CHEM 1412.002 Dr. Kristin Sherman Fall 2012
General Chemistry for the Honors College

SYLLABUS

Class Times: Tuesdays/Thursdays 11:00 a.m. – 12:20 p.m. (GAB 406)

Office: Marquis Hall 133
Phone: (940) 565-2248
E-Mail: Kristin.Sherman@unt.edu *It is preferred that you communicate with me through BlackBoard email. Replies will occur within 24 hours of receipt.*

OFFICE HOURS: Mondays & Wednesdays 2:00 p.m. - 4:00 p.m. (Other times may be available by appointment.)

PREREQUISITES: Admissions to Honors College and successful completion of Math 1100 (College Algebra or equivalent)

COURSE MATERIALS:

Textbook: Moore, J. W., Stanistski, C. L., Jurs, P. C. (2010) Principles of Chemistry: The Molecular Science. Belmont, CA: Brooks/Cole, Cengage Learning. ISBN-13: 978-0-495-39079-4 (DO NOT get the text with the bundled software!)

Moog, R. S., Farrell, J. J. (2011) Chemistry: A Guided Inquiry. Fifth Edition. Hoboken, NJ: John Wiley & Sons. ISBN-13: 978-0-470-64790-5 **We will use this book extensively in class.**

Solutions Manual: Student Solution Manual for Principles of Chemistry: The Molecular Science. ISBN-13: 978-0-495-39158-6

OTHER RESOURCES

Internet: The webpage for this course can be found on BlackBoard Vista at https://ecampus.unt.edu/webct/entryPage.dowebct. The syllabus, lecture notes, and other information will be made available as needed. You can keep track of your grades through BlackBoard. Homework is administered over the internet via Sapling Learning at http://saplinglearning.com.

Additional Help: Free tutoring is available through the **Chemistry Resource Center** (CRC) located in Chemistry 231. The CRC is open daily from 8:00 a.m. - 12:00 p.m. and from 1:00 p.m. - 5:00 pm. Chemistry graduate students who are teaching assistants can help you with problem solving.

Computer Access: The Computational Chemistry Instructional Laboratory (CCIL) located in Chemistry 232 provides computer access to all undergraduate and graduate students enrolled in UNT chemistry courses. Computers are to be used only for chemistry related work and instruction. The CCIL is open daily from 9:00 a.m. – 12:00 a.m. and from 1:00 p.m. – 4:00 p.m. CCIL is staffed by chemistry graduate students knowledgeable in the area of computational chemistry.

COURSE DESCRIPTION

Nature of chemistry, states of matter, periodic table, structure and bonding, stoichiometry, oxidation and reduction, solutions, compounds of representative elements, historical context, practical consequences

CHEM 1412.002 Dr. Kristin Sherman Fall 2012
General Chemistry for the Honors College

COURSE GOALS

(1) Upon successful completion of Chem I, students should be able to understand the importance of chemistry as the central science, apply chemistry concepts globally, understand the history of chemistry and the future of chemistry.
(2) Upon successful completion of Chem I, students should be able to understand the underlying concepts associated with the early and modern atomic theories and their applications to the periodic table and basic chemical reactions along with how elements combine to form different compounds.
(3) Upon successful completion of Chem I, students should be able to name elements and compounds and understand the connections between a balanced chemical equation and mass/molar quantitites.
(4) Upon successful completion of Chem I, students should be able to solve problems related to the concepts of density, heat, stoichiometric relationships, gas laws, and solutions.

EXPECTATIONS

Attendance and Participation

1. Regular attendance at lectures is required and expected. However, if you are unable to attend due to reasons beyond your control, you must inform me as soon as possible. If you are absent from two or more classes without an excuse, you may be dropped from the class. Not surprisingly, there is a strong correlation between regular attendance and excellent performance in this course.

2. The class will start on time and end on time. Missing class means you will miss required information and experiences. Credit for attendance requires coming on time ready to listen and take notes and staying until class is over.

