The University of Texas at San Antonio – Department of Chemistry

CHE 1103-003 **General Chemistry I** **Fall 2010**
TR 5:30 – 6:45 PM SB 2.03.12 (ARIS Student Section Code: **D7F-E3-CD4**)

Instructor:	Dr. Banglin Chen
Office Hours and Location:	Friday 9:00 - 10:00 AM or by appointment (BSE 1.104C; 458-5461)
Email:	through Blackboard (https://bb.utsa.edu/) **only** (emails through the regular utsa.edu account will not be answered; Students are responsible for checking the course page periodically. Instructor will not take/return phone calls)
Required Text:	Chemistry, 10th edition by Raymond Chang (2010)
Required Ancillaries:	ARIS access (http://www.mharis.com/) Scantron 882 (for all exams)
Pre-requisites:	Passing grade on the Chemistry Placement Exam or a grade of "C" or better in CHE 1073 (Basic Chemistry), and completion of or concurrent enrollment in MAT 1073. Concurrent enrollment in CHE 1122 is strongly encouraged.

Course Goals: To establish the basis for mathematical reasoning and knowledge of the methods, intellectual approaches, and problem-solving skills in the natural sciences.

About the Course: This is the first term of a two-term course in General Chemistry. We will cover the first ten chapters of the required text (*see above*). There is a lot of emphasis on quantitative skills and critical thinking skills. Some of the topics we will cover include: mathematical treatment of data, the nature and structure of matter, energy transformations, chemical reactions in solution, the gaseous state, chemical bonds, the three-dimensional structure of compounds, etc. The course material provides an excellent way to fulfill the UTSA **Quality Enhancement Plan** (QEP).

The QEP is a course of action designed to enhance student learning and is a required component of the accreditation process conducted by the Southern Association of Colleges and Schools (SACS). The UTSA QEP, "Quantitative Scholarship: From Literacy to Mastery", provides you with the skills needed to evaluate and interpret data, understand risks and benefits, and make informed decisions in your personal and professional lives. The plan focuses on integrating qualitative reasoning and communication skills in existing courses across the undergraduate curriculum. You are encouraged to learn more about the QEP by visiting the website http://www.utsa.edu/qep.

What to expect: The lectures will be structured with students at the center of the learning process. Learning is accomplished by doing which translates into a considerable amount of work inside and outside the classroom. As a general rule, you should be spending a minimum of 8 – 9 hours outside class doing the assigned readings, homework and, practicing the end–of–chapter problems. If you find yourself spending much less time than 8 hours per week, it is highly probable that you are studying incorrectly for this class.

For each day we meet, you will have some sections from a chapter assigned as reading before coming to class and a pre-lecture quiz that must be submitted through Blackboard or worked during lecture. The pre-lecture quiz will have a deadline and a time limit (normally 30 minutes for online submissions). **In class, all of the work will be done relying on your preparation for the lecture**. Some activities will be conducted in groups. **Every activity you perform in lecture also counts towards your grade**. In addition to these activities, students will have weekly homework problem-sets that will be worked online through *ARIS*.

General Policies:

1. **Calculators cannot be shared during exams (even if a student has turned in his/her exam); each student must provide its own.**

2. The use of any electronic device (except for your calculator) during exams is strictly prohibited. That includes (but is not limited to) cell phones (not even the calculator on it!), laptops, iPods/CD players, iPhone's/PDA's, Blackberry, etc. **Cell phones must be switched off during exams**. **No headphones can be worn during exams. No bathroom breaks are allowed during term exams or the final exam.**
3. It is the student responsibility to be on time for exams. **No extra time** will be given to students that come in late.
4. Students will be required to present their UTSA ID (or any picture ID) when turning in their exams.
5. **No work for extra-credit will be assigned**. **No homework extensions will be granted.**
6. **No make-up exams are given regardless of the circumstance**. In the event of a personal emergency (including sickness, hospitalization, travel, work, etc.) that prevents the student to attend a scheduled test, this is the one that will be dropped.
7. Partial exams are not discussed during the lecture period nor returned to students. Students have ***one week*** from the date the Scantron 882 is returned to submit questions about their grade.
8. An SI leader has been assigned to this course. Participation in the SI sessions, while voluntary, is strongly encouraged.
9. **It is the student responsibility to drop the course by Wednesday, December 1, 2010 if he/she wishes to do so**. These dates should be verified against the official UTSA academic calendar. Failure to drop by the corresponding deadline will result in an automatic "F" in the course if the student stops attending and/or fails to complete all the course work.
10. Students in this course are expected to abide by the UTSA Student Code of Conduct (*URL*). Potential cases of Student Misconduct will be submitted to the UTSA Office of Student Judicial Affairs (*URL*). Roadrunner Honor Code: A roadrunner doesn't cheat or plagiaries, or tolerate those who do. Upon accepting admission to UTPA, a student immediately assumes a commitment to uphold the Honor Code. For additional information, please visit: http://www.utsa.edu/infoguide/appendices/b.html under the section 203.
11. Requests for an Incomplete grade will only be considered if the student meets the requirements set forth by UTSA and the CoS. Students must have completed at least 75% of the course work, have a passing grade by the time the request is made and, it must be due to a medical/personal emergency. The student will be requested to provide evidence that such an emergency exists. Requests based on "academics" (poor course performance) will be denied.
12. A portion of the course's content will be provided through Blackboard (https://bb.utsa.edu/). Be sure to check your browser in advance and make the proper arrangements to be able to access all the posted material. If you need help, you can also contact the Blackboard office (SB 4.03.04/458-7376). When available, the lecture outlines will be posted on Blackboard. These presentations are posted only as a guidance to study and are not intended to replace the book nor the lecture.

