

Northwest Arkansas Community College
(Science and Mathematics Division)

Discipline Code

BIOL

Course Number

2214

Course Title

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 BIOL 0112 Introduction to Life Science or BIOL 1013 Introduction to Anatomy and Physiology (BIOL 0112 or BIOL 1013 will not satisfy the general education lab science requirement). This prerequisite may be waived by scoring 23 or higher on the Biological Concepts Proficiency Test. The Biological Concepts Test may be taken in the NWACC testing center.

Credit Hours

4 credit hours

Contact hours

45 lecture contact hours; 45 lab contact hours

Load hours

5 load hours

Semesters Offered

Fall, Spring & Summer

ACTS Equivalent

BIOL2404 Human Anatomy and Physiology I

Grade Mode

A-F

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.

General Education Outcomes Supported

- Students develop higher order thinking skills.
- Students demonstrate information literacy.

Standard Practices

Topics list

- Organization the Human body (brief review of basic chemistry & cells as needed)
- Integumentary System
- Skeletal System
- Joints
- Muscular System
- Nervous Tissues & Physiology
- Central Nervous System
- Peripheral Nervous System
- Autonomic Function
- Sensory Function
- Endocrine System

Learning activities

- Courses must, at a minimum, cover the core learning objectives for each topic. Faculty may add to these objectives but may not omit any of them.
- Laboratory exercises should average between 2-3 hours a week and include histology, the human skeleton, whole mammal dissection, and sheep brain dissection
- Lab safety orientation and enforcement of safety protocols is the responsibility of each faculty. A standard lab safety PowerPoint will be provided for training. Scoring 100% on a mandatory department-provided lab safety quiz is required before students may participate in lab.
- Since developing student higher order thinking skills and information literacy are essential outcomes of this course. The learning activities that develop these outcomes should be in course syllabus. Instructors should describe how these activities will be evaluated in their course syllabi and/or reflected in their gradebooks.

Assessments

- The final is a departmental comprehensive exam. Results of the departmental finals will be submitted to the coordinator as part of course outcome assessment. The test will cover a select number of the core learning objectives, which will be provided as a study guide.
- A required information literacy assessment will be given with results submitted to the coordinator. Results will be used as part of the college's process to assess mastery of the general education outcomes.

Grading guidelines

- At least 70% of the grade should come from proctored work
- Lab activities/exams should comprise approximately 25% of the overall grade.
- For lab practical exams, over 50% of the lab stations should include exhibits, dissections, and physiology tests performed in lab. Any images used on practical exams should be of lab exhibits or test results.

Revision Date

March 31, 2021

BIOL 2214 Anatomy and Physiology I

Degrees affected:

AA

AA – CAST

AA – Global Studies
AA – Bachelor of Arts History
AA – Secondary Education; History
AA – Special Education

AF – Fine Arts

AS – AFLS Agriculture, Food, and Life Sciences

AS – LAS Liberal Arts and Sciences
AS – LAS Art History
AS – LAS Business Education (UA, Fayetteville)
AS – LAS Child Advocacy Studies
AS – LAS Family & Consumer Science Education
AS – LAS BA History (UA, Fayetteville)
AS – LAS Global Studies
AS – LAS Secondary Education Social Sciences (UA, Fayetteville)
AS – LAS Visual Art

AAS – Early Childhood Education?
AAS – Electronics Technology
AAS – Health Information Management
AAS – Health Science
AAS – Nursing (2020)
AAS – Paramedic
AAS – Physical Therapist Assistant (2020)
AAS – Physical Therapist Assistant; Hybrid
AAS – Respiratory Therapy

CP – General Studies