

CHM - CHEMISTRY

CHM 1015 Introduction to Chemistry

Credit Hours: 3

Prerequisites: High school algebra 1 (if completed within the last three years) or high school algebra 1 and 2

This course is an introductory course for students with inadequate backgrounds in math to develop and build mathematical skills and learn concepts required for entry into more rigorous chemistry courses. Does not meet general education requirement.

CHM 1025 College Chemistry

Credit Hours: 3

Prerequisites: MAT 1033 with a grade of "C" or higher

Corequisites: CHML 1025

General Education Category: Natural Science General Ed

Meets General Education requirement. This course is an introduction to the elementary principles of modern chemistry. This course prepares students without high school chemistry, or with an inadequate background, for CHM 1045. Modern chemical theories are used to develop an understanding of fundamentals of inorganic chemistry and its applications. An emphasis is placed on quantitative relationships and using dimensional analysis to solve problems.

CHM 1045 General Chemistry 1

Credit Hours: 3

Prerequisites: MAC 1105 or MAC 1105H with a grade of 'C' or higher

Corequisites: CHML 1045

General Education Category: Natural Science Core Course, Natural Science General Ed

This course is designed for students pursuing careers in the sciences or who need a more rigorous presentation of chemical concepts than is offered in an introductory course. Students will engage in problem solving and critical thinking while applying chemical concepts. Topics will include the principles of chemistry including atomic theory, electronic and molecular structure, measurement, stoichiometry, bonding, periodicity, thermochemistry, nomenclature, solutions, and the properties of gases. This is a state-designated general education core course. (202440)

CHM 1045H Honors General Chemistry 1

Credit Hours: 3

Prerequisites: MAC 1105 or MAC 1105H with a grade of 'C' or higher and admission to the EFSC Honors Program

Corequisites: CHML 1045H

General Education Category: Natural Science Core Course, Natural Science General Ed

This course is designed for students pursuing careers in the sciences or who need a more rigorous presentation of chemical concepts than is offered in an introductory course. Students will engage in problem solving and critical thinking while applying chemical concepts. Topics will include the principles of chemistry including atomic theory, electronic and molecular structure, measurement, stoichiometry, bonding, periodicity, thermochemistry, nomenclature, solutions, and the properties of gases. This is an honors course and a state-designated general education core course.

CHM 1046 General Chemistry 2

Credit Hours: 3

Prerequisites: CHM 1045 with a grade of "C" or higher

Corequisites: CHML 1046

General Education Category: Natural Science General Ed

Meets General Education requirement. An introduction to principles of chemistry to include a study of equilibrium, reaction rate, and electrochemistry; nuclear chemistry; basic organic chemistry; and colligative properties of solutions.

CHM 1046H Honors General Chemistry 2

Credit Hours: 3

Prerequisites: CHM 1045 or CHM 1045H and CHML 1045 or CHML 1045H - both courses with a grade of "C" or higher and admission to the EFSC Honors Program

General Education Category: Natural Science General Ed

Meets General Education requirement. A continuation of General Chemistry 1 to include a study of equilibrium, reaction rate, electrochemistry, nuclear chemistry, basic organic chemistry and colligative properties of solutions. Students will also conduct an analysis on energy sources and resources. This course is designed to provide a unique environment based on collaborative and active learning.

CHM 2210 Organic Chemistry 1

Credit Hours: 3

Prerequisites: CHM 1046 or CHM 1046H with a grade of "C" or higher; and CHML 1046 or CHML 1046H with a grade of "C" or higher

Corequisites: CHML 2210

General Education Category: Natural Science General Ed

This course is the first part of a two-semester sequence in organic chemistry that studies the organization of carbon compounds and the unifying principles of their chemistry. The course covers the study of hydrocarbon compounds and their derivatives. The topics include nomenclature, synthesis, reaction mechanisms, stereochemistry, and spectroscopy.

CHM 2211 Organic Chemistry 2

Credit Hours: 3

Prerequisites: CHM 2210 and CHML 2210 - both courses with a grade of "C" or higher

Corequisites: CHML 2211

General Education Category: Natural Science General Ed

Meets General Education requirement. This course is the second part of a two-semester sequence in organic chemistry that studies the organization of carbon compounds and the unifying principles of their chemistry. The course covers the study of alcohols, ethers, carboxylic acids, and other organic compounds. The topics include structure, nomenclature, synthesis, utilization of products, reaction mechanisms, and stereo-chemical considerations of products as well as structure elucidation via spectrometric techniques.

CHM 2948 Service Learning Field Studies 1

Credit Hours: 1

This course gives students opportunity to understand the relationship of theory to practice through participation in a service-learning experience. Students are required to complete 20 hours of volunteer work, a service-learning contract, and an oral and written reflection of the experience.