

# CHEMISTRY (CHE)

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## **CHE-1110: Consumer Chemistry (4 hours)**

Consumer applications of fundamental chemistry principles. Designed for the liberal arts non-science majors. Cannot be used for credit in any science major. Fee: Required. Includes a Lab.

## **CHE-2000: Chemistry in the World Today (3 hours)**

Applications of chemical concepts to technological and societal issues. Field Trip: Required. Prerequisite: Minimum of one year of high school chemistry. Replaces CHE-3000,

## **CHE-2100: Health Science Applications in Chemistry (3 hours)**

Applications of chemical concepts to technological and societal issues with special emphasis on health science related issues. Replaces: CHE 3005.

## **CHE-2200: Fundamentals of Chemistry (4 hours)**

A survey of concepts and principles of general inorganic chemistry. Introduction to organic chemistry. Fee: Required. Prerequisite: C or higher in MAT-0110 or higher and one year of high school chemistry. Includes a Lab.

## **CHE-2211: General Chemistry I (4 hours)**

The chemical principles of matter, atomic theory, reactions, bonding, thermochemistry and gases. Prerequisites: C or higher in MAT-0110 or higher and one year of high school chemistry. Fee: Required. Includes a Lab.

## **CHE-2212: General Chemistry II (4 hours)**

The chemical principles of phases of matter, solutions, kinetics, equilibrium, acids and bases, solubility, complex ions and coordination compounds, thermochemistry and electrochemistry. Fee: Required. Prerequisite: C or higher in CHE-2211. Includes a Lab.

## **CHE-2300: Introduction to Organic and Biological Chemistry (4 hours)**

Introduction to nomenclature and reactions for simple compounds of carbon. A study of the composition, structure and function of molecules within organisms. Students may not receive credit for graduation for both CHE-2300 and CHE-3311. Prerequisite: C or higher in CHE-2200 or higher. Fee: Required. Includes a Lab.

## **CHE-3311: Organic Chemistry I (4 hours)**

Structure and reactions of saturated and unsaturated hydrocarbons, alkyl halides, alcohol, phenols and ethers. Introduction to stereochemistry and spectroscopy. Fee: Required. Prerequisite: C or higher in CHE-2212. Includes a Lab.

## **CHE-3312: Organic Chemistry II (4 hours)**

Structure and reactions of carbonyl compounds, carboxylic acids and their derivatives, amines, aromatic hydrocarbons and polymers. Fee: Required. Prerequisite: C or higher in CHE-3311. Includes a Lab.

## **CHE-3410: Analytical Chemistry (4 hours)**

Theory and practice of analytical techniques including instrumental methods of analysis. Fee: Required. Prerequisite: C or higher in CHE-2212. Includes a Lab.

## **CHE-3712: Biochemistry (4 hours)**

The study of the structure, function and transformations of molecules within biological organisms. Students may not receive credit for graduation for both CHE-2300 and CHE-3712. Fee: Required. Prerequisite: C or higher in CHE-3312 or equivalent. Includes a Lab.

## **CHE-4410: Instrumental Analysis (4 hours)**

Theory and practical instruction in various instrumental methods commonly atomic and molecular analyses. Field Trip: Required. Fee: Required. Prerequisite: C or higher in CHE-3410 and CHE-3312. Includes a Lab.

## **CHE-4720: ACCA - Chemistry (2 hours)**

A limited number of chemistry courses are offered by the Associated Colleges of the Chicago Area. Consult the Natural Science Department for details on specific courses.

## **CHE-4901: Seminar in Chemistry (3 hours)**

Readings, discussion, and oral and written presentations of current topics in selected areas of physical science. Cross-Listed with: BIO-4900 and EAS-4901. Prerequisite: Senior college standing and 16 semester hours in physical science.

## **CHE-4950: Independent Study in Chemistry (1-6 hours)**

Limitations: Department consent; Junior or Senior class standing; one independent study per semester and cumulative GPA of at least 2.00; a 2.75 GPA in the pursued discipline.

## **CHE-4990: Internship in Chemistry (4 hours)**

Supervised involvement in chemistry-related work experience. Prerequisite: A minimum overall GPA of 2.75 in 18 or more hours of chemistry; department consent.