

CHEMISTRY (CHEM)

CHEM-100 Concepts of Chemistry I 4 Credits

Lecture: 3 hours per week, **Lab:** 3 hours per week

Offering: Fall and Spring Only, All Years

This course is an introduction to chemistry as it relates to modern technological society. It is designed for non-science majors who would like to learn about chemistry in the context of their everyday lives. Upon completion of CHEM-101, CHEM-100 will count as elective science credits only and will not satisfy core lab science credits.

Corequisites: CHEM-100L

CHEM-101 Introduction to Essentials of General Chemistry I 4 Credits

Lecture: 3 hours per week, **Lab:** 3 hours per week

Offering: Fall, Spring, and Summer, All Years

This course is a survey of the basic concepts of inorganic chemistry that includes quantitative concepts and development of problem solving methods. This course is designed for general education majors. It can be used by students as preparation for CHEM-111. It also satisfies chemistry requirements for allied health majors.

Prerequisites: MATH-025, MATH-090 or an appropriate score on a placement test.

Corequisites: CHEM-101L

CHEM-105 General, Organic, and Biochemistry 4 Credits

Lecture: 3 hours per week, **Lab:** 3 hours per week

Offering: Fall and Spring Only, All Years

This course provides a general overview of inorganic, organic, and biological chemistry topics with a health care emphasis. CHEM-105 is designed to provide necessary chemistry background for subsequent courses in the health care field.

Prerequisites: MATH-025, MATH-090 or an appropriate score on a placement test.

Corequisites: CHEM-105L

CHEM-111 Principles of General College Chemistry I 5 Credits

Lecture: 4 hours per week, **Lab:** 3 hours per week

Offering: Fall and Spring Only, All Years

This course is a study of matter and its interactions, including properties of matter, changes that it undergoes, and energy changes that accompany these processes. Emphasis is on concepts and problem solving, however many applications are examined. Students entering CHEM-111 are expected to have some chemistry background. This may be satisfied by completing at least one year of high school chemistry or CHEM-101.

Prerequisites: MATH-108 or an appropriate score on a placement test.

Corequisites: CHEM-111L

CHEM-112 Principles of General College Chemistry II 5 Credits

Lecture: 4 hours per week, **Lab:** 3 hours per week

Offering: Fall and Spring Only, All Years

This course is a continuation of a study of matter and its interactions, including properties of matter, changes that it undergoes, and energy changes that accompany these processes. Emphasis is on concepts and problem solving; however, many applications are examined.

Prerequisites: CHEM-111 and CHEM-111L

Corequisites: CHEM-112L

CHEM-253 Quantitative Analysis 5 Credits

Lecture: 3 hours per week, **Lab:** 6 hours per week

Offering: Fall Only, All Years

This course is the first course in the study of analytical chemistry for scientists. Students who are majoring in the physical or life sciences may take this course as an introduction to the basic concepts of quantitative analysis.

Prerequisites: CHEM-112

Corequisites: CHEM-253L

CHEM-275 Carbon Compounds 3 Credits

Lecture: 3 hours per week

Offering: Fall Only, All Years

This course introduces students to aspects of organic chemistry important to life sciences. The course covers the structure, nomenclature, and physical properties of organic compounds.

Prerequisites: CHEM-101 or CHEM-111

CHEM-277 Organic Chemistry I 3 Credits

Lecture: 3 hours per week

Offering: Fall Only, All Years

This course is the first course in a two-semester sequence of a comprehensive study of the principles and theories of organic chemistry emphasizing the properties, structure, synthesis and reactions of organic compounds.

Prerequisites: CHEM-112

Recommended Corequisites: CHEM-278

CHEM-278 Organic Chemistry I Lab 1 Credit

Lab: 3 hours per week

Offering: Fall Only, All Years

This course is the laboratory that accompanies CHEM-277. It is an introduction to organic laboratory techniques and spectroscopy, including organic compound synthesis.

Pre/Corequisites: CHEM-277

CHEM-287 Organic Chemistry II 3 Credits

Lecture: 3 hours per week

Offering: Spring Only, All Years

This course is a continuation of CHEM-277 and includes an introduction to biological molecules.

Prerequisites: CHEM-277

Recommended Corequisites: CHEM-288

CHEM-288 Organic Chemistry II Lab

1 Credit

Lecture: 3 hours per week

Offering: Spring Only, All Years

This course is the laboratory that accompanies CHEM-287. It is a continuation of organic synthesis and spectroscopy.

Prerequisites: CHEM-278

Recommended Pre/Corequisites: CHEM-287