CHEMISTRY (CHE)

CHE 120 (3 credit hours)
Chemistry in Society
Introduces non-science majors to the main concepts and applications of chemistry in our society. Lecture: 3.0 credits (45 contact hours).
Pre-requisite: (Math ACT 18 or higher) OR (Completion of quantitative reasoning co-requisite course).
Attributes: SN - Science, Course Also Offered in Modules
Components: LEC: Lecture

CHE 125 (1 credit hours)
Chemistry in Society Laboratory
Reinforces concepts covered in CHE 120 and introduces scientific inquiry through selected experiments. Laboratory: 1 credit (45 contact hours).
Pre- or co-requisite: CHE 120.
Attributes: SL - Science Laboratory
Components: LAB: Laboratory

CHE 130 (3 credit hours)
Introductory General and Biological Chemistry
Presents the elementary principles of general, organic and biological chemistry. Lecture: 3.0 credits (45 contact hours).
Pre-requisite: (Math ACT 19 or higher) OR (Completion of MAT 85, MAT 110, MAT 116, MAT 126, or MAT 150 with a grade of "C" or better).
Attributes: SN - Science
Components: LEC: Lecture

CHE 135 (1 credit hours)
Introductory General and Biological Chemistry Laboratory
Reinforces concepts covered in CHE 130 and introduces basic laboratory techniques, methods, and instrumentation through selected experiments pertaining to chemical and physical properties, quantitative analysis, qualitative analysis, and the reactions of organic and biomolecules. Laboratory: 1 credit hour (30 contact hours).
Pre- or co-requisite: CHE 130 concurrent enrollment OR CHE 130 with a grade of "C" or better.
Attributes: SL - Science Laboratory
Components: LAB: Laboratory

CHE 140 (3 credit hours)
Introductory General Chemistry
Introduces topics in general chemistry, including properties of matter, stoichiometry, gases, atomic structure, bonding, acids and bases, oxidation and reduction, and nuclear chemistry. Intended for students interested in a one-semester course in general chemistry and recommended for students seeking careers in allied health fields. Lecture: 3 credits (45 contact hours).
Pre-requisite: (Math ACT 19 or higher) OR (Completion of MAT 85, MAT 110, MAT 116, MAT 126, or MAT 150 with a grade of "C" or better).
Attributes: SN - Science
Components: LEC: Lecture

CHE 145 (1 credit hours)
Introductory General Chemistry Laboratory
Reinforces concepts covered in CHE 140 and introduces basic laboratory techniques, methods, and instrumentation through selected experiments dealing with chemical and physical properties, qualitative analysis, and quantitative analysis. Laboratory: 1 credit (45 contact hours).
Pre- or co-requisite: CHE 140.
Attributes: SL - Science Laboratory
Components: LAB: Laboratory

CHE 150 (3 credit hours)
Introduction to Organic and Biological Chemistry
Continues the sequence begun in CHE 140. Introduces topics in organic chemistry and biochemistry. Introduces organic functional groups, their reactions, and the chemistry of proteins, nucleic acids, carbohydrates, and lipids.
Pre-requisite: CHE 140 with a grade of C or better Lecture: 3 credits (45 contact hours).
Attributes: SN - Science
Components: LEC: Lecture

CHE 155 (1 credit hours)
Introduction to Organic and Biological Chemistry Laboratory
Reinforces concepts covered in CHE 150 and introduces basic laboratory techniques, methods, and instrumentation through selected experiments dealing with the preparation, characterization, and purification of organic compounds and the reactions of biomolecules. Laboratory: 1 credit (45 contact hours).
Pre-requisite: CHE 140 and CHE 145.
Pre- or co-requisite: CHE 150.
Attributes: SL - Science Laboratory
Components: LAB: Laboratory

CHE 170 (4 credit hours)
General College Chemistry I
Focuses on major chemical topics, including stoichiometry, atomic structure, properties of matter and the relationship between molecular structure and chemical behavior. Emphasizes solving of mathematical problems which illustrate the principles of chemistry. Designed for students in the sciences, engineering, and pre-professional programs. Lecture: 4.0 credits (60 contact hours).
Pre-requisite: (ACT math score of 22) OR (College Algebra or higher with "C" or better) OR (CHE 130 OR CHE 140 with a grade of "C" or better) OR (Appropriate score on chemistry placement exam).
Attributes: SN - Science
Components: LEC: Lecture

