



## **CHEM 202: Organic Chemistry II Tutorial SYLLABUS: SPRING 2015**

CHEM 202 meets:

- Thursdays 1:00 PM-1:50 PM, Location: BA 340
- Fridays 1:00 PM-1:50 PM, Location: AG/IT 255

**Instructor:** Allan D. Headley  
**Office:** Science Building, 337  
**Office Hours:** Tuesdays, 1:00 p.m. to 2:00 p.m.; and Wednesdays 1:00 p.m. to 2:00 p.m.  
**Telephone:** (903) 468 – 8106  
**E-Mail:** [allan.headley@tamuc.edu](mailto:allan.headley@tamuc.edu)

**Instructor:** Mrs. Qianying Zhang  
**Office:** Science 307A  
**Office Hours:** TR 10:00-11:00 am  
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**E-mail:** qianying.zhang@tamuc.edu

### **COURSE INFORMATION**

#### **Materials – Textbooks, Readings, Supplementary Readings**

**Textbook(s) Required:** No Textbook is required. You may bring your 212 Textbook for reference.

**Course Description/ Objectives:** This is 1 credit hour tutorial course for the second part of a two- course sequence of Organic Chemistry. The intent of the course is working in small groups to effectively solve problems given for the day. You will be required to work in groups of 3-4 students. Groups of less than 3 students or more than 4 students will not be allowed. The instructor may change the groups periodically. You are expected to work together as a team to answer the questions posed in the lesson. Thus, you are highly encouraged and expected to discuss, with your group members, the lesson and the answers to the questions posed. The instructor for the course is not present to answer the questions for you. Rather, the instructor is present to guide you in your learning efforts. This has proven to be an effective way to learn Chemistry; we will be using methods similar to a National Science Foundation sponsored program called POGIL (Process Oriented Guided Inquiry Learning, [www.pogil.org](http://www.pogil.org) ).

#### **Student Learning Outcomes**

1. Students completing the course will be better equipped to work in a team environment to solve scientific problems. The teamwork in this course will improve:
  - A. Communication skills and leadership skills
  - B. Problem solving abilities
  - C. Problem solving strategies.
2. Students completing the course will better understand the course content of Chemistry 212, which should significantly improve student performance in Chemistry 212.

## COURSE REQUIREMENTS

Prerequisite: Chem 211, Chem 1412 with grade of “C” or better or consent of the instructor. Corequisite: Chem 212.

## GRADING

Your course grade will be based on your attendance (80%) and participation in class (20%).

There are 14 class days in the semester. Assuming full participation on your part, grades will be assigned as follows:

- A: Attend 13 of the 14 class periods and fully participate in solving assigned problems.
- B: Attend 11 of the 14 class periods and fully participate in solving assigned problems.
- C: Attend 10 of the 14 class periods and fully participate in solving assigned problems.
- D: Attend 8 of the 14 class periods and fully participate in solving assigned problems.
- F: Attend 7 or fewer of the 14 class periods.

There will be absolutely no make-ups for missed class attendance. If you fail to sign the attendance sheet for a class period, you will be counted as absent even if you were in class that day; the sign-in sheet is the official record of your attendance in class. If you miss class on Thursday, you can attend Friday's class if you provide the instructor with prior notification. If you miss Friday's class time, it will not be possible to make up the absence unless you know ahead of time that you will be absent in which case you can attend the Thursday class of that same week if you provide the instructor with prior notification.

Your attendance grade is not based on you simply showing up to class. To receive attendance for the class period you must meet the following requirements:

1. You cannot be more than 5 minutes late to class or leave class early without consent of the instructor. Missing more than 5 minutes of class time will equate to a non-attendance for that day.
2. You must participate in the class or group discussion. Non-participation will equate to a non-attendance for that day.
3. Disorderly conduct will equate to a non-attendance for that day.
4. Your group must work diligently to complete the lesson for that day. If your group does not work diligently to complete the lesson you will receive a non-attendance for that day.
5. You may not work on material from another class. If you do, you will receive a non-attendance for that day.

See the following website for information about the deadline for withdrawing from the course:  
<http://web.tamuc.edu/admissions/registrar/academicCalendars/>. Incomplete grades may be given only if the student has a current average  $\geq 70\%$  and is precluded from completion of the course by a documented illness or family crisis.

## COMMUNICATION AND SUPPORT

### Interaction with Instructor Statement

My form of communication with the class will be through email and announcement in the class itself. Any changes to the syllabus or other important information related to the course will be communicated to the students through the university official email addresses available to me through myleo. It is the students' responsibility to check your Email regularly.

## COURSE AND UNIVERSITY PROCEDURES/POLICIES

**CLASS ATTENDANCE POLICY:** All students are expected to attend class on a regular basis and attendance will be recorded. The Department of Chemistry adheres to the attendance policy set by the University as stated in the most current Undergraduate Catalog. Being late by more than 5 minutes is equivalent to missing a class period. Excessive absence is defined as missing more than 10% of the class periods without excusable reasons. Excessive absence will be reported to the Dean of the College and the Dean of Students. In addition, according to the TAMU-Commerce Procedure A13.02., good class attendance will be necessary in order to pass the course. If you have excessive absences, you may be dropped from the course.

**CLASSROOM BEHAVIOR:** Disorderly conduct which interferes with the normal classroom atmosphere will not be tolerated. The classroom instructor is the judge of such behavior and may instruct a disorderly student to leave the room with an unexcused absence or in more serious situations a student may be removed from the class with a failing grade.

