

CHEM - Chemistry Courses

CHEM B1A General Chemistry I

5 units

Prerequisites: BC placement into reading level 06 and writing level 06 and math level 04 or successful completion of ACDV B50 or ACDV B61 or equivalent and ENGL B50 or equivalent and MATH B70 or equivalent CHEM B2A or High School Chemistry, or equivalent with a grade of C or better.

Description: Basic principles of chemistry, including atomic structures, stoichiometry, reaction energy, chemical bonding, periodic relationships of the elements, states and properties of matter, solutions, introduction to acids and bases, a brief introduction to descriptive chemistry of the elements, and other topics as appropriate. The lab emphasizes quantitative methods.

C-ID: CHEM 110 (Taking both CHEM B1A AND CHEM B1B is the C-ID Equivalent of CHEM 120S)

Hours: 54 lecture, 108 lab

Transferable: CSU, UC, and private colleges; IGETC 5.A; IGETC 5.C; CSU GE B.1; CSU GE B.3; BC GE B.1

CHEM B1B General Chemistry and Chemical Analysis

5 units

Prerequisites: BC placement into math level 04 or successful completion of MATH B70 and CHEM B1A or equivalent with a grade of C or better.

Recommended: Chemistry prerequisite accomplished within two years prior to taking this class.

Description: Continuation of CHEM B1A. Includes kinetics; equilibrium; thermodynamics; equilibrium as it applies to acid-base, solubility, and electrochemistry; nuclear chemistry; coordination chemistry; the descriptive chemistry of selected elements; and an introduction to organic chemistry. The lab includes qualitative analysis, quantitative techniques, and descriptive experiments.

C-ID: CHEM 120S (for taking CHEM B1A + B1B)

Hours: 54 lecture, 108 lab

Transferable: CSU, UC, and private colleges

CHEM B2A Introductory General Chemistry

4 units

Prerequisites: BC placement into reading level 06 and writing level 06 and math level 03 or successful completion of ACDV B50 or ACDV B61 or equivalent and ENGL B50 or equivalent and MATH B60 or equivalent with a grade of C or better.

Description: Course covers the principles and applications of general college chemistry. It is designed for liberal arts, physical education and some baccalaureate nursing majors. Recommended also for students who need additional background for the more intensive course, CHEM B1A.

Note: Not open to students with credit in CHEM B1A.

C-ID: CHEM 101

Hours: 54 lecture, 54 lab

Transferable: CSU, UC, and private colleges; IGETC 5.A; IGETC 5.C; CSU GE B.1; CSU GE B.3; BC GE B.1

CHEM B11 Introduction to General, Organic, and Biochemistry

5 units

Prerequisites: BC placement into reading level 06 and math level 03 or successful completion of ACDV B50 or ACDV B61 or equivalent and MATH B60 or equivalent with a grade of C or better.

Description: An introduction to general, organic, and biochemistry

using a qualitative and quantitative approach. Topics include physical principles of chemistry; inorganic compounds and reactions; a survey of organic chemistry-classification, compounds, reactions, nomenclature; biochemistry-classification, composition, reactions in living organisms.

Hours: 54 lecture, 108 lab

Transferable: CSU, UC, and private colleges; IGETC 5.A; IGETC 5.C; CSU GE B.1; CSU GE B.3; BC GE B.1

CHEM B18 Elementary Organic Chemistry

5 units

Prerequisites: Successful completion of CHEM B1A or equivalent with a grade of C or better or CHEM B2A or equivalent with a grade of B or better or instructor's approval.

Description: Introduction to and study of the chemistry of organic compounds: the functional groups, representative types of, theory behind, organic reactions, and the biological classes of proteins, fats, carbohydrates, and nucleic acids. Will prepare students well for further study in organic chemistry, and serve those interested in the sciences and related fields, including ones requiring a semester of organic chemistry for transfer/entrance. The lab covers fundamental techniques including separations, synthesis, identification, and instrumental analysis.

Hours: 54 lecture, 108 lab

Transferable: CSU, UC, and private colleges; IGETC 5.A; IGETC 5.C; CSU GE B.1; CSU GE B.3; BC GE B.1

CHEM B30A Organic Chemistry for Science Majors, I

5 units

Prerequisites: Successful completion of CHEM B1B with a grade of C or better.

Description: This is the first semester of a one-year course in organic chemistry intended for majors in the natural sciences (chemistry, biochemistry, biology, physics, pre-medicine, and related areas). Taken as a sequence, the course covers fundamental principles and concepts of organic chemistry including (but not limited to) bonding, molecular structure, the standard functional groups, nomenclature, stereochemistry, reactions, and mechanisms. Strong emphasis is placed on reaction mechanisms, stereochemistry, multi-step syntheses, and structure elucidation using hands-on modern instrumental methods (multinuclear NMR, FT-IR, GC, etc.). In addition, various modern computational techniques and an introduction to bio-molecules are presented. The lab covers preparative and modern analytical techniques and instrumentation, exposure to a variety of reactions and procedures, performing multistep syntheses, and safety and ecologically friendly protocols.

