

COURSES

CHEMISTRY (Chem)**1. Introduction to Science and Ideas (3)**

Not open to students with credit in college chemistry; for nonscience majors. Prerequisite: one year of high school algebra. Qualitative introduction to principles and theories of chemistry and related physical sciences. Reading assignments dealing with history and philosophy of science, the interaction of science and society, and the nature of the scientific enterprise. (3 lecture-demonstration hours)

1A-B. General Chemistry and Qualitative Analysis (5-5)

Chem 1A not open to students with credit in Chem 2A-B. Prerequisite: high school chemistry or physics; advanced algebra or Math 4. Fundamental principles of chemistry; properties of common elements and their compounds; application of the principles of chemical equilibrium to separation and identification of ions. (3 lecture, 6 lab hours)

2A-B. Introductory General Chemistry (3-3)

Prerequisite: high school algebra, plane geometry. Composition of matter and physical and chemical changes; fundamental laws and principles; atomic and molecular structure, qualitative and quantitative techniques; introduction to organic chemistry and biochemistry. (2 lecture, 3 lab hours)

2C. Introduction to Organic and Biological Chemistry (4)

Not open to students with credit in Chem 2B. Primarily for students in the health-oriented professions; not a substitute for Chem 8. Prerequisite: Chem 2A. Introduction to the basic concepts of organic and biological chemistry. Structure and behavior of organic and biochemical compounds, metabolism, and regulation. (3 lecture, 3 lab hours)

4A. General Chemistry (4)

Not open to students with credit in Chem 1A or 2A-B. For chemistry majors and premedical students. Prerequisite: high school chemistry, advanced algebra, or Math 4. Stoichiometry, solutions, ionic equilibrium, gases, atomic structure and bonding, liquids and solids. (3 lecture, 3 lab hours)

4B. Introduction to Inorganic Chemistry (3)

Prerequisite: Chem 4A, 1A or permission of instructor. Introduction to bonding, reactions and structure of inorganic and coordination compounds. Preparation and characterization of simple inorganic compounds. (2 lecture, 3 lab hours)

8. Elementary Organic Chemistry (3)

Not open to chemistry majors. Recommended for students requiring a one-semester course in the field. Prerequisite: Chem 1A or 2A-B or 4A-B. Lectures, discussions, and demonstrations of fundamental principles; structure and chemical behavior of organic compounds.

28. Introductory Organic Chemistry (3)

For chemistry majors; recommended for premedical students and other science majors. Not open to students with credit in Chem 8. (Chem 28 and 128 together constitute a year sequence.) Prerequisite: Chem 1A-B or Chem 2A-B or 4A-B. Introductory survey of the reactions of principal functional groups.

29. Introductory Organic Chemistry Laboratory (2)

Chem 29 and 129 together constitute a year sequence. Prerequisite or concurrently: Chem 28. Laboratory study of properties and reactions of organic compounds and synthesis of representative compounds. (6 lab hours)

99. Glass Blowing (1)

Enrollment limited with preference to junior and senior chemistry majors. Elements of glass blowing; construction and repair of glass apparatus. (3 lab hours)