

SUMMER 2012- CHEMISTRY 210

Co-requisite: CHEM 212 - General Chemistry Laboratory I

Classroom Instructor – Associate Professor Mark Zabawa, FR 301, 815-262-5206 mzabawa@ilcc.cc.ia.us or mzabawa@iowalakes.edu or mark.zabawa@gmail.com

Office Hours – Monday, Tuesday, and Wednesday, 2:30 - 3:30 PM, or by appointment

Lectures – 01: 00 – 02:15 PM; Monday-Thursday; **Room La Tourette (Faraday West) 201**

Materials: *"Principles of General Chemistry"*, by Martin S. Silberberg, 2nd Edition (McGraw Hill: 2010).

Exams and Grading

Exams - Tentative dates for TWO 100 point hourly exams are indicated in the lecture schedule (see next page). Make-up exams will **NOT** be given **under any circumstances even with the documented proof of medical emergency**. Therefore, only best **TWO of THREE EXAMS** will be counted toward your FINAL GRADING. Missed exam (including Final) will be considered as dropped.

Mandatory Online Quizzes for 100 Points (equivalent to one Exam that cannot be replaced) – Click the link for [saplinglearning.com](http://www.saplinglearning.com) (<http://www.saplinglearning.com/>) and follow the instructions given at the end of this syllabus.

Final Exam - The 100 point final exam will be comprehensive (not mandatory!) and will be given on Thursday, August 9, 2010 from 01-02:15 PM

Total points = 300 points (best TWO of THREE hourly exams = 200; Online Quizzes = 100)

Grading scale: **A > 90% (270 pts.), B > 80% (240 pts.), C > 70% (210 pts.), D > 60% (180 pts.), F < 60%**

Any student who may need an accommodation due to a disability, please make an appointment to see me during my office hours, or when convenient. A letter from Disability Support Services authorizing your accommodations is usually needed before accommodations can be granted.

TENTATIVE LECTURE SCHEDULE

<u>WEEK</u>	<u>CHAPTER/TOPIC</u>	<u>Exam</u>
1. June 18	Ch. 1: Keys to the Study of Chemistry + Ch. 2: The Components of Matter	
2. June 25	Ch. 2 (continued) + Ch. 3: Stoichiometry of Formulas and Equations	
3. July 2	Ch. 3 (continued) + Ch. 4: The Major Classes of Chemical Reactions	
4. July 9	Ch. 4 (continued) + Ch. 5: Gases and the Kinetic Molecular Theory	Exam I (July 12)
5. July 16	Ch. 5 (continued) + Ch. 6: Thermochemistry: Energy Flow and Chemical Change	
6. July 23 7. July 30	Ch. 7: Quantum Theory and Atomic Structure + Ch. 8: Electron Configuration and Chemical Periodicity Ch. 9: Models of Chemical Bonding + Ch. 10: The Shapes of Molecules	Exam II (August 2)
8. August 06	Ch. 10 (continued) + Ch. 11: Theories of Covalent Bonding	

August 9	FINAL EXAM in La Tourette Hall (FW) 201 from 1:00 PM – 02:15 PM	

CHEMISTRY 210 - GENERAL EDUCATION AND COURSE CONTENT OBJECTIVES**General Education Course Objectives**

- Improve ability to think critically and logically
- Improve ability to reason quantitatively and to perform basic chemical computations
- Improve ability to interpret mathematical models
- Learn how to use the scientific method and theories to understand chemical phenomena
- Develop an appreciation for the importance of the role of chemistry in everyday life
- Develop an understanding of the historical development of the field of chemistry

Content Objectives of this Course

- Understand the components of atoms and ions
- Learn how to write chemical formulas, and how to name compounds
- Learn how to balance chemical equations and how to perform simple stoichiometry calculations
- Understand the behavior of gases, liquids, and solids
- Become familiar with the electronic structure of atoms and understand how chemical reactivity depends on electronic structure
- Correctly predict the shapes of complex molecules and ions, and become familiar with the theories of chemical bonding.

HOMEWORK ASSIGNMENTS:

- **There is no specific homework assigned for this class. However, it is your responsibility to do as much end-of-chapter problems as possible in order to perform well in the online quizzes and exams. You can check your answers in the solution manual, but the professor of this class will not evaluate and grade your homework problems.**

Instructions for using Sapling Learning:

1. Go to <http://saplinglearning.com>
2.
 - a. If you already have a Sapling Learning account, log in, click "View Available Courses", then skip to step 3.
 - b. If you have Facebook account, you can use it to quickly create a Sapling Learning account. Click "create account" located under the username box, then click "Login with Facebook". The form will auto-fill with information from your Facebook account (you may need to log into Facebook in the popup window first). Choose a password and timezone, accept the site policy agreement, and click "Create my new account". You can then skip to step 3.
 - c. Otherwise, click "create account" located under the username box. Supply the requested information and click "Create my new account". Check your email (and spam filter) for a message from Sapling Learning and click on the link provided in that email.
3. Find your course in the list (listed by school, course, and instructor) and click the link.
4. Enter the enrollment key: 3317
5. Once you have registered and enrolled, you can log in at any time to complete or review your homework assignments.
6. During sign up - and throughout the term - if you have any technical problems or grading issues, send an email to support@saplinglearning.com explaining the issue. The Sapling support team is almost always more able (and faster) to resolve issues than your instructor.