This course provides a survey of fundamental biological principles for non-science majors. Emphasis is placed on basic chemistry, cell biology, metabolism, genetics, evolution, ecology, diversity, and other related topics. Upon completion, students should be able to demonstrate increased knowledge and better understanding of biology as it applies to everyday life.

Minimum State Prerequisites: None
Minimum State Corequisites: None

BIO-111 General Biology I

This course introduces the principles and concepts of biology. Emphasis is placed on basic biological chemistry, molecular and cellular biology, metabolism and energy transformation, genetics, evolution, and other related topics. Upon completion, students should be able to demonstrate understanding of life at the molecular and cellular levels.

Minimum State Prerequisites: None
Minimum State Corequisites: None

BIO-112 General Biology II

This course is a continuation of BIO 111. Emphasis is placed on organisms, evolution, biodiversity, plant and animal systems, ecology, and other related topics. Upon completion, students should be able to demonstrate comprehension of life at the organismal and ecological levels.

Minimum State Prerequisites: Take BIO-111
Minimum State Corequisites: None

BIO-120 Introductory Botany

This course provides an introduction to the classification, relationships, structure, and function of plants. Topics include reproduction and development of seed and non-seed plants, levels of organization, form and function of systems, and a survey of major taxa. Upon completion, students should be able to demonstrate comprehension of plant form and function, including selected taxa of both seed and non-seed plants.

Minimum State Prerequisites: Take One: BIO-110 or BIO-111
Minimum State Corequisites: None

BIO-130 Introductory Zoology

This course provides an introduction to the classification, relationships, structure, and function of major animal phyla. Emphasis is placed on levels of organization, reproduction and development, comparative systems, and a survey of selected phyla. Upon completion, students should be able to demonstrate comprehension of animal form and function including comparative systems of selected groups.

Minimum State Prerequisites: Take One: BIO-110 or BIO-111
Minimum State Corequisites: None

BIO-140 Environmental Biology

This course introduces environmental processes and the influence of human activities upon them. Topics include ecological concepts, population growth, natural resources, and a focus on current environmental problems from scientific, social, political, and economic perspectives. Upon completion, students should be able to demonstrate an understanding of environmental interrelationships and of contemporary environmental issues.

Minimum State Prerequisites: None
Minimum State Corequisites: None

BIO-140A Environmental Biology Lab

This course provides a laboratory component to complement BIO 140. Emphasis is placed on laboratory and field experience. Upon completion, students should be able to demonstrate a practical understanding of environmental interrelationships and of contemporary environmental issues.

Minimum State Prerequisites: None
Minimum State Corequisites: Take BIO-140

BIO-163 Basic Anatomy & Physiology

This course provides a basic study of the structure and function of the human body. Topics include a basic study of the body systems as well as an introduction to homeostasis, cells, tissues, nutrition, acid-base balance, and electrolytes. Upon completion, students should be able to demonstrate a basic understanding of the fundamental principles of anatomy and physiology and their interrelationships.

Minimum State Prerequisites: None
Minimum State Corequisites: None
**BIO-165 Anatomy and Physiology I**  
Class 3  Lab 3  Clinical 0  Work 0  Credit 4  
This course is the first of a two-course sequence which provides a comprehensive study of the anatomy and physiology of the human body. Topics include the structure, function, and interrelationship of organ systems with emphasis on the processes which maintain homeostasis. Upon completion, students should be able to demonstrate an in-depth understanding of principles of anatomy and physiology and their interrelationships.  
Minimum State Prerequisites: None  
Minimum State Corequisites: None

**BIO-166 Anatomy and Physiology II**  
Class 3  Lab 3  Clinical 0  Work 0  Credit 4  
This course is the second in a two-course sequence which provides a comprehensive study of the anatomy and physiology of the human body. Topics include the structure, function, and interrelationship of organ systems with emphasis on the processes which maintain homeostasis. Upon completion, students should be able to demonstrate an in-depth understanding of principles of anatomy and physiology and the interrelationships of all body systems.  
Minimum State Prerequisites: Take BIO-165  
Minimum State Corequisites: None

**BIO-168 Anatomy and Physiology I**  
Class 3  Lab 3  Clinical 0  Work 0  Credit 4  
This course provides a comprehensive study of the anatomy and physiology of the human body. Topics include body organization, homeostasis, cytology, histology, and the integumentary, skeletal, muscular, and nervous systems and special senses. Upon completion, students should be able to demonstrate an in-depth understanding of principles of anatomy and physiology and their interrelationships.  
Minimum State Prerequisites: None  
Minimum State Corequisites: None

**BIO-169 Anatomy and Physiology II**  
Class 3  Lab 3  Clinical 0  Work 0  Credit 4  
This course provides a continuation of the comprehensive study of the anatomy and physiology of the human body. Topics include the endocrine, cardiovascular, lymphatic, respiratory, digestive, urinary, and reproductive systems as well as metabolism, nutrition, acid-base balance, and fluid and electrolyte balance. Upon completion, students should be able to demonstrate an in-depth understanding of principles of anatomy and physiology and their interrelationships.  
Minimum State Prerequisites: Take BIO-168  
Minimum State Corequisites: None

**BIO-175 General Microbiology**  
Class 2  Lab 2  Clinical 0  Work 0  Credit 3  
This course covers principles of microbiology with emphasis on microorganisms and human disease. Topics include an overview of microbiology and aspects of medical microbiology, identification and control of pathogens, disease transmission, host resistance, and immunity. Upon completion, students should be able to demonstrate knowledge of microorganisms and the disease process as well as aseptic and sterile techniques.  
Minimum State Prerequisites: Take One: BIO-110, BIO-111, BIO-163, BIO-165, or BIO-168  
Minimum State Corequisites: None

**BIO-271 Pathophysiology**  
Class 3  Lab 0  Clinical 0  Work 0  Credit 3  
This course provides an in-depth study of human pathological processes and their effects on homeostasis. Emphasis is placed on interrelationships among organ systems in deviations from homeostasis. Upon completion, students should be able to demonstrate a detailed knowledge of pathophysiology.  
Minimum State Prerequisites: Take One: BIO-163, BIO-166, or BIO-169  
Minimum State Corequisites: None

**BIO-275 Microbiology**  
Class 3  Lab 3  Clinical 0  Work 0  Credit 4  
This course covers principles of microbiology and the impact these organisms have on man and the environment. Topics include the various groups of microorganisms, their structure, physiology, genetics, microbial pathogenicity, infectious diseases, immunology, and selected practical applications. Upon completion, students should be able to demonstrate knowledge and skills including microscopy, aseptic technique, staining, culture methods, and identification of microorganisms.  
Minimum State Prerequisites: Take One: BIO 110, BIO 111, BIO 163, BIO 165, or BIO 168  
Minimum State Corequisites: None