CHEMISTRY (CHM)

Division: Biology, Chemistry and Physics Division

CHM 100 Introduction to Chemistry (4 Credits)
This course covers the major concepts of general chemistry which will include the states and properties of matter and energy, atomic structure, the mole concept and stoichiometry, solutions, acid/base chemistry, and equilibrium. Laboratory sessions will be included. This course is designed to provide appropriate chemistry background for students in the Chemical and health fields
Pre-requisites: (((Companion Arithmetic with a score of 069 and Companion Elementary Algebra with a score of 076) or (Arithmetic (Next-Gen) with a score of 260 and Quant,Algebra,Stats(Next-Gen) with a score of 260) or (Bilingual Computation with a score of 20 and Bilingual Algebra with a score of 19) or Move Up Math 092 with a score of P or MTH 092 Summer Bridge with a score of P or TRANSFERRED COLLEGE LEVEL MATH with a score of 898 or Elig. for Math 100,101,103 with a score of 905 or Pre-reg. COLG math waiver only with a score of 908 or SAT/ACT Elig for Mth 100 with a score of 994) and (((Companion Essay with a score of 06 or Companion Essay with a score of 07 or Write Placer Essay with a score of 04 or Write Placer Essay with a score of 05 or Write Placer Essay with a score of 06) and (Companion Reading Comprehensio with a score of 079 or Reading (Next-Gen) with a score of 237 or Move Up English 096 with a score of P or ENG 096 Summer Bridge with a score of P)) or Companion Essay with a score of 08 or Write Placer Essay with a score of 07 or Write Placer Essay with a score of 08 or TRANSFERRED ENG 101 with a score of 889 or Elig. for Eng 101 with a score of 904 or Pre-reg. Eng 101 waiver only with a score of 906 or SAT/ACT Elig for Eng 101 with a score of 993 or TRANSFERRED ENG 102 with a score of 998)) or COLLEGE DEGREE with a score of 988 or SAT/ACT Elig Eng101 Mth100 with a score of 995 or Transf. Eng 101 Mth 100 with a score of 999

CHM 101 College Chemistry I (4 Credits)
This course covers the major concepts of general chemistry which will include the states and properties of matter and energy, atomic structure, the mole concept and stoichiometry, solutions, acid/base chemistry, and equilibrium. Laboratory sessions will be included. This course is designed to provide appropriate chemistry background for nursing and health students.
Pre-requisites: (((Companion Arithmetic with a score of 069 and Companion Elementary Algebra with a score of 076) or (Arithmetic (Next-Gen) with a score of 260 and Quant,Algebra,Stats(Next-Gen) with a score of 260) or (Bilingual Computation with a score of 20 and Bilingual Algebra with a score of 19) or MTH 092 with a minimum grade of C or Move Up Math 092 with a score of P or MTH 092 Summer Bridge with a score of P or TRANSFERRED COLLEGE LEVEL MATH with a score of 898 or Elig. for Math 100,101,103 with a score of 905 or Pre-reg. COLG math waiver only with a score of 908 or SAT/ACT Elig for Mth 100 with a score of 994) and (((Companion Essay with a score of 06 or Companion Essay with a score of 07 or Write Placer Essay with a score of 04 or Write Placer Essay with a score of 05 or Write Placer Essay with a score of 06) and (Companion Reading Comprehensio with a score of 079 or Reading (Next-Gen) with a score of 237 or RDG 096 with a minimum grade of C) and (ENG 096 with a minimum grade of C or ENG 098 with a minimum grade of C or Move Up English 096 with a score of P or ENG 096 Summer Bridge with a score of P) or ESL 063 with a minimum grade of C) or Companion Essay with a score of 08 or Write Placer Essay with a score of 07 or Write Placer Essay with a score of 08 or TRANSFERRED ENG 101 with a score of 889 or Elig. for Eng 101 with a score of 904 or Pre-reg. Eng 101 waiver only with a score of 906 or SAT/ACT Elig for Eng 101 with a score of 993 or TRANSFERRED ENG 102 with a score of 998)) or COLLEGE DEGREE with a score of 988 or SAT/ACT Elig Eng101 Mth100 with a score of 995 or Transf. Eng 101 Mth 100 with a score of 999

