



Syllabus
Chem 2321-001: ORGANIC CHEMISTRY I
Summer 2016

Instructor

Subhrangsu S. Mandal, PhD
Associate Professor
Department of Chemistry and Biochemistry, The University of Texas at Arlington

Office: Chemistry and Physics Building (CPB349)
Tel No: 817-272-3804
Email Address: smandal@uta.edu
Office Hours: Monday and Wednesday 7:50-8:50 PM and by appointment
Section Info: Chem 2321-001

Time and Place of Class Meetings: CRB114, Monday and Wednesday, 6:00-7:50 PM

TEXT BOOK:

Organic Chemistry, Second Edition by David Klein (Wiley Publishers)
Sapling Learning Account (see section regarding Homework)

Strongly Suggested Materials:

Organic Chemistry, Study Guide and Solutions Manual, Second Edition, David Klein.
A Molecular Model set.

Course Description:

Organic Chemistry I explores the structure of organic materials, the physical properties defined by these structures, and the manner in which we can manipulate materials by altering their structure. This course will focus specifically on the structure, properties, bonding, stereochemistry, reactions, and reaction mechanisms of carbon based molecules (see Course Sequence for more details).

Learning Goals:

CHEM-2321 is intended for students majoring in Chemistry, Biochemistry, Biological Chemistry, or Biology; or who plan to enter an Engineering (bioengineering, electrical, materials, or nanoscience), Health (allied health, dentistry, epidemiology, medicine, pharmacy or veterinarian), Law (patent), or other Scientific (earth science, environmental, materials, physics, or psychology) Profession. Earning a C or better in this course is a prerequisite for CHEM2322 Organic Chemistry II.

How to do well in this class?

- a) Class Preparation: Work ahead. Read the chapter prior to the class so that you are prepared to learn well and clear your ideas and concepts

- b) Attendance: Attendance is necessary for success in this course. Take detailed notes on every class.
- c) It is recommended that you dedicate three hours outside of class for every one hour inside our classroom for this course. Working through problems in the book will help you understand better.

Grading Policy and Examination:

Exam I (June 22, Wednesday)	20%
Exam II (July 13, Wednesday)	20%
Exam III (August 03, Wednesday)	20%
Homework and quiz	10%
Final exam (August 16, Tuesday, Comprehensive)	30%

Grading Scale:

<u>Grade</u>	<u>Score (%)</u>
A	≥ 85 %
B	≥ 75 %
C	≥ 65 %
D	≥ 55 %
F	< 55 %

Important Dates:

June 06:	First day of classes
June 23:	Census Date
July 21:	Last date to drop a course
August 11:	Last day of classes
August 16:	Final examination 6:00 - 8:00 PM

***Note:** The topics will be completed in the sequence shown, and the exams will concern the topics that are listed prior to the exam. However, no accurate day-to-day schedule can be presented due to uncertainties in the time required to present some of the topics, depending on the material included and the time required for classroom discussion. *“As the instructor for this course, I reserve the right to adjust this schedule in any way that serves the educational needs of the students enrolled in this course. –Subhrangsu S Mandal.”*

COURSE SCHEDULE

TOPICS TO BE COVERED (by Chapter):

- 1 A Review of General Chemistry (Review)
- 2 Molecular Representations (Review)
- 3 Acid and Bases
- 4 Alkanes and Cycloalkanes
- 5 Stereoisomerism

Exam-1 on CHAPTERS 1-5

- 6 Chemical Reactivity and Mechanisms
- 7 Substitution Reactions
- 8 Alkenes: Structure and Preparation via Elimination Reactions
- 9 Addition Reactions of Alkenes

Exam- 2 on CHAPTERS 6-9

- 10 Alkynes
- 11 Radical Reactions
- 12 Synthesis

Exam- 3 on CHAPTERS 10-12

- 13 Alcohols and Phenols
- 14 Ethers and Epoxides; Thiols and Sulfides

FINAL EXAM on CHAPTERS 1-14

NOTES:

Expectations for Out-of-Class Study: Beyond the time required to attend each class meeting, students enrolled in this course should expect to spend at least an additional 3-4 hours per each one hr lecture and class, for the course-related activities, including reading required materials, completing assignments, preparing for exams, etc.

Make-up Exams Policy: There will not be any make-up examinations.

