









Syllabus
BIOS 2250
Human Anatomy & Physiology I
2025

Committee Members:

Nick Whitney, Central Community College
Rachel Meyer, Metropolitan Community College
Dr. Carla Long, Mid-Plains Community College
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Rebecca Burt, Southeast Community College
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N/A, Nebraska Indian Community College
Facilitator: Jennifer Judt & Rebecca Burt

The Institution agrees to the contents in this syllabus including course prefix, number, course description and other contents of this syllabus.

 Chief Academic Officer, Central Community College	11/26/2024	Adopt
 Chief Academic Officer, Little Priest Tribal College	11/13/2024	Adopt
 Chief Academic Officer, Metropolitan Community College	11/12/2024	Decline
 Chief Academic Officer, Mid-Plains Community College	11/12/2024	Adopt
 Chief Academic Officer, Nebraska Indian Community College	11/26/2024	Adopt
 Chief Academic Officer, Northeast Community College	11/14/2024	Adopt
 Chief Academic Officer, Southeast Community College	11/13/2024	Adopt
 Chief Academic Officer, Western Nebraska Community College	11/12/2024	Adopt



I. CATALOG DESCRIPTION

Course Number: BIOS 2250

Course Title: Human Anatomy & Physiology I

Prerequisite(s): College General Biology (BIOS 1010) or Department Approval.

Catalog Description: Form and function of the human body, including homeostatic mechanisms, organization, biochemistry, cells, tissues, integumentary system, skeletal system, muscular system, nervous system, and an introduction to the special senses.

Credit Hours: 4 semester hours / 6 quarter hours

Contact Hours: 45 (lecture) / 30 (lab)

II. COURSE OBJECTIVES / COMPETENCIES

Course will:

1. Facilitate student exploration of the organization and biochemistry of the human body, from the cellular to the organismal level.
2. Compare and evaluate human tissues from human body.
3. Examine the integumentary system and accessory structures.
4. Explore the anatomy and physiology of the skeletal system, including articulations.
5. Investigate the anatomy and physiology of the muscular system.
6. Detail the anatomy and physiology of the nervous system, including an introduction to the special senses.
7. Explain homeostasis and how it applies to the integumentary, skeletal, muscular and nervous systems.

III. STUDENT LEARNING OUTCOMES

Students will be able to:

1. Apply homeostatic concepts to the maintenance of, and interrelationships between anatomy and physiology.
2. Use terms of relative position, landmarks, and body cavities to correctly locate a anatomical structures.
3. Explain the basic biochemical activities and functions of human body cells, tissues, and organs.
4. Identify function and locations of each tissue type.
5. Locate and identify bones and bone landmarks using precise anatomical and osteological nomenclature.
6. Distinguish between joint types and describe joint movements using standard terminology.
7. Explain the physiology of skeletal system tissues, including bone growth and repair.
8. Locate skeletal muscles, identify them using anatomical terminology, and describe their major actions.

9. Explain the physiology of muscle tissue, including the mechanism of muscle contraction.
10. Identify nervous system structures using anatomical nomenclature.
11. Explain the physiology of nervous tissue, synaptic transmission and introduce the special senses.

IV. COURSE CONTENT / TOPICAL OUTLINE

1. Introduction to Anatomy and Physiology
2. Biochemistry
3. Cellular level of Organization
4. Histology
5. Integumentary System
6. Skeletal System
7. Muscular System
8. Nervous System

V. INSTRUCTIONAL MATERIALS

A. Required Text(s) Suggested

Hole's Human Anatomy & Physiology; 15th edition or newer; David Shier, Jackie Butler, Ricki Lewis; McGraw Hill Publishing

Human Anatomy & Physiology; 12th edition or newer; EN Marieb and K. Hoehn; Pearson Publishing

Seeley's Anatomy & Physiology; 10th edition or newer; Cinnamon VanPutte et. al., McGraw Hill Publishing

Human Anatomy and Physiology; 2nd edition or newer; Erin C. Amerman; Morton Publishing

Anatomy and Physiology; 2nd edition or newer; Betts, et.al.; OpenStax Publishing

Anatomy & Physiology: An Integrative Approach: 4th Edition or Newer; Valerie Dean O'Loughlin et al.; McGraw Hill

Human Form Human Function Essentials of Anatomy and Physiology: Enhanced 1st Edition or Newer; Thomas H. McConnell and Kerry L. Hull; Jones & Bartlett Learning

Laboratory Manual to accompany Human Form Human Function Essentials of Anatomy and Physiology: Enhanced 1st Edition or Newer; Kerry L. Hull and Jennifer Shaw; Jones & Bartlett Learning

Customized Curriculum that meets course requirements

VI. METHOD OF PRESENTATION / INSTRUCTION

The following may be utilized during this course: lecture, laboratory activities, discussion, supplemental learning objects such as animations/videos, demonstrations, companion internet site access, and engaging activities.

VII. METHODS OF EVALUATION

Evaluation of student learning will be through activities such as tests and exams, quizzes, projects, writing assignments, lab reports, presentations, outside research, portfolios, and online activities.

VIII. INSTITUTIONAL DEFINED SECTION

(To be used at the discretion of each community college as deemed necessary)