CHM 102 College Chemistry II (4 Credits)
This course is an introduction to organic and biological chemistry for students preparing for careers in the health fields. The content includes hydrocarbons, alcohols, organic acids, carbohydrates, amines, lipids, amino acids and proteins, enzymes, biochemical energy transfer, metabolism, and nutrition. The course combines lecture and laboratory.
Pre-requisites: CHM 101 with a minimum grade of C

CHM 103 General Chemistry I (4 Credits)
This is a transfer course in chemistry for chemistry, biology, pre-med, and engineering students. Principles and concepts of stoichiometry, thermochemistry, ionic and molecular equilibria, and kinetics are covered. Also included is a brief introduction to organic nomenclature. Emphasis is on problem solving. Laboratory work is coordinated with lectures and numerous problem-solving sessions.
Pre-requisites: (((Companion Essay with a score of 06 or Companion Essay with a score of 07 or Write Placer Essay with a score of 04 or Write Placer Essay with a score of 05 or Write Placer Essay with a score of 06) and (Companion Reading Comprehensio with a score of 079 or Reading (Next-Gen) with a score of 237 or RDG 096 with a minimum grade of C) and (ENG 096 with a minimum grade of C or ENG 098 with a minimum grade of C or Move Up English 096 with a score of P or ENG 096 Summer Bridge with a score of P) or ESL 063 with a minimum grade of C) or Companion Essay with a score of 08 or Write Placer Essay with a score of 07 or Write Placer Essay with a score of 08 or TRANSFERRED ENG 101 with a score of 889 or Elig. for Eng 101 with a score of 904 or Pre-reg. Eng 101 waiver only with a score of 906 or SAT/ACT Elig for Eng 101 with a score of 993 or TRANSFERRED ENG 102 with a score of 998) and ((Companion Arithmetic with a score of 069 and Companion Elementary Algebra with a score of 109) or (Arithmetic (Next-Gen) with a score of 260 and Quant,Algebra,Stats(Next-Gen) with a score of 275) or (Bilingual Computation with a score of 20 and Bilingual Algebra with a score of 26) or MTH 100 with a minimum grade of C)

CHM 104 General Chemistry II (4 Credits)
A continuation of CHM 103, atomic theory and bonding, elementary thermodynamics, electrochemistry and nuclear chemistry are discussed. Theory and practice of ionic equilibria in qualitative analysis are also covered. Laboratory introduces students to theory and practice of semi-micro qualitative analysis.
Pre-requisites: CHM 103 with a minimum grade of C

CHM 106 Chemistry for Engineering Tech (3 Credits)
This course is necessary for those who intend to pursue a career in the engineering Technology. Students will gain knowledge and understanding of the qualitative and quantitative analysis including the principles and concepts of the quantum theory, electron configuration & periodicity, molecular geometry & chemical bonding theory, stoichiometry, thermochemistry, ionic and molecular equilibria, kinetics, Solutions & their behavior, & electrochemistry. By observing the actual reactions in the laboratory, students will develop their analytical technique skills in coordination with the lectures and numerous critical thinking problem--solving sessions.

CHM 203 Organic Chemistry I (4 Credits)
The fundamental synthesis and reaction so f various organic molecules and the role these molecules play in our everyday lives. The theory behind the reactions is also included along with topics such as resonance and mechanisms. The lab includes experiments in polymers, flavorings, dyes, perfumes, analgesics, and food colors where the methods employed in the synthesis and purifications of the product are emphasized.
Pre-requisites: CHM 104 with a minimum grade of C

CHM 204 Organic Chemistry II (4 Credits)
A continuation of CHM 203. The current views of the mechanisms of organic reactions are emphasized. Students in the laboratory continue the theory and practice of some techniques employed in the synthesis, purification, and identification of organic compounds.
Pre-requisites: CHM 203 with a minimum grade of C

CHM 299 Research Study in Chemistry (3 Credits)
This laboratory course is designed for students majoring in Chemistry, and allows them to work on a research project in a lab setting. Lab safety, scientific method, equipment training, and research publication methods will be emphasized in conjunction with the students' participation in research projects. Students will also be required to present their work at the weekly Division seminar.
Pre-requisites: CHM 104 with a minimum grade of B and MTH 121 with a minimum grade of B