Communication with Instructor

1. Use Blackboard Vista's e-mail for communication with Dr. Sherman. She will respond to student e-mails within 1 working day (24 hours). Working days do not include weekends or holidays. Your instructor will more than likely be more prompt in responding and would possibly respond on weekends and holidays.

2. Students are encouraged to develop communication networks with other class members via electronic communication vehicles such as Blackboard Vista's e-mail, bulletin board, and/or chat. The use of University-based electronic media is governed by University policy. Violation of University policy will result in loss of privileges and significant loss of points in this class due to denial of access to electronic media.

3. Students should consider the communication parameters with regard to assignment due dates. Please be aware that Dr. Sherman may not be able to respond to "last minute" requests for assignment clarification, and students may encounter unforeseen problems with their Internet provider, software, or hardware. If you have a question, please be sure to write "Question" in the subject box.

4. Check the course Web site daily for class information and updates.

ASSIGNMENTS

1. Assignments will be given, both in-class and as homework, typically related to the topic for discussion in class. The assignments are intended to improve your understanding of various chemistry concepts. Quizzes, which may be given online or in class, are intended to help you keep on top of material covered in class.

2. You are responsible for learning and understanding the material covered in the course. You are also responsible for reading the textbook and solving the end-of-chapter problems (many of the questions on exams will be similar to these) in your text. Questions are assigned directly from the textbook, some questions may also pertain to material in the text that was not discussed explicitly in class. See below for a list of problems by chapter. **Do NOT ignore the challenge problems: work through them to grasp many complex concepts in greater depth.**

Textbook Problem Set List:

Chapter Number	Problem Sets
1	#10, 14, 18, 20, 22, 24, 30, 38, 46, 54, 58, 60
Appendix A	# 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26
2	# 5, 8, 11, 58; and #21, 23, 31, 37, 39, 49, 53, 55, 67; and #41, 43, 45, 64, 69 a-d
3	#5, 6, 11, 13, 15, 17, 19, 21, 23, 25, 27, 61, 70, 71, 74; and #31, 33, 35, 41, 45, 49, 50, 55, 56
4A	#8-10, 1, 13, 15, 17, 19, 21, 62
4B	#6, 23, 25, 27, 29, 31, 32, 37, 38, 42, 44, 50, 52, 63
5	#7, 11, 13, 15, 17, 21, 23, 25, 27, 29, 32, 36, 39, 40; and #9, 42, 44, 46, 48, 50, 52, 56, 68, 72
6	#9, 11, 13, 14, 17, 19, 21, 23, 25, 27, 29, 31, 37, 45, 47; and #33, 35, 53, 55, 57, 59
7	#5, 7, 12, 14, 15, 19, 20, 21, 29, 30, 32, 34-36; and #37-39, 41, 42, 45, 48, 56, 58, 60, 61, 62, 64-66, 74, 78, 83; and #40, 50, 52, 54, 66, 67, 81
8	#1, 2, 13, 15, 17, 21, 22, 24, 32, 34, 41, 43, 45, 47, 50; and #52-53; and #38, 39
9	#8, 10, 12, 14, 16, 18, 20, 22-24, 28, 30, 32, 34; and #36, 38-40, 44, 45, 48, 49, 51
10	#8, 11, 15, 17, 19, 20, 22, 25, 27, 29, 31, 33, 49, 51, 53; and #34, 36, 40, 42, 44, 45, 48, 56, 57, 58
11	#10, 13, 15, 19, 21, 23, 25, 27, 28, 31, 35, 37, 40, 70, 75, 77; and #42, 44, 45, 47, 54, 55, 57, 59, 61

RECITATIONS:

This time will be used for primarily small group work, but can also include mini-lectures and quizzes. The assignments completed in recitation will be collected and graded.

PAPER:

Write a brief (3-5 pages, double spaced) about a topic in chemistry. Use at least three (3) references from peer-reviewed professional journals. Use MLA or APA style for writing, citing sources, and listing references. Details on the paper are forthcoming. This will count as bonus (30 pts.) toward your lowest test score.