CHE 175 (1 credit hours)
General College Chemistry Laboratory I
Reinforces concepts covered in CHE 170 and introduces basic laboratory techniques, methods, and instrumentation through selected experiments. Emphasizes both quantitative and qualitative techniques. Laboratory: 1 credit (45 contact hours).
Pre- or co-requisite: CHE 170.
Attributes: SL - Science Laboratory, SN - Science
Components: LAB: Laboratory

CHE 180 (4 credit hours)
General College Chemistry II
Continues CHE 170. Focuses on major chemical topics, including acid-base chemistry, kinetics, thermodynamics, and chemical equilibrium. Emphasizes solving of mathematical problems which illustrate the principles of chemistry. Designed for students in the sciences, engineering, and pre-professional programs. Lecture: 4.0 credits (60 contact hours).
Pre-requisite: (CHE 170 with a grade of "C" or better) AND (Completion of College Algebra Readiness course or higher with a grade of "C" or better).
Attributes: SN - Science
Components: LEC: Lecture

CHE 185 (1 credit hours)
General College Chemistry Laboratory II
Reinforces concepts covered in CHE 180 and introduces basic laboratory techniques, methods, and instrumentation through selected experiments. Emphasizes both quantitative and qualitative techniques. Laboratory: 1 credit (45 contact hours).
Pre-requisite: CHE 175 with a grade of C or better.
Pre- or co-requisite: CHE 180.
Attributes: SL - Science Laboratory
Components: LAB: Laboratory

CHE 270 (3 credit hours)
Organic Chemistry I
Presents the fundamental principles of organic chemistry. Emphasizes the structures and properties of carbon-containing compounds. Introduces organic reactions, their mechanisms, and applications to synthesis. Lecture: 3 credits (45 contact hours).
Pre-requisite: CHE 180 with a grade of C or better.
Attributes: SN - Science
Components: LEC: Lecture

CHE 275 (2 credit hours)
Organic Chemistry Laboratory I
Introduces common techniques used in the laboratory for purification, separation, identification, and reactions of organic compounds. Laboratory: 2 credit (60 contact hours).
Pre-requisite: CHE 185 with a grade of C or better.
Pre- or co-requisite: CHE 270.
Attributes: SL - Science Laboratory
Components: LAB: Laboratory

CHE 280 (3 credit hours)
Organic Chemistry II
Presents further applications of the principles of organic chemistry. Continues the study of organic reactions, their mechanisms, synthesis and modern spectroscopic techniques. Lecture: 3 credits (45 contact hours).
Pre-requisite: CHE 270 with a grade of C or better.
Attributes: SN - Science
Components: LEC: Lecture

CHE 285 (2 credit hours)
Organic Chemistry Laboratory II
Explores the synthesis, purification, and characterization of organic compounds in the laboratory. Laboratory: 2 credits (60 contact hours).
Pre-requisite: CHE 275 with a grade of C or better.
Pre- or co-requisite: CHE 280.
Attributes: SL - Science Laboratory
Components: LAB: Laboratory

CHE 290 (1-3 credit hours)
Selected Topics in Chemistry: (Topic)
Presents a topic in chemistry chosen by the instructor. Topics may vary from semester to semester at the discretion of the instructor; course may be repeated with different topics to a maximum of six credit hours. Lecture: 1-3 credits (15-45 contact hours).
Pre-requisite: Consent of instructor.
Attributes: Other
Components: LEC: Lecture

CHE 295 (1-3 credit hours)
Selected Topics in Chemistry Laboratory: (Topic)
Explores experiments pertinent to a topic in chemistry chosen by the instructor. Topics may vary from semester to semester at the discretion of the instructor; course may be repeated with different topics to a maximum of six credit hours. Laboratory: 1-3 credits (30-90 contact hours).
Pre-requisite: Consent of instructor.
Attributes: Other
Components: LAB: Laboratory

CHE 299 (1-3 credit hours)
Laboratory Research in Chemistry: (Topic)
Offers the student the opportunity to perform laboratory research on a problem chosen by the instructor. Course may be repeated to a maximum of six credit hours. Laboratory: 1-3 credits (30-90 contact hours).
Pre-requisite: Consent of instructor.
Attributes: Other
Components: LAB: Laboratory