Drop Policy: Students may drop or swap (adding and dropping a class concurrently) classes through self-service in MyMav from the beginning of the registration period through the late registration period. After the late registration period, students must see their academic advisor to drop a class or withdraw. Undeclared students must see an advisor in the University Advising Center. Drops can continue through a point two-thirds of the way through the term or session. It is the student's responsibility to officially withdraw if they do not plan to attend after registering.

Students will not be automatically dropped for non-attendance. Repayment of certain types of financial aid administered through the University may be required as the result of dropping

classes or withdrawing. For more information, contact the Office of Financial Aid and Scholarships (<http://www.uta.edu/ses/fao>).

Americans with Disabilities Act: The University of Texas at Arlington is on record as being committed to both the spirit and letter of all federal equal opportunity legislation, including the *Americans with Disabilities Act (ADA)*. All instructors at UT Arlington are required by law to provide "reasonable accommodations" to students with disabilities, so as not to discriminate on the basis of that disability. Any student requiring an accommodation for this course must provide the instructor with official documentation in the form of a letter certified by the staff in the Office for Students with Disabilities, University Hall 102. Only those students who have officially documented a need for an accommodation will have their request honored. Information regarding diagnostic criteria and policies for obtaining disability-based academic accommodations can be found at www.uta.edu/disability or by calling the Office for Students with Disabilities at (817) 272-3364.

Academic Integrity: All students enrolled in this course are expected to adhere to the UT Arlington Honor Code:

I pledge, on my honor, to uphold UT Arlington's tradition of academic integrity, a tradition that values hard work and honest effort in the pursuit of academic excellence.

I promise that I will submit only work that I personally create or contribute to group collaborations, and I will appropriately reference any work from other sources. I will follow the highest standards of integrity and uphold the spirit of the Honor Code.

Instructors may employ the Honor Code as they see fit in their courses, including (but not limited to) having students acknowledge the honor code as part of an examination or requiring students to incorporate the honor code into any work submitted. Per UT System *Regents' Rule* 50101, §2.2, suspected violations of university's standards for academic integrity (including the Honor Code) will be referred to the Office of Student Conduct. Violators will be disciplined in accordance with University policy, which may result in the student's suspension or expulsion from the University.

Student Support Services: UT Arlington provides a variety of resources and programs designed to help students develop academic skills, deal with personal situations, and better understand concepts and information related to their courses. Resources include tutoring, major-based learning centers, developmental education, advising and mentoring, personal counseling, and federally funded programs. For individualized referrals, students may visit the reception desk at University College (Ransom Hall), call the Maverick Resource Hotline at 817-272-6107, send a message to resources@uta.edu, or view the information at www.uta.edu/resources.

Electronic Communication: UT Arlington has adopted MavMail as its official means to communicate with students about important deadlines and events, as well as to transact university-related business regarding financial aid, tuition, grades, graduation, etc. All students are assigned a MavMail account and are responsible for checking the inbox regularly. There is no additional charge to students for using this account, which remains active even after graduation. Information about activating and using MavMail is available at <http://www.uta.edu/oit/cs/email/mavmail.php>.

Student Feedback Survey: At the end of each term, students enrolled in classes categorized as lecture, seminar, or laboratory shall be directed to complete a Student Feedback Survey (SFS). Instructions on how to access the SFS for this course will be sent directly to each student

through MavMail approximately 10 days before the end of the term. Each student's feedback enters the SFS database anonymously and is aggregated with that of other students enrolled in the course. UT Arlington's effort to solicit, gather, tabulate, and publish student feedback is required by state law; students are strongly urged to participate. For more information, visit <http://www.uta.edu/sfs>.

Final Review Week: A period of five class days prior to the first day of final examinations in the long sessions shall be designated as Final Review Week. The purpose of this week is to allow students sufficient time to prepare for final examinations. During this week, there shall be no scheduled activities such as required field trips or performances; and no instructor shall assign any themes, research problems or exercises of similar scope that have a completion date during or following this week *unless specified in the class syllabus*. During Final Review Week, an instructor shall not give any examinations constituting 10% or more of the final grade, except makeup tests and laboratory examinations. In addition, no instructor shall give any portion of the final examination during Final Review Week. During this week, classes are held as scheduled. In addition, instructors are not required to limit content to topics that have been previously covered; they may introduce new concepts as appropriate.