

# BIOL 2102 Course Syllabus

## Anatomy Physiology Lab II



**CREDIT:** 1 semester credit hour (2 hour lab / Web Based Lab)

### **PREREQUISITE:**

Passed the Reading/Writing Sections of COMPASS or any other accepted test.

### **CO-REQUISITE:**

BIOL 2302 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.*

### **TEXTBOOK AND MATERIALS:**

REQUIRED = Textbook - OpexStax Anatomy & Physiology Levels I and II -

<https://openstax.org/details/books/anatomy-and-physiology?Book%20details>

Your textbook for this class is available for free online. If you prefer, you can also get a print version at a very low cost. Your book is available in web view and PDF for free. You can also choose to purchase on iBooks or get a print version via the campus bookstore or from OpenStax on Amazon.com.

You can use whichever formats you want. Web view is recommended -- the responsive design works seamlessly on any device. If you buy on Amazon, make sure you use the link on your book page on openstax.org so you get the official OpenStax print version. (Simple printouts sold by third parties on Amazon are not verifiable and not as high-quality.)

Anatomy and Physiology from OpenStax, Print ISBN 1938168135, Digital ISBN 1947172042,  
[www.openstax.org/details/anatomy-and-physiology](http://www.openstax.org/details/anatomy-and-physiology)

Supplemental = Textbook - WikiBooks – Human Physiology

[https://en.wikibooks.org/wiki/Human\\_Physiology](https://en.wikibooks.org/wiki/Human_Physiology)

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**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**

Chapter 1 Endocrine

1. Structures
2. Functions
3. Diagnose different diseases

Chapter 2 Blood

1. Types of blood cells
2. Solve a crime based on a blood type

Chapter 3 The Cardiovascular System:

The Heart

1. Structures
2. Functions
3. Blood Flow

4. Electrical Conduction

5. Deduce what is wrong with a patient's heart by the ECG strip

Chapter 4 The Circulatory System:  
Blood Vessels

1. Name the major arteries on a model
2. Name the major veins on a model
3. Demonstrate how to take blood pressure with a sphygmomanometer

Chapter 5 The Lymphatic System

1. Structures

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2. Functions
3. Diseases

Chapter 6 The Respiratory System

1. Structures
2. Functions
3. Use a spirometer to measure your lung capacity

Chapter 7 The Digestive System

1. Structures
2. Functions
3. Analyze a victim's last meal by running forensic tests

Chapter 8 Nutrition, Metabolism, and Body Temperature Regulation

1. Current nutritional trends
2. Problems
3. Reading labels

Chapter 9 The Urinary System

1. Structures
2. Functions
3. Diagnose what is wrong with various patient's by their urine samples

Chapter 10 Fluid, Electrolyte, and Acid-Base Balance

1. Fluid balance
2. Role of the brain
3. Are all sports drinks the same

Chapter 11 The Reproductive System

1. Structures
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	= 25%
3. Quizzes (5)	= 20%
4. Mandatory Group Lab Project	= 20%
5. Exams: Midterm (Ch 17 – 21) Final Exam (Ch 22 – 28)	= 30%

**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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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>

**COURSE POLICIES (FACE TO FACE):**

1. **NO CELL PHONES AT ALL!!!!**
2. **No pens used in lab!** (We do not want pen marks on our models)
3. **If you miss a lab or basic quiz, you have 1 week to make it up.** After that, a zero will be assigned. So, get with your instructor right away – DO NOT WAIT!!!
4. **You Must Be Present to Take the Mid-Term and the Final. (this is non-negotiable because they are ‘live’, hands-on tests)**
5. **Final Grade at Semester’s End.** Final grades are non-negotiable. The grade you earn equals the grade you receive. No extra credit will be awarded so please do not ask.
6. **Personal Disposition and Behavior in Class** – you are now in a higher education environment (THIS IS NOT HIGH SCHOOL!).
7. **Discipline Policy.** No side conversations, excessive talking in class, passing written notes to another classmate, no chatting on cell phones or text messaging, loud yawning, gum popping, etc. In the case of disruptive behavior, the instructor reserves the right to ask you to leave the classroom.

The instructor also reserves the right not to allow you back in the class if you continue with further disruptive behavior.

Participate in class discussions when appropriate and indicate your desire to ask questions or make comments to the instructor/class by raising your hand.

Demonstrate leadership qualities by initiating groups with fellow classmates, distributing contact information to fellow group members so that others may contact you, and being prepared ahead of time, etc.

8. **No food or Drinks in Class.** Per LIT, no food or drinks in the Multi-Purpose Building classrooms.
9. **Attendance Policy.** Roll will be taken daily.

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Students with perfect attendance (**no absences whatsoever whether excused or unexcused**) will be awarded 10 points added to your semester average.

*NOTE: This does not mean you can miss your regularly scheduled class and catch another one of my classes at a different time! It means PERFECT attendance!*

You are expected to be present at class times. (*NOTE: Absences place you at an academic disadvantage because it is difficult to learn from just class notes*). Absences should be reserved for severe illness, hospitalization, and funerals.

**Class Arrival Time:**

Please be prompt! You are expected to be in your seat, on time, when roll is taken. Do not make coming in late a habit or noticeable pattern. If you do find yourself in the position of arriving late due to unavoidable circumstances, enter the classroom with the **least** amount of disruption possible. Tardy is more than 5 minutes late.

Summary of Class Arrival Time: 4 tardies = 1 absence.

On test days, the instructor reserves the right not to administer a test to a student who arrives more than 15 minutes late.

**Class Departure Time:**

You are required to stay until you finish each lab every week.

Do not ask to “leave class early” for doctor’s appointments, picking up children from day care/ school, etc. Pre-arrange for these things ahead of time. You are expected to be in class the entire time.

**Missing Class:**

If you miss a general class day, I typically do not need to know why. However, it is your responsibility to obtain missed material.

**Missing Tests:**

If you miss a test, I may request documentation in support of your absence (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, for example. Only 1 quiz may be excused/dropped per semester (NO EXCEPTIONS!)

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**10. 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/y9jurjh4>
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.