

NATURAL SCIENCES

BIO 141 Human Anatomy and Physiology I (4)

First of a two-part sequence for the intended nursing major that details human anatomy and physiology from an organ system approach. This course will cover the chemical basis of cells, cell microscopy, and tissue types as well as the integumentary system, skeletal system, muscular system, and nervous system (including special senses). Course content will also include discussions about health/disease issues of concern as they pertain to the current course material. Laboratory content will include use of the scientific method as well as acquisition and application of knowledge pertaining to physiological processes as discussed in lecture. Offered fall semester for first-year intended nursing majors; three hours of lecture and three hours of lab per week. Note: \$50 lab fee applies. *For nursing intended majors.*

BIO 155 Foundations of Molecular Biology (2)

A survey of foundational concepts in biology, with a focus on molecular biology. Part of the introductory Foundations of Biology courses for biology majors, but available to non-majors as well. This course will cover an introduction to biochemistry, the organic molecules important for life, and classical Mendelian and modern genetics. A half-semester course that must be taken with a lab. NOTE: \$25 lab fee applies. *For biology and chemistry intended majors. Two Foundation courses must be completed to fulfill Sophia learning outcomes.*

BIO 156 Foundations of Ecology and Evolution (2)

A survey of foundational concepts in biology, with a focus on ecology and evolution. Part of the introductory Biology Foundations courses for biology majors, but available to non-majors as well. This course will cover how organisms interact with one another and their environment, the dynamic functioning of ecosystems, the origin and diversification of life on Earth, and the evolutionary forces that shape patterns of biodiversity within populations and across lineages. A half-semester course that must be taken with a lab. NOTE: \$25 lab fee applies. *For biology and chemistry intended majors. Two Foundation courses must be completed to fulfill Sophia learning outcomes.*

CHEM 121 Principles of Chemistry I (4)

An introduction to chemical stoichiometry, atomic and molecular structure, and bonding. Laboratory will explore principles presented in lecture. Three-hour lecture and one three-hour laboratory. Prerequisite: high school chemistry or permission of the instructor; students must be calculus-ready. NOTE: \$50 lab fee applies. *For biology, chemistry, physics and engineering intended majors. This course also satisfies the L02 Critical Thinking Seminar. Lab sections 71250 and 71252 are linked with first-year faculty advisors.*

PHYS 121 General Physics I: Mechanics and Waves (4)

An introduction to mechanics, waves, and thermodynamics. This is the first semester of a two-part calculus-based physics sequence. Three hours of lecture and two hours of laboratory. *Designed for students in science, math, and engineering.*