# **COURSE SYLLABUS**

LAST REVIEW	Spring 2021
COURSE TITLE	Organic Chemistry II
COURSE NUMBER	CHEM-0212
DIVISION	Math, Science, Business & Technology
DEPARTMENT	Chemistry
CIP CODE	24.0101
CREDIT HOURS	3
CONTACT HOURS/WEEK	Class: 3
PREREQUISITES	CHEM-0211, Organic Chemistry I
COURSE PLACEMENT	None

# **COURSE DESCRIPTION**

A continuation of Organic Chemistry I, CHEM-0211 lectures cover the main functional groups not discussed in 211: ethers, acids, esters, aldehydes, ketones, and amines.

## TEXTBOOKS

http://kckccbookstore.com/

### **METHODS OF INSTRUCTION**

A variety of instructional methods may be used depending on content area. These include but are not limited to: lecture, multimedia, cooperative/collaborative learning, labs and demonstrations, projects and presentations, speeches, debates, panels, conferencing, performances, and learning experiences outside the classroom. Methodology will be selected to best meet student needs.

### **COURSE OUTLINE**

- I. Review of Spectroscopic Techniques
- II. Conjugated Systems and Aromatic Chemistry
- III. Aldehydes and Ketones
- IV. Carboxylic Acid and Derivatives of Carboxylic Acids
- V. Amines and Amides
- VI. Carbohydrates, Lipids, Amino Acids, and Protein

### **COURSE LEARNING OUTCOMES AND COMPETENCIES**

Upon successful completion of this course, the student will:

A. Be able to have a working knowledge of the interaction of functional groups in organic chemistry and the relationship between structure, reactivity, and mechanism.

- 1. The student will be able to define, identify, and illustrate various functional groups, such as; aromatics, aliphatics, halogens, aldehydes, ketones, carboxylic acids, esters, ethers, amines, and amides.
- 2. The student will be able to demonstrate the ability to name and draw structures of chemical compounds possessing these functional groups.
- 3. The student will be able to predict the outcome of of organic reactions involving the various functional groups under given conditions.
- 4. The student will be able to demonstrate the ability to outline syntheses of simple organic compounds.
- B. Be able to apply the scientific framework of functional groups and mechanisms in organic chemistry to the biochemistry of living systems and the physical world around us.
- C. Be able to have a working knowledge of some basic chemical instrumentation used in the analysis of organic compounds.

# ASSESSMENT OF COURSE LEARNING OUTCOMES AND COMPETENCIES

Student progress is evaluated through both formative and summative assessment methods. Specific details may be found in the instructor's course information document.

# COLLEGE POLICIES AND PROCEDURES

Student Handbook https://www.kckcc.edu/files/docs/student-resources/student-handbook-and-code-ofconduct.pdf

## College Catalog https://www.kckcc.edu/academics/catalog/index.html

# **College Policies and Statements**

https://www.kckcc.edu/about/policies-statements/index.html

# Accessibility and Accommodations

https://www.kckcc.edu/academics/resources/student-accessibility-supportservices/index.html.