

CHEM& 242 : Organic Chemistry II

Credits 4

Second course for individuals planning to take three quarters of organic chemistry. Further discussion of physical properties and transformations of organic molecules, especially aromatic and carbonyl compounds. This class may include students from multiple sections. (Elective)

Prerequisites

2.0 or higher in [CHEM& 241](#) or instructor permission

Course Outcomes

Interpret patterns of reactivity for reactions of alkenes, alkynes, alkyl halides, alcohols, ethers, epoxides, radicals, and aromatic compounds, and provide electron-pushing mechanisms and multistep products where applicable.

Apply IUPAC nomenclature rules and predict trends in physical properties for simple organic molecules based on their functional groups.

Provide reagents or predict products for reactions of carbon nucleophiles.

Predict the relative energies of radicals and product distributions which arise from radical reactions, including an understanding of side reactions which occur.

Design syntheses of organic molecules of moderate complexity using multiple synthetic steps to produce the highest yield using the fewest steps and/or protecting groups.

Deduce molecular structures based on various spectroscopic techniques such as NMR, MS, and/or IR.

Apply knowledge of reaction mechanisms to predict/explain the outcome of a reaction.