

202310.BIOL2101.2D2  
Anatomy & Physiology I (lab)  
1<sup>st</sup> 8-week semester  
Spring 2023



#### **INSTRUCTOR CONTACT INFORMATION**

Instructor: Dr. Connie J. Grass, DC, BSHB, BSN  
Email: [cjgrass@lit.edu](mailto:cjgrass@lit.edu)  
Office Phone: 409-247-4863  
Office Location: MPC 217  
Office Hours: Mon-Fri 10:00 AM – 12:00 PM (by appointment)

**CREDIT:** 1 Semester Credit Hour (2 hour lab)

**MODE OF INSTRUCTION:** Online

#### **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>

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

#### **COURSE DESCRIPTION**

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.

#### **LEARNING OUTCOMES**

1. Apply appropriate safety and ethical standards.
2. Locate and identify anatomical structures.
3. Appropriately utilize laboratory equipment, such as microscopes, dissection tools, and general lab ware.
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, and summarizing, to make decisions, recommendations, and predictions.

## **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.

## **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. Functio

**REQUIRED 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 \(Free Online\)](#)

**ATTENDANCE POLICY**

Students must log into Blackboard and access this course a **minimum of 3 times a week**.

**DROP POLICY**

If you wish to drop a course, you are responsible for initiating and completing the drop process. If you stop coming to class and fail to drop the course, you will earn an “F” in the course.  
 January 24, 2023. Last day for students to drop classes and receive a full refund.  
 January 31, 2023. Last day for students to drop or withdraw WITHOUT academic penalty.  
 February 17, 2023. Last day for students to drop or withdraw WITH academic penalty

**COURSE CALENDAR/Weekly Checklist**

<b>Week:</b>	<b>To Do:</b>	<b>Due Date:</b>
<p><u>Week 1</u></p> <p>Introduction                      Complete Introductory Materials                      Syllabus Quiz                      McGraw Hill Connect</p> <p>January 17<sup>th</sup></p>	<input type="checkbox"/> Discussion Board: Introduction <input type="checkbox"/> Register for McGraw Hill Virtual Labs (Information on Blackboard under “Modules” then <input type="checkbox"/> Syllabus Quiz <input type="checkbox"/> Join a group for Group Lab: Musculoskeletal Disorders (Information on “Modules” page) due 02.28.23	<input type="checkbox"/> 01.23.23
	<input type="checkbox"/> <b>Complete Introductory Materials</b> McGraw Hill Connect Interactive Labs <input type="checkbox"/> Work with group members on Group Lab (Musculoskeletal Disorders) due 02.28.23	<input type="checkbox"/> 01.30.23
<p><u>Week 2</u></p> <p>Directional Terms                      Elements, Cells, Tissues</p> <p>January 23<sup>rd</sup></p>	<input type="checkbox"/> <b>Module (1):</b> McGraw Hill Connect Interactive Lab Activities covering Body Orientation, Tests for Macromolecules, and Microscope <input type="checkbox"/> <b>Module (1):</b> McGraw Hill Connect Interactive Lab Activities covering Cells and Tissues <input type="checkbox"/> Work with group members on Group Lab (Musculoskeletal Disorders) due 02.28.23	<input type="checkbox"/> 01.30.23
<p><u>Week 3</u></p> <p>Elements, Cells, Tissues</p>	<input type="checkbox"/> <b>Module 2:</b> McGraw Hill Connect Interactive Lab Activities covering Integumentary System	<input type="checkbox"/> 02.06.23

Approved: **Initials/date**

<u>Week 3 cont'd</u> January 30 <sup>th</sup>	<input type="checkbox"/> <b>Module 2:</b> McGraw Hill Connect Interactive Lab Activities covering Skeletal System & Joints <input type="checkbox"/> Work with group members on Group Lab (Musculoskeletal Disorders) due 02.28.23	
<u>Week 4</u> Integumentary System February 6 <sup>th</sup>	<input type="checkbox"/> <b>Module 2:</b> McGraw Hill Connect Interactive Lab Activities covering Skeletal System & Joints <input type="checkbox"/> <b>Midterm Exam</b> Opens 02.06.23 Closes 02.13.23 <input type="checkbox"/> Work with group members on Group Lab (Musculoskeletal Disorders) due 02.28.23	<input type="checkbox"/> 02.13.23
<u>Week 5</u> Skeletal System & Joints February 13 <sup>th</sup>	<input type="checkbox"/> <b>Midterm Exam</b> Closes 02.13.23 <input type="checkbox"/> McGraw Hill Connect Interactive Lab Activities covering Muscular System <input type="checkbox"/> Work with group members on Group Lab (Musculoskeletal Disorders) due 02.28.23	<input type="checkbox"/> 02.13.23 <input type="checkbox"/> 02.20.23
<u>Week 6</u> Skeletal System & Joints February 20 <sup>th</sup>	<input type="checkbox"/> <b>Module 2:</b> McGraw Hill Connect Interactive Lab Activities covering Muscular System <input type="checkbox"/> Work with group members on Group Lab (Musculoskeletal Disorders) due 02.28.23	<input type="checkbox"/> 02.27.23
<u>Week 7</u> Skeletal System & Joints February 27 <sup>th</sup>	<input type="checkbox"/> <b>Module 3:</b> McGraw Hill Connect Interactive Lab Activities covering Nervous System <input type="checkbox"/> Group Lab (Musculoskeletal Disorders) due 02.28.23	<input type="checkbox"/> Due 03.06.23
<u>Week 8</u> <b>Final Exam</b> March 6 <sup>th</sup>	<input type="checkbox"/> <b>FINAL EXAM</b> Opens 03.06.23 and Closes 03.09.23 (Chapters 10 – 16) <input type="checkbox"/> Congratulations! You made it!! Celebrate 	<input type="checkbox"/> Due 03.09.23

### 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. Mandatory Group Lab Project/Common Assignment | = 20% |

5. Exams: Midterm (Ch 1-8); Final Exam (Ch 9-16) = 30%

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**TOTAL = 100%**

### **GRADE SCALE**

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

### **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 Wi-Fi 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](mailto: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](http://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.

#### **ADDITIONAL COURSE POLICIES/INFORMATION**

1. Cheating of any type will not be tolerated.
2. **Late assignments will not be accepted.** Students will receive a zero for assignments not completed.
3. 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>