CHEM2410 Organic Chemistry I

The University of Toledo

Department of Chemistry and Biochemistry

College of Natural Sciences and Mathematics

CRN: 11107 or 12803

Instructor: Dr. Wei Li

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Class Location: Wolfe Hall 1205

Class Day/Time: MWF 2:30-3:25

W 1:00-1:55 (H)

Office Hours: TR 2:00 - 3:30 P.M. and by appointment

Office: WO 3269

Credit Hours: 3 credit hours

Term: Spring 2018

Phone: 419-530-1507

COURSE/CATALOG DESCRIPTION

CHEM2410 Organic Chemistry I, [3 credit hours], Study of structure and reactions of organic compounds.

COURSE STATEMENT

CHEM 2410, Organic Chemistry I, covers the first half of Organic Chemistry, which includes a review of relevant topics from General Chemistry, a study of the structure and bonding of organic compounds, the nomenclature of organic molecules, aromaticity, an introduction to writing reaction mechanisms, and the reaction chemistry of alkenes, alkynes, alkyl halides, alcohols, ethers, and epoxides.

STUDENT LEARNING OUTCOMES

Students who successfully complete this course will be able to:

• describe atomic bonding and geometry using valence and molecular orbital models
• utilize acid-base chemistry in determining the pH and proton transfer reactions of organics
• describe conformational changes of hydrocarbons, stereochemistry and resonance
• analyze and solve various chemical problems involving organic reactivity
• recognize and complete addition, elimination and substitution reactions
• draw elementary organic chemistry reaction mechanisms
• recognize organic functional groups and accurately use organic chemistry nomenclature
• define aromaticity, recognize aromatic compounds, and describe their reactions

PREREQUISITES AND COREQUISITES

Prerequisites: CHEM 1240 with a minimum grade of D-.

While it is not required, students are highly recommended to take CHEM 2460 or 2480 in the same semester. Students not satisfying the prerequisite will
be dropped from the course.

REQUIRED INSTRUCTIONAL MATERIALS (TEXTS AND ANCILLARY MATERIALS)

A. Required Materials:
• Account for Sapling Learning, click this link: http://www2.saplinglearning.com/help/higher-education-us/accounts-and-registration to create an account. You can buy the access card in the bookstore or online.
• Wireless Remote “Clicker” or equivalent registered cell phone application

B. Recommended Materials:
• BACON (Biology and Chemistry Online Notes) – an online learning education tool

COURSE STRUCTURE
Lecture:
• Lecture sessions are designed to clarify the concepts covered in this course and provide examples of what is expected of you.
• Attendance is expected and you are responsible for all material and problems covered in class.
• It is recommended that you read the text before the lecture.
• Lecture notes will be available on Blackboard for each chapter.
• Please be considerate of your fellow students during the lecture period. Disruptions of any kind will not be tolerated and may result in expulsion from the classroom.

Homework:
There are two types of homework associated with this course: 1) Sapling Learning Homework which will count towards your grade; and 2) problems from the textbook at the end of each chapter which will not be handed in or graded.

Sapling Learning Homework:
Eleven homework assignments (Chapters 1-11, totaling 110 points) will be administered and graded. In addition, there will be training assignments/videos worth 10 points. You WILL NEED to purchase an access code and will NEED TO REGISTER with the correct Lecture code as it pertains to Prof. Li’s class. A direct link from Blackboard to Sapling should be available via this course’s Blackboard site. Although there are 120 points available, only a maximum of 100 points will be counted towards your final grade. These exercises are not timed, and you may attempt these questions as often as you want before the due date. The start date/time and due date/time for each assignment can be found within the Sapling homework system. Please do your work well in advance of the due date. Do not wait until the last minute! Technical problems with your computer, Sapling, or your internet connection will not be grounds for an extension. You can log in at any time to complete or review your homework assignments. If you have any problems, send an email to support@saplinglearning.com explaining your issue.

