

CHE

Courses

CHE 100 Basic Chemistry

3 Credits. 2 Lecture Hours. 2 Lab Hours.

An introductory course on concepts in chemistry. Topics include: dimensional analysis and problem solving, physical and chemical properties of matter, organization of the periodic table, writing and manipulating formulas, stoichiometry, gas laws, equilibrium, and acids and bases.

Prerequisites: AFL 085 and AFM 092 (minimum grade C for both) or appropriate placement test scores

CHE 105 Chemistry for Consumers

3 Credits. 2 Lecture Hours. 2 Lab Hours.

A course for non-science majors on the relevance of basic principles of chemistry to daily life. Topics include: laboratory/data analysis, matter classification, the periodic table, compound formation, chemical reactions, synthesis/analysis of consumer products, and the global impact of consumerism.

Prerequisites: AFL 085 and AFM 092 (minimum grade C for both), or appropriate placement test scores

Ohio Transfer Module Approved

CHE 110 Fundamentals of Chemistry

4 Credits. 3 Lecture Hours. 3 Lab Hours.

A college-level general chemistry course for non-majors. Topics include: atomic structure, bonding, chemical reactions, properties and states of matter, acids and bases, and equilibrium.

Prerequisites: AFL 085, and AFM 094 or MAT 105 or MAT 120 (minimum grade C for all), or appropriate placement test scores

Ohio Transfer Module Approved

CHE 111 Bio-Organic Chemistry

4 Credits. 3 Lecture Hours. 3 Lab Hours.

Study of foundational concepts of organic chemistry and biochemistry. Topics include: types of organic compounds and representative reactions, and biochemical compounds and reactions.

Prerequisites: CHE 110 (minimum grade C) or CHE 121 and CHE 131 (minimum grade C)

Ohio Transfer Module Approved

CHE 115 General, Organic, and Biological Chemistry

4 Credits. 3 Lecture Hours. 3 Lab Hours.

A survey of basic general, organic, and biological chemistry. Topics include: dimensional analysis, problem-solving strategies, atomic structure, chemical bonding, reactions, acid-base chemistry, attractive forces, functional groups, structure/reactions of major macromolecules, and metabolism.

Prerequisites: AFL 085, and AFM 094 or MAT 105 or MAT 120 (minimum grade C for all), or appropriate placement test scores

Ohio Transfer Module Approved

CHE 121 General Chemistry 1

4 Credits. 4 Lecture Hours. 0 Lab Hour.

A general chemistry course for science majors. Topics include: measurement systems; composition, properties, and reactions of elements and compounds; states of matter; atomic structure and bonding; and solution chemistry.

Prerequisites: AFL 085 and High School Chemistry (within three years, minimum grade B) or CHE 100 or CHE 110 (minimum grade C for both) and MAT 121 or AFM 097 (minimum grade C for both), or appropriate placement test score

Ohio Transfer Module Approved

Ohio Transfer Assurance Guide Approved

CHE 122 General Chemistry 2

4 Credits. 4 Lecture Hours. 0 Lab Hour.

A continuation of CHE 121. Topics include: kinetics, chemical equilibrium, acid-base chemistry, acid-base and solubility equilibrium, thermodynamics, electrochemistry, and chemistry of transition elements.

Prerequisites: CHE 121 and CHE 131 (minimum grade C for both) and MAT 125 or MAT 151 or MAT 153 (minimum grade C for all)

Ohio Transfer Module Approved

Ohio Transfer Assurance Guide Approved

CHE 131 General Chemistry 1 Lab**1 Credit. 0 Lecture Hour. 3 Lab Hours.**

A laboratory course that accompanies CHE 121.

Prerequisites: AFL 085 and High School Chemistry (within 3 years, minimum grade B), or CHE 100 or CHE 110 (minimum grade C for both) and MAT 121 or AFM 097 (minimum grade C for both) or appropriate placement test score

Ohio Transfer Module Approved

CHE 132 General Chemistry 2 Lab**1 Credit. 0 Lecture Hour. 3 Lab Hours.**

A laboratory course that accompanies CHE 122.

Prerequisites: CHE 121 and CHE 131 (minimum grade C for both)

Ohio Transfer Module Approved

CHE 198 First Year Special Topics in Chemistry**1-9 Credits. 0 Lecture Hour. 0 Lab Hour.**

A course on selected topics related to Chemistry, which gives students opportunities to study information not currently covered in other courses. Grades issued are A, B, C, D, or F.

Prerequisites: Vary by section

CHE 199 First Year Independent Project in Chemistry**1-9 Credits. 0 Lecture Hour. 0 Lab Hour.**

A project related to Chemistry that is completed by one or more students to meet specific educational goals. Projects must have prior approval and supervision by Chemistry faculty. Grades issued are Satisfactory or Unsatisfactory.

Prerequisites: Vary by section

CHE 201 Organic Chemistry 1**3 Credits. 3 Lecture Hours. 0 Lab Hour.**

An organic chemistry course for students preparing for science-related employment or additional science education. Topics include: principles of carbon chemistry including bonding, structure, mechanisms, properties, reactions, synthesis, acids, and bases.

Prerequisites: CHE 122 and CHE 132 (minimum grade C for both)

Ohio Transfer Module Approved

CHE 202 Organic Chemistry 2**3 Credits. 3 Lecture Hours. 0 Lab Hour.**

A continuation of CHE 201. Topics include: mass spectrometry; infrared, ultraviolet/visible, and NMR spectroscopies; aromaticity; chemistry of benzene, carboxylic acids, amines, aldehydes, and ketones; and oxidation and reduction.

Prerequisites: CHE 201 and CHE 211 (minimum grade C for both)

Ohio Transfer Module Approved

CHE 211 Organic Chemistry 1 Lab**2 Credits. 0 Lecture Hour. 4 Lab Hours.**

A laboratory course that accompanies CHE 201. Laboratory experiences include: general organic laboratory techniques; isolation, purification, and identification of organic compounds; simple synthesis; and determination of unknowns.

Prerequisites: CHE 122 and CHE 132 (minimum grade C for both)

Ohio Transfer Module Approved

CHE 212 Organic Chemistry 2 Lab**2 Credits. 0 Lecture Hour. 4 Lab Hours.**

A laboratory course that accompanies CHE 202. Laboratory experiences include: simple, complex, and multistep synthesis; and isolation, purification, analysis, and identification of organic compounds.

Prerequisites: CHE 201 and CHE 211 (minimum grade C for both)

Ohio Transfer Module Approved

CHE 298 Second Year Special Topics in Chemistry**1-9 Credits. 0 Lecture Hour. 0 Lab Hour.**

A course on selected topics related to Chemistry, which gives students opportunities to study information not currently covered in other courses. Grades issued are A, B, C, D, or F.

Prerequisites: Vary by section

CHE 299 Second Year Independent Project in Chemistry**1-9 Credits. 0 Lecture Hour. 0 Lab Hour.**

A project related to Chemistry that is completed by one or more students to meet specific educational goals. Projects must have prior approval and supervision by Chemistry faculty. Grades issued are Satisfactory or Unsatisfactory.

Prerequisites: Vary by section