EXAMS:

1. There will be three exams given during the course, plus a comprehensive final exam at the end of the course. Typically, these will be during the lecture period. Exams will occur on 9/27, 10/18, and 11/13. The comprehensive final exam will occur on the scheduled exam date during the scheduled exam time.

2. **No makeup exams will be given after the scheduled class time.** If you must miss an exam, you need to see me at least three (3) days prior to the exam to get permission to take the test prior to the scheduled exam date. If you miss the exam without seeing me first, you will receive an official grade of zero (0) for the exam. Missing 2 exams will result in an automatic F in the course. If you arrive late to an exam, you will not receive any more time beyond the ending time for class to work on the test.

3. Calculators are permitted for use in class and on exams. Calculators should be scientific NOT graphing. Business style or simple calculators will not have enough or the right functions. Calculators may never be shared during an exam. **Your cell phone may NOT be used in place of a calculator.**

GRADING

Item	*Points*
Unit Exams	3 x 100
Recitation Assignments (average of weekly scores)	100
Assignments & Quizzes (average of scores)	100
Final Exam	200
TOTAL POINTS	700

Grading in this course is completely objective. Grade assignment is strictly mathematical and is entirely based on the number of points you earned during the course. Moreover, in the interest of fairness to all students, I will not give additional extra credit assignments at the very end before the final grade is assigned. Please do not ask me to give you a special extra credit assignment if you are unhappy with your exam scores as the term progresses.

Final grades are assigned based upon the percentage of total points you have earned using the following scale:

90 – 100	A
80 – 89	B
70 – 79	C
60 – 69	D
less than 60	F

Study Groups
You are strongly encouraged to form study groups. Practicing the language of chemistry by "talking" chemistry with others is a very easy and painless way to help you understand the concepts covered in this course. Small group work will occur in recitation and in class, so you should be able to find "study buddies" easily.

Americans with Disabilities Act: The University of North Texas is on record as being committed to both the spirit and letter of federal equal opportunity legislation; reference Public Law 92-112 – The Rehabilitation Act of 1973 as amended. With the passage of new federal legislation entitled Americans With Disabilities Act (ADA), pursuant to section 504 of the Rehabilitation Act, there is renewed focus on providing this population with the same opportunities enjoyed by all citizens. For specific details contact the Office of Disability Accommodations (ODA, Room 318A, Union, 565-4323). *It is the responsibility of the student to inform the instructor of any disabling condition that will require modifications at the beginning of the course.*

UNT Policy on Scholastic Dishonesty: Students who violate university rules on scholastic dishonesty are subject to disciplinary penalties, including the possibility of failure in the course or dismissal from the University. Since such dishonesty harms the individual, all students, and the integrity of the University, policies on scholastic dishonesty will be strictly enforced.
The UNT code of Student Conduct and Discipline provides penalties for misconduct by students, including academic dishonesty. Academic dishonesty includes cheating and plagiarism. The term "cheating" includes, but is not limited to (1) use of any unauthorized assistance in taking quizzes, tests, or examinations; (2) dependence upon the aid of sources beyond those authorized by the instructor in writing papers, preparing reports, solving problems, or carrying out other assignments; and (3) the acquisition without permission, of tests or academic material belonging to a faculty or staff member of the university. The term "plagiarism" includes, but is not limited to, the use of the published or unpublished work of another person, by paraphrase or direct quotation, without full and clear acknowledgement. It also includes the unacknowledged use of materials prepared by another person or agency engaged in the selling of term papers or other academic materials. If a student engages in academic dishonesty related to this class, the student will receive a failing grade on the test or assignment and a failing grade in the course. In addition, the case will be referred to the Dean of Students for appropriate disciplinary action.

See: http://www.unt.edu/csrr/student_conduct/misconduct.html

This course syllabus is intended to be a guide and may be amended at any time.