## Course Information
Organic Chemistry I  
Fall 2019  
CHEM-2423-31250  
Saturday Lecture M101 9:00-12:00 PM  
Saturday Lab M202 12:30-4:30 PM

<table>
<thead>
<tr>
<th>Instructor Information</th>
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<tbody>
<tr>
<td>Antwan Daniels</td>
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<tr>
<td><a href="mailto:adaniels@dcccd.edu">adaniels@dcccd.edu</a></td>
</tr>
<tr>
<td>(816) 775-1151</td>
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### Office Hours
Office Hours M202 Saturday 12:30-1:00 PM

### Course Description
Organic Chemistry 2423 is the first semester of a two-semester sequence. The subject matter of organic chemistry is a necessary component of many different courses of study. Person working in health care, agriculture, environmental testing, pollution control, biological sciences and the chemical industry require knowledge of this subject.  
Enrollment in this class requires a thorough knowledge of general chemistry. Topics introduced in that course will be expanded in depth and detail. Subjects covered in the first semester include: bonding, hybridization, reaction mechanisms, molecular geometry, stereochemistry, alkanes, alkenes, alkynes, and an introduction to aromatic chemistry, lab safety, identification of and familiarization with lab equipment, common laboratory procedures, and the uses of various instrumental methods of analysis.

### Required Course Materials:

**Required textbook:**
ISBN: 9781259636424  
McGraw-Hill Connect Organic Chemistry Student Account

**Lab Manual:**

**Lab goggles:**  
Instructor approved protective eyewear (lab goggles) MUST be worn at all times in the laboratory. No student will be allowed to participate in lab without eye protection. (required). Lab Apron is required during lab time.

**Laboratory Notebook:**  
A sewn bound laboratory notebook and 1-2 permanent ink pens, available at local bookstores, are necessary for the recording of laboratory data. (required)

### Course Prerequisites
(1) MATH 1314 or equivalent and  
(2) Developmental Reading 0093 or English as a Second Language (ESOL) 0044 or,  
(3) have met the Texas Success Initiative (TSI) Reading standard. High school chemistry is strongly recommended.  
Completion of Chemistry 1412 with a C grade or higher

### Disclaimer –
The instructor reserves the right to amend this syllabus as necessary to best educate students.
Texas Core Objectives for Student Learning

The College defines essential knowledge and skills that students need to develop during their college experience. These general education competencies parallel the Texas Core Objectives for Student Learning. In this course, the following skills are in focus.

1. **Critical Thinking Skills** - to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information
2. **Communication Skills** - to include effective development, interpretation and expression of ideas through written, oral and visual communication.
3. **Empirical and Quantitative Skills** - to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions
4. **Teamwork** - to include the ability to consider different points of view and to work effectively with others to support a shared purpose or goal
5. **Personal Responsibility** - to include the ability to connect choices, actions and consequences to ethical decision-making
6. **Social Responsibility**: to include intercultural competence, knowledge of civic responsibility, and the ability to engage effectively in regional, national, and global communities

Student Learning Outcomes: Lab

1. Use basic apparatus and apply experimental methodologies used in the chemistry laboratory.
2. Demonstrate safe and proper handling of laboratory equipment and chemicals.
3. Conduct basic laboratory experiments with proper laboratory techniques.
4. Make careful and accurate experimental observations.
5. Relate physical observations and measurements to theoretical principles.
6. Interpret laboratory results and experimental data, and reach logical conclusions.
7. Record experimental work completely and accurately in laboratory notebooks and communicate experimental results clearly in written reports.
8. Design fundamental experiments involving principles of chemistry
9. Identify appropriate sources of information for conducting laboratory experiments involving principles of chemistry.

Student Learning Outcomes: Lecture

1. Structure, bonding and geometry of organic compounds.
2. Understanding acid/base relationships to predict reactions.
3. Reactivity of functional groups, ionic and covalent compounds.
4. Manipulation and rearrangement of alkanes for synthesis.
5. Describe and recognize stereochemistry of carbon based bonds.
7. Create compounds using nucleophilic substitution of halides.
8. Create compounds using nucleophilic elimination of halides.
10. Define levels of saturation and utilize aromatic compounds.
12. Investigate Radical Reactions.
13. Infer and make conclusions from analytical data of compounds.

