Hill College
112 Lamar Drive
Hillsboro, Texas 76645

COURSE SYLLABUS

Course Prefix and Number **Course Title**

BIOL2401 **Section:** J51 **Semester:** Spring - 2022 Human Anatomy & Physiology I

Instructor: David Blasingame

Contact: dblasingame@hillcollege.edu

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. 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.

Lecture Hours: _3_ Lab Hours: _1_ Semester Hours: _4_

Pre-requisite: Must be TSI (Texas Success Initiative) complete in reading

Introduction and Purpose:

This course is intended to prepare the student for further study in physical education and the allied health fields and to meet the general education requirements for a laboratory science. This course can be used to fulfill core requirements for graduation and/or transfer to senior institutions.

Instructional Materials:

Human & Physiology, 11th Edition, Marieb and Hoehn, Pearson, 2019

Human Anatomy & Physiology I Lab Manual, Don Nelson, Hill College Science Department

A Brief Atlas of the Human Body, 2nd Edition, Hutchinson, et. al., Pearson, 2007

Supplies & Materials:

Computer access

Objectives/Student Learning Outcomes:

At the completion of this course, students should be able to:

1. Explain the relationship between anatomy and physiology.
2. Describe the organization and complexity of the human body and use terminology specific to the human body.
3. Describe the role of positive and negative feedback mechanisms in maintaining homeostasis.
4. Explain basic concepts in chemistry pertaining to the human body.
5. Describe the structures and functions of the cell.
6. List the four basic tissues and their functions and classify tissues on the basis of cell types, shapes, functions, and the presence of extracellular materials and fibers.
7. Describe the process of tissue repair.
8. Discuss in detail the major structural features and functions of the integumentary, skeletal, muscular, and nervous systems.
9. Describe in detail the basic physiology of the integumentary, skeletal, muscular, and nervous systems.
10. Complete written assignments using proper form and grammatically acceptable English.
11. Perform dissections and laboratory procedure/techniques as assigned.
12. Use critical thinking and scientific problem-solving to make informed decisions in the laboratory.
13. Communicate effectively the results of scientific investigations.

Description of Institutional Core Objectives (ICO's)

Given the rapid evolution of necessary knowledge and skills and the need to take into account global, national, state, and local cultures, the core curriculum must ensure that students will develop the essential knowledge and skills they need to be successful in college, in a career, in their communities, and in life. Therefore, with the assistance of the Undergraduate Education Advisory Committee, the Coordinating Board approved a 42-semester credit hour core curriculum for all undergraduate students in Texas, including a statement of purpose, six core objectives, and common component areas.

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. Hill College faculty periodically evaluates the objectives included in the Foundational Component Area of Life & Physical Sciences.

Core Objective	College SLO	Course SLO	General Learning Activities	Assessment
Critical Thinking Skills	CT2: Gather and assess information relevant to a question	2. Explain the reasoning used by scientists and scientific method	Student will perform an experiment using the scientific method of choosing and design, researching a question, proposing an hypothesis, and coming to an explained conclusion	Rubric converted to two embedded assessment questions RE: the scientific method and critical thinking
Communication Skills Use Any	CS1: Develop, interpret, and express ideas through written communication	2. Explain the reasoning used by scientists and scientific method	Student will write a scientific report RE: an experiment encompassing chemistry and PH, using the scientific method, including a title page, abstract, introduction, methods, results, discussion, and conclusions	Rubric converted to two embedded assessment questions RE: Report Format and Language Skills
Empirical and Quantitative Skills Use Any	EQS 2: Manipulate and analyze observable facts and arrive at an informed conclusion	2. Explain the reasoning used by scientists and scientific method	Student will analyze date from an experiment using the scientific method, observing experiential results and supporting or rejecting an hypothesis based upon those conclusions	Rubric converted to two embedded assessment questions RE: the scientific method and critical thinking
Teamwork	TW 2: Work with others to support and accomplish a shared goal	Any: _____	Students will work in teams of four dissecting a sheep brain. Each student will have specific duties: Directing the dissection, Dissecting the specimen, Identifying specific structures, and Annotating the groups findings.	Rubric converted to embedded assessments RE: Team work and problem solving

The students' success in completing these objectives the Foundational Component Area of Life & Physical Sciences will be measured using a set of examinations and assignments described, in detail under the section of this syllabus headed “Method of Evaluation”.

