

BIOL 160

Body Structure and Function

3 Credits

Community College of Baltimore County Common Course Outline

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, cardiovascular, lymphatic, respiratory, digestive, urinary, and reproductive systems. Students apply medical terminology during the study of each body system. This course is not a substitute for BIOL 109, 110, 220 or 221.

Pre-requisites: (ACLT 052 or ACLT 053) or (ESOL 052 and ESOL 054) 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 to organ systems;
3. apply descriptive anatomical and directional terminology in written and oral communication;
4. describe the structural features of the integumentary, skeletal, muscular, nervous, endocrine, lymphatic, cardiovascular, 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, cardiovascular, lymphatic, respiratory, digestive, urinary, and reproductive systems;
6. explain the ways the nervous and endocrine systems maintain homeostasis by interacting with other systems;
7. evaluate physiological data to determine whether a disease state exists;
8. find, evaluate, use, and cite resources used to obtain information on new developments in physiology;
9. utilize software to investigate anatomical structures and their interrelationships;
10. discuss ethical and moral issues that arise from modern medical technology;
11. discuss the impacts of race, ethnicity, and culture on human health; and
12. apply medical terminology to the study of individual organ systems in written and oral communication.

Major Topics

- I. Introduction to medical terminology

The Common Course Outline (CCO) determines the essential nature of each course.
For more information, see your professor's syllabus.

- 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. Cardiovascular system
 - XI. Lymphatic system and resistance to disease
 - XII. Respiratory system
 - XIII. Digestive system
 - XIV. Urinary system
 - XV. Reproductive system

Course Requirements

Grading will be determined by the individual faculty member, but shall include the following, at minimum:

- at least three (3) exams plus a comprehensive final
- at least two (2) written assignments in which medical terminology is used
- at least one (1) presentation in which medical terminology is used
- no more than 50% of a student's total grade will come from homework, non-proctored work or open book tests

Written assignments and research projects: Students are required to use appropriate academic resources in their research and cite sources according to the style selected by their professor.

Other Course Information

This course is an approved 3-credit General Education course in the Biological and Physical Sciences but does not fulfill the laboratory requirement.

One or more assignments will infuse CCBC General Education Program outcomes and will account for a minimum of 10% of the total course grade. The assignment(s) will allow students to demonstrate at least 5 of the 7 General Education program outcomes.

This course is recommended for students in the Health Informatics and Information Technology Program.

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