Chemistry

CHEM 110 Chemistry and Society
4.0 units
Acceptable for credit: Transfer CSU
An introduction to the fundamentals of chemistry including the composition of matter, energy, and chemical reactions and their application to everyday living. Applications of chemistry in the areas of medicine, nuclear power, plastics, household products and society's effect on the environment will be emphasized. Intended for non-science majors. Not open to students who are enrolled in or have completed Chemistry 100, 105, or Chemistry 120. (Fall, Spring) (Letter Grade or Pass/No Pass)

CHEM 120 Introductory Chemistry
4.0 units
Acceptable for credit: Transfer to UC, CSU
C-ID Course Number: CHEM 101
An introductory course emphasizing the principles and practices of chemistry for the student having no prior background in chemistry. Not open to students currently enrolled in or who have received credit for CHEM 100. Lecture 3 hours weekly. Lab : 3 hours weekly. (Fall, Spring, Summer) (Letter Grade or Pass/No Pass)

CHEM 140 Introduction to Organic and Biochemistry
4.0 units
Acceptable for credit: *Transfer to CSU, limited to UC/see counselor
Prerequisite: CHEM 120 - Introductory Chemistry
This course is a continuation of introductory chemistry(CHEM120). An introductory study of the compounds of organic functional groups and reactions involved in the body (biochemistry) as applied to the health sciences. Laboratory work consists of analysis and reactions of representative compounds including carbohydrate, amino acids, and lipid exposure. Consideration is given to the simple aspects of organic analysis and an introduction to reaction mechanisms and metabolic pathways. Lecture: 3 hours weekly. Lab: 3 hours weekly. (Spring) (Letter Grade or Pass/No Pass)

CHEM 150 General Chemistry 1
5.0 units
Acceptable for credit: Transfer to UC, CSU
C-ID Course Number: CHEM 110, CHEM 120S
Prerequisite: CHEM 120 - Introductory Chemistry or equivalent
A study of the principles and theories of chemistry. Topics include the kinetic molecular theory of matter, atomic structure and the periodic table, chemical bonding, gases and stoichiometry. Experiments in standard qualitative and quantitative analysis emphasizing the collection and interpretation of data are covered in the lab. Lecture: 3 hours weekly. Lab: 6 hours weekly. (Fall, Spring) (Letter Grade or Pass/No Pass)

CHEM 151 General Chemistry 2
5.0 units
Acceptable for credit: Transfer to UC, CSU
C-ID Course Number: CHEM 120S
Prerequisite: CHEM 150 - General Chemistry 1
A continuation of Chemistry 150, emphasizing the development of the principles and theories of chemical equilibria, chemical kinetics, thermodynamics and electro-chemistry, including an introduction to modern means of instrumental analysis. The laboratory consists of experiments in standard qualitative and quantitative analysis. Lecture: 3 hours weekly. Lab: 6 hours weekly. (Fall, Spring) (Letter Grade or Pass/No Pass)

CHEM 180 Organic Chemistry 1
5.0 units
Acceptable for credit: Transfer to UC, CSU
C-ID Course Number: CHEM 150 and 160S
Prerequisite: CHEM 151 - General Chemistry 2
CHEM 180 focuses on organic compounds and current methods used in the laboratory to synthesize, analyze, and purify. This course discusses physical properties, reactivity, structure, and synthesis of organic compounds and their derivatives during lecture three hours a week. Each week, there are six hours of laboratory time in which gas-chromatography (GC), infrared radiation (IR), and nuclear magnetic resonance (NMR) spectroscopic methods are used to analyze while crystallization, extraction, sublimation, and multiple methods of distillation will be used to purify the various compounds synthesized throughout the experiments. This course is designed for biochemistry, chemistry, chemical engineering, medical, pharmacy, and other majors that require a more intensive course than CHEM 140 when transferring to a four-year institution, or preparing for entrance examinations in the fields of dentistry, medicine, or pharmacy. Total 54 hours lecture, 108 hours laboratory. (Letter Grade Only)

CHEM 181 Organic Chemistry 2
5.0 units
Acceptable for credit: Transfer to UC, CSU
C-ID Course Number: CHEM 160S
Prerequisite: CHEM 180 - Organic Chemistry 1
CHEM 181 continues to focus on derivatives of organic compounds and current methods used in the laboratory to synthesize, analyze, and purify. This course discusses physical properties, reactivity, structure, and synthesis of organic compounds and even more derivatives during lecture three hours a week. Each week, there are six hours of laboratory time in which gas chromatography (GC), infrared radiation (IR), and nuclear magnetic resonance (NMR) spectroscopic methods are used to analyze while crystallization, extraction, sublimation, and multiple methods of distillation will be used to purify the various compounds synthesized throughout the experiments. This course is designed for biochemistry, chemistry, chemical engineering, medical, pharmacy, and other majors that require a more intensive course than CHEM 140 when transferring to a four-year institution, or preparing for entrance examinations in the fields of dentistry, medicine, or pharmacy. Total 54 hours lecture, 108 hours laboratory. (Letter Grade Only)

CHEM 189 Independent Projects
1.0 - 3.0 units
Acceptable for credit: Transfer CSU
Courses for students capable of independent work who demonstrate the need or desire for additional study beyond the regular curriculum. Enrollment allows students to pursue activities

such as directed field experience, research, or development of skills and competencies under faculty advisement and supervision. Independent projects may be earned in most disciplines. Students wishing to enroll in Independent Projects should contact the appropriate instructor identified in the class schedule. If the project proposed is acceptable to that instructor, a contract will be developed. All contracts for these classes must be completed and submitted to the Records Office no later than the end of the second week of the semester. Students may enroll for any combination (unit value) of Independent Projects 189 and/or 389 for a total of four semesters in a specific discipline. Units are awarded depending upon satisfactory performance and the amount of time committed by the student to the course. Allowable units vary according to discipline, and are based on the following formula: 1 unit - 48 hours per semester 2 units - 96 hours per semester 3 units - 144 hours per semester (Fall, Spring, Summer) (Letter Grade or Pass/No Pass)