Hours: 54 lecture, 108 lab

C-ID: CHEM 160S (Taking both CHEM B30A AND CHEM B30B is the C-ID Equivalent of CHEM 160S)

Transferable: CSU, UC, and private colleges; CSU GE B.1

CHEM B30B Organic Chemistry for Science Majors, II

5 units

Prerequisites: Successful completion of CHEM B30A with a grade of C or better.

Description: This is the second semester of a one-year course in organic chemistry intended for majors in the natural sciences (chemistry, biochemistry, biology, physics, pre-medicine, and related areas). Taken as a sequence, the course covers fundamental

principles and concepts of organic chemistry including, but not limited to structure, bonding, nomenclature, stereochemistry, the standard functional groups, reactions, and mechanisms. Special emphasis is placed on reaction mechanisms, stereochemistry of reactions, multi-step syntheses, and structure elucidation using modern instrumental methods (multinuclear NMR, FT-IR, GC, etc.). In addition, various modern computational techniques and an introduction to bio-molecules are presented.

Hours: 54 lecture, 108 lab

C-ID: CHEM 160S

Transferable: CSU, UC, and private colleges; CSU GE B.1

Courses

CHEM - Chemistry Courses

CHEM B10 Chemistry and Society

3 units

Prerequisites: BC placement into math level 03 or successful completion of MATH B60 or equivalent with a grade of C or better.

Description: This course introduces student to basic concepts of chemistry and requires analyses of socio-cultural contexts within which chemistry plays a central role. Major topics will include environmental issues, energy, and health. This course is not recommended for science or health-science majors. An outside activity will be required.

Hours: 36 Lecture, 54 Lab

Transferable: CSU and private colleges.

EDUC - Education Courses

EDUC B24 Introduction to Classroom Teaching

3 units

Description: This course introduces students to the concepts and issues related to teaching diverse learners in today's contemporary schools, Kindergarten through grade 12 (K-12). Topics include teaching as a profession and career, historical and philosophical foundations of the American education system, contemporary educational issues, California's content standards and frameworks, and teacher performance standards. In addition to class time, the course requires a minimum of 50 hours of structured fieldwork in public school elementary classrooms that represent California's diverse student population, and includes cooperation with at least one certificated classroom teacher.

Note: Special Education majors must complete 25 hours in a special education classroom.

Hours: 54 lecture

C-ID: EDUC 200

Transferable: CSU, UC, and private colleges

EMTC - Emergency Medical Technician Courses

EMTC B10 Paramedic 1

6 units

Prerequisites: Limitation: Emergency Medical Technician card - Required by Title 22 Statute - Possess a high school diploma or general education equivalent; and possess a current basic cardiac life support (CPR) card equivalent to the current American Heart Association's Guidelines for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care at the healthcare provider level; and possess a current EMT certificate or NREMT-Basic registration; or possess a current AEMT certificate in the State of California; or be currently registered as an EMT-Intermediate with the NREMT.

Corequisite: EMTC B11 must be taken concurrently.

Description: This course introduces the student to the roles and

responsibilities of the Paramedic within the Emergency Medical System. The student will be expected to apply basic concepts of anatomy, pathophysiology, pharmacology, patient assessment, the health and safety of the paramedic, documentation, and medical legal issues to be able to formulate a 'field impression' of patient status.

Hours: 108 lecture

Transferable: CSU and private colleges.

EMTC B50 Emergency Medical Technician

9 units

Description: Provides foundational skills and assessment techniques to care for an ill or injured person in the pre-hospital setting. We follow state regulations for EMT-1 training and leads to certification at the local, county, and state level. Required for all ambulance personnel and appropriate for many other first responders such as law enforcement

Materials Fee: \$24.00

Hours: 153 lecture, 27 lab

Transferable: Not transferable. Degree applicable.

EMTC B50R Emergency Medical Technician I Recertification Preparation

1.5 unit

Description: A review of material in EMTC B50 with updates on EMT-1 issues and new material or skill techniques. An approved refresher course that follows state regulations and leads to a recertification completion certificate. Required to continue practice of pre-hospital emergency care.

Materials Fee: \$24.00

Hours: 27 lecture

Repeat: Legally Mandated Training

Transferable: Not transferable. Not degree applicable.

EMTC B51 Emergency Medical Responder

3 units

Description: This course provides out-of-hospital training, at the most basic, entry level scope of practice, in prehospital emergency medical care. Emergency Medical Responders (EMR) are typically first to respond to the scene of medical emergencies in order to provide initial Basic Life Support (BLS) care to patients in the workplace, and or in rural environments until an ambulance arrives to take over patient care. This course will award successfully completed students with a job skills certificate in EMR and meets the requirements of the California Code of Regulations, Title 22, Division 9, Chapter 1.5, as well as the National EMS Education Standards.

Hours: 54 lecture

Transferable: Not transferable. Not degree applicable.

EMTC B60 Paramedic Program Preparatory Course

1.5 units

Limitation-Prerequisite : 1) Possess a high school diploma or general education equivalent; and possess a current basic cardiac life support (CPR) card equivalent to the current American Heart