An Annual Assessment Plan will be implemented each year to review course.

Method of Instruction:

Audio-visual materials and computer-based technology will be used when appropriate. Students will be shown how to use a calculator where appropriate.

Methods of Evaluation:

The students' success in completing the core objectives within the Foundational Component Area of Life & Physical Sciences will be measured using rubric, exam, or embedded assessment activity.

Grades in this course will be based on the following evaluative criteria:

The average of the course curriculum will make up _50_% of the students' grades. The laboratory will make up _30_% of the students' grades. The final exam will make up _20_% of the students' grades. Letter grades for the course will be based on the following percentages:

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

Course Outline:

Course Policies: Food and Drink are prohibited from the classroom and all students must follow all safety guidelines. Students are expected to attend lectures and lab each class period.

Topic Outline:

I. Introduction and Orientation to Anatomy and Physiology
   A. Anatomy and physiology defined
   B. Relationship between structure and function
   C. Levels of organization
   D. Homeostasis and homeostatic mechanisms
   E. Basic terminology

II. Chemical and Physical Basis of Life
   A. Basic chemistry
   B. Basic biochemistry

III. Cells
   A. Cell concept
   B. Cell structure and function
   C. Transport in living systems
   D. Cell cycle
   E. Protein synthesis

IV. Tissues
   A. Characteristics, functions, classes of epithelial tissue
   B. Characteristics, functions, classes of connective tissue
   C. Characteristics, functions, classes of muscular tissue
   D. Characteristics, functions, classes of nervous tissue
   E. Covering and lining membranes
   F. Tissue repair

V. Integumentary System
   A. Structure and function
   B. Physiology
   C. Homeostatic imbalances
   D. Developmental aspects

VI. Skeletal System
   A. Structure and function
   B. Physiology
   C. Homeostatic imbalances
   D. Developmental aspects

VII. Muscular System
   A. Structure and function
   B. Physiology
   C. Homeostatic imbalances
   D. Developmental aspects

VIII. Nervous System
   A. Structure and function
   B. Physiology
   C. Homeostatic imbalances
   D. Developmental aspects

IX. Special Senses
   A. Structure and Function
   B. Physiology
   C. Homeostatic imbalances
   D. Developmental aspects

Disability Accommodations

Students with qualified and documented permanent or temporary disabilities may request accommodations which will enable them to participate in and benefit from educational programs and activities. **Students should contact the Academic Advising and Success Center for more details at: 254.659.7650 for Hillsboro, 817.760.5650 for Cleburne, or 817.295.7392 for Burleson.**

Reports of discrimination based on disability may be directed to the ADA/Section 504 and Title IX Coordinator:

Name: Ms. Lizza Trenkle

Position: Vice President of Student Services

Address: 112 Lamar Drive, Hillsboro, TX 76645

Telephone: (254) 659-7601

Title IX

Reports of discrimination based on sex, including sexual harassment or gender-based harassment, may be directed to the Title IX Coordinator. The College District designates the following person to coordinate its efforts to comply with Title IX of the Education Amendments of 1972, as amended:

Name: Jamie Jaska

Position: Director of Human Resources

Address: 112 Lamar Drive, Hillsboro, TX 76645

Telephone: (254) 659-7731

Instructor's Class Content

BIOLOGY 2401
HUMAN ANATOMY AND PHYSIOLOGY I
Spring - 2022

Instructor: David Blasingame
Email:dblasingame@hillcollege.edu; preferred email through Schoology

Lab Coordinator: Dr. Don Nelson
Office: 201 Instruction building on the Johnson County Campus in Cleburne
Office phone: (817) 760-5863
Email: dnelson@hillcollege.edu

Lab Instructor for Cleburne: Rosalyn Hunter
Office: 201 Instruction building on the Johnson County Campus in Cleburne
Office phone: (817) 760-5876
Email: rhunter@hillsboro.edu

Student Email:
Students must email through Schoology or through their Hill College email--
Firstname.Lastname@student.hillcollege.edu.

