CHEMISTRY (CHM)

CHM 101. Fundamentals of Chemistry I (MOTR CHEM 100L). 5 Credit Hours.
Fundamentals of Chemistry I presents the basic concepts and symbols of chemistry with applications to everyday life. The course is designed for students desiring an introduction to chemistry and is suitable for allied health students. Laboratory work presents opportunities to use laboratory equipment, emphasizes observations and measurements, and provides elementary quantitative and qualitative analysis.
Prerequisites: MTH 050 with a minimum grade of "C", or placement into MTH 140 or higher on the Math placement test, and Reading Proficiency or concurrent enrollment in RDG 079.

CHM 102. Fundamentals of Chemistry II. 4 Credit Hours.
This course presents the fundamental concepts of organic chemistry and biochemistry. It is suited for allied health students and for students not planning to major in chemistry. Topics include basic structure and reactions of organic molecules and a survey of carbohydrates, lipids, amino acids and proteins, with an introduction to metabolic pathways. Laboratory work emphasizes observations. Additional lab hours required.
Prerequisites: CHM 101 or CHM 105 with minimum grades of "C" and Reading Proficiency.

CHM 105. General Chemistry I (MOTR CHEM 150L). 5 Credit Hours.
General Chemistry I is designed for science-related majors and emphasizes the fundamental principles of chemistry. Topics include measurement, physical and chemical processes, nomenclature, atomic structure, quantum theory, stoichiometry, molecular structure, bonding theory, physical properties of gases, thermochemistry, and properties of solutions. Upon completion of the course, students should be able to demonstrate an understanding of the fundamental chemical laws and concepts and will obtain prerequisite chemical knowledge needed for advancement to General Chemistry II.
Prerequisites: MTH 140 (or at least one and a half years of high school algebra) and CHM 101 with a minimum grade of "C" or one year of high school chemistry, and Reading Proficiency.

CHM 106. General Chemistry II. 5 Credit Hours.
This course is a continuation of General Chemistry I. Topics include quantitative analysis of kinetics, equilibrium, thermodynamics, electrochemistry, nuclear chemistry, and some descriptive chemistry and organic chemistry. It includes laboratory work involving qualitative and quantitative analysis. Completion of the course provides students with an understanding of general chemical laws and concepts, and prerequisite knowledge needed for higher level chemistry courses. Additional lab hours required.
Prerequisites: CHM 105 and (MTH 160 or MTH 160A or MTH 160B or MTH 160C) with minimum grades of "C" or test in MTH 170 or higher on the Math placement test and Reading Proficiency.

CHM 109. Chemistry and the Environment (MOTR CHEM 100L). 4 Credit Hours.
Chemistry and the Environment presents the concepts and symbolism of chemistry with an emphasis on the natural environment and applications to everyday life. This course is suited for students who have a general interest in the study of chemistry in a course containing a laboratory component and is not intended for students planning to major in science or enter an allied health field.
Prerequisites: MTH 020 with a minimum grade of "C" or testing into MTH 050 or higher on the Math placement test and Reading Proficiency.

CHM 206. Organic Chemistry Lecture I. 3 Credit Hours.
An introductory course in the theory of Organic Chemistry, stressing reaction types and mechanisms.
Prerequisites: CHM 106 with a grade of "C" or better and Reading Proficiency.

CHM 207. Organic Chemistry Lecture II. 3 Credit Hours.
A continuation of CHM 206 including relevant new topics such as polymers and biochemicals.
Prerequisites: CHM 206 with a grade of "C" or better and Reading Proficiency.

CHM 210. Organic Chemistry Lab I. 2 Credit Hours.
This course is an introduction to the laboratory work in organic chemistry. The emphasis of the course is on generally-employed laboratory techniques for purification and characterization of organic compounds and an introduction to laboratory instrumentation. Additional lab hours required.
Prerequisites: concurrent or prior enrollment of CHM 206 with a grade of "C" or better and Reading Proficiency.

CHM 211. Organic Chemistry Lab II. 2 Credit Hours.
This course is a continuation of CHM 210 Organic Chemistry Lab I. The emphasis of the course is on synthesis of organic compounds, including multi-step syntheses, and on characterization and analysis of organic compounds and exploration of instrumentation. Additional lab hours required.
Prerequisites: Concurrent or prior enrollment in CHM 207 with a minimum grade of "C" and CHM 210 with a minimum grade of "C" and Reading Proficiency.