### Academic Honesty

Students who violate University rules on scholastic dishonesty are subject to disciplinary penalties, including (but not limited to) receiving a failing grade on the assignment, the possibility of failure in the course and dismissal from the University. Since dishonesty harms the individual, all students, and the integrity of the University, policies on scholastic dishonesty will be strictly enforced. In **ALL** instances, incidents of academic dishonesty will be reported to the Department Head. Please be aware that academic dishonesty includes (but is not limited to) cheating, plagiarism, and collusion.

*Cheating* is defined as:

- Copying another's test or assignment
- Communication with another during an exam or assignment (i.e. written, oral or otherwise)
- Giving or seeking aid from another when not permitted by the instructor
- Possessing or using unauthorized materials during the test
- Buying, using, stealing, transporting, or soliciting a test, draft of a test, or answer key

*Plagiarism* is defined as:

- Using someone else's work in your assignment without appropriate acknowledgement
- Making slight variations in the language and then failing to give credit to the source

*Collusion* is defined as:

- Collaborating with another, without authorization, when preparing an assignment  
If you have any questions regarding academic dishonesty, ask. Otherwise, I will assume that you have full knowledge of the academic dishonesty policy and agree to the conditions as set forth in this syllabus.

Students should also reference the following link [Criminal Justice web site](#) for more information.

### University Specific Procedures

#### ADA Statement

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, please contact:

**Office of Student Disability Resources and Services**

Texas A&amp;M University-Commerce

Gee Library- Room 132

Phone (903) 886-5150 or (903) 886-5835

Fax (903) 468-8148

[StudentDisabilityServices@tamuc.edu](mailto:StudentDisabilityServices@tamuc.edu)**Student Conduct**

All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. (See *Code of Student Conduct from Student Guide Handbook*).

**NONDISCRIMINATION STATEMENT**

Texas A&M University-Commerce will comply in the classroom, and in online courses, with all federal and state laws prohibiting discrimination and related retaliation on the basis of race, color, religion, sex, national origin, disability, age, genetic information or veteran status. Further, an environment free from discrimination on the basis of sexual orientation, gender identity, or gender expression will be maintained.

**TENTATIVE COURSE OUTLINE / CALENDAR**

Date	TOPICS TO BE COVERED	READING ASSIGNMENTS
Wed, 1/21	Introductions, conjugated systems	667 - 677
Fri, 1/23	Allylic radicals and reactions	678 - 683
Mon, 1/26	Diels-Alder reactions	684 - 695
Wed, 1/28	Ultraviolet spectra	696 - 705
Fri, 1/30	Aromatic compounds	713 - 725
Mon, 2/2	Aromatic compounds	726 - 739
Wed, 2/4	Benzene: nomenclature and properties	740 - 745
Fri, 2/6	Aromatic compounds: reactions	756 - 774
Mon, 2/9	Aromatic compounds: Friedel Crafts reactions	774 - 784
Wed, 2/11	Aromatic reactions, nucleophilic substitution	784 - 796
Fri, 2/13	Aromatic compounds: reduction, other reactions	796 – 805
Mon, 2/16	<b>Exam #1 (For CHEM 212)</b>	
Wed, 2/18	Carbonyl compounds: structure, nomenclature	816 - 829
Fri, 2/20	Synthesis of carbonyl compounds	829 - 839
Mon, 2/23	Reactions of carbonyl compounds	839 – 849
Wed, 2/25	Reactions of carbonyl compounds	849 - 865
Fri, 2/127	Amines: properties, nomenclature	879 - 895
Mon, 3/2	Amines: reactions	895 - 907
Wed, 3/4	Amines: reactions	907 - 915
Fri, 3/6	Synthesis of amines	918 - 926
Mon, 3/9	<b>Midterm Exam #2 (For CHEM 212)</b>	
Wed, 3/11	Carboxylic acids: nomenclature, properties	939 - 956
Fri, 3/13	Carboxylic acids, synthesis, reactions	956 - 967
Mon, 3/16	Spring break	Study
Wed, 3/18	Spring break	Study
Fri, 3/20	Spring break	Study

Mon, 3/23	Carboxylic acids, reactions	967 - 971
Wed, 3/25	Carboxylic acid derivatives, types and nomenclature	981 - 997
Fri, 3/27	Carboxylic acid derivatives, reactions	997 - 1006
Mon, 3/30	Carboxylic acid derivatives, reactions	1006 - 1013
Wed, 4/1	Carboxylic acid derivatives, reactions	1013 - 1027
Fri, 4/3	Carboxylic acid derivatives, reactions	1027 - 1034
Mon, 4/6	<b>Exam #3 (For CHEM 212)</b>	
Wed, 4/8	Condensation reactions	1045 - 1060
Fri, 4/10	Aldol and Claisen condensations	1060 - 1070
Mon, 4/13	Aldol and Claisen condensations	1070 - 1082
Wed, 4/15	Ester synthesis	1082 - 1091
Fri, 4/17	Carbohydrates	1101 - 1112
Mon, 4/20	Carbohydrates	1112 - 1121
Wed, 4/22	Carbohydrates: reactions	1121 - 1130
Fri, 4/24	Carbohydrates: reactions	1131 - 1140
Mon, 4/27	<b>Exam #4 (For CHEM 212)</b>	
Wed, 4/29	Nucleic Acids	1140 - 1148
Fri, 5/1	Amino acids: properties and synthesis	1155 - 1169
Mon, 5/4	Amino acids and peptides	1169 - 1190
Wed, 5/6	Proteins and lipids	1169 - 1217
Fri, 5/8	Polymers	1222 - 1238
Wed, 5/13	<b>Final Exam (For CHEM 212)</b>	