

BIOL 2401 — Anatomy and Physiology I

Frank Phillips College

General Course Information

Credit Hours: 4

General Education Core Curriculum Course

Prerequisite:

Passage or exemption from the reading section of a TSI approved test or completion of INRW 0322 with a grade of C or better.

Course Description

Anatomy and Physiology I is the first part of a two course sequence. It is a study of the structure and function of the human body including cells, tissues and organs of the following systems: integumentary, skeletal, muscular, nervous and special senses. Emphasis is on interrelationships among systems and regulation of physiological functions involved in maintaining homeostasis.

Must be taken concurrently with a laboratory section. The lab provides a hands-on learning experience for exploration of human system components and basic physiology. Systems to be studied include integumentary, skeletal, muscular, nervous, and special senses.

THECB Approval Number26.0707.51 03

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.

Core Objectives Required for Life and Physical Sciences Courses

Courses in this category focus on describing, explaining, and predicting natural phenomena using the scientific method.

Courses involve the understanding of interactions among natural phenomena and the implications of scientific principles on the physical world and on human experiences.

- **Critical Thinking Skills** – to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information
- **Communication Skills** – to include effective development, interpretation and expression of ideas through written, oral and visual communication
- **Empirical and Quantitative Skills** – to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions
- **Teamwork** – to include the ability to consider different points of view and to work effectively with others to support a shared purpose or goal

Required Core Objective	Activity Related to Core Objective
Communication – to include effective development, interpretation, and expression of ideas through written, oral, and visual communication	Article summary – each student will choose an article to read and summarize. In it they will be required to discuss the evidence that the scientific method informed the research being discussed in the article. Their writing will demonstrate effective development, interpretation, and expression of ideas.
Communication – to include effective development, interpretation, and expression of ideas through written, oral, and visual communication	Skit – Each group of students assigned a topic will create a skit to demonstrate a specific process of the phenomenon under study using verbal communication and body language.
Communication – to include effective development, interpretation, and expression of ideas through written, oral, and visual communication	Etymology exercise – each student will choose 3 different word parts used in the subject vocabulary and share aloud the “root” of the part, i.e. meaning & origin, as well as give an example of its use in a term specific to A&P. This assignment will demonstrate a mastery of biology rhetoric.
Critical Thinking Skills – to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information	Article summary – each student will choose an article to read and summarize. Included must be a discussion of the evidence that informed the research being discussed in the article and a critique of the conclusion.
Critical Thinking Skills – to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information	Clinical cases activity – Students will be given specific clinical case(s) to assess to determine diagnosis, treatment and prognosis.
Critical Thinking Skills – to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information	Students given example of how to use current news to learn new information not yet contained in the text will then find a similar news report to share and explain.
Empirical and Quantitative Skills – to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions	Lab exercises requiring data collection and analysis
Empirical and Quantitative Skills – to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions	Article summary – critique of conclusion based on data
Empirical and Quantitative Skills – to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions	After presentation of a lab exercise, students will include a clear explanation of the data generated and its significance
Teamwork – to include the ability to consider different points of view and to work effectively with others to support a shared purpose or goal	Lab exercise requiring data collection and analysis followed by a presentation of the exercise by the lab group.
Teamwork – to include the ability to consider different points of view and to work effectively with others to support a shared purpose or goal	Skit – Each group of students assigned a topic will create a skit to demonstrate a specific process of the phenomenon under study using verbal communication and body language.
Teamwork – to include the ability to consider different points of view and to work effectively with others to support a shared purpose or goal	Clinical case discussion(s) – Each group will “solve” a medical case related to a topic under study

Learning Outcomes:

Upon successful completion of this course, students will:

1. Use anatomical terminology to identify and describe locations of major organs of each system covered.
2. Explain interrelationships among molecular, cellular, tissue, and organ functions in each system.
3. Describe the interdependency and interactions of the systems.
4. Explain contributions of organs and systems to the maintenance of homeostasis.
5. Identify causes and effects of homeostatic imbalances.
6. Describe modern technology and tools used to study anatomy and physiology.
7. Apply appropriate safety and ethical standards.
8. Locate and identify anatomical structures.
9. Appropriately utilize laboratory equipment, such as microscopes, dissection tools, general lab ware, physiology data acquisition systems, and virtual simulations.
10. Work collaboratively to perform experiments.
11. Demonstrate the steps involved in the scientific method.
12. Communicate results of scientific investigations, analyze data and formulate conclusions.
13. Use critical thinking and scientific problem-solving skills, including, but not limited to, inferring, integrating, synthesizing, and summarizing, to make decisions, recommendations and predictions.

Methods of Evaluation

Lecture Grade (exams, quizzes, assignments)	60%
Laboratory Grade (practical exams, lab write-ups, quizzes, & lab assignments)	40%

Lecture: Lecture grade will be based upon lecture exams, quizzes and assignments; total weight of overall lecture grade will be 60%. Examinations given may include items in the following format:

Essay questions, multiple choice*, true/false, fill-in-the-blank*, short answer*
(* may include labeling)

Laboratory: Laboratory grade (40% of total grade) will be based upon practical exams, lab write-ups, quizzes and assignments. Practicals include items such as those found on lecture exams but primarily assess hands-on learning.

