AUGUSTANA UNIVERSITY

Prerequisite Courses

Anatomy *(1 course, 1 lab)*

The study of structure and function of the human body at the tissue, organ, and system level.

Human Anatomy (laboratory required): Structure and function of the human body at the tissue, organ, and system level.

OR

Anatomy & Physiology I AND Anatomy & Physiology II (laboratory required): Structure and function of the human body at the tissue, organ and system level and function, integration, and coordination of the organ systems of the human body, homeostatic control mechanisms, basic human physiological responses.

Physiology *(1 course, 1 lab)*

The study of function, integration, and coordination of the organ systems of the human body, homeostatic control mechanisms, basic human physiological responses.

Human Physiology (laboratory required): Function, integration, and coordination of the organ systems of the human body, homeostatic control mechanisms, basic human physiological responses.

OR

Anatomy & Physiology I, Anatomy & Physiology II (laboratory required): Structure and function of the human body at the tissue, organ and system level and function, integration, and coordination of the organ systems of the human body, homeostatic control mechanisms, basic human physiological responses.

Biology *(1 course, 1 lab)*

The study of genetic, ecological, and evolutionary concepts, major taxonomic groupings of plants and animals, photosynthesis, cellular respiration, and the physiological processes responsible for control and integration in both plants and animals. Should cover principles of biological organization from molecular through ecological levels.

Biology I (laboratory required): Cellular structure and function, biological molecules, genetics of prokaryotic and eukaryotic organisms, development and physiological processes of plants and animals (reproduction, nutrition, respiration, transport systems).

Additional Physiology or Biology Course (1 course): Preferred content should include the study of biological or physiological processes beyond basic introductory coursework. Acceptable courses for fulfilling this requirement will typically have General Biology or Human Physiology as a prerequisite and will build on topics introduced in those courses.

Any Physiology or Biology course beyond introductory level will be accepted.

AUGUSTANA UNIVERSITY

Prerequisite Courses

Chemistry *(2 courses, 2 labs)*

Introductory level college and university chemistry courses including study of matter and energy, chemical bonding, reactions, equilibrium, gas laws, thermochemistry, and thermodynamics.

Chemistry I (laboratory required): Overview of fundamentals including measurements, atomic, molecular, and electronic structure, bonding, stoichiometry, compounds and chemical reactions, thermochemistry, gases, liquids, and solutions, and nuclear chemistry.

AND

Chemistry II (laboratory required): Overview of fundamentals including physical properties of liquids and solids, chemical kinetics, equilibrium, acids and bases (including buffers), thermodynamics, and electrochemistry.

Physics *(2 courses)*

Introductory level college and university physics courses including classical physics (fundamental laws of mechanics, heat, electromagnetism, optics, conservation principles), with some exposure to modern physics (relativity, quantum theory, atomic, nuclear, and solid-state physics).

Physics I: Kinematics and dynamics of particles and systems of particles, including Newton's laws, energy and momentum, rotation, oscillations, and waves.

AND

Physics II: Electricity and magnetism, electromagnetic devices, electromagnetic behavior of materials, applications to simple circuits, electromagnetic radiation, and an introduction to optical phenomena.

Psychology/Sociology *(1 course)*

Preferred content should include study of human behavior at the individual and/or group level with consideration for cultural differences and societal influences.

Any Psychology or Sociology course will be accepted.

Statistics *(1 course)*

Levels of measurement, measures of central tendency, measures of variability, population distributions, inferential statistics, comparison of means, comparison of multiple means, parametric and non-parametric statistics.

Any Statistics course will be accepted.

Note: Experimental Designs/Research Methods courses must include the statistics concepts listed above.

Exercise Science *(1 course)*

Preferred content should include an application of foundational principles to human performance as it relates to exercise, injury rehabilitation, training, and/or sport.

Any Kinesiology/Exercise Science course will be accepted.

Composition/Writing *(1 course)*

Preferred content should include English language structure, rules of composition and grammar.

Any course that includes a focus on written communication.

Note: Please provide course description from course catalog or syllabus if course title/number does not clearly indicate writing component.