

GENERAL CHEMISTRY COURSES

All of the introductory chemistry offerings below meet the premedical requirement for a course in inorganic chemistry, and meet the requirement for the Chemistry Major.

FIRST CHEMISTRY COURSES

Only one of the following may be taken for credit. Any of these courses may be combined with any "Second Chemistry Course", listed below to provide a year of introductory chemistry.

CHEM 1 Chemical Fundamentals

Prerequisite: high school chemistry or consent of the instructor.

This course is the traditional, large introductory chemistry course that most non-science major students will take. It is designed for people with a moderate background in chemistry, physics, and mathematics. Topics include: atomic and molecular structure, intermolecular forces and states of matter, the relationship of structure and bonding to the physical and chemical properties of matter, patterns of chemical reactions, qualitative thermodynamics, and equilibrium. Every week students will attend three lectures, one laboratory, and one recitation. **1.0 Course credit.** Offered both fall and spring semesters.

CHEM 11 General Chemistry I

Prerequisite: Score of at least 3 on the Advanced Placement Chemistry exam or consent of the instructor; and Mathematics 32 (may be taken concurrently).

This course covers the same topics as CHEM 1, but in greater detail and with a higher degree of mathematical rigor. Designed to provide a strong foundation for advanced courses in chemistry. For well prepared students intending to be science majors. Some familiarity with elementary calculus concepts will be assumed. Every week students will attend three lectures, one seminar (Frontiers in Chemistry), one laboratory, and one faculty run recitation. **1.5 Course credit.** Offered fall semester only.

CHEM 16 Chemistry of Materials

Prerequisite: high school chemistry or consent of the instructor.

This is an introductory course investigating the fundamentals and principles of chemistry through exploration of modern materials, e.g., thin films, superconductors, ultra small structures, modern electronics and photonics. Topics include: atomic and molecular structure, intermolecular forces, ionic and covalent bonding. Every week students will attend three lectures, one recitation, one laboratory. **1.0 Course credit.** Offered spring semester only.

SECOND CHEMISTRY COURSES

Only one of the following may be taken for credit. Any of these courses may be combined with any "First Chemistry Course", listed above, to provide a year of introductory chemistry

CHEM 2 Chemical Principles

Prerequisite: CHEM 1, 11, or 16

This course is taught at the same level and with the same emphasis as CHEM 1, but covers topics not covered in the first chemistry course including: physical and chemical equilibria, properties of solutions, thermodynamics, environmental chemistry, and electrochemistry. Every week students will attend three lectures, one laboratory, one recitation. **1.0 Course credit.** Offered fall and spring semesters.

CHEM 12 General Chemistry II

Prerequisite: CHEM 1, 11, or 16

This course is taught at the same level and with the same emphasis as CHEM 11, but covers topics not covered in the first chemistry course. Every week students will attend three lectures, one seminar (Frontiers in Chemistry), one laboratory, and one faculty run recitation. **1.5 Course credit.** Offered spring semester only.