Lack of participation in group laboratory activities will receive a 10% deduction.

Grading scale: A = 100–90; B=89–80; C=79-70; D=69-60; F=59 and below.

Academic Honesty and Integrity

Students attending Frank Phillips College are expected to maintain high standards of personal and scholarly conduct. Academic dishonesty including, but not limited to, cheating, collusion (working with anyone else to produce work for which you take credit without the professor's permission), utilizing resources such as books and notes for a test without the professor's permission, and plagiarism is considered a serious offense and may result in disciplinary actions including:

- A grade of 0 for the test or assignment

- A semester grade of F for the course
- Administrative withdrawal from the course
- Academic suspension
- Notation of the student's transcript of "Academic Dishonesty."
- ***Faculty members have the right to assign a failing grade to a student who is guilty of academic dishonesty at any point during a semester. Faculty members may prohibit a student from dropping a course when academic dishonesty is discovered. However, if a student has dropped the course in accordance with the rules and dates applied to dropping a course and prior to the discovery of academic dishonesty, the grade of W will stand. Students currently enrolled in a course and students who have completed a course (A, B, C, D, CT, and I) may have a grade changed to an F if academic dishonesty is discovered. The faculty member must notify the student of the change to the final grade within one week of facilitating the change. The student will have the opportunity to appeal the final grade change according to the college policy stated in the catalog.

Class Attendance

Regular attendance is necessary for satisfactory achievement. Therefore, it is the responsibility of the student to attend class in accordance with requirements of the course as established by the instructor.

Students will be excused from class without penalty when either representing the college in an approved activity or having an approved reason for not attending. Reasons for absences must be approved by the instructor of the course. These exceptions do not relieve the student of the responsibility of making up the missed work as designated by the instructor concerned.

Students who enroll in one or more college-preparatory course(s) because of TSI deficiency will be administratively withdrawn from all classes if the course in which they are excessively absent is their only preparatory course. For a student enrolled in more than one preparatory course, the student may be dropped from only the course affected by absences.

Any student who is absent from classes for the observance of a religious holy day shall be allowed to take an examination or complete an assignment scheduled for that day, provided that proper notification of the absence is given to the instructor of the course missed. The student should notify the instructor within the first fifteen (15) days of the semester that he or she intends to be absent on the specified holy day.

Cell Phones and Other Electronic Devices Procedure:

Cell phones and electronic devices in the classroom create a distraction for both students and faculty. Cell phones are also considered suspicious during test taking. Therefore, Frank Phillips College outlines the procedure for handling cell phone usage in a classroom as follows:

1. First Offense: the student will be warned verbally by the instructor to turn off the cell phone or electronic device or by appropriate administrative personnel at distance sites. The instructor will make a notation of the infraction.
2. Second Offense: the student will be asked to leave the class period for the day and will receive zeroes for any work done in class on that day; a student receiving

- instruction through remote connection at an off-campus site will be required to attend the class face to face in Borger from this class date forward.
3. Third Offense: the student will be administratively withdrawn from the class in which the infraction occurred and will receive no refund for the class.

Students should leave the college's main number with an appropriate contact in case of an emergency.

Borger: (806) 457-4200, ext. 0 or 886-5047 after hours

Perryton: (806) 648-1450

Dalhart: (806) 244-7669

Grievance Policy

If you have a dispute concerning your grade or policies in this class, it is your responsibility to FIRST contact the instructor, either by e-mail or in person, to discuss the matter. Should things remain unresolved after this initial contact, please follow the procedures described in the Academic Policies section of the Frank Phillips College Catalog. In the vast majority of cases, the matter can be resolved at the instructor/student level, and learning to communicate your concerns in a civilized manner is part of the college experience.

Important Information

Frank Phillips College is a Microsoft Office Campus. You must submit your electronic assignments in Microsoft Office programs only. If you do not have Microsoft Office, you may use one of the computer lab sites on campus for your class work.

Scans/Or Core Competencies That Will Be Addressed in the Class

Resources:

Allocates Time
Allocates Money
Allocates Material & Facility
Resources

Interpersonal:

Participates as a Member of a Team
Teaches Others
Serves Clients/Customers
Exercises Leadership
Negotiates to Arrive at a Decision
Works with Cultural Diversity

Technology:

Selects Technology
Applies Technology
Maintains & Troubleshoots
Technology

Information:

Acquires & Evaluates Information
Organizes & Maintains Information
Uses Computers to Process
Information

Thinking Skills:

Creative Thinking
Decision Making
Problem Solving
Seeing Things in the Mind's Eye
Knowing How to Learn
Reasoning

Systems:

Understands Systems
Monitors & Corrects Performance
Improves & Designs Systems

Basic Skills:

Reading

Writing

Arithmetic

Mathematics

Listening & Speaking

Personal Qualities:

Responsibility

Self-Esteem

Sociability

Self-Management

Integrity/Honesty