

Anatomy & Physiology Lab I (BIOL 2101) Online



Credit: 1 semester credit hour (Web Based 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 based and 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.*

Required Textbook and Materials

1. *Human Anatomy and Physiology Laboratory Exercises Level 1: Using Crime Scene Investigative Approaches*, Stephanie. A. Lanoue, 1st edition. Kendall-Hunt Publishing, 2009. **ISBN-13:** 978-0757566257. *NOTE: This book is mandatory to pass the lab class; you will complete your labs (write) in it, scan it and submit through BlackBoard for a grade.
2. See PDF file; "Materials needed for Lab"

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.

Course Outline

- | | |
|--|------------------------------------|
| A. Human Body Intro | 3. Mitosis |
| 1. Regional and Descriptive Terms that describe the human body | C. Tissues |
| 2. Planes of the Body | 1. Main types of epithelial tissue |
| B. Cells | 2. Other tissues of the body |
| 1. Structures | D. Integumentary System |
| 2. Functions | 1. Skin |
| | 2. Appendages |

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Course Syllabus

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:

Midterm Exam (Chapter 1 – 6)	200 points	20%
Final Exam (Chapters 7 – 12)	200 points	20%
3 Quizzes	250 points	20%
Weekly Lab Assignments (10)	350 points	35%

COMMON ASSIGNMENT: LAB 9 – Skeletal Forensics ‘What Are The Bones Telling You?’

1000 points 100%

***Each lab assignment, (10 in total), will be graded on a 35 point scale*

Course Requirements

1. 3 Quizzes
2. Midterm and Final
3. Completed Assignments submitted to Blackboard

Course Policies

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 not be accepted.** Students will receive a zero for assignments not completed.

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Course Syllabus

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

Technical Requirements

1. The latest technical requirements including hardware compatible browsers, operating systems, software, JAVA, etc can be found online at: <http://tinyurl.com/o2gu5hx>
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.

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 disability. If you believe you have a disability requiring an accommodation, please contact the Special Populations Coordinator at 409.880.1737 or visit the online resource: <http://www.lit.edu/depts/stuserv/special/defaults.aspx>

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 or obtained in print upon request at the Student Services Office.