Course Syllabus

CHEMISTRY 116

Fall 2007

Instructor: Dr. Rukma Basnayake
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Office hours: MW 3:00– 4:30 p.m.

Text: Chemistry 116 Laboratory Manual
Lab meets in CFS 213

This Laboratory course accompanies CHM 136. The experiments are designed to complement and supplement material that is covered in CHM 136. The first half of the course includes hands-on activities which demonstrate properties of specific groups of organic chemicals. These chemical and physical properties can be used to identify unknown samples. The second half of the course includes experiments involving some typical biological molecules, their properties and identification. Some simple tests are introduced which show the power of chemistry in predicting behavior based on chemical composition and structure.

Objectives: Students who successfully complete this course will:
1) Have factual knowledge about physical and chemical characteristics of several classes of organic and biological compounds and specific tests for these substances
2) Have laboratory skills involved in testing for specific elements, molecules or classes of molecules
3) Be able to apply the course information to problem solving.

Tentative schedule:

Week	Lab	Topic
09/10 – 09/13	Check In, Lab #1, quiz 1	Safety; Comparison of organic and inorganic compounds
09/17 – 09/20	#2 and #3; quiz 2	Elemental analysis and solubility of organic compounds
09/24 -09/27	#4 and #5; quiz 3	Reactions of hydrocarbons and alkyl halides
10/01 – 10/04	#6 and #7; quiz 4	Alcohols, aldehydes and ketones
10/08 – 10/11	#8 and #10; quiz 5	Benedict's reagent and Carboxylic acids
10/15 – 10/18	#9 and ***Midterm (1-10)***	Carboxylic acid esters
10/22 – 10/25	#11 and #12; quiz 6	Amines and amides
10/29 – 11/01	#13 and #14: quiz 7	Carbohydrates and Seliwanoff's test
11/05 – 11/09	*No CHM 116 labs: ACS meeting in Lubbock, TX*	
11/12 – 11/15	#15 and #16; quiz 8	Acidic and enzymatic hydrolysis of carbohydrates
11/19 – 11/22	*No CHM 116 labs: Thanksgiving holiday*	
11/26 – 11/29	#17 and #18; quiz 9	Detection and denaturation of proteins
12/03 – 12/06	***Final exam (11-18)*** and check out	

You are expected to attend all labs. The nature of a laboratory class requires that you arrive on time and actively participate. Instructions are given in the beginning of lab, and you will need this to successfully complete the laboratory activity. **There are NO makeup labs**. You are allowed to miss two labs and one quiz during the semester. You are responsible for any material covered in the missed lab(s). Any other absences will

result in a grade of zero for that lab and/or quiz. If you do not miss any labs or quizzes, your two lowest labs and one quiz score will be dropped.

You may NOT wear shorts or sandals to lab. This is a safety consideration, not a fashion one. **You MUST wear safety glasses in the laboratory**. If you do not, you will be asked to leave lab and will receive a score of zero for that lab. Again, we are concerned for your safety!

Students are expected to maintain complete honesty and integrity in the academic experience both in and out of the laboratory. Any student found guilty of academic dishonesty, including but not limited to, cheating on an examination or other academic work will be subject to disciplinary action. A grade of zero will be recorded for any work from a student found guilty of academic dishonesty.

Please turn off or mute cell phones/pagers and other electronic equipment before lab begins. Students who participate in behavior which results in disruption will be directed to leave the class and may be reported to the Dean of Students for disciplinary action.

Students seeking accommodations related to the Americans with Disabilities Act should go to the Counseling Center to initiate requests for such accommodations.

Grading:

Grading is based on active participation, weekly quizzes, the midterm and the final. Active participation will include, but is not limited to, attendance, completing the assigned lab activity, following all instructions and safety rules, etc. Weekly quizzes will cover the experiments indicated in the schedule. The midterm will cover experiments 1-10 and the final will cover experiments 11-18. Two (the lowest) labs and one quiz grade will be dropped.

Attendance and active participation: 5 points for each lab x 16 labs		80
Quizzes: 5 for each quiz x 8 quizzes		40
Midterm (Experiments 1 - 10)		20
Final (Experiments 11 - 18)		20
	TOTAL	160

Your grade in the class will be based on the total number of points you receive:

144 – 160 points: A
128 – 143 points: B
112 – 127 points: C
96 – 111 points: D
Below 96 points: F

If you drop this course, **YOU MUST CHECK OUT**. Failure to check out will result in a **$25 charge**.