



WACO, TEXAS

**COURSE SYLLABUS
AND
INSTRUCTOR PLAN**

Organic Chemistry I

Chem 2423_01

Larry D. Benton

NOTE: This is a 16-week course.

COVID 19 Notice:

McLennan Community College is committed to providing you with every resource you need to reach your academic goals including your safety. We will continue to monitor the evolving situation with COVID 19 and adjust our safety guidelines to make sure we offer a safe environment for you and our faculty. Please make sure to consult your faculty and the MCC website at <https://www.mclennan.edu/crisis-management/coronavirus-updates/index.html> on any changes to these guidelines.

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Course Description:

Fundamental principles of organic chemistry will be studied, including the structure, bonding, properties, and reactivity of organic molecules; and properties and behavior of organic compounds and their derivatives. Emphasis is placed on organic synthesis and mechanisms. Includes study of covalent and ionic bonding, nomenclature, stereochemistry, structure and reactivity, reaction mechanisms, functional groups, and synthesis of simple molecules. Laboratory activities will reinforce fundamental principles of organic chemistry, including the structure, bonding, properties, and reactivity of organic molecules; and properties and behavior of organic compounds and their derivatives. Emphasis is placed on organic synthesis and mechanisms. Includes study of covalent and ionic bonding, nomenclature, stereochemistry, structure and reactivity, reaction mechanism, functional groups, and synthesis of simple molecules. Methods for the purification and identification of organic compounds will be examined. This course is intended for students in science or pre-professional programs.

Prerequisites and/or Corequisites:

CHEM 1411 and 1412 with a grade of C or better.

Course Notes and Instructor Recommendations:

Students are required to have a laboratory notebook. The correct notebook is available in the bookstore. Details will be discussed first day of class. Student must also provide their own goggles.

Instructor Information:

Instructor Name: Larry D. Benton
MCC E-mail: lbenton@mclennan.edu
Office Phone Number: 254-299-8195
Office Location: Science Building Room 310
Office/Teacher Conference Hours: By Appointment
Other Instruction Information:

Required Text & Materials:

Title: Organic Chemistry

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Author: Bruice

Edition: Eighth Edition

Publisher: Pearson

ISBN: 9780134042282

An Organic Chemistry Modeling Kit is recommended for this class.

MCC Bookstore Website: <http://www.mclennan.edu/bookstore/>

A laboratory notebook and safety goggles, both available at the bookstore are required. An alternative for safety goggles that many students have found to be very comfortable is the Uvex Stealth OTG Safety Goggles that can be purchased from major online sites.

Methods of Teaching and Learning:

This class consists of 3 hours per week of lecture and 3.75 hours per week of laboratory experimentation. The lecture portion of the class will be a mixture of PowerPoint presentations, problems worked on the whiteboard, and open discussion. Problems worked will be real world chemical problems that are solved to explore the nature of organic chemical mechanisms. Homework problems will be assigned. Students will find assignments and instructor communications on Bright Space.

The laboratory portion of the class is conducted with each student experiencing hands on experimentation in the lab. The student's review of the lab experiment prior to execution will be required, therefore, students should be prepared to be quizzed over the lab experiment prior to execution of the experiment. Students will work individually.

Course Objectives and/or Competencies:

Lecture:

Upon successful completion of this course, students will:

1. Classify organic compounds by structure, molecular orbitals, hybridization, resonance, tautomerism, polarity, chirality, conformation, and functionality.
2. Identify organic molecules using appropriate organic nomenclature.
3. Describe the principle reactions for syntheses of molecules, ions, and radicals.
4. Describe organic reactions in terms of radical and ionic mechanisms.
5. Describe the use of spectroscopic data to determine the structure of organic molecules.
6. Formulate appropriate reaction conditions for the synthesis of simple organic molecules.

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Lab:

Upon successful completion of this course, students will:

1. Perform chemical experiments, analysis procedures, and waste disposal in a safe and responsible manner.
2. Utilize scientific tools such as glassware and analytical instruments to collect and analyze data.
3. Identify and utilize appropriate separation techniques such as distillation, extraction, and chromatography to purify organic compounds.
4. Record experimental work completely and accurately in laboratory notebooks, and communicate experimental results clearly in written reports.
5. Demonstrate a basic understanding of stereochemistry.
6. Classify organic compounds by structure, molecular orbitals, hybridization, resonance, tautomerism, polarity, chirality, conformation, and functionality in laboratory reports.
7. Identify organic molecules using appropriate organic nomenclature in laboratory reports.
8. Perform organic syntheses of molecules.
9. Describe organic reactions in terms of radical and ionic mechanisms in laboratory reports.
10. Use spectroscopic data to determine the structure of organic molecules.
11. Formulate appropriate reaction conditions for the synthesis of simple organic molecules.