CVC Learning Signature

CVC’s Learning Signature is One College Transforming Lives. Cedar Valley College establishes clear expectations for students through engagement and empowerment leading to excellence.

CVC Faculty and Staff expect students to:
- take responsibility for their own learning
- commit to achieving high academic performance
- be meaningfully engaged in the campus community

CVC Faculty and Staff expect to:
- provide students a clear pathway of instruction
- establish clear learning outcomes
- serve as role models and mentors for students

Course Outline

For maximum success in this course you should spend a minimum of 9 hours per week working on course material.

<table>
<thead>
<tr>
<th>Week 1 Aug. 31st</th>
<th>CH. 1 Structure and Bonding CH. 2 Acid and Bases (Safety Video and Walkthrough) (Lab #1 Handout Completed on Campus)</th>
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<tbody>
<tr>
<td>Week 2 Sept. 7th</td>
<td>CH. 2 Acid and Bases CH: 3 Intro of Organic Molecules (Lab#2 Melting Points Completed on Campus) H.W. #1 Due Sept. 6th</td>
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<tr>
<td>Week 3 Sept. 14th</td>
<td>CH. 3 Organic Molecules &amp; CH. 4 Alkanes (Lab #3 Recrystallization Completed in Class) H.W. #2 Due Sept. 13th</td>
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<td>Week 4 Sept. 21st</td>
<td>Exam #1 (Chapters 1-4) &amp; CH. 5 Stereochemistry (Lab #4 Distillation Lab completed in Class) Quiz #1 Completed Online Due Sept. 20th</td>
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<td>Week 5 Sept. 28th</td>
<td>Learnsmart CH. 5 Stereochemistry Online Assessment Completion Sept. 28th Discussion Board Completion Sept. 28th</td>
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| Week 6  | Oct. 5 th | CH. 6 Organic Chemistry Reactions  
(Lab #5 Extraction Completed in Class)  
H.W. #3 Due Oct. 4 th |
|---------|-----------|-----------------------------------------------------------------------------------|
| Week 7  | Oct. 12 th| CH. 7 Nucleophilic Substitution & CH. 8 Elimination Reactions  
(Lab #6 Sn2 Reaction: 1-Bromobutane Completed in Class)  
H.W. #4 Due Oct. 11 th |
| Week 8  | Oct. 19 th| Exam #2 Chapters 5-8  
Quiz #2 Completed Online Due. Oct. 18 th  
Discussion Board Completion Due Oct. 19 th |
| Week 9  | Oct. 26 th| CH. 9 Alcohols, Ethers, & Carbonyl Groups  
(Lab #7 Elimination Alkenes from Alcohols Completed in Class)  
H.W. #5 Due Oct. 25 th |
| Week 10 | Nov. 2 nd | CH. 10 Alkenes & CH. 11 Alkynes  
(Lab #8 Gas Chromatography:  
Analyzing Alkene Isomers Started  
& Completed Nov. 9 th ) |
| Week 11 | Nov. 9 th | CH. 12 Oxidation and Reduction Reactions  
Completion of Lab #8 and Lab #9 Mass Spectrometry Completion  
H. W. #6 Due Nov. 8 th |
| Week 12 | Nov. 16 th| Exam #3 Chapters 9-12  
CH. 13 Mass Spectrometry/IR Spectroscopy  
CH. 14 Nuclear Magnetic Resonance  
(Lab #10 Thin-Layer Chromatography Column Chromatography Completed In-class/Online submission)  
Quiz #3 Completed online Due. Nov. 15 th |
| Week 13 | Nov. 23 rd| Learnsmart CH. 13 Mass Spectrometry/IR Spectroscopy  
CH. 14 Nuclear Magnetic Resonance Online Assessment Completion Due Nov. 23 rd  
Online Submission of Lab #10 |
| Week 14 | Nov. 30 th| Prepare for Final Exam and Completion of Assessments |
| Week 15 | Dec. 7 th | Final Exam (ACS) & on Campus/Lab Check Out |
Exam Schedule: Exams will be administered in the classroom

