



RANGER COLLEGE
Newcastle, TEXAS

COURSE SYLLABUS

Anatomy and Physiology I

Biol 2401

4 credit hours

INSTRUCTOR:

Sherri Blassingame

INSTRUCTOR: Sherri Blassingame
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OFFICE: RM 204 Newcastle School
PHONE: 940-846-3531
OFFICE SCHEDULE By appointment only

The above schedule and procedures in this course are subject to change in the event of extenuating circumstances.

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

Text: Anatomy and Physiology Openstax

Lab Book: Essentials of Human Anatomy & Physiology 2nd edition. Marrieb, Elaine. Benjamin Cummings 2002. ISBN 0-8053-5397-6

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

IX. Methods of Assessment

Exams will consist primarily of fill-in-the-blank and short answer questions and will cover all material discussed since the last exam (except the final which is cumulative). Each question will be graded as correct or incorrect in accordance with information in the text and lectures. Exam grades will be taken as the number of points correct.

Students missing lectures are responsible for getting notes (notes, and other resources, are available on the Ranger College web page via Blackboard).

Make-up exams, for exams missed due to an excused absence, will be given later in the semester. Bonus points may be available for students taking the exam at the assigned time, but not for makeup exams. Students are strongly urged to not miss exams.

The course grade will be computed as follows:

$$\text{Average of lecture exams (CT, COM, EQS)} = \frac{3}{4}$$

$$\text{Lab average (COM, TW)} = \frac{1}{4}$$

$$\text{Total} = \text{Course}$$

Grade

$$\frac{(\text{average of lecture exams} * 3) + \text{lab average}}{4} = \text{Course Grade}$$

Letter grades will be assigned as follows:

$$90-100 = A, \quad 80-89 = B, \quad 70-79 = C, \quad 60-69 = D, \quad \text{below } 60 = F$$

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.

XI. Course Outline/Schedule
BIOLOGY 2401 - ANATOMY AND PHYSIOLOGY
FALL

Text: Anatomy and Physiology Openstax

Lab Book: Essentials of Human Anatomy & Physiology 2nd edition. Marrieb, Elaine. Benjamin Cummings 2002. ISBN 0-8053-5397-6

| <u>DATE</u> | <u>LECTURE TOPIC</u> | <u>TEXT ASSIGNMENT</u> |
|-------------|--------------------------------------|------------------------|
| Week1 | Class orientation, introduction | 1.1 all |
| | Biochemistry | 1.2 select |
| | Structure and Function of Cells | 1.3 select |
| 2 | Tissue Types | 1.4 |
| | Integumentary System skin and organs | 2.5.1-3 |
| | Labor Day Holiday | |
| 3 | Integumentary functions and diseases | 2.5.4-5 |
| | Exam 1 (Intro-Integ. System) | |
| 4 | Skeletal Physiology | 2.6.1-2 |
| | Skeletal Tissues | 2.6.3-4 |
| | Skeletal System - Axial System | 2.7 all |
| 5 | Skeletal System – Appendicular Sys | 2.8 all |
| | Joints | 2.9 all |
| 6 | Exam 2 (Skeletal System) | |
| | Muscular Tissue Skeletal Muscle | 2.10.1-4 |
| 7 | Muscular Tissue Other Muscle | 2.10.7-9 |
| | Muscular System – naming, axial | 2.11.1-4 |
| | Muscular System – appendicular | 2.11.5-6 |
| 8 | Exam 3 (Muscular System) | |
| | Nervous System & Nervous Tissue | 3.12.1-3 |
| 9 | Nervous Tissue – action potential | 3.12.4-5 |
| | Nervous System Anatomy (CNS) | 3.13.1-3 |
| 10 | Nervous System Anatomy (PNS) | 3.13.4 |
| | Exam 4 (Nervous System) | |
| 11 | Somatic Nervous System (senses) | 3.14.1-3 |
| 12 | Autonomic Nervous System | 3.15,1-4 |
| 13 | Exam 5 (Somatic/Autonomic) | |
| 14 | Thanksgiving Holiday | |
| 15 | Endocrine System Overview | 3.17.1-2 |
| | Pituitary & Hypothalamus | 3.17.3 |
| 16 | Thyroid/para, adrenal, pineal glands | 3.17.4-8 |
| | Pancreas & Developmental | 3.17.9-11 |
| | Exam 6 (Endocrine System) | |
| 17 | review | |
| | FINAL EXAM (comprehensive) | |

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.

XIV. Exit plan for the science building:

In case of fire or other emergency, the nearest exit from the lecture classroom (Sci 1) is the classroom door then to the west building exit. The nearest exit from the biology lab (Sci 3) is either classroom door then to the east building exit.

Please remain outside the building until otherwise notified by college officials.