CHEM 102 - GENERAL CHEMISTRY TUTORIAL II
SPRING 2015

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Office Hours: M/W 11:00 am-12:00 pm, F 11:00 am-1.00 pm or by appointment

Course Chemistry 102 meets:
Section 002: Wednesday 8:00-8:50 a.m. STC 135
Section 003: Monday 1:00 – 1:50 p.m. STC 135
Section 004: Friday 8:00-8:50 a.m. STC 135
Section 005: Monday 8:00-8:50 a.m. STC 135

COURSE INFORMATION

Required Text and Resources:
Text: Chemistry, an atoms-focused approach, by Thomas Gilbert, Rein Kirss, and Natalie Foster, (W.W.Norton and Co publisher)
Hardcover ISBN: 978-0-393-91234-0 or Paperback: ISBN: 978-0-393-12419-4, or 3-hole punch version of the textbook: ISBN: 978-0-393- 12420-0 or e-book version(Nortonebooks.com).
Supplies: Non-programmable Calculator (bring to class)

Course Description/Objectives
This is the second part of a two-course sequence of general chemistry. The course is designed primarily for the students majoring in sciences or in pre-professional programs. By the end of the course students will be familiar with a range of fundamental chemistry topics including properties of gases, chemical reaction rates, chemical equilibrium, acid-base chemistry, solubility, thermodynamics, electrochemistry, organic chemistry, and inorganic chemistry. Chemists deal with these subject areas every day, but these concepts are also crucially important to other branches of science and technology.

Student Learning Outcomes:

1. Students will be able to improve their problem-solving skills recognizing the connection between relevant and non- relevant information provided in the problem. They will be able to apply the four - step approach to solve the problems: (1) collect and organize, (2) analyze, (3) solve and (4) think about it, COAST, which has developed in the text book and all supplemental materials for this course.
2. Students will be able provide their answers with the correct numbers of significant figures.
3. Students will learn and practice to:
    - use kinetic molecular theory to explain the properties of gases;
    - calculate the freezing points and boiling points of solutions;

• calculate entropy changes, standard free-energy changes, standard entropy changes in chemical reactions;
• use integrated rate laws to identify the orders of reactions and determine their rate constants;
• use LeChatelier's principle to predict the effects of concentration, pressure and temperature changes on equilibrium mixtures;
• balance Oxidation-Reduction reactions;
• calculate pH values of solutions of acids, bases, and salts;
• calculate standard cell potentials from standard reduction potentials;
• draw and name organic compounds.

4. Students completing this class will be better equipped to work in a team environment to solve scientific problems. the teamwork will improve their communication skills and problem solving abilities.
5. Students completing this course will better understand the content of Chemistry 1411, which should significantly improve their performance in Chemistry 1411.

COURSE REQUIREMENTS

Class methods and activities assessments:
Students are required to study their text book and notes from the professor to effectively solve problems that are presented during the class period.
The intent of the course is for you to work in small groups to complete the lesson for that day. Students are expected to study their text book and notes form the professor. You will be required to work in groups of 3-4 students. I may change the groups periodically. You are expected to work together as a team to answer the questions posed in the work sheets. Thus, you are highly encouraged and expected to discuss, with your group members, the lesson and the answers to the questions posed. The instructor for the course is not present to answer the questions for you. Rather, the instructor is present to guide you in your learning efforts. This has proven to be an effective way to learn Chemistry; we will be using methods similar to a National Science Foundation sponsored program called POGIL (Process Oriented Guided Inquiry Learning, www.pogil.org).

GRAIDING

Grading/Evaluation:

The grade for this course will be derived as follows:

Quizzes	**50 %**
Attendance and participation in class	**50 %**

Quizzes*:* There will be quizzes, which will be 50 % of the overall class grade**.** Each week we might have announced or unannounced quizzes, which will be given at the class. The lowest quiz score will be dropped. There will be no make-up quizzes. Quizzes may cover lecture and homework material.

Attendance and participation in class:
Your attendance grade is not based on you simply showing up to class. To receive attendance for the class period you must meet the following requirements:

1. You cannot be more than 5 minutes late to class. Missing more than 5 minutes of class time will equate to a non-attendance for that day.

2. You must participate in the class or group discussion. Non-participation will equate to a non-attendance for that day.
3. Disorderly conduct will equate to a non-attendance for that day.
4. Your group must work diligently to complete the lesson for that day. If your group does not work diligently to complete the lesson you will receive a non-attendance for that day.
5. You may not work on material from another class. If you do, you will receive a non-attendance for that day.

