

**Common Course Outline**  
**Biology 160**  
**Body Structure and Function**  
**3 Credits**

**Community College of Baltimore County**

**Description**

**BIOL 160 – Body Structure and Function** introduces students to structure and function of the human body through integration of all eleven systems of the body: integumentary, skeletal, muscular, nervous, endocrine, lymphatic, circulatory, respiratory, digestive, urinary and reproductive systems. Students will apply medical terminology during the study of each body system. This course is not a substitute for BIOL 109, 110, 220 or 221.

**3 Credits**

**Prerequisites:** (ESOL 052 and ESOL 054) or ACLT 052 or ACLT 053; and MATH 082

**Overall Course Objectives**

Upon completion of this course students will be able to:

1. apply the principles of chemistry and cell structure and function to the study of anatomy and physiology;
2. describe the organization of the human body from molecules to organelles to cells to tissues, organs and organ systems;
3. apply descriptive anatomical and directional terminology in writing and orally;
4. identify and describe the structural features of the integumentary, skeletal, muscular, nervous, endocrine, lymphatic, circulatory, respiratory, digestive, urinary and reproductive systems;
5. explain how the body functions as a whole based on knowledge of the anatomical structures and functions of the integumentary, skeletal, muscular, nervous, endocrine, lymphatic, circulatory, respiratory, digestive, urinary and reproductive systems;
6. explain how the nervous and endocrine systems maintain homeostasis by interactions with other systems;
7. calculate physiological parameters given physiological data;
8. work in small groups to evaluate physiological data to determine whether a disease state exists;
9. find and evaluate internet sources to obtain information on new developments in physiology;
10. utilize software to investigate anatomical structures and their interrelationships;
11. discuss ethical and moral issues that arise from modern medical technology;
12. discuss the concepts of race, ethnicity, and culture and describe how they have an impact on human health; and

13. apply medical terminology to the study of individual organ systems in written and oral communication.

### **Major Topics**

- I. Introduction to medical terminology
  - a. Roots
  - b. Prefixes
  - c. Suffixes
- II. Chemistry of life
- III. Cell structure and function
- IV. Histology
- V. Integumentary system
- VI. Skeletal system
- VII. Muscular system
- VIII. Nervous system
- IX. Endocrine system
- X. Circulatory system
- XI. Lymphatic system and resistance to disease
- XII. Respiratory system
- XIII. Digestive system
- XIV. Urinary system
- XV. Male and female reproductive systems

### **Course Requirements**

Grading procedures will be determined by the individual faculty member but will include the following:

No more than 30% of a student's total grade will come from homework, non-proctored work or open book tests.

### **Grading/exams**

Grading procedures will be determined by the individual faculty member but will include:

- Minimum of 3 interim exams and a comprehensive final;
- Minimum of 2 written assignments\* in which medical terminology is used
- Minimum of 1 oral or signed presentation\* in which medical terminology is used.

\*At least one of these will include a group project.

Written Assignments: Students are required to use appropriate academic resources.

Multiple assignments will infuse CCBC General Education Program objectives; at least one assignment worth a minimum of 10% of the total course grade will allow students to demonstrate at least 5 of the 7 General Education Program outcomes.

At least 2 written assignments (e.g., case studies) will be given. These assignments will include application of medical terminology.

**Other Course Information**

This course is an approved 3-credit General Education course in the Biological and Physical Sciences category that **does not fulfill** the laboratory requirement. Please refer to the current CCBC Catalog for General Education course criteria and outcomes.

This course is recommended for students in the Health Informatics and Information Technology Program; concurrent enrollment in OFAD 141 is recommended.

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