

JAMESTOWN COMMUNITY COLLEGE
State University of New York

INSTITUTIONAL COURSE SYLLABUS

Course Title: Organic Chemistry II

Course Abbreviation and Number: CHE 2540

Credit Hours: 4

Course Type: Lecture/Lab

Course Description: A continuation of CHE 2530, students will extend their studies to the spectroscopic analysis of hydrocarbons. Additional topics include aromatic compounds, aldehydes, ketones, carbanions, carboxylic acids and their derivatives, amines, phenols, amino acids, polymers, lipids, carbohydrates, and proteins, and nucleic acids. Labs (still microscale) will investigate a range of multistep reaction sequences, as well as a few short classic reactions.

Prerequisite: CHE 2530.

General Education Requirements Met

JCC

Applied Learning

Student Learning Outcomes:

Students who demonstrate understanding can:

1. Write formal scientific laboratory reports based on experiments that use microscale laboratory techniques.
2. Understand and utilize common organic chemistry reactions based on the functional groups present on the molecules.
3. Design multistep routes for the synthesis of complex molecules from simple starting materials.
4. Recognize the importance of ethical behavior in fostering a community of mutual respect and integrity.
5. Effectively apply knowledge and skills to a real-world experience, creative project, or independent intellectual investigation. [JCC Gen Ed – Applied Learning]
6. Thoughtfully reflect on connections between concepts studies in the classroom and insights gained from an applied learning experience/project. [JCC Gen Ed – Applied Learning]

Topics Covered:

- Structure
 - Nomenclature
 - Properties
 - Preparation of and reactions of aldehydes, ketones, amines, phenols and carboxylic acids and their derivatives
 - Stereochemistry and reaction mechanisms
 - UV and mass spectroscopy is covered
 - Introduction to biochemistry
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Information for Students

- Expectations of Students
 - [Civility Statement](#)
 - [Student Responsibility Statement](#)
 - [Academic Integrity Statement](#)
- [Accessibility Services](#)
Students who require accommodations to complete the requirements and expectations of this course because of a disability must make their accommodation requests to the Accessibility Services Coordinator.
- [Get Help: JCC & Community Resources](#)
- [Emergency Closing Procedures](#)
- Course grade is determined by the instructor based on a combination of factors, including but not limited to, homework, quizzes, exams, projects, and participation. Final course grade can be translated into a grade point value according to the following:

A=4.0	B+=3.5	B=3	C+=2.5	C=2	D+=1.5	D=1	F=0
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- Veterans and active duty military personnel with special circumstances (e.g., upcoming deployments, drill requirements, VA appointments) are welcome and encouraged to communicate these to the instructor.