There will be absolutely no make-ups for missed class attendance. If you fail to sign the attendance sheet for a class period, you will be counted as absent even if you were in class that day; the sign-in sheet is the official record of your attendance in class.

If the student has missed a class, even with an excusable reason, such student is still responsible for all the material covered in the class. In addition, such a student is also responsible for all the announcements made in the class. The student shall consult with one of the classmates as soon as possible for all missed information.

Grading will be based on a scale: 100-90 = A; 89-80 = B; 79-70 = C; 69-60 = D; 59-below = F. Dishonest scholarship will earn an automatic zero (0) and initiate prosecution to the fullest extent. Incomplete grades may be given only if the student has a current average ≥70% and is precluded from completion of the course by a documented illness or family crisis.

COMMUNICATION AND SUPPORT

Interaction with Instructor Statement:

If the faculty needs to contact an individual student, it will be via the student's e-mail account. Students should check e-mail frequently, especially after an absence. E-mail is the best, easiest and fastest way to communicate with me.

COURSE AND UNIVERSITY PROCEDURES/POLICIES

Student Conduct

All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. (See *Code of Student Conduct from Student Guide Handbook).* Disorderly conduct which interferes with the normal classroom atmosphere will not be tolerated. The classroom instructor is the judge of such behavior and may instruct a disorderly student to leave the room with an unexcused absence or in more serious situations a student may be removed from the class with a failing grade.

Students are required to turn off all cell phones and any other electronic devices before entering the class.

A&M Commerce will comply in the classroom, and in online courses, with all federal and state laws prohibiting discrimination and related retaliation on the basis of race, color, religion, sex, national origin, disability, age, genetic information or veteran status. Further, an environment free from discrimination on the basis of sexual orientation, gender expression will be maintained.

Class Attendance Policy

All students are expected to attend class on a regular basis and attendance will be recorded. The Department of Chemistry adheres to the attendance policy set by the University as stated in the most current Undergraduate Catalog. Being late by more than 5 minutes is equivalent to missing a class period. Excessive absence is defined as missing more than 10% of the class periods without excusable reasons. Excessive absence will be reported to the Dean of the College and the Dean of Students. In addition, according to the TAMU-Commerce Procedure A13.02., good class attendance will be necessary in order to pass the course. If you have excessive absences, you may be dropped from the course.

Academic Integrity and Dishonesty Policy:

Academic cheating, plagiarism, and other forms of academic misconduct may result in removal of the student from class with a failing grade or may in extreme cases result in suspension or expulsion from the University as described in the Code of Student Conduct section of the Student1s Guidebook A&M-Commerce Procedure 13.99.99.R0.10

Examples include but are not limited to:

- Exchanging information during a test or quiz
- Looking at another student's paper during a test or quiz
- Bringing information in any forms into a test or quizzes other than personal knowledge. This includes written notes (crib sheets) and digitally stored information (formulas, constants, textual, etc.) on calculators, cell phones, pagers etc.
- Looking at a book or other unauthorized source during the test or quiz.
- Accessing information by any electronic means (cellular phone, pagers, personal stereos, etc.)
- Processing data or information in an unauthorized manner using a programmable calculator or computer. In other words, unless you have received authorization, you are not to use any computer program. This includes specialty computers or calculators in which the programming is built in to the computer; you are permitted to use simple calculators, which perform arithmetical, logarithmic, and trigonometric functions.

UNIVERSITY SPECIFIC PROCEDURES

Students with Disabilities

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, please contact:

Office of Student Disability Resources and Services

Texas A&M University-Commerce
Gee Library- Room 132
Phone (903) 886-5150 or (903) 886-5835
Fax (903) 468-8148
StudentDisabilityServices@tamuc.edu

TENTATIVE TUTORIAL CALENDAR

Week	Date	Subject
1	01/19 – 01/23	Syllabus and Policy
2	01/26 – 01/30	Chapter 10
3	02/02 – 02/06	Quiz 1, Chapters 10/11
4	02/09 – 02/13	Chapters 11/12
5	02/16 – 02/20	Chapter 12
6	02/23 – 02/27	Chapter 13
7	03/02 – 03/06	Quiz 2, Chapters 13/14
8	03/09 – 03/13	Chapter 14
	03/16 – 03/19	Spring Break
9	03/23 – 03/27	Chapter 15
10	03/30 – 04/03	Chapters 15/ 16
11	04/06 – 04/10	Quiz 3, Chapter 16
12	04/13 – 04/17	Chapter 17
13	04/20 – 04/24	Chapter18
14	04/27 – 05/01	Quiz 4, Chapter 18
15	05/04 – 05/08	Chapter 19

Note: Instructor keeps the right to make any changes of the syllabus.