### TENTATIVE COURSE SYLLABUS

### CHM 136.01

COURSE INSTRUCTOR: Dr. Mary Lynn DeShazo

COURSE TITLE: INTRODUCTORY ORGANIC AND BIOCHEMISTRY LECTURE

**CREDIT HOURS: 3 semester hours** 

SEMESTER, YEAR: Second Summer Session, 2008

LOCATION OF CLASS MEETING: Chemistry and Forensic Science Building, Room 103

MEETING TIMES: Mondays, Tuesdays, Wednesdays, Thursdays, and

Fridays - 8:00 a.m.-9:50 a.m.

OFFICE LOCATIONS: Chemistry and Forensic Science Building, Room 317C

OFFICE HOURS: Mondays from 10:00 a.m. – 11:00 a.m.

Tuesdays from 10:00 a.m. – 11:00 a.m. Wednesdays from 1:00 p.m. – 2:00 p.m. Thursdays from 10:00 a.m. – 11:00 a.m.

Other hours by appointment

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

E-MAIL ADDRESS: chm mld@shsu.edu

**COURSE DESCRIPTION:** "An orientation in organic chemistry is given in the first part of the course to allow treatment of the chemistry of nutrition and other biochemical aspects given in the last part. This course is for non-science majors. Prerequisite: CHM 135, 138, or completion of a high school chemistry course. Credit 3." (Sam Houston State University, 2006-2008, Undergraduate Catalog, p. 162)

This course will explain why carbon forms so many compounds compared with other elements. The following topics will be covered in the course: the different classes of hydrocarbons; structural isomerism and cis-trans isomerism; structure of benzene; nomenclature of simple organic compounds; different classes of organic compounds based on functional groups; classification of naturally occurring carbohydrates; molecular structure of mono-, di-, and polysaccharides; properties of saturated and unsaturated fatty acids; proteins and amino acids; nucleic acids and nucleotides; steroids; enzymes; similarities and differences between natural and synthetic polymers; problems associated with disposal of plastics; digestion of carbohydrates, fats, and proteins; metabolism of carbohydrates, fats, and proteins; dietary needs for carbohydrates, fats, and proteins; dietary needs of vitamins and minerals; nutritional disorders and diseases; value and potential danger of food additives; routes by which toxic substances enter the body; the way metabolic poisons cause harm; poisoning with toxic metals and with neurotoxins; how chemicals are detoxified in the liver; and the risk associated with exposure to toxic chemicals.

The course is taught by lecture.

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 complete, specific questions to answer with short answers, structural formulas to draw 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.

Chemistry 116 is the laboratory course for Chemistry 136. This laboratory meets either on Mondays and Wednesdays from 1:00 p.m. -2:50 p.m. or on Tuesdays and Thursdays from 1:00 p.m. -2:50 p.m. It is taught by a teaching assistant. The coordinator for the Chemistry 116 laboratories is Dr. Donovan Haines. Students scheduled for Monday and Wednesday labs will meet for the first time on Wednesday, July 9. Students scheduled for Tuesday and Thursday labs will meet for the first time on Thursday, July 10. Dr. Haines will assign the grades for Chemistry 116.

# **COURSE OBJECTIVES**

- 1. Learning to apply course material (improving thinking, problem solving, and decision making).
- 2. Developing skills in the expression of ideas orally and in writing.
- 3. Developing a clearer understanding of personal values (developing a commitment to personal values).
- 4. Acquiring skills in working with others individually or as a member of a team.
- 5. Learning how to find and use resources for answering questions and solving problems.

**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 five 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 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	July 11, 2008
Test 2	July 17, 2008
Test 3	July 24, 2008
Test 4	July 31, 2008
Final exam	8:00 a.m. – 9:50 a.m., Thursday, August 7, 2008

# **Tentative Make-up Test Date**

Monday, August 4, 2008

1:00 p.m. - 2:00 p.m.

### Final Exams

Thursday, August 7, 2008

8:00 a.m. - 9:50 a.m.

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

# **Grading Plan:**

There will be five exams (Test 1 - 100 points, Test 2 - 100 points, Test 3 - 100 points, Test 4 - 100 points, and the final exam - 100 points). The lowest test grade on Tests 1, 2, 3, and 4 will be dropped.

The student must take the final exam. If the student does not take the final exam and has not been permitted to take it at a later date, "0" will be added in for the final exam.

The maximum total points for three exams and the final exam will be 400 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 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.... 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, August 6, 2008, is the last day to resign receiving a mark of "W" by 5:00 p.m. It is the last day to drop a course without the grade of "F", before taking any scheduled exams or the last business day, whichever comes first (must be processed by 5:00 p.m.).

"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. Please refer to *Student Guidelines*." (Sam Houston State University, 2006-2008, Undergraduate Catalog, p. 74.)

# Attendance:

Regular and punctual class attendance is expected of each student enrolled in Chemistry 136. 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 from someone 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 the student's name. This written information should be presented to the instructor on the day the student returns to class after an absence. This statement will be placed in the class file for consideration when the grade in the course is assigned. Excused absences are not erased from the student's attendance record.

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.

# **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 online 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 prohibited from eating and drinking in class, using tobacco products, making offensive remarks, reading newspapers, sleeping, talking among each other at inappropriate times, wearing inappropriate clothing, or engaging in any other form of distraction. Inappropriate behavior in the classroom shall result in, minimally, a directive to leave class or being reported to the Dean of Students for disciplinary action in accordance with university policy."

Students are expected to turn off their telephones while in class. The only exceptions should 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 have telephone calls related to their jobs should inform the instructor about this situation.

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 the online publication, Student Guidelines, 2007 - 2008, of the Division of Student Services. Students seeking academic accommodations for disabilities are expected to follow the guidelines and procedures outlined in this publication.

"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)

# TENTATIVE COURSE OUTLINE

Week of	Chapter	Subject
July 7	<del>-</del>	Registration
July 8 - 11		Class Attendance Policy,
July 6 - 11	11	Organic Compounds: Hydrocarbons,
	11	Alkanes, Cycloalkanes
	12	Unsaturated Hydrocarbons: Alkenes
	12	Alkynes; Aromatic Hydrocarbons
July 14 - 18	13	Alcohols, Phenols, and Ethers
	14	Aldehydes and Ketones
	16	Carboxylic Acids and Esters
	18	Amines and Amides
July 21 - 24	15	Carbohydrates
,	19	Amino Acids and Proteins
July 28 – 31	19	Amino Acids and Proteins
,	17	Lipids
	21	Nucleic Acids
	20	Enzymes
Aug. 4 – 7	20	Vitamins and Minerals
	22	Carbohydrate Metabolism
	24	Lipid and Amino Acid Metabolism
Aug. 7	Final Exam	