

**Common Course Outline**  
**BIOL 220**  
**Human Anatomy and Physiology I**  
**4 Semester Hours**

**The Community College of Baltimore County**

**Description**

**Human Anatomy and Physiology I**

Emphasizes structure and function of the human body. Integrates related facts, principles, and concepts of the cell, chemistry, biochemistry and hemostasis includes study of cells and tissues and the skeletal, nervous, endocrine, and muscular systems.

4 credits: 3 lecture hours and 3 laboratory hours per week. Credit by exam available.

Prerequisite: Completion of BIOL 110 or BIOL 102 or a college equivalent with a minimum grade of "C" and exemption from or successful completion of (ENGL 052 or ESOL 052 or LVE2 or LVE3) and MATH 082 or MATH 013 or LVM2 or LVM3). Students not meeting any of the above requirements should enroll in BIOL 110 or BIOL 102 or pass the Biology Placement Test.

**Overall Course Objectives**

1. Define atoms, molecules, chemical bonding, and inorganic and organic compounds.
2. Identify cellular structures and explain their functions.
3. Define anatomy and physiology and demonstrate use of descriptive anatomical and directional terminology.
4. Explain the concept of homeostasis and describe how control systems operate to maintain homeostasis within the body systems.
5. Describe the structure, function, and location of the four basic tissues of the body.
6. Identify and describe the structural features of the integumentary system and describe the functions of this system.
7. Identify and describe the structural features of the skeletal system and explain their functional roles in osteogenesis and body movement.
8. Identify and describe the structural features of the nervous system and explain their functional roles in receiving, integrating, and conducting information.

9. Identify and describe the structural features of the eye and ear and explain their functional roles in vision, hearing, and equilibrium.
10. Identify and describe the structural features of the endocrine system and explain the functional roles of hormones on their effectors.
11. Identify and describe the structural features of the muscular system and explain their functional roles in body movement, maintenance of posture, and heat production.

### **Major Topics**

1. Chemistry and Cell Biology Review
2. Body Plan and Organization
3. Homeostasis
4. Histology
5. Integumentary System
6. Skeletal system
7. Nervous System
8. Special Senses
9. Endocrine System
10. Muscular System

### **Course Requirements**

Specific assignments and procedures for evaluating student performance in the class will be described in the individual class syllabus.

Grading/exams: Grading procedures will be determined by the individual faculty member but will include interim and comprehensive final examinations in both the lecture and laboratory portions of the course.

Writing: The individual faculty member will determine specific writing assignments.

Individual faculty members may include additional course objectives, major topics, and other course requirements to the minimum expectations stated in the Common course Outline.

Date revised: 02/21/00