Chemistry (Chem)

Enrollment in Chem 101 and 115 is determined by a placement test administered in August.

101 Introduction to the Science of Chemistry 4 credit hours

Intended for students who have not had high school chemistry or have a weak chemistry background but desire to pursue a program that requires chemistry. May also be used to fulfill the physical science general education requirement. Introduction to the philosophy of science measurements, chemical shorthand, dimensional analysis, stoichiometry, the chemical equation and some foundation theories of science. The laboratory is intended to develop observational and interpretive skills. Enrollment in Chem 101 is determined by a placement test administered only in August. Three hours lecture and two hours lab. (Fall and Spring)

115 General Chemistry I 5 credit hours

Intended for students who need chemistry as part of their preparation for a profession (chemist, medical laboratory scientist, physician, dentist, pharmacist, engineer, biologist, science teacher, etc.). Content chosen from basic areas of chemistry, including quantitative chemical equilibrium, to provide the foundation on which to build further study. The laboratory includes quantitative and qualitative analytical experiences. Three hours lecture and three hours lab. Prereq: Satisfactory performance on the chemistry placement test (administered only in August), or successful completion of Chem 101 with a grade of "C" or better. (Fall)

116 General Chemistry II 5 credit hours

A continuation of Chem 115. Prereq: Grade of "C" or better in Chem 115. Three hours lecture and three hours lab. (Spring)

225 Organic Chemistry I 5 credit hours

A study of the chemistry of aliphatic and aromatic compounds including: reactions, reaction mechanisms, structure, synthesis, and properties. The laboratory includes discussion and experience with basic techniques of separation, identification and syntheses of representative compounds. Prereq: Chem 116. Three hours lecture and three hours lab. (Fall)

226 Organic Chemistry II 5 credit hours

A continuation of Chem 225. Prereq: Grade of "C" or better in Chem 225. Three hours lecture and three hours lab. (Spring)

330 Biochemistry (also Biol 330) 4 credit hours

The chemistry of amino acids, proteins, lipids, carbohydrates, and nucleic acids is examined. Also included is a survey of cellular metabolic pathways and methods of energy production. Emphasis is placed on those pathways common to all life. Three lecture hours and a recitation per week. Prereq: Biol 111, Biol 205, Biol 206, and Chem 226 each with a grade of 'C' or higher. (Fall)

331 Biochemistry II 3 credit hours

This course is a continuation of Biol 330. Emphasis is placed on those topics not fully covered in Biol 330 including cell membranes, fatty acid and lipid metabolism, the metabolism of nitrogen-containing molecules, and protein synthesis. Recommended for students wishing to pursue pharmacy or medical degrees. Prereq: Biol 111, 205, 206, 330, and Chem 226 each with a grade of "C" or higher. (Spring)

340 Quantitative Analytical Chemistry 4 credit hours

An introduction to the principles and methods of chemical analysis, including method development, elementary statistics, separation methods, gravimetric and volumetric analysis and instrumental methods. The lab emphasizes the analysis of samples using analytical techniques. Computer simulation and analysis is used in

all feasible cases. Three hours lecture and three hours lab. Prereq: Chem 225. (Spring; as needed)

460-469 Special Topics in Chemistry 3 credit hours

Elective courses may be offered as special topics in chemistry on an occasional basis depending on the availability and interests of students and faculty. Prereq: Junior standing and permission of instructor. (As needed)