Suggested Homework Problems: There will be no specific suggested homework problems assigned from the textbook. A variety of problems will be assigned via the online homework system (Sapling)
for each chapter. Completion and understanding of these problems will be a big step towards achieving a good grade in this course. It is recommended that you use the problems in the textbook for study and review in your efforts to master the material covered in each chapter.

Blackboard:
- Blackboard is a course management system provided by the University of Toledo and can be accessed at https://blackboard.utdl.edu/. Your access code is your UTAD user name and password.
- You should consult the site regularly for news and announcements. Handouts, lecture notes, practice exams, and exam solutions will be posted. The system also permits you to check your grades at any time and to email your instructor or other students in the class.

Examinations:
The exam schedule is listed below. **Make-up exams will not be given for any circumstance.** Excused absences will be given only to students who miss a mid-term exam under the conditions listed below. If an excuse is acceptable, your final course grade will be computed accordingly. **The final exam cannot be excused.** For all exams you must show a **photo identification card.** You will not be permitted to use a calculator nor have a cell phone on your desk.

- There will be three mid-term examinations (100 points each). Exams will be held during the normal class period on Wednesdays during the semester, scheduled as follows:
  - **February 7th**, March 14th, and April 11th, 2018

- The **comprehensive final exam (200 points)** for the course will be administered in SM 2110 on Wednesday, **May 2nd** 2:45-4:45 pm, the time scheduled by the University.

Inclement Weather Policy: If classes are cancelled on the day of an exam week, the exam **WILL PROCEED** on the **Wednesday** as normally scheduled. If classes are cancelled on the day of an exam, the exam will take place during the next regularly scheduled class period (for example, if a Wednesday exam is cancelled for weather, the exam will take place the following Friday).

Exam Absence Policies
Refer to UT Missed Class Policy (https://www.utoledo.edu/policies/academic/undergraduate/pdfs/3364-71-14%20Missed%20class%20policy.pdf). Students who will not be able to take an exam at the scheduled time due to an irresolvable conflict with a major responsibility must provide some written documentation to verify the conflict. This situation may occur for students on official university business, including athletes. **Approval must be obtained before the scheduled test date.**

Students who do not take an exam due to illness, car accident, and death in the family or similar extreme circumstance should inform their instructor of their difficulties within 24 hours of the exam. These difficulties must also be documented by a physician's note, an accident report, pastor’s note, etc. **Contact information** for the police department, pastor, etc. must be included on the note or report. **In all other circumstances, a missed exam will result in a grade of 0.** Exams cannot be excused for personal reasons. Examples of missing an exam due to personal issues include, but are not limited to: oversleeping, transportation problems, vacation plans, work schedule conflicts, child care issues, sick children, fire alarms in adjacent buildings, etc. **Please plan accordingly.**

Communication:
You are urged to communicate with the instructor about any aspect of the course which concerns you or which might limit your success. We want you to be successful in this course, so let’s work together!
OVERVIEW OF COURSE GRADE ASSIGNMENT

Course Points:
The following is the distribution of possible points in the course:

- Clicker Responses: 50 pts (7.7%)
- Sapling Homework Assignments: 100 pts (15.4%)
- Midterm Exams 3 @ 100 points each: 300 pts (46.1%)
- Comprehensive Final Exam: 200 pts (30.8%)

Total: 650 pts

Note: For the clickers and online homework, there will be some extra points available. This will permit you to get full credit even if you miss a small number of points, but there will not be extra credit awarded. This is only a small number, so don’t rely on these points to make a big difference. Extra points in these categories will NOT be counted towards your final total score.

Midterm Grading
Midterm grading serves as a point in the term where the instructor of record may provide a midterm grade assessment and may identify any student who has never attended, has stopped attending, or who is not actively participating in the course. In addition, students may use midterm grade to help make a decision in regards to withdrawing from the course.

The U.S. Department of Education requires the University to document both active participation and satisfactory academic progress as part of the compliance with federal financial aid regulations. Students receiving Title IV Federal Aid funds are required to have regular attendance and satisfactory academic progress in their courses to receive federal aid.

Final Grading
Your final grades will be calculated based on a total of 650 points.