Course Outline or Schedule:

All reports, and lab notebooks will not be accepted after 5 PM December 3, 2019.

Week 1	Introduction to class, Chapter 1
Week 2	Chapter 1 and 2
Week 3	Chapter 2
Week 4	Test 1 and Chapter 3
Week 5	Chapter 3 and 4
Week 6	Chapter 4
Week 7	Test 2 Chapter 5
Week 8	Chapter 5
Week 9	Chapter 5 and 6
Week 10	Chapter 6
Week 11	Test 3 Chapter 7
Week 12	Chapter 7
Week 13	Chapter 7 and 8

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Week 14	Chapter 8, Thanksgiving Holiday
Week 15	Test 4, Make Up Exam.
Week 16	Final Exam

Course Grading Information:

Your course grade will be based on the points received from the exams, the final, the lab grades, class participation (attendance and involvement in class) and the periodic exercise problems. There will be chapter quiz for each chapter (100 points per exam). Four In-Class exams will be given over the material covered. The final will be a 100 point comprehensive final and will be given on the final exam date. There will be a makeup test for the last week of the semester. The lab grade will consist of a required typed report for each lab, and the lab notebook that will be kept. The lab reports are due the lab following the week that the lab performed. Further information on the content and format for the lab book and the lab report will be discussed during the first day of lab. The lab notebook will be graded based on the outlines provided to the student based on FDA and EPA requirements for current Good Laboratory Practices and current Good Manufacturing Practices (cGLP and cGMP). Your grade will be calculated using the following breakdown:

Chapter Quizzes	20%
In-class Exams	40%
Final Exam	10%
Lab Notebook	15%
Lab Report	15%

Your course letter grade will be based on the following scale: 90% or more of the total points will guarantee a grade of "A"; 80% or more guarantees "B"; 70% or more guarantees "C"; 60% or more guarantees "D"; below 60% of the total may result in an "F".

Late Work, Attendance, and Make Up Work Policies:

Make-up labs are not available. Attendance policy will follow McLennan Community College attendance policy. Review MCC policy on attendance at the link below.

Student Behavioral Expectations or Conduct Policy:

Students are encouraged to visit with the instructor if topics covered in the course are not understood. Often, one on one tutoring will help the student grasp the subject matter. Students

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are expected to have critically read the chapter to be covered in lecture prior to attending class. Questions on the subject matter during class are welcomed and encouraged.

Students are expected to be punctual for lecture and lab classes. Students are expected to observe all safety rules in the laboratory and maintain a clean workspace in the lab. Horseplay and unsafe habits in the laboratory will be grounds for ejection from the lab. Repeated offences will result in the student being dropped from the course. Review MCC Academic Integrity Statement at the link below.

[Click Here for the MCC Attendance/Absences Policy](https://www.mclennan.edu/highlander-guide/policies.html)

(<https://www.mclennan.edu/highlander-guide/policies.html>)

Click on the link above for the college policies on attendance and absences. Your instructor may have additional guidelines specific to this course.



ACADEMIC RESOURCES/POLICIES

Accommodations/ADA Statement:

Any student who is a qualified individual with a disability may request reasonable accommodations to assist with providing equal access to educational opportunities. Students should contact the Accommodations Coordinator as soon as possible to provide documentation and make necessary arrangements. Once that process is completed, appropriate verification will be provided to the student and instructor. Please note that instructors are not required to provide classroom accommodations to students until appropriate verification has been provided by the Accommodations Coordinator. For additional information, please visit www.mclennan.edu/disability.

Students with questions or who require assistance with disabilities involving physical, classroom, or testing accommodations should contact:

disabilities@mclennan.edu

254-299-8122

Room 319, Student Services Center

Title IX:

We care about your safety, and value an environment where students and instructors can successfully teach and learn together. If you or someone you know experiences unwelcomed behavior, we are here to help. Individuals who would like to report an incident of sexual misconduct are encouraged to immediately contact the Title IX Coordinator at titleix@mclennan.edu or by calling Dr. Drew Canham (Chief of Staff for Diversity, Equity & Inclusion/Title IX) at (254) 299-8645. Individuals also may contact the MCC Police Department at 299-8911 or the MCC Student Counseling Center at MCC at (254) 299-8210. The MCC Student Counseling Center is a confidential resource for students. Any student or employee may report sexual harassment anonymously by visiting <http://www.lighthouse-services.com/mclennan/>.

Go to McLennan's Title IX webpage at www.mclennan.edu/titleix/. It contains more information about definitions, reporting, confidentiality, resources, and what to do if you or someone you know is a victim of sexual misconduct, gender-based violence or the crimes of rape, acquaintance rape, sexual assault, sexual harassment, stalking, dating violence, or domestic violence.

