

Course Abstract

If you need accommodations due to a disability, contact Disability Services in Edison Hall Room 100, 732.906.2546.

To foster a productive learning environment, the College requires that all students adhere to the Code of Student Conduct which is published in the college catalog and website.

Course ID and Name: BIO-111 Human Anatomy & Physiology I

Department: Natural Sciences

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Prerequisites: Biology 010 OR one year of high school Laboratory Biology and Chemistry 010 OR one year of high school Chemistry and Appropriate score on the college placement test or completion of math 013

Co-requisites: N/A

Course Description:

Biology 111 is a detailed study of the structure and function of the body, including tissues, skin, skeletal system, muscular system, nervous system.

General Education Status: Science

Credits: 4

Lecture Hours: 3

Lab hours: 3

Learning Outcomes:

Upon successful completion of the course, students will be able to

1. identify important anatomical structures and functions of cells and tissues, and of the skeletal, muscular, integumentary, nervous systems and special senses.
2. demonstrate understanding of structural and functional interrelationship of different systems of the body particularly homeostasis and biological feedback mechanisms.
3. use laboratory equipment to identify and study representative system structures.
4. understand how scientific method is applied to gain knowledge about functions of human organ systems.
5. comprehend and use appropriate vocabulary specific to anatomy and physiology.

Course Content Areas:

Introduction to Anatomy and Physiology: Vocabulary and organ system overview; homeostasis and feedback systems

Cells: Cell structure and functions; membrane transport

Tissues: Description, location and function of Epithelial (including glandular), Connective, Muscle and Nervous tissues

Integumentary System: Structure and function of the skin and accessory structures

Skeletal System: Macroscopic and microscopic structure and function of the bones and associated joints (including structural classification and movement)

Muscular System: Macroscopic and microscopic structure and function of muscles; including sliding filament theory of muscle contraction

Nervous System: Neuron structure and function, Central Nervous System, Peripheral Nervous System, Autonomic Nervous System

Special Senses: Structure and function of the visual and auditory systems