COLLEGEWIDE COURSE OUTLINE OF RECORD

APHY 203, HUMAN ANATOMY AND PHYSIOLOGY I

COURSE TITLE: Human Anatomy and Physiology I
COURSE NUMBER: APHY 203
PREREQUISITES: Demonstrated competency through appropriate assessment or earning a grade of “C” or better in ENGL 025 Introduction to College Writing II or ENGL 093 Introduction to College Writing and ENGL 032 Reading Strategies for College II or ENGL 083 Reading Strategies for College and MATH 015 Fundamentals of Algebra I or MATH 023 Essentials of Algebra I.
SCHOOL: Liberal Arts and Sciences
PROGRAM: Liberal Arts
CREDIT HOURS: 5
CONTACT HOURS: Lecture: 3 Lab: 4
DATE OF REVISION: Fall, 2012
EFFECTIVE DATE OF THIS REVISION: Fall, 2013

CATALOG DESCRIPTION: Provides a comprehensive study of the interrelationship between anatomy and physiology from chemical to cellular to organ interactions. Provides an in-depth study of each system of the body from a viewpoint of structure as well as function.

MAJOR COURSE LEARNING OBJECTIVES: Upon successful completion of this course the student will be expected to:

1. List the basic differences between anatomy and physiology.
2. Identify and describe the basic requirements of the human body to sustain life.
3. Communicate in anatomical, directional and medical terminology.
4. Explain the relationships between the chemical components of the body and its structure and metabolism.
5. Identify and describe basic cellular organelar structure and function and the role of the cellular plasma membrane.
6. Differentiate among the processes for movement through membranes.
7. Identify and describe the structure, function, and distribution of the four different types of tissue.
8. Identify and describe the structure and function of the skin and accessory structures.
9. Identify and describe the histology, development, gross anatomy, and physiology of bone.
10. Classify structurally and functionally the major joints of the human body.
11. Identify and describe the function of the three types of muscle, its histology, gross anatomy, and physiology.
12. Identify and describe the structure and function of the nervous system, both central and peripheral.
COURSE CONTENT: Topical areas of study include -

Lecture Content:
Introduction to Human Anatomy and Physiology
Chemical Basis of Life
Cell Biology
Cell membrane transport and cell membrane potential
Tissues
Integumentary System
Skeletal System
Joint Structure and Function
Muscular System
Muscle physiology: skeletal, smooth, and cardiac
Nervous System – including the special senses
Regulatory mechanisms of the nervous system

Laboratory Content:
Suggested Topics/Activities:

Anatomical orientation and terminology; planes, cavities, regions
Scientific method/research components
Membrane transport
Cell division
Microscope use
Basic structure of a cell
Osmosis and diffusion
Chemical basis of life; atomic models and chemical reactions
Histology: identification, structure, function, and location of tissue types including integument
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
Muscle function using handgrip dynamometry, EMG, or muscle stimulation
Nervous system anatomy including brain and eye dissection
Sensory testing
Clinical testing and application of senses, equilibrium, reflexes
Computer simulations
Case studies/Critical thinking applications
Integration of body systems

HOW TO ACCESS THE IVY TECH COMMUNITY COLLEGE LIBRARY:

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.
ACADEMIC HONESTY STATEMENT:

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.

COPYRIGHT STATEMENT:

Students shall adhere to the laws governing the use of copyrighted materials. They must insure that their activities comply with fair use and in no way infringe on the copyright or other proprietary rights of others and that the materials used and developed at Ivy Tech Community College contain nothing unlawful, unethical, or libelous and do not constitute any violation of any right of privacy.

ADA STATEMENT:

Ivy Tech Community College seeks to provide reasonable accommodations for qualified individuals with documented disabilities. If you need an accommodation because of a documented disability, please contact the Office of Disability Support Services.

If you will require assistance during an emergency evacuation, notify your instructor immediately. Look for evacuation procedures posted in your classroom.