

Course Abstract

If you need accommodations due to a disability, contact Disability Services in Edison Hall Room 100, 732.906.2546.

To foster a productive learning environment, the College requires that all students adhere to the Code of Student Conduct which is published in the college catalog and website.

Course ID and Name: CHEM 222: Organic Chemistry II

Department: Department of Natural Sciences

Chairperson: Dr. Donna Howell

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Prerequisites: CHM 221 lecture with a grade of "C" or better, CHM 227

Co-requisites:

Course Description: A mechanistic study of the preparation and chemical reactivity of aromatic compounds, alcohols, phenols, ethers, aldehydes, ketones, amines, carboxylic acids, and carboxylic acid derivatives.

General Education Status: GE.MST

Credits: 3

Learning Outcomes:

1. Be able to write reaction sequences for the synthesis of the major classes of organic compounds.
2. Be able to select reagents to accomplish appropriate functional group transformations.
3. Be able to identify functional groups and their relationship to biochemical systems.
4. Be able to utilize the scientific method

Course Content Areas:

1. Clearly demonstrate a thorough knowledge of Organic Chemistry I material
2. Distinguish between aromatic and non-aromatic compounds
3. Be able to name organic compounds, and draw structures from their names
4. Clearly account for the stereochemistry of products when considering reactions and when writing mechanisms
5. Perform retrosynthetic analysis on target molecules
6. Outline efficient synthesis of organic compounds
7. Classify organic compounds as acids, bases or neutral molecules
8. Use a PKA table to determine if acid-base reactions will or will not occur
9. Use a PKA table to devise separation schemes for acids, bases, and neutral compounds