

# BIOLOGY (BI)

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## BI 101: General Biology (4)

A non-majors course designed to provide students with the scientific principles that describe and explain life processes and living systems. Laboratory experiences reinforce principles and concepts covered in class. Note that the order of topic presentation in this sequence may not match the order at other institutions. Please see an advisor. BI 101: This course focuses on the principles of evolution, natural selection and speciation, origin of life, diversity of life, classification and diversity of groups of organisms including viruses, bacteria, protists, fungi, plants and animals; principles of ecology, including populations, communities, ecosystems, and the biosphere, and animal behavior

**Terms Typically Offered:** Fall

## BI 102: General Biology (4)

A non-majors course designed to provide students with the scientific principles that describe and explain life processes and living systems. Laboratory experiences reinforce principles and concepts covered in class. Note that the order of topic presentation in this sequence may not match the order at other institutions. Please see an advisor. BI 102: This course focuses on plant structure and function, with emphasis on flowering plants; animal structure and function, with emphasis on human biology

**Terms Typically Offered:** Winter

## BI 103: General Biology (4)

A non-majors course designed to provide students with the scientific principles that describe and explain life processes and living systems. Laboratory experiences reinforce principles and concepts covered in class. Note that the order of topic presentation in this sequence may not match the order at other institutions. Please see an advisor. BI 103: Chemistry of life; cell structure, function, metabolism, division; heredity and molecular genetics

**Terms Typically Offered:** Spring

## BI 211: Principles of Biology (5)

Designed for science and pre-professional medical majors. This course focuses on cell structure and function; cellular metabolism; cell division; heredity; molecular genetics and biotechnology; molecular evolution. Courses must be taken in sequence.

**Registration-Enforced Prerequisite/Corequisite:** CH 104, CH 112 or CH 221.

**Terms Typically Offered:** Fall

## BI 212: Principles of Biology (5)

Designed for science and pre-professional medical majors. This course focuses on plant structure and function: animal structure, function and behavior. Courses must be taken in sequence

**Registration-Enforced Prerequisite:** BI 211.

**Terms Typically Offered:** Winter

## BI 213: Principles of Biology (5)

Designed for science and pre-professional medical majors. This course focuses on the chemistry of life; origins of life; population genetics and natural selection; diversity of prokaryotes and eukaryotes; ecology of biomes, communities and populations; conservation biology. Courses must be taken in sequence.

**Registration-Enforced Prerequisite:** BI 212.

**Terms Typically Offered:** Spring

## BI 222: Intro to Genetics (3)

Focusing primarily on human genetics, this course includes cell division and gamete formation; patterns of inheritance and gene expression; DNA replication, gene transcription, and translation; mutations and their consequences; population genetics and human evolution; the genetics of immunity and cancer; biotechnology and gene therapy; and reproductive technologies and genomics.

**Registration-Enforced Prerequisite:** CH 104, CH 112, or CH 221; previous biology course recommended.

**Terms Typically Offered:** Winter, Fall, Spring, Summer

## BI 231: Anatomy and Physiology I (4)

An introductory course on the structure and function of the various systems in the human body. Designed to meet the needs of nursing students and students in other allied health programs. This course will cover the organization of the body, homeostasis, cell biology tissues, integument, the skeletal system and the muscular system. BI 231, 232, 233 must be taken in sequence or with consent of instructor. This course focuses on organization of the body, homeostasis, cell biology, tissues, integument, the skeletal system, the muscular system.

**Registration-Enforced Prerequisite:** CH 104 or CH 112.

**Terms Typically Offered:** Fall, Winter

## BI 232: Anatomy and Physiology II (4)

An introductory course on the structure and function of the various systems in the human body. Designed to meet the needs of nursing students and students in other allied health programs. This course covers the organization of the body, homeostasis, cell biology, tissues, integument, the skeletal system and the muscular system. BI 231, 232 and 233 must be taken in sequence or with consent of instructor. BI 232: This course focuses on the nervous system, special senses, endocrine system, blood and cardiovascular system.

**Registration-Enforced Prerequisite:** BI 231.

**Terms Typically Offered:** Winter, Spring

## BI 233: Anatomy and Physiology III (4)

An introductory course on the structure and function of the various systems in the human body. Designed to meet the needs of nursing students and students in other allied health programs. This course covers the organization of the body, homeostasis, cell biology, tissues, integument, the skeletal system and the muscular system. BI 231, 232 and 233 must be taken in sequence or with consent of instructor. BI 233: This course focuses on the lymphatic system, immune system, respiratory system, digestive system, nutrition, metabolism, urinary system, reproductive systems, genetics.

**Registration-Enforced Prerequisite:** BI 232.

**Terms Typically Offered:** Spring, Summer

## BI 234: Microbiology (4)

Structure, physiology, metabolism, genetics, growth and control of prokaryotes, eukaryotes, and viruses; human disease, immunity and disease agents; the role of microorganisms in nature. Laboratories emphasize aseptic techniques, microscopic observation, metabolic differentiation and identification of bacteria.

**Registration-Enforced Prerequisite:** CH 104, CH 112 or CH 221, previous course in biology recommended.

**Terms Typically Offered:** Fall, Winter, Spring, Summer