

# CHEMISTRY (CHM)

## CHM 101 Introductory Chemistry I (4 CR.)

Explores the experimental and theoretical concepts of general chemistry while emphasizing scientific reasoning, critical and analytical thinking. Designed for the non-science major. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

**Prerequisite(s)** Eligible for ENG 111 and MTH 154

This is a Passport and UCGS transfer course.

Credit for Prior Learning available for this course. More information at <https://www.nvcc.edu/admissions/cpl.html>.

## CHM 111 General Chemistry I (4 CR.)

High school chemistry also strongly recommended. Requires a strong background in mathematics. Designed primarily for science and engineering majors. Explores the fundamental laws, theories, and mathematical concepts of chemistry. Designed primarily for science and engineering majors. Requires a strong background in mathematics. Students must earn a grade of C or higher in the lecture portion of the course to earn an overall grade of C or higher. Part I of II. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

**Prerequisite(s)** Eligible for ENG 111 and MTH 161

This is a Passport and UCGS transfer course.

Credit for Prior Learning available for this course. More information at <https://www.nvcc.edu/admissions/cpl.html>.

## CHM 112 General Chemistry II (4 CR.)

Requires a strong background in mathematics. Designed primarily for science and engineering majors. Explores the fundamental laws, theories, and mathematical concepts of chemistry. Designed primarily for science and engineering majors. Requires a strong background in mathematics. Students must earn a grade of C or higher in the lecture portion of the course to earn an overall grade of C or higher. Part II of II. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

**Prerequisite(s)** CHM 111 with a grade of C or higher

This is a Passport and UCGS transfer course.

## CHM 121 Health Science Chemistry I (4 CR.)

Introduces the health science student to concepts of inorganic, organic, and biological chemistry as applicable to the allied health profession. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

**Prerequisite(s)** Eligible for MTH 154 or completion of MDE 10, and ENG 111

## CHM 199 Supervised Study (1-5 CR.)

Assignment of problems for independent study incorporating previous instruction and supervised by the instructor. May be repeated for credit. Variable hrs.

## CHM 241 Organic Chemistry I (3 CR.)

Introduces fundamental chemistry of carbon compounds, including structures, physical properties, syntheses, and typical reactions.

Emphasizes reaction mechanisms. Lecture 3 hours per week.

**Prerequisite(s)** CHM 112 with grade of C or higher

## CHM 242 Organic Chemistry II (3 CR.)

Introduces fundamental chemistry of carbon compounds, including structures, physical properties, syntheses, and typical reactions.

Emphasizes reaction mechanisms. Lecture 3 hours per week.

**Prerequisite(s)** CHM 241 with grade of C or higher

## CHM 245 Organic Chemistry I Laboratory (2 CR.)

Introduces various methods and procedures used in present day organic laboratories. Covers the general techniques, organic synthesis, and the use of common spectroscopic instrumentation; synthesizing a variety of compounds; and analyzing the products through physical properties and spectroscopy. Part I of II. Lecture 1 hour. Laboratory 3 hours. Total 4 hours per week.

**Prerequisite(s)** CHM 112 with a grade of C or better

**Corequisite(s)** CHM 241

## CHM 246 Organic Chemistry II Laboratory (2 CR.)

Introduces various methods and procedures used in present day organic laboratories. Covers the general techniques, organic synthesis, and the use of common spectroscopic instrumentation; synthesizing a variety of compounds; and analyzing the products through physical properties and spectroscopy. Part II of II. Lecture 1 hour. Laboratory 3 hours. Total 4 hours per week.

**Prerequisite(s)** CHM 245

**Corequisite(s)** CHM 242

## CHM 260 Introductory Biochemistry (3 CR.)

Explores fundamentals of biological chemistry. Includes study of macromolecules, metabolic pathways, and biochemical genetics. Lecture 3 hours per week.

**Prerequisite(s)** CHM 112