

# COLLEGEWIDE COURSE OUTLINE OF RECORD

## APHY 101, ANATOMY AND PHYSIOLOGY I

COURSE TITLE: Anatomy and Physiology I

COURSE NUMBER: APHY 101

PREREQUISITES: Demonstrated competency through appropriate assessment or earning a grade of "C" or better in ENGL 093 Introduction to College Writing and ENGL 083 Reading Strategies for College or ENGL 095 Integrated Reading and Writing and MATH 023 Essentials of Algebra I or MATH 080 Mathematics Principles with Algebra

COREQUISITES: Demonstrated competency through appropriate assessment or earning a grade of "C" or better in MATH 023 Essentials of Algebra I or MATH 080 Mathematics Principles with Algebra

SCHOOL: Liberal Arts and Sciences

PROGRAM: Liberal Arts

CREDIT HOURS: 3

CONTACT HOURS: Lecture: 2 Labs: 2

DATE OF REVISION: Fall, 2014

EFFECTIVE DATE OF THIS REVISION: Fall, 2015

CATALOG DESCRIPTION: Develops a comprehensive understanding of the close inter-relationship between anatomy and physiology as seen in the human organism. Introduces students to the cell, which is the basic structural and functional unit of all organisms, and covers tissues, integument, skeleton, muscular and nervous systems as an integrated unit.

MAJOR COURSE LEARNING OBJECTIVES: Upon successful completion of this course the student, through lecture and laboratory activities, will be expected to:

1. List the basic requirements of the human body to sustain life.
2. Identify and describe the structural hierarchy and levels of organization of the human body.
3. Identify and describe the structure and function of the human organ systems.
4. Communicate in anatomical, directional, and medical terminology.
5. Explain the relationship of anatomy and physiology to basic health and pathology.
6. Explain the relationships between the chemical components of the body and its structure and metabolism.
7. Identify and describe the structure and functions of the cellular organelles.
8. Differentiate among the processes for movement through membranes.
9. Identify and describe the structure, function, and distribution of the four different tissue types.
10. Identify and describe the structure and function of the skin and accessory structures.
11. Identify and describe the histology, development, gross anatomy, and physiology of bone.
12. Classify structurally and functionally the major joints of the human body.
13. Identify and describe the histology, gross anatomy, and physiology of muscle.
14. Identify and describe the structure and function of the nervous system.

15. Demonstrate proper use and understanding of: laboratory safety procedures and laboratory equipment such as microscopes and dissecting instruments.
16. Demonstrate introductory dissection skills.
17. Apply concepts related to, and knowledge of, anatomy and physiology to global aspects of: biology, health, and society.

COURSE CONTENT: Topical areas of study to be covered in lecture and laboratory include:

Lecture Content:

Introduction to Human Anatomy and Physiology  
Chemical Basis of Life  
Cell Biology  
Tissues  
Integumentary System  
Skeletal System  
Joint Structure and Function  
Muscular System  
Nervous System – including the special senses

Laboratory Content:

*Suggested Topics/Activities:*

Anatomical orientation and terminology; planes, cavities, regions  
Cell division  
Microscope use  
Basic structure of a cell  
Osmosis and diffusion  
Chemical basis of life  
Histology: identification, structure, function, and location of tissue types including integument  
Integumentary System  
Anatomical identification of the skeletal system using articulating and disarticulating models  
Joint structure/function, joint movements  
Identification of location and actions of major skeletal muscles  
Nervous system anatomy including brain and eye dissection  
Sensory testing

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The Ivy Tech Library is available to students' on- and off-campus, offering full text journals and books and other resources essential for course assignments. Go to <http://www.ivytech.edu/library/> and choose the link for your campus.

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The College is committed to academic integrity in all its practices. The faculty value intellectual integrity and a high standard of academic conduct. Activities that violate academic integrity undermine the quality and diminish the value of educational achievement.

Cheating on papers, tests or other academic works is a violation of College rules. No student shall engage in behavior that, in the judgment of the instructor of the class, may be construed as cheating. This may include, but is not limited to, plagiarism or other forms of academic dishonesty such as the acquisition without permission of tests or other academic materials and/or distribution of these materials and other academic work. This includes students who aid and abet as well as those who attempt such behavior.

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