CHEM (Chemistry)

CHEM 1000 - Chemistry of Our Environment
(4 Credits)

This course is an introductory, entry-level course in chemistry for non-science majors, with emphasis on every day, practical applications. The course covers basic chemistry principles, which are then applied to contemporary issues. Use of mathematics is minimized as much as possible. The laboratory assignments demonstrate topics discussed in class. Note: This course is a prerequisite for CHEM-1060 and is recommended as a Science elective in the Liberal Arts or General Studies program. (Prerequisite: MATH 0101 or higher with grade of C or ACCUPLACER testing out of MATH 0101) Lecture: 3 hours, Lab: 3 hours - Lab Fee: $20

CHEM 1010 - Survey of Biomedical Chemistry
(5 Credits)

This is an introductory study of chemistry principles that form the foundation for understanding biomedical and dental sciences. Content includes atomic theory, chemical bonding, the nature and properties of matter and solutions, the colloidal state, crystallization and the chemical functioning of basic biological compounds. Laboratory exercises demonstrate concepts presented in lectures. (Prerequisite: MATH 0101 or higher with grade of C or better or ACCUPLACER testing out of MATH 0101 and Chemistry placement exam or CHEM 1020 with grade of C or better.) Lecture: 3 hours, Lab: 3 hours, Recitation: 1 hour - Lab Fee: $20

CHEM 1020 - Basic Skills for Chemistry
(3 Credits)

This course is for students who are inadequately prepared to enter General Chemistry, Health Science Chemistry or Survey of Biomedical Chemistry. Topics stressed are physical measurements, problem-solving and chemical language. Students are given first-hand experience in data gathering, evaluation and presentation. Note: Not open to students who have already completed CHEM 1010, 1030 or 1180 without permission of department chairperson. (Prerequisite: MATH 0101 or higher with grade of C or better or ACCUPLACER testing out of MATH 0101 and Chemistry placement exam) Lab/ Recitation: 4 hours - Lab Fee: $20

CHEM 1030 - General Chemistry I
(5 Credits)

Principles of chemistry dealing with the structure of matter, periodic system, chemical bonding, formulas and equations are studied in this course. Laboratory work provides an opportunity to see the applications of these chemical principles. Note: This course is for students who plan to pursue further studies in science, pharmacy or engineering. (Prerequisite: MATH 0101 or higher with grade of C or better or ACCUPLACER testing out of MATH 0101 and Chemistry placement exam or CHEM 1020 with grade of C or better) Lecture: 3 hours, Lab: 3 hours, Recitation: 1 hour - Lab Fee: $20

CHEM 1060 - Chemistry of Hazardous Materials
(3 Credits)

This course provide an insight into hazardous liquids, solids and gases. Students are exposed to basic chemistry, storage, handling laws, standards and firefighting practices pertaining to hazardous liquids, solids and gases. (Prerequisites: CHEM 1000). Lecture: 3 hours

CHEM 1100 - General Chemistry II
(5 Credits)

This course, together with CHEM 1030 satisfies the requirement for one year of science. Lectures are concerned with rates of reactions, equilibria, thermodynamics, electrochemistry, nuclear chemistry and complexation reactions. Laboratory involves further application of chemical principles and the separation and identification of inorganic ions. (Prerequisite: CHEM 1030 with a grade of C or better) Lecture: 3 hours, Recitation: 1 hour, Lab: 3 hours - Lab Fee: $20

CHEM 2250 - Organic Chemistry I Lecture
(3 Credits)

This course deals with chemical principles involved in organic reactions. Emphasis is placed on compounds in the aliphatic series. (Prerequisites: Enrollment in ENGN/ENBC or ENGN/ENCH programs and CHEM 1100 with a grade of C or better). Lecture: 3 hours

CHEM 2260 - Organic Chemistry II Lecture
(3 Credits)

A continuation of CHEM 2250, this course emphasizes the aromatic series of organic compounds and synthetic organic chemistry. (Prerequisite: Enrollment in ENGN/ENCH programs and CHEM 2250 with a grade of C or better) Lecture: 3 hours

CHEM 2270 - Organic Chemistry I

(5 Credits)

This course deals with the chemical principles involved in organic reactions. Emphasis is placed on compounds in the aliphatic series. The laboratory enhances lecture material by illustrating methods of preparation, purification and characterization of organic compounds using accepted techniques. (Prerequisite: CHEM 1100 with a grade of C or better) Lecture: 3 hours, Lab: 3 hours, Recitation: 1 hour

CHEM 2280 - Organic Chemistry II

(5 Credits)

A continuation of CHEM 2270, this course emphasizes the aromatic series of organic compounds and synthetic organic chemistry. The laboratory enhances lecture material by illustrating methods of preparation, purification and characterization of organic compounds using accepted techniques. (Prerequisite: CHEM 2270) Lecture: 3 hours, Lab: 3 hours, Recitation: 1 hour

CHEM 2500 - Applications in Science and Math

(1 Credit)

This capstone course is intended for students in their final semester of the Science program. It will allow students an opportunity to demonstrate an integration of knowledge and abilities acquired in previous science and mathematics courses with the added intent of having students develop new insights. Students will read selected articles, such as those that come from scientific journals, in a variety of fields and then have the opportunity to collaborate with their peers and hone writing, synthesis and presentation skills in a seminar setting. (Prerequisite: Successful completion of a minimum of 21 General Education credits and a minimum of 18 Science credits or permission of instructor - SEE DEPARTMENT CHAIRPERSON FOR PERMISSION OVERRIDE) Lecture: 2 hours