Grade Scale
These are the minimum percentages (points) needed to receive the indicated grade:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Minimum Percentage (Points)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>90% (585)</td>
</tr>
<tr>
<td>A–</td>
<td>88% (572)</td>
</tr>
<tr>
<td>B+</td>
<td>86% (559)</td>
</tr>
<tr>
<td>B</td>
<td>80% (520)</td>
</tr>
<tr>
<td>B–</td>
<td>78% (507)</td>
</tr>
<tr>
<td>C+</td>
<td>76% (494)</td>
</tr>
<tr>
<td>C</td>
<td>70% (455)</td>
</tr>
<tr>
<td>C–</td>
<td>68% (442)</td>
</tr>
<tr>
<td>D+</td>
<td>66% (429)</td>
</tr>
<tr>
<td>D</td>
<td>60% (390)</td>
</tr>
<tr>
<td>D–</td>
<td>58% (377)</td>
</tr>
</tbody>
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Drop, Withdrawal and Incomplete Grades:
• Course drop and withdrawal procedures have been set by the University faculty. Dropped courses do not appear on your transcript. If you are in a course after that date, there will be a grade on your transcript (A-F, W, or Incomplete). The deadline for dropping is January 30th.
• You may withdraw from the course and receive a grade of W. W’s do not affect your GPA. For both dropping the course or withdrawing you should go to the Registrar’s Office in Rocket Hall. You do not need your instructor’s permission for either process. Please note that course registration changes might change your financial aid. The deadline for withdrawal is March 30th.
• If you drop or withdraw from this CHEM 2410, you must also drop/withdraw from the lab course CHEM 2460 or 2480 because you need to know the lecture material to be in lab.
• A course grade of Incomplete is given only to those who have completed all but a small percentage of course requirements for an acceptable reason.

Academic Dishonesty:
The academic honesty policies, as stated in the 2013-2014 UT Catalogue will be STRICTLY ENFORCED. Any student found violating the UT academic honesty policies will be penalized in accordance with these policies. You should read the university’s policy on Academic Dishonesty found at http://www.utoledo.edu/catalog/2000catalog/admissions/academic_dishonesty.html.
Attendance/Class Participation:
On two occasions during the term, instructors are asked to report student attendance. These reports can affect your financial aid, so you will want to be sure that you are in attendance for all classes. However, you will remain enrolled in the class independent of these reports. That is, you remain registered for the class and will receive a final grade unless you take the action of dropping or withdrawing. Attendance reports will be based entirely on clicker responses.

Chemistry Help Center:
The Chemistry Help Center, BO 2043, is where the teaching assistants hold their office hours so it is a great place to receive assistance. It is generally open all day Monday through Friday and evenings Monday through Thursday. A schedule will be posted early in the term. No appointment is necessary.

Recitation (CHEM 2430):
These sessions are a supplemental portion of the course. They are not required, but are highly recommended. During these small classes the recitation leader will answer questions and get you to the board to work practice problems from the lecture text and the ACS study guide. You should go to recitation prepared, having worked or tried to work the assigned problems so bring your solved homework.

Special Needs:
If you have special needs with respect to your participation in this course, please make an appointment to discuss this matter with your instructor. The instructor will work with you and the Office of Accessibility to make appropriate accommodations for your needs.

UNIVERSITY POLICIES
Policy Statement on Non-Discrimination on the basis of Disability (ADA). The University is an equal opportunity educational institution. Please read The University’s Policy Statement on Nondiscrimination on the Basis of Disability Americans with Disability Act Compliance.

ACADEMIC ACCOMMODATIONS
The University of Toledo is committed to providing equal access to education for all students. If you have a documented disability or you believe you have a disability and would like information regarding academic accommodations/adjustments in this course please contact the Student Disability Services Office.

COURSE SCHEDULE
Chapters 1-11 will be covered in order. The specific dates assigned to each chapter will depend on many factors, including overall pace of the course, weather conditions, university holidays, etc. Specifics will be noted on the Weekly Assignment sheets available via Blackboard every Monday during the semester.