

ARIZONA WESTERN COLLEGE  
SYLLABUS

## BIO 201 HUMAN ANATOMY AND PHYSIOLOGY I/GE

Credit Hours 4 Lecture: 3 Lab: 3

PREREQUISITES: BIO156 or BIO 181 or pass an AWC pre-test. CHM 130 is highly recommended.

## COURSE DESCRIPTION

Study of structure and function of the human body. Topics include cells, tissues, integumentary system, skeletal system, muscular system and the nervous system.

## 1. COURSE GOALS

- 1.1 relate the structural organizational hierarchy of the human body (molecules, cells, tissues, organs, organ systems, and organism) to homeostasis.
- 1.2 locate, recognize, and label various structures (microscopic and gross), soft tissues and organs of the body.
- 1.3 describe the basic anatomy and physiological processes of the following body systems:
  - 1.3.1 integumentary system
  - 1.3.2 skeletal system
  - 1.3.3 muscular system
  - 1.3.4 nervous system
- 1.4 succeed in Anatomy and Physiology II

## 2 OUTCOMES

Upon satisfactory completion of this course, students will be able to:

- 2.3 demonstrate basic skills regarding laboratory safety, dissection, and the use of the microscope.
- 2.4 recognize and apply basic principles of chemistry as they relate to human anatomy and physiology.
- 2.5 describe the function of cell organelles and the structure and function of the plasma membrane.
- 2.6 describe how mitosis, cell respiration, diffusion processes and protein synthesis relate to cell function and homeostasis in the body.
- 2.5 identify and classify the various tissue types in diagrams and in microscope slide preparations, and relate each to its respective regions of the body.
- 2.6 identify the various tissues and structures of the integumentary system and describe the function of each.
- 2.7 identify all of the bones of the body and classify each according to its shape and histology.
- 2.8 identify the joint classification and potential movements at all skeletal articulations.
- 2.9 name each of the major muscles and muscle groups, and be able to describe their actions.
- 2.10 describe the physiology of muscle and muscle groups, sliding-filament model, and relationship between muscles and the nervous system.
- 2.11 describe neurotransmitters and electrical potentials relating to the functions of neuron and nervous system.
- 2.12 distinguish the regions of the central nervous system, peripheral nervous system and autonomic nervous system and their functions.
- 2.13 identify the structures that make-up the special senses for sight, smell, taste and hearing and the physiology of each.

## 3. AWC GENERAL EDUCATION (GE) CATEGORY &amp; CRITERIA

## NATURAL SCIENCES

- How to describe, explain, and predict natural phenomena using scientific, logical, and quantitative reasoning and empirical evidence from observation and experimentation
- The use of experimentation and/or observation to study natural phenomena, using the scientific method
- How to communicate information about the natural world using written, numeric, and/or visual formats; and when possible, how to use computational/simulation programming environments as a method for solving systems and

simulating theoretical or experimental data

- The history of scientific development
- How to critically evaluate scientific information, including visual displays and quantitative data

#### 4. METHODS OF INSTRUCTION

- 4.1 Lecture by professors and/or guest lecturers
- 4.2 Laboratory exercises
- 4.3 Films and other audio-visual presentations
- 4.4 Classroom demonstrations
- 4.5 Student discussion and group activities
- 4.6 Homework assignments
- 4.7 Interactive Audio-visual materials

#### 5. LEARNING ACTIVITIES

- 5.1 Take notes during lecture on the structure and function of the human body
- 5.2 Utilize audio-visual materials, and other interactive activities
- 5.3 Participate in recitation, class discussion, and internet activities
- 5.4 Complete laboratory investigations of anatomy and physiology including:
  - 5.4.1 Examination of preserved specimens (gross and microscopic)
  - 5.4.2 Examination of models and diagrams
  - 5.4.3 Demonstrations by the instructor
  - 5.4.4 Experimentation to enhance understanding of physiological principles
- 5.5 View Instructor demonstrations
- 5.6 Complete writing assignments

#### 6. EVALUATION

- 6.1 Quizzes
- 6.2 Group activities
- 6.3 Laboratory exercises
- 6.4 Homework assignments
- 6.5 Exams

#### 7. STUDENT RESPONSIBILITIES

- 7.1 Under AWC Policy, students are expected to attend every session of class in which they are enrolled.
- 7.2 If a student is unable to attend the course or must drop the course for any reason, it will be the responsibility of the student to withdraw from the course. Students who are not attending as of the 45th day of the course may be withdrawn by the instructor. If the student does not withdraw from the course and fails to complete the requirements of the course, the student will receive a failing grade.
- 7.3 Americans with Disabilities Act Accommodations: Arizona Western College provides academic accommodations to students with disabilities through ACCESSability Resource Services (ARS). ARS provides reasonable and appropriate accommodations to students who have documented disabilities. It is the responsibility of the student to make the ARS Coordinator aware of the need for accommodations in the classroom prior to the beginning of the semester. Students should follow up with their instructors once the semester begins. To make an appointment call the ARS front desk at (928) 344-7674 or ARS Coordinator at (928) 344-7629, in the College Community Center (3C) building, next to Advising.
- 7.4 Academic Integrity: Any student participating in acts of academic dishonesty—including, but not limited to, copying the work of other students, using unauthorized “crib notes”, plagiarism, stealing tests, or forging an instructor’s signature—will be subject to the procedures and consequences outlined in AWC’s Student Code of Conduct.
- 7.5 Texts and Notebooks: Students are required to obtain the class materials for the course.
- 7.6 Arizona Western College students are expected to attend every class session in which they are enrolled. To comply with Federal Financial Aid regulations (34 CFR 668.21), Arizona Western College (AWC) has established an Attendance Verification process for "No Show" reporting during the first 10 days of each semester. Students who have enrolled but have never attended class may be issued a "No Show" (NS) grade by the professor or instructor

and receive a final grade of “NS” on their official academic record. An NS grade may result in a student losing their federal financial aid. For online classes, *student attendance in an online class is defined as the following* (FSA Handbook, 2012, 5-90):

- Submitting an academic assignment
- Taking an exam, an interactive tutorial or computer-assisted instruction
- Attending a study group that is assigned by the school
- Participating in an online discussion about academic matters
- Initiating contact with a faculty member to ask a question about the academic subject studied in the course.