

Prerequisite Course Descriptions

(Updated November 2023)

Course	Description
Biology with lab (8 semester hours)	A yearlong biology course with accompanying lab, covering cell structure and function; prokaryotes; eukaryotes; metabolism; molecular and organismal genetics; classification; reproduction; evolution; ecosystems; populations; ecology
Human Anatomy with lab (4 semester hours)	The course should cover all aspects of the human body, including upper limb, lower limb, head and neck, thorax, abdomen, and pelvis. This course cannot be substituted with a neuroanatomy course
Human Physiology with lab (4 semester hours)	The concepts covered should include homeostasis; cell structure; and cardiac, respiratory, renal, and endocrine physiology. Other areas to be covered include digestion, energy utilization, growth, immune function, nutrition, and reproduction
Microbiology with lab (4 semester hours)	The concepts covered should include the biological characteristics (morphology and physiology) and classification of important microbial pathogens, including bacteria, viruses, fungi, and parasites; epidemiology; mechanisms and routes of transmission; pathogenesis and immunity; host response; control and prevention
General Chemistry with lab (8 semester hours)	A yearlong chemistry course with accompanying lab, covering fundamental chemical and molecular principles, relationship between matter and energy, chemical reactions, and chemical bonding.
Organic Chemistry (3 semester hours)	An organic chemistry course covering topics of chemical bonding; alcohols; esters; phenols, aldehydes, and ketones; proteins; enzymes; carbohydrate and energy production; fats and lipids
Biochemistry (3 semester hours)	A biochemistry course covering the topics of enzymatic kinetics, cell membrane and transport, cell signaling, catabolism, nucleic acids and protein synthesis, and the regulation and expression of genes
Psychology (3 semester hours)	Preference for courses that cover major psychological theories; biological bases of behavior, perception, cognition, consciousness, learning, memory, emotion, motivation, development, and personality; psychological disorders; approaches to psychotherapy; applied psychology
Statistics or Biostatistics (3 semester hours)	The course should cover probability, statistical inference, variables, distribution, confidence intervals, group comparisons, regression, hypothesis testing, ANOVA, and chi-square