

BIOL 2301 3A1 Anatomy & Physiology I

Spring 2024

CREDIT

3 Semester Hours (lecture)

MODE OF INSTRUCTION

Face to face / Web enhanced

PREREQUISITE/CO-REQUISITE:

Prerequisite/Co-requisite: Lab course (BIOL 2101) Should be taken at the same time. Can be taken face to face or fully online

COURSE DESCRIPTION

Anatomy and Physiology I is the first part of a two-course sequence. It is a study of the structure and function of the human body including cells, tissues, and organs of the following systems: integumentary, skeletal, muscular, nervous, and special senses. Emphasis is on the interrelationships among systems and regulation of physiological functions involved in maintaining homeostasis.

COURSE OBJECTIVES

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

1. Use anatomical terminology to identify and describe locations of major organs of each system covered.
2. Explain interrelationships among molecular, cellular, tissue, and organ functions in each system.
3. Describe the interdependency and interactions of the systems.
4. Explain contributions of organs and systems to the maintenance of homeostasis.
5. Identify causes and effects of homeostatic imbalances.
6. Describe modern technology and tools used to study anatomy and physiology.

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.



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Course Outline

Human Body Intro

1. Regional and Descriptive Terms of the Human Body
2. Planes of the Body
3. Elements of the Human Body
4. Levels of Organization in the Human Body

B. Cells

1. Structures/Organelles
2. Functions
3. Mitosis

C. Tissues

1. Main types of Epithelial Tissue
2. Main types of Connective Tissue
3. Main types of Muscle Tissue
4. Main types of Nervous Tissue

D. Integumentary System

1. Layers of the Skin
2. Appendages

E. Bones and Skeletal System

1. Bone Tissue
2. Basic Shapes of Bones
3. Bone Markings

F. The Skeleton

1. Bones of the Axial Skeleton
2. Bones of the Appendicular Skeleton

G. Joints

1. Types of Joints
2. Movements of Joints

H. Muscles and Muscle Tissue

1. Intro
2. Characteristics of Muscle Tissue

I. Muscular System

1. Major Muscles (anterior)
2. Major Muscles (posterior)

J. Fundamentals of the Nervous System

1. Anatomy
2. Neurons
3. Neuroglia

K. Central Nervous System

1. Structures of the Brain
2. Functions

L. Peripheral Nervous System

1. Somatic Nervous System
2. Autonomic Nervous System
3. Functions

INSTRUCTOR CONTACT INFORMATION

Instructor: Dr. Bryan Barron BA, DC.
Email: blbarron1@lit.edu
Office Phone: 409-241-9803
Office Location: MPC 214
Office Hours: See door schedule.

REQUIRED TEXTBOOK AND MATERIALS

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

ATTENDANCE POLICY STUDENT

As many assignments, tests, quizzes are online it is recommended that you log into Blackboard and access this course a minimum of 3 times per week.

- 1) Regular and Punctual attendance is expected for all students in all classes for which they are registered. If a student is tardy, they may enter if they do so quietly.
- 2) Roll will be taken every day at the beginning or end of class.
- 3) You are allowed 3 excused/ unexcused absences without penalty.

On the fourth absence, you will be warned. On the 5th and every subsequent absence thereafter, the student will receive a 2 points deduction from their final grade.

- 4) pop quizzes will be given randomly.

EXPECTED TIME REQUIREMENT

For every hour that I lecture in class (or unit of credit), students should expect to spend at least three hours per week studying and completing assignments. Example: 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.