Lab Schedule: Week 1 Acid/Base Review #1
Week 2 Melting Points #2 (Not in Book)
Week 3 Recrystallization #3
Week 4 Distillation #4
Week 6 Extraction #5
Week 7 The Sn2 Reaction: 1-Bromobutane #6
Week 9 Elimination Alkenes from Alcohols #7
Week 10 Gas Chromatography: Analyzing Alkene Isomers #8
Week 11 Mass Spectrometry #9@pg. 260
Week 12 Thin-Layer Chromatography Column Chromatography #10

All labs are due the day started or as shown on syllabus. Late points will be assessed for any labs not turned (10% deduction).

Evaluation Procedures At the beginning of the course, the instructor provides a schedule of examinations and assignments that contribute to the final grade in the course for each student.

Exams and Assignments The final grade for the course reflects evaluation of the student's work on the following assignments that are calculated as follows:

3-exams, 10-lab reports, 6-Online homework assignments, 3-quizzes, 2-LearnSmart Assessments, 2-Discussion Boards, ACS Final exam

There are a total of 1000 points available in this course. They are acquired as follows:

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<thead>
<tr>
<th>Points</th>
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<tr>
<td>Exam 1</td>
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<td>Exam 2</td>
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<td>Exam 3</td>
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<tr>
<td>ACS Final Exam</td>
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<tr>
<td>Homework</td>
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<td>Quizzes</td>
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<td>Learnsmart</td>
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<td>Discussion Board</td>
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<tr>
<td>Laboratory</td>
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<td>Total</td>
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Grading Scale

88.5%-100% A 885-1000
78.5%-88% B 785-884
68.5%-78% C 680-779
60%-68% D 580-679
0-59% F 0-579

Last Day to Drop is Nov. 16th, 2019
Stop Before you Drop Under a Texas law (TEC Section 51.907), if you drop too many classes without having an acceptable reason, your GPA could be affected. Be sure you understand how this law may affect you before you drop a class. Last Day to Drop Class is Nov. 16th, 2019
The law applies to students who enroll in a Texas public institution of higher education (including the colleges of DCCCD) for the first time in fall 2007 or later. Under this law, you may not drop more than six classes without an acceptable reason during your entire undergraduate career without penalty. For more information, please see our catalog or read Facts About Dropping Classes.

If you drop or withdraw before the official drop/withdrawal deadline, you will receive a grade of W (Withdraw) in each class dropped until the seventh unacceptable drop. You will earn a grade of WF for the seventh unacceptable drop, and each unacceptable drop after that. A grade of WF will be calculated in your GPA as an F.

The deadline for receiving a W is indicated on the academic calendar and the current class schedule.

For more information, you may access:
http://www.dcccd.edu/Why/Reg/Registration/Pages/DropWithdraw.aspx

The Dallas County Community Colleges will charge additional tuition to students registering the third or subsequent time for a course. This class may not be repeated for the third or subsequent time without paying the additional tuition. Third attempts include courses taken at any of the Dallas County Community Colleges since the fall 2002 semester. More information is available at:
http://www.dcccd.edu/PC/Cost/3rdCrseAttmpt/Pages/default.aspx

Attendance Policy
In general, daily class attendance enhances student achievement of an A, B or C in the course. Students need to advise instructors of illness, work or family situations that may require absence from a class to receive one class day full-grade exception. Non-advising of class absence will result in 10% the 1st day, 30% the 2nd day deduction of assessment grade. Exams must be made up within 1 class day of assessment date. Labs must be made up as agreed upon by instructor.

Classroom Policies
Students are to use cell phone devices outside of class unless asked to use for classroom assignment. Students are not to eat or drink in the laboratory (even if chemicals are not present). Students must wear covered shoes and long pants that cover lower extremities.

INSTITUTIONAL POLICIES
“Institutional Policies relating to this course can be accessed from the following link www.cedarvalleycollege.edu/syllabipolicies”