

**Ceramics: see Art**

## CHEMISTRY

### CHEM 1A General Chemistry

**Units:** 5.0 **Hours:** 4.0 Lecture and 3.0 Laboratory  
**Transferable:** CSU, UC; CSU-GE:B1, B3, IGETC:5A, 5C, GAV-GE:B1, B3

This is the first semester of a year-long general chemistry course designed for science, engineering and pre-professional majors. Topics include properties of matter, atomic structure, the Periodic Table, stoichiometry, elements and compounds, bonding, molecular structure, chemical reactions, states of matter, as well as the properties of gases and solutions. (C-ID: CHEM 110) (C-ID: CHEM 120S: Chem 1A + Chem 1B) ADVISORY: Eligible for English 250 and English 260. PREREQUISITE: Chemistry 30A with a grade of 'C' or better, or high school chemistry with a grade of 'B' or better completed within the last five years, and Mathematics 233 with a grade of 'C' or better.

### CHEM 1B General Chemistry

**Units:** 5.0 **Hours:** 4.0 Lecture and 3.0 Laboratory  
**Transferable:** CSU, UC; CSU-GE:B1, B3, IGETC:5A, 5C, GAV-GE:B1, B3

This is the second semester of a year-long general chemistry course designed as a continuation of Chemistry 1A. Topics include solutions, thermodynamics, chemical kinetics, the equilibria of acids and bases, solubility systems, complex ions, electrochemistry, the chemistry of metals and nonmetals, as well as nuclear chemistry. (C-ID: CHEM 120S: Chem 1A + Chem 1B) PREREQUISITE: Chemistry 1A with a grade of C or better.

### CHEM 12A Organic Chemistry

**Units:** 5.0 **Hours:** 3.0 Lecture and 6.0 Laboratory  
**Transferable:** CSU, UC; CSU-GE:B1, B3, IGETC:5A, 5C, GAV-GE:B1, B3

This is the first semester of a year-long organic chemistry course designed for chemistry majors, pre-professional medical, biology, and science majors. Topics include nomenclature, stereochemistry, mechanisms, reactions and spectroscopic studies of organic compounds. Lecture and laboratory methods will focus on synthesis, isolation, purification, elucidation, and identification of organic structures, as well as instrumental methods and data interpretation. (C-ID: CHEM 150, CHEM 160S) PREREQUISITE: Chemistry 1B

### CHEM 12B Organic Chemistry

**Units:** 5.0 **Hours:** 3.0 Lecture and 6.0 Laboratory  
**Transferable:** CSU, UC; CSU-GE:B1, B3, IGETC:5A, 5C, GAV-GE:B1, B3

This is the second semester of a year-long organic chemistry course designed as a continuation of Chemistry 12A. Topics include nomenclature, stereochemistry, mechanism, reactions, and spectroscopic studies of the various organic functional groups. Lecture and laboratory methods will focus on synthesis, isolation, purification, elucidation and identification of organic structures as well as instrumental methods and data interpretation. (C-ID: CHEM 160S) PREREQUISITE: Chemistry 12A

### CHEM 30A Elementary Chemistry

**Units:** 4.0 **Hours:** 3.0 Lecture and 3.0 Laboratory  
**Transferable:** CSU, UC; CSU-GE:B1, B3, IGETC:5A, 5C, GAV-GE:B1, B3

This is a first semester college chemistry course designed for majors preparing to take Chemistry 1A, nursing and allied health students, as well as general education. The course will cover the principles of chemistry including properties of matter, energy, atomic theory, the Periodic Table, stoichiometry, elements and compounds, the properties of bonding, molecular structure, chemical reactions, states of matter, acidity, solutions and gases, as well as an introduction to organic chemistry. ADVISORY: Mathematics 205; eligible for English 250 and English 260.

### CHEM 30B Elementary Organic and Biochemistry

**Units:** 4.0 **Hours:** 3.0 Lecture and 3.0 Laboratory  
**Transferable:** CSU, UC; CSU-GE:B1, B3, IGETC:5A, 5C, GAV-GE:B1, B3

This is the second semester of a year-long elementary chemistry course designed as a continuation of Chemistry 30A. It is designed for science majors, nursing and allied health students. The course will cover the principles of organic and biochemistry including hydrocarbons, alcohols, aldehydes and ketones, carboxylic acids, amines and amides, carbohydrates, lipids, proteins and their functions in physiological systems, as well as organic chemical reactions. PREREQUISITE: Chemistry 30A with a grade of C or better.

## CHILD DEVELOPMENT

### CD 1 Principles and Philosophies of Early Childhood Education

**Units:** 3.0 **Hours:** 3.0 Lecture  
**Transferable:** CSU

An overview of the developing child, current theories and research within the context of family, school, and community, and a historical perspective on the development of early childhood programs which are developmentally appropriate. The processes of socialization and identity development will be highlighted showing the importance of respectful, reciprocal relationships that support and empower families and strategies in supporting physical, social, creative and intellectual development for all children. Observations in schools are to be arranged. (C-ID: ECE 120) ADVISORY: Eligible for English 250 and English 260.

### CD 2 Early Child Development

**Units:** 3.0 **Hours:** 3.0 Lecture  
**Transferable:** CSU, UC; CSU-GE:D, E, IGETC:4I, GAV-GE:D2, E2

This course examines typical and atypical development within the psychosocial, cognitive, and physical domains from conception through the preschool years. Upon completion of this course, students will be able to evaluate theories and research of child development and effectively apply and communicate their understanding through observation and evaluation. This course is also listed as PSYC 2. This course has the option of a letter grade or pass/no pass. (C-ID: CDEV 100: CD 2 + CD 3) ADVISORY: Eligible for English 1A; transfer students consult with advisor.

### CD 3 Child Growth and Development During the School Years

**Units:** 3.0 **Hours:** 3.0 Lecture  
**Transferable:** CSU, UC; CSU-GE:D, E, IGETC:4I, GAV-GE:D2, E2

This course examines typical and atypical development within the psychosocial, cognitive, and physical domains from middle childhood through adolescence. Upon completion of this course, students will be able to evaluate theories and research of child development and effectively apply and communicate their understanding through observation and evaluation. This course has the option of a letter grade or pass/no pass. This course is also listed as PSYC 3. (C-ID: CDEV 100: CD 2 + CD 3) ADVISORY: Eligible for English 1A; transfer students consult with advisor.

### CD 4 Observing and Assessing Children

**Units:** 3.0 **Hours:** 3.0 Lecture  
**Transferable:** CSU

Provides training in a variety of naturalistic and formal observation techniques, and discusses the use of standardized testing in children. Students learn to use formal observation tools, make a case study portfolio and give a parent conference. Observing children in classroom settings is required. This course has the option of a letter grade or pass/no pass. (C-ID: ECE 200) ADVISORY: Eligible for English 1A; transfer students consult with advisor.

All courses listed here are part of Gavilan College's approved curriculum.  
 All courses are not offered every semester. Check the Class Schedule for current offerings.