

**CHEM 151 Elementary Physiological Chemistry A**  
 Summer Session I 2014  
 Course Syllabus

**Instructor:** Mark Aparece, M.S.  
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**Office Hours:** Tu 11:50am-12:30pm  
 Th 12:30-1:30pm  
 Also by appointment

**Teaching Assistant:** Angela Mahaffey  
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**Office:** Flanner Hall 406  
**Office Hours:** Tu 3:45-4:35pm

**Textbook and Materials**

Required:

*Fundamentals of General, Organic, and Biological Chemistry (7<sup>th</sup> ed.)* by McMurry, Ballantine, Hoeger, and Peterson  
 A scientific non-graphing calculator

Optional:

Study Guide and Solutions Manual to the textbook  
 Colored pens/pencils (I use lots of colors in lecture)

**Course Overview**

This course is the first in a yearlong two semester sequence of chemistry for nursing students. The fundamentals of general and organic chemistry are discussed in the first semester.

For success in this course, it is important that you work on problems every day and that you *do not fall behind*. Chemistry moves fast, especially during the summer, and it is imperative that you keep up. It is strongly recommended that you do the practice problems in the textbook every day and ask questions of the instructor and teaching assistant.

**Course Meeting**

Lecture will meet TuWTh from 9:00-11:40am in Flanner Hall 105. Lab will meet Tu from 12:30-3:30pm in Flanner Hall 204.

**Grading**

Exam I	Thursday, May 29	20%
Exam II	Tuesday, June 10	20%
Exam III	Wednesday June 18	20%
Final Exam	Thursday, June 26	20%
Lab	Lab Final: Tuesday, June 24	20%
	Total	100%

Numerical scores will be converted to letter grades by the following:

93-100%	A	66-73%	C
90-93%	A-	60-66%	C-
86-90%	B+	56-60%	D+
80-86%	B	50-56%	D
76-80%	B-	<50%	F
73-76%	C+		

The highest grade in the class will be the standard to which everyone else's grades will be scaled. For example, if the highest grade is a 95, then a raw score of 75 will be recalculated by the following:

$$(75/95)*100\% = \mathbf{79\%}, \text{ an increase from a C+ to a B-}$$

### Lab

Lab is worth 20% of your grade. There will be a weekly laboratory on Tuesday afternoons, as well as a lab final exam during the last week of the semester. Refer to the course webpage on Sakai at [sakai.luc.edu](http://sakai.luc.edu).

### Exams

There will be three exams over the course of the session each worth 20% of your overall grade, as well as a final exam worth 20%. All exams are closed-book/closed-notes. At my discretion and only under extenuating circumstances may an exam be taken before or after the assigned time and date.

### Instructor Privileges

I reserve the right to make changes and adjustments to this syllabus as necessary, including, but not limited to, the grading policy and course schedule.

### Academic Integrity

Trust and integrity are important qualities in students, nursing students in particular. All submitted work must represent your own work and your own work only. Academic dishonesty of any kind, such as plagiarism and cheat sheets on exams, will not be tolerated. Any student caught cheating on an assignment in any way will receive a "zero" for that assignment and be reported to Chairperson of the Chemistry Department and the Dean of the Nursing School. For further information regarding the Academic Integrity policy and disciplinary procedures, refer to the Undergraduate Studies Catalog: [http://www.luc.edu/academics/catalog/undergrad/reg\\_academicintegrity.shtml](http://www.luc.edu/academics/catalog/undergrad/reg_academicintegrity.shtml).

**Tentative Schedule**

<b>Week</b>	<b>Day</b>	<b>Date</b>	<b>Topics</b>	<b>Chapter Sections</b>
1	Tu	5/20	Introduction to Chemistry, Measurements, Significant Figures, Scientific Notation, Conversions Atomic Theory, Atomic Number, Periodic Table <b>Lab 1</b>	1.1-1.14 2.1-2.5
	W	5/21	Electronic Structure of Atoms, Electron-Dot Symbols Ionic Compounds: Ionic Bonds and Naming	2.6-2.9 3.1-3.11
	Th	5/22	Molecular Compounds: Covalent Bonds, Lewis Structures, Molecular Shape, and Naming <b>In-class worksheet</b>	4.1-4.11
2	Tu	5/27	Chemical Reactions and Balancing Chemical Equations Moles, Gram-Mole Conversions <b>Lab 2</b>	5.1-5.8 6.1-6.2
	W	5/28	Limiting Reagent, and Percent Yield <b>In-class worksheet</b>	6.3-6.5
	Th	5/29	<b>Exam I</b> Energy, Chemical Bonds, and Thermodynamics	7.1-7.4
3	Tu	6/3	Reaction Rates, Equilibrium, and Le Châtelier's Principle Gases: Kinetic-Molecular Theory of Gases, Gas Laws <b>Lab 3</b>	7.5-7.9 8.1-8.10
	W	6/4	Liquids and Solids Solutions, Dilution, and Osmotic Pressure	8.11-8.15 9.1-9.13
	Th	6/5	Acids and Bases: Bronsted-Lowry, Acid/Base Strength and Acid Dissociation Constants, pH, Buffers, and Titrations <b>In-class worksheet</b>	10.1-10.14
4	Tu	6/10	<b>Exam II</b> Introduction to Organic Chemistry: Alkanes <b>Lab 4</b>	12.1-12.5
	W	6/11	Naming Alkanes, Cycloalkanes Alkenes and Alkynes, Types of Organic Reactions	12.6-12.10 13.1-13.5
	Th	6/12	Reactions of Alkenes and Alkynes, Aromatic Compounds <b>In-class worksheet</b>	13.6-13.10
5	Tu	6/17	Oxygen-, Sulfur-, and Halogen-Based Compounds <b>Lab 5</b>	14.1-14.10
	W	6/18	<b>Exam III</b> Amines	15.1-15.6
	Th	6/19	Aldehydes and Ketones <b>In-class worksheet</b>	16.1-16.7
6	Tu	6/24	Carboxylic Acids and Their Derivatives <b>Lab Final</b>	17.1-17.4
	W	6/25	Carboxylic Acids and Their Derivatives <b>In-class worksheet</b>	17.5-17.8
	Th	6/26	<b>Final Exam</b>	