



RANGER COLLEGE
STEPHENVILLE, TEXAS

COURSE SYLLABUS

Anatomy & Physiology I

BIOL2401

4 credit hours

INSTRUCTOR:

Ed Barnes

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EMAIL: Ed.Barnes@rangercollege.edu
HOURS: Monday 3p to 6p

I. Texas Core Curriculum Statement of Purpose

Through the Texas Core Curriculum, students will gain a foundation of knowledge of human cultures and the physical and natural world, develop principles of personal and social responsibility for living in a diverse world, and advance intellectual and practical skills that are essential for all learning.

II. Course Description

This course includes study of the basic structure of the cell, tissue organization and tissue and organ structure and physiological processes of the integumentary, skeletal, muscular and nervous systems in humans. The principle of structure and function and the role these organ systems play in maintaining homeostasis will be emphasized. This course is designed for students entering medical or allied health careers and physical education majors.

III. Required Background or Prerequisite

Recommended prerequisite: BIOL 1406

IV. Required Textbook and Course Materials

HOLE'S ESSENTIALS OF HUMAN ANATOMY AND PHYSIOLOGY 13th edition. Shier, Butler and Lewis. McGraw Hill. 2015. ISBN 978-007-337-8152

“Laboratory Atlas of Anatomy and Physiology” 6 th edition by Eder. 2009 McGraw Hill. ISBN 10: 0073525677, 13: 978-0073525679

V. Course Purpose

Courses in the life and physical sciences focus on describing, explaining and predicting natural phenomena using the scientific method. These courses involve the understanding of interactions among natural phenomena and the implications of scientific principles on the physical world and on human experiences.

VI. Learning Outcomes

Upon successful completion of this course, students will: Use anatomical terminology to identify and describe locations of major organs of each system covered. Explain interrelationships among molecular, cellular, tissue, and organ functions in each system. Describe the interdependency and interactions of the

systems. Explain contributions of organs and systems to the maintenance of homeostasis. Identify causes and effects of homeostatic imbalances. Describe modern technology and tools used to study anatomy and physiology.

VII. Core Objectives

This course meets the following of the six Core Objectives established by Texas:

- Critical Thinking Skills (CT)** – Creative thinking, innovation, inquiry, and analysis; evaluation and synthesis of information
- Communication Skills (COM)** – effective development, interpretation and expression of ideas through written, oral, and visual communication
- Empirical and Quantitative Skills (EQS)** – The manipulation and analysis of numerical data or observable facts resulting in informed conclusions
- Teamwork (TW)** – The ability to consider different points of view and to work effectively with others to support a shared purpose or goal
- Social Responsibility (SR)** – Intercultural competence, knowledge of civic responsibility, and the ability to engage effectively in regional, national, and global communities
- Personal Responsibility (PR)** – The ability to connect choices, actions, and consequences to ethical decision-making

VIII. Methods of Instruction

1. Lectures (twice weekly) in which the major concepts and theories in anatomy and physiology will be discussed.
2. Labs (weekly) in which major anatomical and physiological principles will be demonstrated by examination of specimens and viewing videos

IX. Methods of Assessment

Exams: 3 exams @ 200 points each

Comprehensive Final: 200 points

Lab Practicals: 150 points each

Grading scale: A = 90-100% B = 80-89 C = 70-79 D = 60-69 F = Below 60

X. Course/Classroom Policies

Regular and punctual attendance in all classes and labs is considered essential for optimum academic success. If the student has the equivalence of three weeks of unofficial absences... the instructor may drop the student from the course with a grade of F (Ranger College General Catalog). Students are expected to be seated by the beginning of the lecture period. Excessive tardies (6) may be considered as absences.

Excessive unexcused absences (6) may result in a grade of I (incomplete) and may result in dismissal from the course with a grade of F. It is your responsibility to inform the instructor of an excused absence. An absence is excused if you are excused by the Dean to participate in an authorized College activity. Any student who is disruptive to the class will be dismissed from the class and may be dismissed from the course. Any student found with unauthorized notes (cheat sheets, electronic devices, etc.) during an exam or copying from another student's exam will be subject to disciplinary action. Any student misconduct will be reported to the Dean of Student Services. No tobacco use is permitted in the science building, or other locations on RC campuses.

XI. Course Outline/Schedule

Week	Class Day	AP1 Lecture	AP1 Lab
1	27-Aug	Intro	Terminology
1	29-Aug	Chem	Terminology
2	3-Sep	Labor Day	Labor Day
2	5-Sep	Cyto	*No Lab*
3	10-Sep	Histo	Practical 1
3	12-Sep	Exam 1 Review	Practical 1
4	17-Sep	Exam 1	Histology
4	19-Sep	Integument	Histology
5	24-Sep	Integument	Integument
5	26-Sep	Injuries/Repair + Metab.	Integument
6	1-Oct	Injuries/Repair + Metab.	Practical 2
6	3-Oct	Exam 2 Review	Practical 2
7	8-Oct	Exam 2	Bones 1
7	10-Oct	Osseous/Skeletal	Bones 1
8	15-Oct	Osseous/Skeletal	Bones 2
8	17-Oct	Muscles	Bones 2
9	22-Oct	Muscles	Practical 3
9	24-Oct	Exam 3 Review	Practical 3
10	29-Oct	Exam 3	Muscles
10	31-Oct	Nervous System	Muscles
11	5-Nov	Nervous System	*Open Lab*
11	7-Nov	Nervous System	*Open Lab*
12	12-Nov	Senses	Practical 4
12	14-Nov	Senses	Practical 4
TD	19-Nov	Turkey Day	Turkey Day
TD	21-Nov	Turkey Day	Turkey Day
13	26-Nov	Senses	Brain/Eyes/Ears
13	28-Nov	Exam 4 Review	Brain/Eyes/Ears
14	3-Dec	Exam 4	Practical 5
14	5-Dec	Review	Practical 5
15	10-Dec	Review	

XII. Non-Discrimination Statement

Admissions, employment, and program policies of Ranger College are nondiscriminatory in regard to race, creed, color, sex, age, disability, and national origin.

XIII. ADA Statement

Ranger College provides a variety of services for students with learning and/or physical disabilities. Students are responsible for making initial contact with the Ranger College Counselor, Gabe Lewis (glewis@rangercollege.edu). It is advisable to make this contact before or immediately after the semester begins.