

ORGANIC CHEMISTRY (CHEM)

0310 Organic Chemistry I

This course is an introduction to the theory and practice of organic chemistry through the study of structural principles, reaction mechanisms, and synthesis leading toward the end of the second term, when complex molecules of biological interest are discussed. The basic goals of the course are to develop appreciation and skill in the methods of molecular analysis which have made organic chemistry such a powerful intellectual discipline. Topics covered will include conformational analysis of alkanes, stereochemistry and various reactions of alkanes, alkenes, alkynes, and conjugated systems. The course will prepare the student for work in advanced topics in organic chemistry, biochemistry, chemical engineering and the health related sciences.

3 credits

0330 Organic Chemistry Laboratory I

The laboratory program in organic chemistry is designed to train students in the important techniques used by the professional organic chemist and to demonstrate many of the principles discussed in the organic lecture courses. Chemistry 0330 is devoted to the purification, characterization, and identification of organic molecules using the techniques of recrystallization, distillation, thin-layer, column and gas-liquid chromatography, melting point determination, and infrared and nuclear magnetic resonance spectroscopy.

1 credit

0320 Organic Chemistry II

This course is a continuation of CHEM 0310. The reactions of aromatic molecules and more complex functional groups will be considered. Molecules of biological interest may be discussed toward the end of the term.

3 credits

0340 Organic Chemistry Laboratory II

The second term organic lab course, Chem 0340, provides an opportunity to carry out important synthetic reactions and characterize the products using techniques mastered in Chem 0330. Some molecular modeling experience is also gained.

1 credit