

COURSE DESCRIPTIONS BY COURSE DISCIPLINE PREFIX

BIO BIOLOGY

BIO-094	Concepts of Human Biology	4 (3-2)	Fall Spring
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Prerequisites: None

Corequisites: ENG-002^L or BSP-4002^L

This course focuses on fundamental concepts of human biology. Topics include terminology, biochemistry, cell biology, tissues, body systems, and other related topics. Upon completion, students should be able to demonstrate preparedness for college-level anatomy and physiology courses.(2020 FA)

BIO-110	Principles of Biology	4 (3-3)	Fall Spring Summer
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Prerequisites: ENG-002^L or BSP-4002^L

Corequisites: None

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.(2014 FA) This course has been approved to satisfy the following requirement(s):

- UGETC course for A.A., A.A. Teacher Preparation, and A.F.A.
- Natural Science Gen. Ed. course for A.S. and A.S. Teacher Preparation
- Natural Science Gen. Ed. course for A.A.S. and A.G.E.

BIO-111	General Biology I	4 (3-3)	Fall Spring Summer
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Prerequisites: ENG-002^L or BSP-4002^L

Corequisites: None

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.(2014 FA) This course has been approved to satisfy the following requirement(s):

- UGETC course for A.A., A.A. Teacher Preparation, A.F.A., A.S., and A.S. Teacher Preparation
- Other Gen. Ed. and Premajor Elective Hour course for A.E.
- Natural Science Gen. Ed. course for A.A.S. and A.G.E.

BIO-112	General Biology II	4 (3-3)	Fall Spring Summer
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Prerequisites: BIO-111^S, minimum grade CL

Corequisites: None

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.(2014 FA) This course has been approved to satisfy the following requirement(s):

- UGETC course for A.S., and A.S. Teacher Preparation
- Natural Science Gen. Ed. course for A.A., and A.A. Teacher Preparation
- Natural Science Gen. Ed. course for A.G.E.

BIO-120	Introductory Botany	4 (3-3)	AND
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Prerequisites: BIO-110^S or BIO-111^S, minimum grade CL

Corequisites: None

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.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Natural Science Gen. Ed. course for A.A., A.A. Teacher Preparation, A.S., and A.S. Teacher Preparation
- Natural Science Gen. Ed. course for A.G.E.

BIO-130	Introductory Zoology	4 (3-3)	AND
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Prerequisites: BIO-110^S or BIO-111^S, minimum grade CL

Corequisites: None

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. (1997 SU) This course has been approved to satisfy the following requirement(s):

- Natural Science Gen. Ed. course for A.A., A.A. Teacher Preparation, A.S., and A.S. Teacher Preparation
- Natural Science Gen. Ed. course for A.G.E.

COURSE DESCRIPTIONS

**BIO-140 Environmental Biology 3 (3-0) Fall
Spring**

Prerequisites: ENG-002^L or BSP-4002^L

Corequisites: BIO-140A^L

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.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Natural Science Gen. Ed. course for A.A., A.A. Teacher Preparation, A.S., and A.S. Teacher Preparation
- Natural Science Gen. Ed. course for A.A.S. and A.G.E.

**BIO-140A Environmental Biology Lab 1 (0-3) Fall
Spring**

Prerequisites: ENG-002^L or BSP-4002^L

Corequisites: BIO-140^S

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.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Natural Science Gen. Ed. course for A.A., A.A. Teacher Preparation, A.S., and A.S. Teacher Preparation
- Natural Science Gen. Ed. course for A.A.S. and A.G.E.

**BIO-155 Nutrition 3 (3-0) Fall
Spring
Summer**

Prerequisites: ENG-002^L or BSP-4002^L

Corequisites: None

This course covers the biochemistry of foods and nutrients with consideration of the physiological effects of specialized diets for specific biological needs. Topics include cultural, religious, and economic factors that influence a person's acceptance of food, as well as nutrient requirements of the various life stages. Upon completion, students should be able to identify the functions and sources of nutrients, the mechanisms of digestion, and the nutritional requirements of all age groups.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

BIO-163	Basic Anat & Physiology	5 (4-2)	Fall Spring
Prerequisites: ENG-002 ^L or BSP-4002 ^L			
Corequisites: None			
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. (1997 SU) This course has been approved to satisfy the following requirement(s):			
<ul style="list-style-type: none"> • Premajor and/or Elective course for A.A. and A.S. • Natural Sciences Gen. Ed. course for A.A.S. and A.G.E. 			
BIO-168	Anatomy and Physiology I	4 (3-3)	Fall Spring Summer
Prerequisites: ENG-002 ^L or BSP-4002 ^L			
Corequisites: None			
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. (1998 FA) This course has been approved to satisfy the following requirement(s):			
<ul style="list-style-type: none"> • Premajor and/or Elective course for A.A. and A.S. • Natural Sciences Gen. Ed. course for A.A.S. and A.G.E. 			
BIO-169	Anatomy and Physiology II	4 (3-3)	Fall Spring Summer
Prerequisites: BIO-169 ^S , minimum grade CL			
Corequisites: None			
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. (1998 FA) This course has been approved to satisfy the following requirement(s):			
<ul style="list-style-type: none"> • Premajor and/or Elective course for A.A. and A.S. • Natural Science Gen. Ed. course for A.G.E. 			

COURSE DESCRIPTIONS

BIO-175	General Microbiology	3 (2-2)	Spring
Prerequisites:	BIO-110 ^S , BIO-111 ^S , BIO-163 ^S , or BIO-165 ^S , minimum grade CL		
Corequisites:	None		
<p>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.(2004 FA) This course has been approved to satisfy the following requirement(s):</p> <ul style="list-style-type: none">• Premajor and/or Elective course for A.A. and A.S.• Natural Science Gen. Ed. course for A.G.E.			
BIO-275	Microbiology	4 (3-3)	Fall Spring Summer
Prerequisites:	BIO-110 ^S , BIO-111 ^S , BIO-163 ^S , or BIO-165 ^S , minimum grade CL		
Corequisites:	None		
<p>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.(2023 FA) This course has been approved to satisfy the following requirement(s):</p> <ul style="list-style-type: none">• Premajor and/or Elective course for A.A. and A.S.• Natural Science Gen. Ed. course for A.G.E.			