#### TENTATIVE COURSE SYLLABUS

#### CHM 135.05

COURSE INSTRUCTOR: Dr. Mary Lynn DeShazo

COURSE TITLE: INORGANIC AND ENVIRONMENTAL CHEMISTRY LECTURE

**CREDIT HOURS: 3 semester hours** 

SEMESTER, YEAR: Fall Semester, 2007

LOCATION OF CLASS MEETING: CFS Building, Room 103

MEETING TIMES: Tuesdays and Thursdays - 9:30 a.m.- 10:50 a.m.

OFFICE LOCATIONS: CFS Building, Room 317C

OFFICE HOURS: Tuesdays 8:30 a.m. – 9:30 a.m.

Tuesdays 1:30 p.m. – 4:30 p.m. Thursdays 1:30 p.m. – 4:30 p.m. Other hours by appointment

OFFICE TELEPHONE NUMBERS: (936) 294-3750 (Chemistry Department)

E-MAIL ADDRESS: chm mld@shsu.edu

**COURSE DESCRIPTION:** "The elements and their compounds are considered from a non-technical standpoint with emphasis placed on more familiar materials. This course is for non-science majors. Credit 3" (Sam Houston State University, 2006-2008, Undergraduate Catalog, p. 162)

This course is for non-science majors. Elements and compounds will be considered from a non-technical standpoint with emphasis placed on more familiar materials. This course will examine substances that are used in daily lives and that affect people and their environment. The relationships of the scientific disciplines (astronomy, biochemistry, biophysics, botany, chemistry, geochemistry, geology, geophysics, physical chemistry, physics, and zoology) will be covered. Topics that will be covered in the course include: the metric system; density; surface tension; the properties of solids, liquids, and gases; symbols and names of the elements; nature and properties of the subatomic particles of atoms; differences between isotopes of the same element; similarities between elements in the same group in the periodic table; trends that occur in successive periods of the periodic table; composition of compounds represented by chemical formulas; changes that occur during chemical reactions; some environmentally important reactions; the types of radiation emitted from atomic nuclei; the way to write balanced nuclear equations; chemical properties of acids and bases; differences between a weak acid and a strong acid; differences between a weak base and a strong base; acid-base neutralization reactions; the pH scale; acid rain and its effect on the environment; water and sewage treatment; pollutants and their effects on human health and the environment; what materials are considered to be hazardous wastes; policies that control disposal of hazardous waste; and sources and regulation of radioactive waste.

There are no prerequisites for this course. The course is taught by lecture.

Chemistry 115 is the laboratory course for this course. This laboratory meets two hours per week for 1 semester hour of credit. It is taught by a teaching assistant. The coordinator for the Chemistry 115 laboratories is Ms. Janet Bius. Students scheduled for Monday and Wednesday labs will meet for the first time on Monday, September 10. Students scheduled for Tuesday and Thursday labs will meet for the first time on Tuesday, September 11. Ms. Bius will assign the grades for Chemistry 115.

The scheduled exams for the lecture course will be multiple choice. The make-up exams will be different from the scheduled exams. There will be definitions, formulas to write, compounds to name, equations to balance, equations to complete, specific questions to answer with short answers, some simple problems that are similar to those explained in class, and common names of compounds for the student to supply in the make-up exams. These will be related to the specific test that is being made up.

# **COURSE OBJECTIVES**

- 1. To provide the background in inorganic and environmental chemistry for students who are in the health-related career programs as nursing, dental hygiene, respiratory therapy, and radiological and nuclear technology.
- 2. To provide the basic knowledge of inorganic and environmental chemistry for students who compose the citizenry of the United States and other countries.
- 3. To furnish agriculture majors with an understanding of inorganic and environmental chemistry.
- 4. To give non-science major students information in inorganic and environmental chemistry that will assist them in understanding their environment and the possible effects of the environment on them.
- 5. To provide non-science major students information in inorganic and environmental chemistry that will enable them to read scientific articles in newspapers and magazines with understanding.
- 6. To fulfill part of the eight hours of laboratory science required of all graduates of Sam Houston State University.

**TEXTBOOK:** General, Organic, and Biological Chemistry, Structures of Life second edition, by Karen C. Timberlake

**REQUIRED MATERIALS FOR THE COURSE:** The student will be expected to bring a scantron (50 answers on each side) and a No. 2 pencil with a good eraser to take each scheduled test. The scantron can be used to take two tests. Students who take make-up tests will not bring a scantron to take the test. The test will be furnished the student. There will be space on the test for the student to answer the questions.

# **COURSE REQUIREMENTS**

**Exams:** There will be four exams. The regularly scheduled exams will be multiple choice.

The make-up exams will be different from the regularly scheduled exams. There will be definitions, formulas to write, compounds to name, equations to balance, equations to complete, specific questions to answer with short answers, some simple problems that are similar to those explained in class, and common names of compounds for the student to supply in the make-up exams. These will be related to the specific test that is being made up.

