



**LAMAR INSTITUTE
OF TECHNOLOGY**

BIOL 2101 – Anatomy & Physiology I

INSTRUCTOR CONTACT INFORMATION

Instructor: Harry L. Morgan

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Office Phone: 409-880-8845 Instructor's Office Phone #

Office Location: MPC 237 Building and Room Number

Office Hours:

CREDIT

1 Semester Credit Hours (Lec hours lecture, 2 hours lab)

MODE OF INSTRUCTION

Face to Face, Web-based

PREREQUISITE/CO-REQUISITE:

Passed the Reading/Writing Sections of COMPASS or any other accepted test. Complete the Online Orientation and answer yes to 7+ questions on the Online Learner Self-Assessment:

<http://www.lit.edu/depts/DistanceEd/OnlineOrientation/OOStep2.aspx>

Must have passed or be taking Biology 2101 at the same time. Lecture can be taken face-to-face or fully online.

COURSE DESCRIPTION

This class is face to face and web based. The lab provides a hands-on learning experience for exploration of human system components and basic physiology. The course begins with a study of anatomical language, directional terms, cellular structures, and tissues. Systems to be studied include integumentary, skeletal, muscular, nervous, and special senses

COURSE OUTLINE

A. Human Body Introduction

1. Regional and Descriptive Terms that describe the human body
2. Planes of the Body

B. Cells

1. Structures
2. Functions
3. Mitosis

C. Tissues

1. Main types of epithelial tissue
2. Other tissues of the body

D. Integumentary System

1. Skin
2. Appendages
- E. Bones and Skeletal System
 1. Basic Shapes of Bones
 2. Bone Markings
- F. The Skeleton
 1. Bones of the axial skeleton
 2. Bones of the appendicular skeleton
- G. Joints
 1. Synovial joints
 2. Other joints
 3. Movements of Joints
- H. Muscles and Muscle Tissue
 1. Introduction
 2. Characteristics of Muscle Tissue
 3. Related muscle terms
- I. Muscular System
 1. Major muscles (anterior)
 2. Major muscles (posterior)
- J. Fundamentals of the Nervous System
 1. Neurons
 2. Neuroglia
- K. Central Nervous System
 1. Structures of the Brain
 2. Functions
- L. Peripheral Nervous System
 1. Structures of Eye and Ear
 2. Functions of sensory organ structures
 3. Spinal nerves

COURSE OBJECTIVES

Upon completion of this course, the student will be able to

Upon completion of this course, the student will be able to:

1. Apply appropriate safety and ethical standards.
2. Locate and identify anatomical structures.
3. Appropriately utilize laboratory equipment, such as microscopes, dissection tools, general lab ware, physiology data acquisition systems, and virtual simulations.
4. Work collaboratively to perform experiments.
5. Demonstrate the steps involved in the scientific method.
6. Communicate results of scientific investigations, analyze data and formulate conclusions.

CORE OBJECTIVES

1. Critical Thinking Skills: To include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information

2. Communication Skills: To include effective development, interpretation and expression of ideas through written, oral, and visual communication
3. Empirical & Quantitative Skills: To include the manipulation and analysis of numerical data or observable facts resulting in informed conclusion
4. Teamwork: To include the ability to connect choices, actions, and consequences to ethical decision making
5. Personal Responsibility: To include ability to connect choices, actions and consequences to ethical decision-making

REQUIRED TEXTBOOK AND MATERIALS

OpexStax Anatomy & Physiology Levels I and II - <https://openstax.org/details/books/anatomy-and-physiology?Book%20details>

Supplemental = Textbook - WikiBooks – Human Physiology

https://en.wikibooks.org/wiki/Human_Physiology

Wilk-Blaszczak (2018) Human Anatomy Lab Manual (Free Online) <https://learn-us-east-1-prod-fleet02-xythos.content.blackboardcdn.com/5c0f632563f2b/10746209?X-Black>

ATTENDANCE POLICY

1. You must log into Blackboard and access this course a minimum of 3 times per week.
2. Cheating of any type will not be tolerated.
3. Late assignments will only be accepted if there is a sufficient reason for the late assignment. Students will receive a zero for assignments not completed.
4. If you wish to drop this course, you must drop it administratively. If you do not drop you will receive an F for the course.
5. Internet usage- students are to use proper netiquette when participating in course email, assignment submissions and online discussions.

Arizona State University = <https://asuonline.asu.edu/newsroom/online-learningtips/netiquette-online-students/>

Seth Ross = <http://www.albion.com/netiquette/corerules.html>

The University of Texas at El Paso =

<https://www.utep.edu/extendeduniversity/utepconnect/blog/october-2017/10-rules-ofnetiquette-for-students.html>

(NOTE: Absences should be reserved for severe illness, hospitalization, and funerals. If you miss a test, documentation in support of your absence will be requested (example, you were in the hospital or at the funeral of an immediate family member). A breakup with your boyfriend or girlfriend, while painful, is NOT a reason to miss a test.

DROP POLICY

If you wish to drop a course, you are responsible for initiating and completing the drop process by the specified drop date as listed on the [Academic Calendar](#). If you stop coming to class and fail to drop the course, you will earn an “F” in the course.