Grading Policies:

1. Four exams will be given during the semester. The best three exams will constitute 60% of the grade. Partial exams consist mainly, but not solely, of multiple choice questions to be answered using **Scantron sheets (882) provided by the student**. Questions will be based on the material covered in the lectures, homework exercises, or the suggested problems from your textbook. **Students should expect some questions that are considerably different from those assigned in the book or ARIS.**
2. A final comprehensive examination will be given on Saturday, December 11, 2010 from 7:30 – 10:00 AM. The place for this exam will be posted on Blackboard and it is the student responsibility to check for its location. **The date and time for the final exam is set by the Registrar and no rescheduling or make-ups will be allowed. Students MUST take the Final Exam to achieve a passing grade**. The final exam accounts for 30% of the grade.
3. **Standardized exams from the American Chemical Society are used as final exam. Students are encouraged to check the ACS study guide (can be purchased from the UTSA Chemistry Club).**

4. The weekly homework sets turned in through ARIS, pre-lecture quizzes, and activities worked on Odyssey or Spartan (see separate handout) will count towards 10% of the course grade.

Exam Schedule

The dates of the exams will not change but the instructor reserves the right to change the content covered.

Exam I	Tuesday, September 21	Chapters 1, 2 and 3
Exam II	Tuesday, October 12	Chapters 4 and 5
Exam III	Tuesday, November 9	Chapters 6, 7 and 8
Exam IV	Thursday, December 2	Chapters 9, and 10
Final Exam	**Saturday, December 11 (7:30 – 10:00 AM)**	**Comprehensive (check Blackboard for location) Mandatory to achieve a passing grade**

Homework: (10% of course grade)

1. Homework will be submitted online through ARIS (http://www.mharis.com/).
2. No extensions on homework will be granted.

Grading:

Partial exams:	best three exams out of four; 60%
Comprehensive Final:	30 %
Homework:	10%

Grading scale

Grades are assigned in this course based on performance and they are noncompetitive. This means that grades will not be adjusted based on the class average; every member of the class can get an A (or every member of the class can get an F) under this system. The grading scale shown below is guaranteed and final grades will be assigned as follows:

88.0 – 100.0%	A
75.0 – 87.9%	B
63.0 – 74.9%	C
53.0 – 62.9%	D
< 52.9%	F

TENTATIVE SCHEDULE

Week 1	Chemistry: The Study of Change (Chapter 1) Chemistry: The Study of Change (Chapter 1)
Week 2	Atoms, Molecules and Ions (Chapter 2) Atoms, Molecules and Ions (Chapter 2)
Week 3-4	Mass Relationships in Chemical Reactions (Chapter 3) Mass Relationships in Chemical Reactions (Chapter 3) Mass Relationships in Chemical Reactions (Chapter 3)
Week 4	**First Partial Exam (Grades will be posted one week after this date)**
Week 5-6	Reactions in Aqueous Solutions (Chapter 4) Reactions in Aqueous Solutions (Chapter 4) Reactions in Aqueous Solutions (Chapter 4)
Week 6-7	Gases (Chapter 5) Gases (Chapter 5)

Week 7	**Second Partial Exam (Grades will be posted one week after this date)**
Week 8	Thermochemistry (Chapter 6) Thermochemistry (Chapter 6)
Week 9	Quantum Theory and the Electronic Structures of Atoms (Chapter 7) Quantum Theory and the Electronic Structures of Atoms (Chapter 7)
Week 10	Periodic Relationships among the Elements (Chapter 8) Periodic Relationships among the Elements (Chapter 8)
Week 11	**Third Partial Exam (Grades will be posted one week after this date)**
Week 11-12	Chemical Bonding I: Basic Concepts (Chapter 9) Chemical Bonding I: Basic Concepts (Chapter 9) Chemical Bonding II: Molecular Geometry and Hybridization of Atomic Orbitals (Chapter 10)
Week 13	Chemical Bonding II: Molecular Geometry and Hybridization of Atomic Orbitals (Chapter 10) Chemical Bonding II: Molecular Geometry and Hybridization of Atomic Orbitals (Chapter 10)
Week 14	**Fourth Partial Exam (Grades will be posted one week after this date)**
December 11, 2010	**FINAL EXAM**

Disclaimer: This syllabus is provided for informational purposes regarding the anticipated course content and schedule of this course. It is based upon the most recent information available on the date of its issuance and it is as accurate and complete as possible. I reserve the right to make any changes I deem necessary and/or appropriate. I will make my best efforts to communicate any changes in the syllabus in a timely manner. Students are responsible for being aware of these changes.