Each student who misses an assigned examination is expected to show appropriate cause for missing the examination before being permitted to take the make-up examination. Appropriate causes for missing an examination include personal illness; death in the student's immediate family; death of the student's roommate, girlfriend or boyfriend; hospitalization of the student; confinement of the student in a jail; summons of the student to be present in a court hearing; jury duty; and involvement of the student in an automobile accident immediately prior to the examination. The student may be able to show other appropriate cause for missing an examination. The student may take only one make-up test.

#### **Test Dates**

Test 1 To be announced

Test 2 To be announced

Test 3 To be announced

Final exam 8:00 a.m., Tuesday, December 11, 2007

(Tu, Th Class - 9:30 a.m. - 10:50 a.m.)

## **Tentative Make-up Test Date**

Thursday, December 6, 2007 2:00 p.m. – 3:00 p.m.

#### **Final Exams**

Tuesday, December 11, 2007 8:00 a.m. – 10:00 a.m.

All students in the class are expected to begin the final exam at 8:00 a.m.

### **Grading Plan:**

There will be four exams (Test 1 - 100 points, Test 2 - 100 points, Test 3 - 100 points, and the final exam - 100 points). The maximum total points for the four exams will be 400 points. Each student must take the final exam. If a student does not take the final exam and has not been permitted to take it at a later date, "0" will be averaged in for the final exam. If a student misses Test 1, Test 2 or Test 3 and does not make the test up on the date scheduled for make-up tests, "0" will be added in for the final total number of points.

The final grade for the course will be based on the total points which a student has earned; A - 360-400 points, B - 320-359 points, C - 280-319, D - 240-279, and F - 0-239.

A student's grade will not be penalized for three or fewer hours of absences (absences of two or less class periods on Tuesdays and Thursdays) when examinations have not been missed. A student's grade may be penalized for more than three hours of absences. An excused absence is not erased from the student's attendance record.

It is not anticipated that there will be projects for extra credit.

A student may receive an incomplete grade ("X") if "the student has not been able to complete the course because of emergency circumstances beyond the student's control. These circumstances usually prevail over other drop dates and opportunities to withdraw from the course. When the student is given the X mark, it is assumed that the student will be able to finish the course without further instruction or tutoring from the faculty member in charge of the course. Permission to award the mark of X is granted only by the chair of the academic department involved with the recommendation of the instructor. If the student meets the prescribed requirements of the course before the end of the next academic semester (Summer school, two sessions, is considered a unit equivalent to a long semester.) after the X is given, the student will receive the grade earned; otherwise, the **mark X will be automatically changed to the grade of F**." (Sam Houston State University, 2006-2008, Undergraduate Catalog, p. 72)

Grades in the course are posted online for the registrar's office. As soon as the grades are posted they are recorded on the student's transcript.

Wednesday, October 10, 2007, is the last day to drop the course without a grade of F or to resign from Sam Houston State University without receiving either a WP or WF. Friday, November 16, 2007, is the last day to resign from Sam Houston State University.

"A student receiving a grade believed to be in error after the grade is reported should request a review of this grade upon receipt. The review of the grade should be made with the instructor involved." (Sam Houston State University, 2006-2008, Undergraduate Catalog, p. 74. My policy is to follow the above directive.)

#### **Attendance:**

Regular and punctual class attendance is expected of each student enrolled in Chemistry 135. The class roll will be checked each day. A written record of each student's attendance will be maintained. If a student is tardy to class, it is the student's responsibility to inform the instructor that he/she was tardy immediately after the class has been dismissed so that the absence can be removed from the student's record.

Students are expected not to be disruptive when they are tardy to class. Also, when it is necessary for a student to leave class early, the student is expected not to disturb other students. Students should not regularly be tardy to class. Neither should students regularly leave class early.

It is the responsibility of each student who misses lecture material to obtain the class notes over the lecture material from a student who was present during the lecture presentation.

It is the responsibility of each student who misses a class to prepare a statement as to why the class was missed, the date of the missed class, and his/her name. This written information should be presented to the instructor who will place it in the class file. This statement should be presented to the instructor on the day the student returns to class after an absence.

Each student who misses an assigned examination is expected to show appropriate cause for missing the examination before being permitted to take the make-up examination. Appropriate causes for missing an examination include personal illness; death in the student's immediate family; death of the student's roommate, girl-friend or boyfriend; hospitalization of the student; confinement of the student in a jail; summons of the student to be present in a court hearing; jury duty; and involvement of the student in an automobile accident immediately prior to the examination. The student may be able to show other appropriate cause for missing an examination.

