

Introductory Chemistry (CHEM 113.01)
Abilene Christian University
Fall 2011

MWF 8:00-8:50
3 credit hours
Foster Science Building 117

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Office Hours: Wednesday 1-5 PM, Friday 1-4 PM

ACU Mission:

To educate students for Christian service and leadership throughout the world.

Department Mission:

To prepare students for careers in chemistry, biochemistry, chemical education, and health professions by displaying high professional standards and by modeling Christian values, leadership, and service.

Course Description:

This course covers fundamental concepts of atomic structure; chemical reactions of acids, bases, and salts; behavior of solids, liquids, and gases; and solutions.

Prerequisite:

ACT math score of 21 or above, SAT math score of 550 or above, or credit for MATH 120 or above.

Course Purpose and Audience:

This course is for students majoring in nursing, agriculture, and family and consumer sciences and will satisfy the general science required in the General Education Requirements. This course prepares students to apply the concepts listed in course description in their field and in future chemistry courses.

Course Materials:

Required Text:

General, Organic, and Biological Chemistry: Structures of Life by Karen Timberlake. Third Edition. Pearson. 2010.

Text Website: MasteringChemistry Access Kit
(<http://www.masteringchemistry.com/>)

Optional Text:

Study Guide: General, Organic, and Biological Chemistry: Structures of Life by Karen Timberlake. Pearson.

Other Required Materials:

Scientific Calculator (in addition to the one on your iDevice)

Other Resources: Course Blackboard on my.acu

Attendance Policy:

Attendance is expected and required. The professor may drop a student who has more than **9** absences (**excused and unexcused**) **with a WF**. Roll will be taken in the form of a sign-in sheet. If you are tardy, please see the professor after class to assure that you were counted as present (do not chase the roll sheet). Absences will be excused for illness **with accompanying doctor's note**, death in the family, school sanctioned trips, or other reasons approved by the instructor.

Course Requirements:**Homework:**

Problems from each chapter will be assigned through the MasteringChemistry website. Due dates will be given on the website and in class. All homework will be turned in online.

Quizzes

Ten quizzes will be given during the semester on Fridays. Quizzes will be based on assigned homework, material covered in lecture, and assigned reading. The quiz will be given at the beginning of the period and will be collected after 10 minutes. **The two lowest quiz scores will be dropped.** Quizzes will not be made up if you are absent or arrive after the quiz has been given. Since two quizzes will be dropped, quizzes **will not be made up for excused absences**. If more than two quizzes are missed for excused absences, the problem will be dealt with on an individual basis.

ResponseWare:

We will occasionally use an in-class student response system to answer practice problems together. Your responses will be recorded, but not graded for accuracy. We will use the ResponseWare app from Turning Point available on your iPhone or iPod for these questions. You must have your iDevice to participate in these questions. You will be graded based on the percentage of sessions that you participate in. **You can drop 20% of the ResponseWare sessions without affecting your grade.**

One Minute Papers:

We will also use One Minute Papers as an assessment tool. These assignments will be given in class (generally at the end), and will require a short response to a particular question. Your responses will be graded based on how well you answer the question, and on your ability to form your answer in complete sentences. **You can drop two One Minute Papers without affecting your grade.**

Interview Paper:

Pair up with another person in the classroom. If possible, choose a person with a different major or career aspiration. Interview your partner. Write a half-page paper

about your discussion with your partner focusing on how they think chemistry will play a role in their future careers / life in general. Specific details about the content and how it should be formatted will be given in class (and posted on Blackboard) before the assignment.

Exams:

Three exams will be given during the semester. Attendance is required at exams. The professor must be notified **BEFORE** the exam if you will not be able to attend. Make-up exams will only be given for excused absences (see attendance policy).

Final:

The final will consist of two equal parts. The first half will be taken from the portion of the material covered in class since the third exam. The second half will be comprehensive. The final will be on Friday, December 16th, 10-11:45 AM.

Academic Integrity:

Violations of academic integrity and other forms of cheating, as defined in ACU's Academic Integrity Policy, involve the intention to deceive or mislead or misrepresent, and therefore are a form of lying and represent actions contrary to the behavioral norms that flow from the nature of God. While the university enforces the Policy, the most powerful motive for integrity and truthfulness comes from one's desire to imitate God's nature in our lives. Every member of the faculty, staff and student body is responsible for protecting the integrity of learning, scholarship and research. The full Policy is available for review at the Student Life web site.

<http://www.acu.edu/campusoffices/studentlife>

Any cheating will result in a zero on the assignment. A second incidence of cheating will result in an F in the class.

Email Policy:

Email is a great method of contacting me. However, I cannot always provide an immediate response. Normally you will be sent a response within two business days.

When you send an email, you are expected to write as you would in any professional correspondence (i.e. complete sentences, proper capitalization, a greeting, an informative subject line). Communication should be courteous and respectful.

Cell Phones/Mobile Devices:

Cell phones are to be on **SILENT** at all times.

You will occasionally be asked to use your device during class (for instance, during ResponseWare sessions, or if you need to look up specific course-related information). This is appropriate usage, but keep the device on silent.

When we are not using the device for a Chemistry related purpose, please put away your device. Using your device at any non-approved time is inappropriate and disruptive. You will be asked to leave class if you continue to use your device when asked to put it away.

Groups:

Students will be assigned to groups that will generally consist of 4 students each. Groups are for the purpose of studying, doing homework, and working in teams for in-class assignments. Groups will sit together in class. Students are not required to participate in a group, it is completely voluntary.

Grading

Summary of Activities:		Grade Distribution	
3 Exams	36%	A	90%
Final Exam	24%	B	80%
Quizzes	15%	C	70%
Homework	10%	D	60%
ResponseWare	5%	F	Below 60%
One-minute papers	5%		
Interview Paper	5%		
<i>Total</i>	<i>100%</i>		

Course Content

The following chapters, along with other material, will be covered in Introduction to Chemistry.

Ch. 1 Measurements
Ch. 2 Energy and Matter
Ch. 3 Atoms and Elements
Ch. 5 Compounds and their bonds
Ch. 6 Chemical reactions and quantities
Ch. 8 Solutions
Ch. 9 Chemical Equilibrium
Ch. 10 Acids and Bases

Tentative Course Schedule:

August 29- First Day of Class
August 31- ResponseWare set-up/Practice
September 2- Quiz #1
September 9- Quiz #2
September 16- Exam 1
September 23- Quiz #3
September 30- Quiz #4
October 7- Quiz #5
October 14- Exam 2
October 21- Fall Break
October 28- Quiz #6
November 4- Quiz #7
November 11- Exam 3
November 18- Quiz #8
November 23- Thanksgiving Break
November 25- Thanksgiving Break
December 2- Quiz #9
December 9- Quiz #10
December 16- Final Exam

The above schedule is tentative and is subject to change.