



## **CHEM 101: GENERAL CHEMISTRY I TUTORIAL SPRING 2014**

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**Instructor:** Olga Savina

**Office Location:**

**Office Hours:**

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**Course Chemistry 105 meets: Thursday 2:00-2:50 p.m. STC 135**

### **COURSE INFORMATION**

**Text:** *General Chemistry*, 10<sup>th</sup> Edition, Houghton Mifflin Company, by Ebbing/ 9<sup>th</sup> Edition, Houghton Mifflin Company, by Ebbing

**Supplies:** Non-programmable Calculator

**Course Description/Objectives:** The intent of the course is for you to work in small groups to complete the lesson for that day. The course will be cover and act as a support to understand the fundamental chemistry topics including atomic and molecular structure, chemical formulas, chemical reactions, chemical equations, thermochemistry, quantum theory, electron configurations, periodicity, chemical bonding, states of gases, states of matter and solutions.

### **Student learning Outcomes:**

1. Students will be able to report the answer with correct numbers of significant figures after performing mathematical calculation.
2. They will be able to write the formula of the given compound
3. They will be able to write the Lewis formula or electron dot structure of the given compound and predict the geometry of the molecule by VSEPR method.
4. Students completing the course will be better equipped to work in a team environment to solve scientific problems. The teamwork in this course will improve:
  - a. communication skills and leadership skills
  - b. problem solving abilities
  - c. problem solving strategies.
5. Students completing the course will better understand the course content of Chemistry 1411, which should significantly improve student performance in Chemistry 1411.

## COURSE REQUIREMENTS

### Prerequisite:

The student must have completed Math 1314 or be concurrently enrolled in math 142. Students who had adequate high school preparation in mathematics or were exempted from Math 1314 will be allowed to enroll with the instructor's consent. Students who are currently enrolled in math remediation courses such as PJCM 300, PJCM 306, or Math 131 will not be eligible for enrollment in CHEM 1411

### 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. There will be pop quizzes given. Students are expected to keep a clean record of their classwork for references. You will be required to work in groups of 3-4 students. Groups of less than 3 students or more than 4 students will not be allowed. I may change the groups periodically. You are expected to work together as a team to answer the questions posed in the lesson. 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](http://www.pogil.org)).

## GRADING

### Grading/Evaluation:

The grade for this course will be derived as follows:

<b>Quizzes</b>	<b>50 %</b>
<b>Attendance and participation in class</b>	<b>50 %</b>

**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 makeup 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.

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  $\geq$ 70% and is precluded from completion of the course by a documented illness or family crisis.

## COMMUNICATION AND SUPPORT

### **Interaction with Instructor Statement**

E-mail is the best way to communicate with me since I check it frequently. Also, I will make announcements in class.

## COURSE AND UNIVERSITY PROCEDURES/POLICIES

### **Course Specific Procedures**

***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.

***CLASSROOM BEHAVIOR:*** 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.

### **Academic Honesty**

Students who violate University rules on scholastic dishonesty are subject to disciplinary penalties, including (but not limited to) receiving a failing grade on the assignment, the possibility of failure in the course and dismissal from the University. Since dishonesty harms the individual, all students, and the integrity of the University, policies on scholastic dishonesty will be strictly enforced. In **ALL** instances, incidents of academic dishonesty will be reported to the Department Head. Please be aware that academic dishonesty includes (but is not limited to) cheating, plagiarism, and collusion.

**Cheating** is defined as:

- Copying another's test or assignment
- Communication with another during an exam or assignment (i.e. written, oral or otherwise)
- Giving or seeking aid from another when not permitted by the instructor
- Possessing or using unauthorized materials during the test
- Buying, using, stealing, transporting, or soliciting a test, draft of a test, or answer key

**Plagiarism** is defined as:

- Using someone else's work in your assignment without appropriate acknowledgement
- Making slight variations in the language and then failing to give credit to the source

**Collusion** is defined as:

- Collaborating with another, without authorization, when preparing an assignment  
If you have any questions regarding academic dishonesty, ask. Otherwise, I will assume that you have full knowledge of the academic dishonesty policy and agree to the conditions as set forth in this syllabus.

Students should also reference the following link [Criminal Justice web site](#) for more information.

## **University Specific Procedures**

### **ADA Statement**

#### **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](mailto:StudentDisabilityServices@tamuc.edu)

### **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*).

## COURSE OUTLINE / CALENDAR

### Tentative Tutorial Schedule CHEM-101-003/004

Week	Date	Monday- Wednesday Lecture
1	Tuesday – Thursday 1/14/14 – 1/16/14	Class Syllabus, Policy and Online homework
2	Tuesday –Thursday 1/21/14 – 1/23/14	Chapter 1: Chemistry and Measurement Ch. 2: Atoms, Molecules and Ions
3	Tuesday –Thursday 1/28/14 – 1/30/14	Ch. 2: Atoms, Molecules and Ions <b>Quiz-1</b>
4	Tuesday –Thursday 2/4/14 – 2/6/14	Ch. 3: Calculations with Chemical Formulas and Equations
5	Tuesday –Thursday 2/11/14 – 2/13/14	Ch. 3: Calculations with Chemical Formulas and Equations
6	Tuesday –Thursday 2/18/14 – 2/20/14	Ch. 4: Chemical Reactions
7	Tuesday –Thursday 2/25/14 – 2/27/14	Ch. 5: The Gaseous State
8	Tuesday –Thursday 3/4/14 – 3/6/14	Ch. 6: Thermochemistry <b>Quiz-2</b>
9	Tuesday –Thursday 3/11/14 – 3/13/14	SPRING BREAK
10	Tuesday –Thursday 3/18/14 – 3/20/14	Ch. 7: Quantum Theory of the Atom
11	Tuesday –Thursday 3/25/14 – 3/27/14	Ch. 7: Quantum Theory of the Atom
12	Tuesday –Thursday 4/1/14 – 4/3/14	Ch. 8: Electron Configurations and Periodicity <b>Quiz-3</b>
13	Tuesday –Thursday 4/8/14 – 4/10/14	Ch. 9: Ionic and Covalent Bonding
14	Tuesday - Thursday 4/15/14 – 4/18/14	Ch.10: Molecular Geometry and Chemical Bonding Theory
15	Tuesday -Thursday 4/22/14 – 4/25/14	Ch. 11: States of Matter; Liquids and Solids <b>Quiz-4</b>
16	Tuesday -Thursday 4/29/14 – 5/1/14	Ch. 11: States of Matter; Liquids and Solids

**Note: This is a tentative syllabus. Instructor keeps right to make any changes of the document.**