

## Prerequisite Courses

### General Biology with lab (1 semester)

**BIOL 107 or BIOL 119 (preferred) May include cell biology.**

**BIOL 107 General Biology (4)** Course for science majors that introduces basic principles of cell biology, metabolism, genetics, molecular biology, and evolution. Three hours lecture, two hours lab.

**BIOL 119 Introductory Biology: Molecular Perspectives (4)** Designed to give students majoring in applied biology, professional biology, biochemistry, neuroscience, and clinical lab science foundational knowledge and skills for subsequent courses in molecular biology and genetics. The course will introduce basic principles of biochemistry, molecular biology, and genetics, and their relevance to modern society. Class meets twice a week for lectures, discussions, and lab activities. Attendance is required and will be recorded.

### Microbiology with lab (1 semester)

**BIOL 110 with one additional hour of research (preferred but not required) or BIOL 430 (preferred)**

**BIOL 110 Clinical Microbiology (3)** Introduces microorganisms and includes isolation, pathogenicity, serology, identification, ecology, and the significance of microorganisms to humans. Two hours lecture, two hours lab.

**BIOL 430 Microbiology (4)** Covers general principles of bacterial growth and activities. Three hours lecture, four hours lab.

### Anatomy and Physiology with lab (2 semesters)

**EXSS 112 and 113 or BIOL 112 and 113**

**May include one semester of anatomy and one semester of physiology or two semesters of combined anatomy and physiology. May be comparative.**

**BIOL 112 Human Anatomy and Physiology I (4)** Introduces basic anatomy and physiology using a systems approach. Emphasizes cells, tissues, musculoskeletal system, and nervous system. Three hours lecture, two hours lab.

**BIOL 113 Human Anatomy and Physiology II (4)** Continues the study of topics covered in Biology 112 and includes the endocrine, cardiovascular, immune, respiratory, urinary, and digestive systems. Three hours lecture, two hours lab.

**EXSS 112 Human Anatomy and Physiology I (4)** First half of a two-semester course that provides a comprehensive study of the structure and function of the human body, from the cell to the entire organism. Uses a systems approach emphasizing how these systems work together to maintain homeostasis. Systems studied include: integumentary, skeletal, muscular, digestive, reproductive. Three hours lecture, two hours lab.

**EXSS 113 Human Anatomy and Physiology II (4)** Second half of a two-semester course continues study of the structure and function of the human body using a systems approach. Systems studied include: nervous, endocrine, circulatory, immune, respiratory, urinary. Three hours lecture, two hours lab.

### **General Chemistry with lab (2 semesters)**

**CHEM 118 Principles of Chemistry** (4) Covers principles of stoichiometry, chemical bonding and structure, thermochemistry, chemical equilibrium, and kinetics. Three hours lecture, two hours lab.

**CHEM 280 Inorganic Chemistry I** (4) An introduction to the inorganic chemistry of metallic and nonmetallic elements with special attention given to the applied industrial and biochemical uses of their compounds. Surveys the behavior of selected elements, solid state, and coordination compounds. Three hours lecture, three hours lab.

### **Organic Chemistry with lab (2 semesters)**

**CHEM 240 Organic Chemistry I** (4) Introduction to the structure, nomenclature, and chemistry of carbon compounds. Covers all major functional group classes and their simple characteristic reactions. Introduces mechanistic considerations as a basis for understanding reactions. Laboratory includes basic techniques, simple reactions, and qualitative analysis. Three hours lecture, three hours lab.

**CHEM 341 Organic Chemistry II** (5) Studies the reactions of organic and bioorganic molecules organized around mechanistic principles. Introduces multistep syntheses and synthetic strategies. Laboratory includes studies of reactions, synthesis, and identification of compounds.

### **Psychology**

**PSYC 121 Introduction to Psychology** (3) Surveys major areas of psychology, including methodology, learning, memory, development, personality, psychopathology, and additional areas. Focuses on historical development, research findings, and applications in contemporary life.

### **Social Science**

**One additional Social Science course.** Examples: Anthropology, Cognitive Science, Communication, Economics, Gender/Women's Studies, Political Science, Sociology

### **Medical Terminology**

**HE 111 Medical Terminology** (1) Utilizes guided independent student learning activities to teach the basic prefixes, suffixes, and roots of medical terms. Assists student in utilizing medical terminology appropriately in both written and verbal forms.