



RANGER COLLEGE  
STEPHENVILLE, TEXAS

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COURSE SYLLABUS

**Anatomy & Physiology**

**BIO 2402**

**4 credit hours**

**INSTRUCTOR:**

# Travis Barnes

INSTRUCTOR: Travis Barnes  
EMAIL: tbarnes@rangercollege.edu  
OFFICE: Erath County campus, faculty office  
PHONE: (254) 968-1088  
HOURS: By appointment

## **I. Texas Core Curriculum Statement of Purpose**

Through the Texas Core Curriculum, students will gain a foundation of knowledge of the anatomy and physiology of the human. A secondary purpose is to 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 is the second part of a two-course sequence. It is a study of the structure and function of the human body including the following systems: endocrine, cardiovascular, immune, lymphatic, respiratory, digestive (including nutrition), urinary (including fluid and electrolyte balance), and reproductive (including human development and genetics). Emphasis is on interrelationships among systems and regulation of physiological functions in maintaining homeostasis.

## **III. Required Background or Prerequisite**

Passing score on the THEA reading section or equivalent alternate test is recommended. Biology 1408 is recommended.

## **IV. Required Textbook**

The textbook for this course is provided by Lumen Learning. There is no separate book to purchase. It can be accessed in Blackboard. ISBN: 978-1-64087-324-7

## **V. Course Purpose**

The purpose of the course is to provide learners with an in-depth explanation of how the human body is constructed and how it functions as a unit. With this knowledge one can monitor the health of their own body and understand changes as they progress through the various stages of life.

## **VI. Learning Outcomes**

- Be familiar with the structure of the human body.
- Be aware of how the human body functions.
- Understand the phases of human development from the zygote to geriatric phase of life.
- Be knowledgeable of the disease process and how to maintain optimum lifetime health.

## 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

Methods of instruction may include lectures, assigned readings, discussions, handouts, and laboratory experiences.

## IX. Methods of Assessment

- **Chapter Exams (40 percent) (CT, COM, SR, PR)** – There will be a comprehensive exam given at the end of each chapter of the textbook.
- **Final Exam (20 percent) (CT, COM, PR)** – There will be a comprehensive in-class final exam focusing on material that has been covered during the entire semester.
- **Laboratory exercises (40%) (CT, COM, TW, PR)**- Different exercises include dissection of the cat, sheep brain, and sheep heart. Other activities include examination of select microscope slides, utilization of anatomy color sheets, and other exercises deemed appropriate.
- Grading scale: A = 90-100% B = 80-89 C = 70-79 D = 60-69 F = Below 60

## X. Course/Classroom Policies

1. **Come to class prepared.** You are expected to participate in class discussions and come to class meetings having completed all assigned readings and written work.
2. **Turn in assignments on time.** By accepting this syllabus, you agree to accept a score of zero on any late work.
3. **Don't cheat.** Any assignment reflecting cheating, plagiarism, or any other form of academic dishonesty will receive a grade of zero. A second instance will result in automatic failure of the class and a report being filed with Ranger College's Vice President of Instruction. The consequences of this report can be quite severe for your academic future. For more details, see the section of the Ranger College Catalog (available at [www.rangercollege.edu/catalog.pdf](http://www.rangercollege.edu/catalog.pdf)), titled "Student Misconduct," subsection "Academic Dishonesty."
4. **Six absences = Dropped from class with a failing grade.** I expect you to attend class regularly. As per Ranger College's stated absence policy in the general college catalog (see pages 25-26 at <http://rangercollege.edu/catalog.pdf>), the only absences that will be excused are "official" ones, defined as those that occur due to authorized Ranger College activities (such as sporting events). Unofficial absences are counted from the first day of class as listed in the College Calendar, regardless of the date of your registration.
5. **Cell phones:** Your phone must be turned off and properly stowed in your bag or otherwise stored off your person prior to class.
6. **Email:** I am happy to communicate with you by email and will do my best to respond within 24 hours during the week. Messages sent over the weekend will be read on Mondays. In the subject line of any email that you send me, please indicate the content of the email.

## XI. Course Outline

Module 1: The Endocrine System

Module 2: The Cardiovascular System: Blood

Module 3: The Cardiovascular System: The Heart

Module 4: The Cardiovascular System: Blood Vessels and Circulation

Module 5: The Lymphatic and Immune Systems

Module 6: The Respiratory System

Module 7: The Digestive System

Module 8: Metabolism and Nutrition

Module 9: The Urinary System

Module 10: Fluid, Electrolyte, and Acid-Base Balance

Module 11: The Reproductive System

Module 12: Development and Inheritance

## **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.