STUDENT EXPECTED TIME REQUIREMENT

For every hour in class (or unit of credit), students should expect to spend at least two to three hours per week studying and completing assignments. For a 3-credit-hour class, students

should prepare to allocate approximately six to nine hours per week outside of class in a 16-week session OR approximately twelve to eighteen hours in an 8-week session. Online/Hybrid students should expect to spend at least as much time in this course as in the traditional, face-to-face class. Roll is taken daily for each lab and a grade will be recorded in the gradebook.

COURSE CALENDAR

Week:	Weekly Assignments	Due Date:
1	Introduction Syllabus Anatomical Regions and Areas Directional Terms Body Planes, Abdominal Regions	
<u>Week 2</u>	Quiz - Anatomical Regions and Areas Microscope Review and Practice Properties of Water, Essential Elements And Organic Compounds	
<u>Week 3</u>	Quiz – Essential Elements DNA Extraction Lab Cell structures, Function of cell Structures Cell Division – Mitosis Quiz – Parts of the Microscope Quiz – Functions of cell Structures	

<u>Week 4</u>	Practicum I – Anatomical regions and areas, directional terms, parts of the microscope, cell division, cell structures and functions, DNA structure, essential elements, organic compounds, Types of tissues and examples of each, and skin structures.	
<u>Week 5</u>	Tissues, Examples, and Functions of the Types of Tissues Quiz – tissue types Tissues Cont'd Integumentary System and Skin Functions of the Skin	
<u>Week 6</u>	Types of Bones Bone Tissue Axial Skeleton The Skull	
Week 7	Practicum II – The Integumentary System and tissues	
Week 8	Quiz – Bones and structures of the Skull. Identification of Bone Markings, Types of joints and examples of each type	
Week 9	Quiz – types of Joints Bones and Joints Appendicular Skeleton Bones of the hand and foot Overview of bone forensics	
Week 10	Bone Forensics Lab	

Week 11	Practicum III The Skeletal System	
Week 12	Muscles of the human body Muscle shapes, Study of Muscles, muscle form and structure, and muscle types	
Week 13	Central Nervous System Brain Structures and Functions	
Week 14	Special Senses – The Eye and the Ear, Structures and Functions	
Week 15	Final Practicum – Practicum IV Muscles Identification, the Brain, structures and functions and Eye and Ear structures and their functions.	
Week 16	Finals Week, No Labs.	

COURSE EVALUATION

Final grades will be calculated according to the following criteria:

- 1. Mandatory Course Syllabus Quiz = 5%
- 2. Interactive Lab Activities = 25%
- 3. Quizzes (5) = 20%
- 4. Mandatory Group Lab Project = 20%
- 5. Four major exams = 30%

GRADING SCALE

90-100 A
80-89 B
70-79 C
60-69 D
0-59 F

LIT does not use +/- grading scales

ACADEMIC DISHONESTY

Students found to be committing academic dishonesty (cheating, plagiarism, or collusion) may receive disciplinary action. Students need to familiarize themselves with the institution's Academic Dishonesty Policy available in the Student Catalog & Handbook at <http://catalog.lit.edu/content.php?catoid=3&navoid=80#academic-dishonesty>.

TECHNICAL REQUIREMENTS

The latest technical requirements, including hardware, compatible browsers, operating systems, etc. can be online at <https://lit.edu/online-learning/online-learning-minimum-computer-requirements>. A functional broadband internet connection, such as DSL, cable, or WiFi is necessary to maximize the use of online technology and resources.

DISABILITIES STATEMENT

The Americans with Disabilities Act of 1990 and Section 504 of the Rehabilitation Act of 1973 are federal anti-discrimination statutes that provide comprehensive civil rights for persons with disabilities. LIT provides reasonable accommodations as defined in the Rehabilitation Act of 1973, Section 504 and the Americans with Disabilities Act of 1990, to students with a diagnosed disability. The Special Populations Office is located in the Eagles' Nest Room 129 and helps foster a supportive and inclusive educational environment by maintaining partnerships with faculty and staff, as well as promoting awareness among all members of the Lamar Institute of Technology community. If you believe you have a disability requiring an accommodation, please contact the Special Populations Coordinator at (409)-951-5708 or email specialpopulations@lit.edu. You may also visit the online resource at [Special Populations - Lamar Institute of Technology \(lit.edu\)](#).

STUDENT CODE OF CONDUCT STATEMENT

It is the responsibility of all registered Lamar Institute of Technology students to access, read, understand and abide by all published policies, regulations, and procedures listed in the *LIT Catalog and Student Handbook*. The *LIT Catalog and Student Handbook* may be accessed at www.lit.edu. Please note that the online version of the *LIT Catalog and Student Handbook* supersedes all other versions of the same document.

STARFISH

LIT utilizes an early alert system called Starfish. Throughout the semester, you may receive emails from Starfish regarding your course grades, attendance, or academic performance. Faculty members record student attendance, raise flags and kudos to express concern or give praise, and you can make an appointment with faculty and staff all through the Starfish home page. You can also login to Blackboard or MyLIT and click on the Starfish link to view academic alerts and detailed information. It is the responsibility of the student to pay attention to these emails and information in Starfish and consider taking the recommended actions. Starfish is used to help you be a successful student at LIT.