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. 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.

Lecture Hours: 3
Lab Hours: 1
Semester Credit Hours: 4

Pre-requisite: TSI complete for reading—If you are in developmental reading, you cannot take BIOL2401.

Books and Supplies:
Textbook:
Human Anatomy and Physiology, 11th Edition, Marieb and Hoehn, Pearson, 2019

Laboratory Manual:
Human Anatomy & Physiology I Lab Manual, by Dr. Don Nelson, Hill College Science Department

A Brief Atlas of the Human Body, Second Edition, Hutchinson, et. al., Pearson Benjamin Cummings, 2007

Supplies:
Computer Access
Chapter Objectives available on Schoology
Chapter Outlines available on Schoology
Pen or pencil for taking notes

Attendance:
Attendance is required and will be recorded each class meeting. A tremendous amount of material is covered during the lecture that is based upon material previously presented. Each student is expected to attend each lecture having read the assigned material in advance. Reading before class makes a tremendous difference in what you get out of lecture.

Grading:
Lecture Grade: 50% (4 major exams worth 10% each, homework questions 10%)
Lab Grade: 30% (weekly lab work and quizzes, lab practicals, lab report)
Final Exam: 20% comprehensive

The **lecture grade** has 2 components: 1) four major exams; and 2) chapter homework quizzes.

The 4 **major exams** will be based on material covered in class and on textbook reading assignment. Each exam is worth 10% of your overall grade for the course. **Exams are taken in the Hill College testing center.**

Tentative Schedule of Major Exams and Final Exam:

Tuesday Evening Class

Feb. 3	Exam I—Chapters 1-3 in the testing center
Feb. 24	Exam II—Chapters 4-6 in the testing center
Mar. 25	Exam III—Chapters 7-9 in the testing center
Apr. 14	Exam IV—Chapters 10-12 in the testing center
May 12	Comprehensive Final Exam

The **homework** is based upon the textbook chapters and will be provided by the instructor. Homework will be due the week after the chapter lecture.

The **laboratory grade** will be based on attendance, performance on lab quizzes, laboratory assignments, and practical examination(s). Lab policies will be explained during the first lab meeting.

A **comprehensive final exam** will be given at the end of the semester. The final exam will be given in the classroom. A review sheet is available on Schoology for the final exam.

Letter grades for the course will be based on the following percentages:

90-100%	A
80-89%	B
70-79%	C
60-69%	D
below 60%	F

Make Up Work:
Lecture exams -- If a student misses a major exam, the student must schedule a conference to discuss the nature of the absence and the possibility of scheduling a make-up exam. Make up exams must be taken within one week after the scheduled exam. **Students who know in advance that they will miss a scheduled exam must take the exam prior to the scheduled exam.**

Lecture -- If a student is absent from a lecture, it is the responsibility of the student to obtain any lecture notes, handouts, assignments, etc. Late work for pre-class questions will not be accepted. No make-up work is given for in-class work unless the absence is excused.

The Johnson County Campus Anatomy Lab
Anatomy Welcome and Orientation sessions on
The week of **Jan 17 - Jan 20** in Instruction building rm 201**.**

AP1 Orientation (Instruction building rm 201)
2pm Tuesday (Jan 18), Wednesday(Jan 19), Thursday(Jan 20) and 5:30pm Tuesday(Jan 18)
(or by appointment)

Lab -- **Each student is required to attend each weekly lab!** See lab instructor for lab policy.

Tutoring
Free tutoring is available to Hill College students. Contact (254) 659-7650.

Course Withdrawal
The last day to drop with a "W" is **Monday, April 18, 2022**. *Students withdrawing from coursesmust complete the official withdrawal process or you will receive an F on your transcript.*