Student Support/Resources:

MCC provides a variety of services to support student success in the classroom and in your academic pursuits to include counseling, tutors, technology help desk, advising, financial aid, etc. A listing of these and the many other services available to our students is available at <http://www.mclennan.edu/campus-resource-guide/>

College personnel recognize that food, housing, and transportation are essential for student success. If you are having trouble securing these resources or want to explore strategies for balancing life and school, we encourage you to contact a Success Coach by calling (254) 299-8226 or emailing SuccessCoach@mclennan.edu. Students may visit the Completion Center Monday-Friday from 8 a.m.-5 p.m. to schedule a meeting with a Success Coach and receive additional resources and support to help reach academic and personal goals. Paulanne's Pantry (MCC's food pantry) provides free food by appointment to students, faculty and staff based on household size. Text (254) 870-7573 to schedule a pantry appointment. The Completion Center and pantry are located on the Second Floor of the Student Services Center (SSC).

MCC Foundation Emergency Grant Fund:

Unanticipated expenses, such as car repairs, medical bills, housing, or job loss can affect us all. Should an unexpected expense arise, the MCC Foundation has an emergency grant fund that may be able to assist you. Please go to <https://www.mclennan.edu/foundation/scholarships-and-resources/emergencygrant.html> to find out more about the emergency grant. The application can be found at https://www.mclennan.edu/foundation/docs/Emergency_Grant_Application.pdf.

MCC Academic Integrity Statement:

Go to www.mclennan.edu/academic-integrity for information about academic integrity, dishonesty, and cheating.

Minimum System Requirements to Utilize MCC's D2L|Brightspace:

Go to <https://www.mclennan.edu/center-for-teaching-and-learning/Faculty-and-Staff-Commons/requirements.html> for information on the minimum system requirements needed to reliably access your courses in MCC's D2L|Brightspace learning management system.

Minimum Technical Skills:

Students should have basic computer skills, knowledge of word processing software, and a basic understanding of how to use search engines and common web browsers.

Backup Plan for Technology:

In the event MCC's technology systems are down, you will be notified via your MCC student email address. Please note that all assignments and activities will be due on the date specified in the Instructor Plan, unless otherwise noted by the instructor.

Email Policy:

McLennan Community College would like to remind you of the policy (<http://www.mclennan.edu/employees/policy-manual/docs/E-XXXI-B.pdf>) regarding college email. All students, faculty, and staff are encouraged to use their McLennan email addresses when conducting college business.

A student's McLennan email address is the preferred email address that college employees should use for official college information or business. Students are expected to read and, if needed, respond in a timely manner to college emails. For more information about your student email account, go to www.mclennan.edu/student-email.

Instructional Uses of Email:

Faculty members can determine classroom use of email or electronic communications. Faculty should expect and encourage students to check the college email on a regular basis. Faculty should inform students in the course syllabus if another communication method is to be used and of any special or unusual expectations for electronic communications.

If a faculty member prefers not to communicate by email with their students, it should be reflected in the course syllabus and information should be provided for the preferred form of communication.

Email on Mobile Devices:

The College recommends that you set up your mobile device to receive McLennan emails. If you need assistance with set-up, you may email Helpdesk@mclennan.edu for help.

You can find help on the McLennan website about connecting your McLennan email account to your mobile device:

- [Email Setup for iPhones and iPads](https://support.microsoft.com/en-us/office/set-up-an-outlook-account-in-the-ios-mail-app-b2de2161-cc1d-49ef-9ef9-81acd1c8e234?ui=en-us&rs=en-us&ad=us) (<https://support.microsoft.com/en-us/office/set-up-an-outlook-account-in-the-ios-mail-app-b2de2161-cc1d-49ef-9ef9-81acd1c8e234?ui=en-us&rs=en-us&ad=us>)
- [Email Setup for Androids](https://support.microsoft.com/en-us/office/set-up-email-in-android-email-app-71147974-7aca-491b-978a-ab15e360434c?ui=en-us&rs=en-us&ad=us) (<https://support.microsoft.com/en-us/office/set-up-email-in-android-email-app-71147974-7aca-491b-978a-ab15e360434c?ui=en-us&rs=en-us&ad=us>)

Forwarding Emails:

You may forward emails that come to your McLennan address to alternate email addresses; however, the College will not be held responsible for emails forwarded to an alternate address that may be lost or placed in junk or spam filters.

For more helpful information about technology at MCC, go to [MCC's Tech Support Cheat Sheet](#) or email helpdesk@mclennan.edu.

Disclaimer:

The resources and policies listed above are merely for informational purposes and are subject to change without notice or obligation. The College reserves the right to change policies and other requirements in compliance with State and Federal laws. The provisions of this document do not constitute a contract.