### **Academic Honesty:**

"The Faculty Handbook states that the University expects all students to engage in all academic pursuits in a manner that is above reproach. Students are expected to maintain complete honesty and integrity in the academic experiences both in and out of the classroom. Any student found guilty of dishonesty in any phase of academic work will be subject to disciplinary action. Furthermore, the University and its official representatives may initiate disciplinary proceedings against a student accused of any form of academic dishonesty including, but not limited to, cheating on an examination or other academic work which is to be submitted, plagiarism, collusion and the abuse of resource materials."

Students are expected to follow the code of academic honesty outlined in the publication, *Student Guidelines*, 2007 -2008, of the Division of Student Services.

### **Proper Classroom Demeanor/Rules of Conduct:**

Students will refrain from behavior in the classroom that intentionally or unintentionally disrupts the learning process and, thus, impedes the mission of the University. Please turn off or mute your cellular phone and/or pager before class begins. Students are requested not to eat and drink in class, use tobacco products, make offensive remarks, read newspapers, sleep, talk among each other at inappropriate times, wear inappropriate clothing, or engage in any other form of distraction. Inappropriate behavior in the classroom shall result in a, minimally, directive to leave class or being reported to the Dean of Students for disciplinary action in accordance with university policy.

Students will turn off their cellular phones and laptops while taking exams. In addition, their cellular phones and laptops must not be visible while taking exams.

The only exceptions to turning off or muting cellular phones will be students who have jobs that require them to be on call at all times (EMS personnel, some law enforcement personnel, etc.). Students who will possibly receive telephone calls related to their jobs should inform the instructor about this situation. Also, occasionally a student will have a sick child that will require the student to be notified of the child's condition. Students who have this situation should inform the instructor about it before class starts.

Students should respect the rights of all students to hear the lecture by not talking to other students during the lecture.

### OTHER ADMINISTRATIVE MATTERS

#### **Americans with Disabilities Act:**

Sam Houston State University adheres to all applicable federal, state, and local laws, regulations, and guidelines with respect to providing reasonable accommodations for students with disabilities. All disclosures of disabilities will be kept strictly confidential. NOTE: No accommodation can be made until the student registers with the Counseling Center. The student is encouraged to discuss with the faculty member about how the faculty member can best help the student.

The policy for services to Sam Houston students with disabilities is found in *Service and Documentation Guidelines Brochure*. Students seeking academic accommodations for disabilities are expected to follow the outlined documentation requirements and procedures.

"According to University policy requests for accommodations must be initiated by the student. A student seeking accommodations should go to the Counseling Center and Services for Students with Disabilities (SSD) in a timely manner. Every semester that the student desires accommodations, it is the student's responsibility to complete a Classroom Accommodation Request Form at the SSD office and follow the stated procedure in notifying faculty. Accommodations for disabled students are decided based upon documentation and need on a case-by-case basis by the Counseling Center."

# MISCELLANEOUS (AS NEEDED OR DESIRED)

#### **Visitors In The Classroom:**

"Unannounced visitors to class must present a current, official SHSU identification card to be permitted in the classroom. They must not present a disruption to the class by their attendance. If the visitor is not a registered student, it is at the instructor's discretion whether or not the visitor will be allowed to remain in the classroom." (Faculty Handbook)

### Official Majors

Students only become Official Majors when they file a degree plan with the appropriate departmental office. Students are often eligible for departmental scholarships when they are official majors in that department.

# Religious Holidays:

Wednesday, September 5, 2007, is the deadline for the student to notify the faculty of the student's intent to be absent on Religious Holy Days. University policy states that a student who is absent from class for the observance of a religious holy day is to take an examination or complete an assignment scheduled for that day must do so within a reasonable time after the absence.

# TENTATIVE COURSE OUTLINE

Week of	Chapter	Subject
Aug. 15 - 17		Registration
Aug. 20 - 24		Class Attendance Policy,
	1	Measurements
Aug. 27 – 31	1	Measurements
Sept. 3	Labor Day	
Sept. 4 – 7	2	Atoms and Elements
Sept. 10 – 14	2	Atoms and Elements
	4	Compounds and Their Bonds
Sept. 17 – 21	4	Compounds and Their Bonds
Sept. 24 – 28	5	Chemical Reactions and
		Quantities
Oct. $1 - 5$	5	Chemical Reactions and
		Quantities
Oct. 8 – 12	6	Energy and Matter
Oct. 15– 19	7	Gases
Oct. 22 – 26	8	Solutions
Oct. 29 – Nov. 2	8	Solutions
	9	Chemical Equilibrium
Nov. 5 – 9	10	Acids and Bases
Nov. 12 – 16	10	Acids and Bases
Nov. 19 – 20	3	Nuclear Chemistry
Nov. 21 – 23	Thanksgiving Holidays	
Nov. 26 – 30	3	Nuclear Chemistry
Dec. 3 - 6	3	Nuclear Chemistry
Dec. 7	Final Exam Study Day	
Dec. 11	Final Exam	

