CHEM 1305: SURVEY OF GENERAL CHEMISTRY

Summer II 2015

Course: CHEM 1305 is scheduled to meet Monday-Thursday from 9:00 AM to 10:45 AM in STC 127.

Instructor: Dr. Bukuo Ni
Office: Science Building 303
Office Hours: Monday-Thursday 11:00 AM to 12:00 Noon, other times by appointment.
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COURSE INFORMATION

Text/Manual and other required material:

Textbook: Introduction to General, Organic, and Biochemistry, 11th Edition, Brooks/Cole, Cengage Learning; ISBN: 978113310508; by Bettelheim, Brown, Campbell, Farrell.

Online homework OWL v1 on the OWL webpage at www.cengage.com/owl. The bookstore has a bundle with the lab manual and access code for the online homework or a bundle with textbook, lab manual and access code for the online homework.

Course Description

(CHEM1305) Survey of General Chemistry: 3 credit hours (lecture only).

This course is designed for students majoring in Agricultural Science, Wildlife and Conservation science, the Environmental Sciences, Nursing and non-majors seeking an understanding of chemistry and its applications in human health, agriculture and the environment. Students are introduced to the scientific method, the basic structure of the atom, microscopic and macroscopic properties of the solutions, solids, liquids and gasses, basic nuclear chemistry and the utilization of basic mathematics manipulations to determine solution concentrations, reaction stoichiometry, etc. The course will prepare students for the survey of organic and biochemistry course.

Prerequisite: The student must have completed Lvl U Math Min Grade D or Lvl Math 1314 Min Grade D or Lvl U Math 175 Min Grade D or Lvl U Math 1324 Min Grade D or Lvl U Math 179 Min Grade D.

Student Learning Outcomes

(1) Exam questions will be developed to evaluate a students critical thinking skills. The students in the course will be required to analyze, evaluate, or solve problems when given a set of circumstances or data.

(2) Exam questions will be developed to evaluate a student's ability to understand and utilize mathematical functions and empirical principles and processes.

(3) Student communication in the class will be clear, purposeful, and make appropriate use of evidence, data and technology as applicable. Students will be able to engage with peers in a way that demonstrates their understanding of relevant course theories and concepts.

(4) At the completion of the course, students will understand the scientific method, the basic structure of the atom, microscopic and macroscopic properties of solutions, solids,

liquids and gases, basic nuclear chemistry and the utilization of basic mathematic manipulations to determine solution concentrations, reaction stoichiometry, etc.

Grading/Evaluation
The grade for this course will be derived as follows:
Three of four examinations: 20% each, 60% of total grade.
Homework: 15% of total grade.
Attendance: 5% of total grade.
Final comprehensive exam: 20% of total grade.
Late work will not be accepted, and makeup exams will not be given. If you missed an exam, for whatever reason, you can drop one exam. If you miss two exams, you will receive a grade of zero for that exam and any subsequent exam that you miss. The final exam will be comprehensive over all material covered in the class. You will be allowed to miss one class. If you miss 2 classes, you will get 4% of attendance grade. If you miss 3 classes, you will get 2% of attendance grade. If you miss 4 or more classes, you will get 0 grade of attendance. **The last drop date for the course is August 3 with Q grade**. Grading will be based on a standard percentage scale: 100-87 = A; 86-78 = B; 77-68 = C; 67-58 = D; 57-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 above 70% and is precluded from completion of the course by a documented illness or family crisis.

Attendance and Class Participation
Attendance in lecture is strongly recommended. You will find that you will learn a lot in lecture providing **you attend, engage, pay attention and stay awake.** It is definitely to your benefit to attend the lecture as additional material not contained in the text is given to help the student understand chemical principles. All students are expected to attend classes 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 lecture. Excessive absence will be reported to the Dean of the College and Dean of students. In addition, according to the TAMU-Commerce Procedure A13.02, Good class attendance will be necessary in order to pass this course.

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

Student Conduct Policy:
In order to create a "learning environment" free of disruption, you MUST TURN OFF your cell phones, MP3 players, PDA's, Pagers, and any other electronic devices before entering the class. Students are expected to comply with the student code of conduct as stated Student's Guidebook, Policies and Procedures, Conduct. If the student is failed to comply with the code of conduct and being disrespectful, disruptive to the instructor or the students of the class, the instructor reserves the right to dismiss the student from the class on the first offense. A second offense may constitute dismissal

from the course with a failing grade. A and 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 identity expression will be maintained.

Academic Integrity and Honesty 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

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
Pointers to Succeed in CHEM 1305:
1. The lectures in this course will cover Chapters 1-8 of the assigned textbook. This material will be covered at the rate indicated by the Tentative Class Schedule. Be sure to read the textbook before coming to the lectures. The lectures will focus on important chemistry concepts but will not serve as a substitute for reading the textbook. The textbook is a more detailed presentation with a more extensive set of example problems. Chemistry is a physical science and it is imperative to master calculations to pass the course.
2. Finish your homework promptly. Working the problems will help you succeed in the course. The more problems that you work the better prepared you will be for exams.

Tentative Class Schedule

Week	Date	Topics
1	July 13	Chapter 1. Matter, Energy and Measurement
	July 14	Chapter 2. Atoms
	July 15	Chapter 2. Atoms
	July 16	Chapter 3. Chemical Bonds
2	July 20	**Exam 1: (Chapters 1-2)**
	July 21	Chapter 3. Chemical Bonds
	July 22	Chapter 4. Chemical Reactions
	July 23	Chapter 4. Chemical Reactions
3	July 27	Chapter 5. Gases, Liquids, and Solids
	July 28	**Exam 2: (Chapters 3-4)**
	July 29	Chapter 5. Gases, Liquids, and Solids
	July 30	Chapter 6. Solutions and Colloids
4	August 3	Chapter 6. Solutions and Colloids
	August 4	Chapter 7. Reaction Rates and Chemical Equilibrium
	August 5	**Exam 3: (Chapters 5-6)**
	August 6	Chapter 7. Reaction Rates and Chemical Equilibrium
5	August 10	Chapter 8. Acids and Bases
	August 11	Chapter 8. Acids and Bases
	August 12	**Exam 4: (Chapters 7-8)**
	August 13	**Final comprehensive exam (Chapters 1-8)**