



## **BIOL 2101- Lab Anatomy & Physiology I**

**CREDIT:** 1 semester credit hour (2 hour lab – Face to Face or Online Lab)

### **PREREQUISITE:**

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>

### **CO-REQUISITE:**

BIOL 2301 lecture must be taken at the same time. Lecture can be taken face-to-face or fully online.

### **COURSE DESCRIPTION**

This class is web enhanced and can be taken face to face or fully online. 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. *This course is time-bound, structured, and completed totally online.*

### **TEXTBOOK AND MATERIALS:**

REQUIRED = Textbook - 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](https://en.wikibooks.org/wiki/Human_Physiology)

Wilk-Blaszczak (2018) Human Anatomy Lab Manual (Free Online)  
[Human-Anatomy-Lab-Manual-1535056958.\\_print.pdf](https://www.researchgate.net/publication/328111111_Human-Anatomy-Lab-Manual-1535056958/_print.pdf)

### **COURSE OBJECTIVES:**

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.

7. Use critical thinking and scientific problem-solving skills, including, but not limited to, inferring, integrating, synthesizing, and summarizing, to make decisions, recommendations and predictions.

## 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

## COURSE OUTLINE

### A. Human Body Intro

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. Intro
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

### GRADING SCALE:

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

### COURSE EVALUATION:

Final grades will be calculated according to the following criteria:

1. Mandatory Course Syllabus Quiz	= 5%
2. Interactive Lab Activities (5)	= 25%
3. Quizzes (5)	= 20%
4. <i>Mandatory</i> Group Lab Project	= 20%
5. Exams: Midterm (Ch 1-8); Final Exam (Ch 9-16)	= 30%

### COURSE POLICIES:

1. Online Students: 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 not be accepted.** 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-learning-tips/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-of-netiquette-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/Add/Withdraw.** It is the student's responsibility to make sure you are officially enrolled or dropped from this course. If at any point, you decide to drop the class, it is your responsibility to officially drop (i.e., using proper administrative offices/ paperwork). Any

student who stops attending class and does not officially drop the course will be given an “F” as the semester grade.

### **TECHNICAL REQUIREMENTS:**

1. The latest technical requirements including hardware compatible browsers, operating systems, software, JAVA, etc. can be found online at: <https://tinyurl.com/y9jurih4>
2. A functional broad band Internet connection, such as DSL, cable, or Wi-Fi is necessary to maximize the use of the online technology and resources.

### **POLICIES:**

#### **Student Policy and Procedures for General Academics**

Details explaining the expectations for all Lamar Institute of Technology students can be found at this link <https://www.lit.edu/information/policies-and-procedures>

#### **Disabilities Statement**

The Americans with Disabilities Act of 1992 and Section 504 of the Rehabilitation Act of 1973 are federal anti-discrimination statutes that provide comprehensive civil rights for persons with disabilities. Among other things, these statutes require that all students with documented disabilities be guaranteed a learning environment that provides for reasonable accommodations for their disabilities. If you believe you have a disability requiring an accommodation, please contact the Special Populations department <https://www.lit.edu/student-success/special-populations>.

#### **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 <https://www.lit.edu/student-success> or obtained in print upon request at the Student Services Office. 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.