DROP POLICY

If you wish to drop a course, you are responsible for initiating and completing the drop process administratively. If you stop coming to class and fail to drop the course, you will earn an "F" in the course. February 16, 2024, last day to drop without academic penalty. The final drop date with academic penalty is April 2, 2024

COURSE CALENDAR

Tentative Weekly Schedule - BIOL 2301 Spring 2024

Week:	Assignments by the Week – Check box as you complete!
Week 1 Jan 16-21	<ul style="list-style-type: none">➤ Mandatory Syllabus Quiz <input type="checkbox"/>➤ Video Quiz: Introduction to Anatomy & Physiology (Chapter 1) <input type="checkbox"/>➤ Review Individual Project (Health Science Career Poster) Due March 22, 2024 <input type="checkbox"/>➤

Week 2 Jan 22-28	➤ Video Quiz: Elements of the Human Body (Chapter 2) <input type="checkbox"/>
Week 3 Jan29- Feb 4	➤ Video Quiz: levels of Organization in the Body (Chapter 3) <input type="checkbox"/> ➤ Video Quiz : Cell Structure (Chapter 3) <input type="checkbox"/>
Week 4 Feb 5-11	➤ Video Quiz: Tissues (Chapter 4) <input type="checkbox"/> ➤ QUIZ 1: Chapter 1 (Introduction), Chapter 2 (Elements), Chapter 3 (Cells), Chapter 4 (Tissues) <input type="checkbox"/>
Week 5 Feb 12-18	➤ Video Quiz: Integumentary System (Chapter 5) <input type="checkbox"/>
Week 6 Feb 19-25	➤ Video Quiz: Skeletal (Chapter 6) <input type="checkbox"/> ➤ QUIZ 2: Chapter 5 (Integumentary) <input type="checkbox"/> ➤
Week 7 Feb 26-March 3	➤ Video Quiz: Axial vs Appendicular Skeleton ➤ (Chapter 7) <input type="checkbox"/>
Week 8 March 4-10	➤ Video Quiz: What Bones Tell Us (Chapter 8) <input type="checkbox"/> ➤ Video Quiz: Whose Bones Are These <input type="checkbox"/> ➤ MIDTERM EXAM:- Closes 3.10.24 <input type="checkbox"/>
Week 9 March 11-17 SPRING BREAK	➤ Video Quiz: Joints (Chapter 9) ➤ QUIZ 3: Chapters 6 – 9 (Skeletal System & Joints)
Week 10 March 18-24	➤ Video Quiz: Muscular System(Chapter 10)
Week 11 March 25-31	➤ Video Quiz: How the Muscular System Works(Ch11)<input type="checkbox"/> ➤ QUIZ 4: Chapter 10 – 11 (Muscular System)
Week 12 April 1-7	➤ Video Quiz: Nervous System (Chapter 12) <input type="checkbox"/> ➤ Continue Working with Group on Group Project <input type="checkbox"/> Due 04/10
Week 13 April 8-14	➤ Video Quiz: Anatomy of the Nervous System
Week 14 April 15-21	

Week 15 April 22-28	<ul style="list-style-type: none"> ➤ QUIZ 5: Chapters 12 – 16 (Nervous System) □ ➤ Review for Final Exam:
Week 16 May 29-may5	<ul style="list-style-type: none"> ➤ FINAL EXAM CLOSSES 5/7 □ ➤ CONGRATULATIONS

COURSE EVALUATION

Final grades will be calculated according to the following criteria:

1. Assignments/Video Quiz	20%	
2. Discussion Participation	10%	
3. Chapter Quizzes (5)	20%	%
4. Exams Ch 1 – 8 (Midterm) Ch 9 – 16 (Final Exam)	30%	
6. Mandatory Group Project/ Health Poster	20%	
	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 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.

ADDITIONAL COURSE POLICIES/INFORMATION

COURSE REQUIREMENTS

1. Cheating of any type will not be tolerated.
2. Student will participate in discussion boards for each of the chapters.
2. Complete exams on the due dates. No late exams or assignments will be accepted.
3. Student will complete a reading and writing assignment to be submitted online on due date. No late papers accepted.
4. Student will complete a current event with PowerPoint presentation (see video for instructions). No late current events accepted.
5. Three (3) quizzes total; with a quiz on Chap 1 Orientation to Body, Chap 6 Bones and Chap 9 Muscles. To be completed on the due dates. No late quizzes accepted.