so please write small and legibly, and be sure to include the proper units here as well.

Discussion questions: These should be answered in complete sentence form in legible writing. Answers should show understanding of the concepts of that lab. If asked what would happen if..... it is inappropriate to respond “the answer would be off”. Explain that a value would become high or low, not “off”.

**** All parts of the lab report are due at the START of the next lab period. That typically means one week after the experiment was completed. Reports turned in beyond the first 15 minutes of lab are considered late. Late reports will be penalized two points per school day.*****

Attendance: There is only one make-up lab granted for the semester. If a lab experiment is missed you must contact the instructor prior to the experiment or at the latest, by 2:40 p.m. on the day of the missed lab. This means leaving a phone message with a number where you can be reached, or sending an e-mail with a phone number of where you can be reached. I will not make arrangements by e-mail; too much time involved. If you do not hear from me by 5:00 p.m. on the day of the missed lab, assume that I did not receive your message and try again. The only options for a make-up time are Wednesday at 1:00 or on Thursday at a time agreed upon by the instructor.

Additional Safety Rule: In addition to the safety rules that you read and sign, there are no shorts or open toed shoes allowed in lab for any reason. You may keep an old pair of pants in your lab drawer if you can't remember to wear pants during the warm weather. If you arrive in shorts or sandals you will not be allowed in lab and will receive a zero for the experiment.

There will be no tolerance of cheating in this class as stated in the Student Honor Code.

This syllabus is subject to change.