

BIOL 2214 Anatomy and Physiology I

Catalog Description: The first of two courses examining basic human anatomy and fundamentals of human physiology. Topics covered include an overview of body organization, tissues, the integument, skeletal, muscular, nervous and endocrine systems. Three hours lecture and three hours lab weekly.

Prerequisites: BIOL 1544 Principles of Biology I (or its equivalent) with a grade of C or better or successful completion of Introduction to Life Science (BIOL 0112). This prerequisite may be waived by a scoring 23 or higher on the Biological Concepts Proficiency Test. The Biological Concepts Test may be taken in the NWACC testing center.

Credit hours/Contact hours/Load hours: 4/6/5

Target Audience/Transferability: Designed for students majoring in health occupations, this course introduces the structure and function of the human body. Successful completion of this course should prepare students for successful further study in the medical and allied health fields. BIOL 2214 will transfer to the University of Arkansas only if transferred with BIOL 2224 also. Always check with the transfer institution to verify how courses will be accepted.

Student Learning Outcomes: Students completing this course will:

- Recall and apply facts, vocabulary and relationships consistent with courses taught nationally for: the integumentary system, the skeletal system, the muscular system, the nervous system, endocrine system.
- Use scientific reasoning to comprehend, evaluate and solve problems pertaining to course content.
- Locate and use information sources to further their knowledge of anatomy, physiology and health.
- Identify select anatomical structures on laboratory specimens.
- Properly use microscopes, lab instrumentation and techniques to study human structure and function.
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Required Text(s):

Martini, Fundamentals of Anatomy and Physiology, 10th edition, 2015, Pearson
Marieb, Human Anatomy and Physiology Laboratory Manual, 11th edition, 2014, Pearson

Topics:

- Organization the Human body (brief review of basic chemistry & cells)
- Integumentary System
- Skeletal System
- Joints
- Muscular System
- Nervous Tissues & Physiology
- Central Nervous System

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- Peripheral Nervous System
- Autonomic System
- Sensory Function
- Endocrine System

Required Instructional Activities:

- Laboratory exercises should average between 2-3 hours a week and should include histology, the human skeleton, large mammal muscle dissection, sheep brain dissection
- Since developing student higher order thinking skills and information literacy are essential outcomes of this course, all instructors should include learning activities that develop these outcomes in their courses and identify them in course syllabi.

Forms of Assessment:

- All entering students who have not taken the Biological Concepts will be given this test on the first day of class. The test will be forwarded to the science assessment coordinator to correlate student preparation and performance. The results will be presented to biology faculty annually.
- Since all instructors are asked to include learning activities that develop higher order thinking skills and research. Instructors should describe how these activities will be evaluated in their course syllabi.
- Student evaluation should be based both on lab practical and written components