

Course Prefix/Number/Title: Chem 241 Organic Chemistry I Lab

Number of Credits: 1 semester

Course Description: Course Description: First semester of a two-semester sequence designed for science and pre-professional students which covers organic structure and bonding, nomenclature, stereochemistry, functional groups, and spectroscopy. Includes lab.

Pre-/Co-requisites: "C" or higher in CHEM 122.

Course Objectives;

1. To be able to explain chemical structure and bonding in Organic Chemistry.
2. To be able to analyze the structure, properties, and chemical reactivity of the basic classes of organic compounds: alkanes, alkenes, alkynes, alkyl halides and of alcohols.
3. To be able to discover the basics of stereochemistry, including chirality.

Instructor: Angie Bartholomay

Office: NSC 111

Office Hours: MW 9:00am-10:00am, MF 1:00-2:00pm

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Lab Schedule: Th 10:00-11:50 am NSC 121

Textbook(s): Organic Chemistry: Principles and Mechanisms, 2nd Edition by Joel Karty. ISBN: 978-0-393-63074-9

Course Requirements: The laboratory portion of the course provides an opportunity to integrate lecture concepts with observable activities and is critical to understanding chemical concepts. Attendance in lab is mandatory and the instructor will validate that you actually assisted in the collection of data. Borrowed results are not acceptable and all parties involved will receive a grade deduction. Lab reports are due at the end of the lab period. Failure to wear safety goggles, not following instructions or using unsafe procedures is unacceptable and may result in your dismissal from further labs. Grades will be based on total points using the following grading scale:

A	90-100%
B	80-89.5%
C	70-79.5%
D	60-69.5%
F	<59.5%

14 Lab Reports at 25 points each= total points 350points

Tentative Course Outline;

Week 1	Lab Introduction / Explaining the Lab notebook
Week 2	Lab #1 Organic Lab procedures
Week 3	Lab #2 Molecular Architecture: comparing covalent & ionic compounds
Week 4	Lab #3 Introduction to Micro-Organic Chemistry
Week 5	Lab #4 Identification of Hydrocarbons
Week 6	Lab #5 Organic Modeling
Week 7	Lab #6 Distillation Procedures
Week 8	Lab #7 Identification of Alcohols and Phenols
Week 9	Lab #8 Identification of aldehydes and ketones
Week 10	Lab #9 Chem 241 Properties of carboxylic acids and esters
Week 11	Lab #10 Chromotography
Week 12	Lab #11 Esterfication Reaction; preparation of Aspirin
Week 13	Lab #12 Preparation and Properties of Soap
Week 14	No Lab
Week 15	Lab #13 Synthesis of Benzoic Acid
Week 16	Lab #14 Final Lab

General Education Competency/Learning Outcome(s) OR CTE Competency/Department Learning Outcome(s): #1 Identifies the interrelationships between humans and their environment.

Learning outcomes #1: Applies scientific methods of inquiry

Relationship to Campus Focus: This course addresses the campus them by incorporating role chemistry plays in our everyday life and the impact it has on our natural world. In addition students will use technology to conduct labs as well as study how technology can be used in chemistry. The course will address the role of chemistry in their everyday life as well as in the future.

Classroom Policies:

1. The use of Cell phones and electronic devices using headphones are prohibited in the classroom at all times. Cell phones need to be on silent and placed on the table in front of you.
2. **There will be no makeup exams unless prior arrangements have been made.**
3. Be respectful of other students, instructors and guests
4. Early Warning Attendance policy will be followed!

Student Email Policy:

Dakota College at Bottineau is increasingly dependent upon email as an official form of communication. A student's campus-assigned email address will be the only one recognized by the Campus for official mailings. The liability for missing or not acting upon important information conveyed via campus email rests with the student.

Academic Integrity:

According to the DCB Student Handbook, students are responsible for submitting their own work. Students who cooperate on oral or written examinations or work without authorization share the responsibility for violation of academic principles, and the students are subject to disciplinary action even when one of the students is not enrolled in the course where the violation occurred. The Code detailed in

the Academic Honesty/Dishonesty section of the Student Handbook will serve as the guideline for cases where cheating, plagiarism or other academic improprieties have occurred.

Disabilities or Special Needs:

Students with disabilities or special needs (academic or otherwise) are encouraged to contact the instructor and Disability Support Services.

Title IX:

Dakota College at Bottineau (DCB) faculty are committed to helping create a safe learning environment for all students and for the College as a whole. Please be aware that all DCB employees (other than those designated as confidential resources such as advocates, counselors, clergy and healthcare providers) are required to report information about such discrimination and harassment to the College Title IX Coordinator. This means that if a student tells a faculty member about a situation of sexual harassment or sexual violence, or other related misconduct, the faculty member must share that information with the College's Title IX Coordinator. Students wishing to speak to a confidential employee who does not have this reporting responsibility can find a list of resources on the DCB Title IX webpage.