

**University of Arkansas – Fort Smith**

**5210 Grand Avenue  
P.O. Box 3649  
Fort Smith, AR 72913-3649  
479-788-7000**

**General Syllabus**

**BIOL 1431 Basic Anatomy and Physiology Laboratory**

Credit Hours: 1

Lecture Hours: 0

Laboratory Hours: 2

Prerequisite or corequisite- BIOL 1433 Basic Anatomy and Physiology or consent of instructor

Effective Catalog: 2018- 2019

**I. Course Information**

**A. Catalog Description**

Complements BIOL 1433; includes the hierarchy of body structure and organization and basic biological chemistry. The structures and functions of each body system are studied, with emphasis on the contribution that each makes to homeostasis.

**B. Additional Information**

Lab exercises emphasize anatomy and make extensive use of anatomical models. Some use is made of microscope slides, in the study of tissues, and there is some dissection of preserved animal organs. Laboratory exams consist of identification of specified structures and types of tissues, using these materials. Dissection of preserved animals or parts of animals is a required part of this course.

**II. Student Learning Outcomes**

**A. Subject Matter**

Upon completion of this course, the student should be able to:

1. Identify the major body regions, cavities, planes, and sections.
2. Understand chemistry well enough to effectively study human physiology.
3. Describe the major structural features of a typical cell, and describe the major physiological processes which occur in cells.
4. Describe and identify the major human tissue types, discuss their functions, and describe their locations in the body.
5. Identify the major anatomical structures in each body system.
6. Describe and explain the major physiological processes that occur in each body system.

7. Explain the concept of homeostasis, and discuss the ways in which the body systems work together to maintain homeostasis.

## **B. University Learning Outcomes**

Basic Anatomy and Physiology Laboratory enhances student abilities in the following areas:

### **Analytical Skills**

**Critical Thinking Skills:** Students will generate solutions/analysis of problems/issues evaluated and assess and justify the solutions and/or analysis. Students will recognize the limitations of quantitative analysis.

### **Communication Skills (written and oral)**

Students will refine their abilities to make written and verbal presentations relating to human body. Students will use appropriate grammar when speaking and writing.

### **Ethical Decision Making**

Students will recognize and analyze ethical dilemmas, based on the Code of Ethics set forth by the National Association of Science.

## **III. Major Course Topics**

- A. Introduction to Anatomy and Physiology
- B. The Chemical Basis of Life
- C. The Cell
- D. Cellular Metabolism
- E. Tissues
- F. The Skin and the Integumentary Systems
- G. The Skeletal System
- H. The Muscular System
- I. The Nervous System
- J. The Somatic and Special Senses
- K. The Endocrine System
- L. The Digestive System and Nutrition
- M. The Respiratory System
- N. Blood
- O. The Cardiovascular System
- P. The Lymphatic System
- Q. The Urinary System
- R. Water and Electrolyte Balance
- S. The Reproductive System
- T. Pregnancy, Growth, and Development