

Course Syllabus_Lecture
202410_BIOL 2301_Fall 2024
Anatomy & Physiology I_Online
January 16th – May 10th



INSTRUCTOR CONTACT INFORMATION

Instructor: Dr. Connie J. Grass, DC, BSHB, BSN
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Office Location: MPC 217
Office Hours: Mon-Fri 9:00 AM – 11:00 AM
Schedule Appointment: <https://www.lit.edu/student-success/starfish>

CREDIT

3 Semester Hours (lecture)

MODE OF INSTRUCTION: Online

PREREQUISITE/CO-REQUISITE:

Prerequisite/Co-requisite: Lab course (BIOL 2101) must 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.

LEARNING OUTCOMES

1. Use anatomical terminology to identify and describe the locations of major organs of each system covered.
2. Explain interrelationships among molecular, cellular, tissue, and organ functions in each system.
3. Describe the interdependence and interactions of the systems.
4. Explain the 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.

COURSE OBJECTIVES

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

1. Use anatomical terminology to identify and describe the 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 the 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, 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 an informed conclusion
4. Teamwork: To include the ability to connect choices, actions, and consequences to ethical decision making.
5. Personal Responsibility: To include the ability to connect choices, actions, and consequences to ethical decision-making.

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

REQUIRED TEXTBOOK AND MATERIALS

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

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

ATTENDANCE POLICY STUDENT

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

EXPECTED TIME REQUIREMENT

For every hour in class (or unit of credit), students should expect to spend at least two to three hours per week studying and completing assignments. 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 or approximately twelve to eighteen hours in an 8-week session. Online students should expect to spend at least as much time in the course as in the traditional, face-to-face class.

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.

The last day for students to drop classes and receive a full refund is **January 31, 2024**.

The last day for students to drop or withdraw **WITHOUT** academic penalty is **February 16, 2024**.

The last day for students to drop or withdraw **WITH** academic penalty is **April 2, 2024**.

Weekly Checklist - BIOL 2301 (LECTURE) SPRING 2024

| | | |
|---|---|--|
| <p style="text-align: center;"><u>Week 7</u></p> <p style="text-align: center;">Feb 26th – Mar 1st</p> <p style="text-align: center;">Skeletal System & Joints</p> <p style="text-align: center;"><u>Total Video Time:</u> 20 minutes</p> | <ul style="list-style-type: none"> <input type="checkbox"/> Discussion Board 5: Skeletal System/Osteoporosis <input type="checkbox"/> Discussion Board 6: Joints <input type="checkbox"/> Video Quiz: Whose Bones Are These? (Chapter 8) [7m 7s] <input type="checkbox"/> Video Quiz: Introduction to Joints (Chapter 9) [2m 52s] <input type="checkbox"/> Video Quiz: Bones and Joints (Chapter 9) [9m 22s] <input type="checkbox"/> Quiz 3: Chapters 6 – 9 (Skeletal System & Joints) <input type="checkbox"/> Due SOON → Individual Project (Health Science Career Poster) due 03.08.24 <input type="checkbox"/> Work on Group Project (Muscle Video) due 04.12.24 | <ul style="list-style-type: none"> <input type="checkbox"/> 03.01.24 <input type="checkbox"/> Quiz 3 opens 03.01.24 and closes 03.03.24 |
| <p style="text-align: center;"><u>Week 8</u></p> <p style="text-align: center;">Mar 4th – 8th</p> <p style="text-align: center;">Midterm Exam</p> | <ul style="list-style-type: none"> <input type="checkbox"/> Midterm Exam Opens 03.06.24 and Closes 03.08.24 (Chapters 1 - 9) <input type="checkbox"/> Due → Individual Project (Health Science Career Poster) due 03.08.24 by 11:59 pm <input type="checkbox"/> Work on Group Project (Muscle Video) due 04.12.24 | <ul style="list-style-type: none"> <input type="checkbox"/> Midterm due 03.08.24 <input type="checkbox"/> Career Poster Project due 03.08.24 |
| <p style="text-align: center;">Mar 11th – 15th</p> <p style="text-align: center;">Spring Break</p> | <ul style="list-style-type: none"> <input type="checkbox"/> Sleep, rest, <u>relax</u> <input type="checkbox"/> Enjoy time with family and <u>friends</u> <input type="checkbox"/> Netflix, etc. <input type="checkbox"/> Exercise <input type="checkbox"/> Read a good <u>book</u> <input type="checkbox"/> Do something nice for someone | |
| <p style="text-align: center;"><u>Week 9</u></p> <p style="text-align: center;">Mar 18th – 22nd</p> <p style="text-align: center;">Muscular System</p> <p style="text-align: center;"><u>Total Video Time:</u> 6 minutes</p> | <ul style="list-style-type: none"> <input type="checkbox"/> Discussion Board 7: Muscular System <input type="checkbox"/> Video Quiz: Muscular System (Chapter 10) [5m 59s] <input type="checkbox"/> Work on Group Project (Muscle Video) due 04.12.24 | <ul style="list-style-type: none"> <input type="checkbox"/> 03.22.24 |
| <p style="text-align: center;"><u>Week 10</u></p> <p style="text-align: center;">March 25th – 29th</p> <p style="text-align: center;">Muscular System</p> <p style="text-align: center;"><u>Total Video Time:</u> 16 minutes</p> | <ul style="list-style-type: none"> <input type="checkbox"/> Video Quiz: How the Muscular System Works (Chapter 11) [4m 45s] <input type="checkbox"/> Video Quiz: Muscles (Chapter 11) [10m 41s] <input type="checkbox"/> Discussion Board 8: Post 2 Comments on Individual Poster Projects <input type="checkbox"/> Work with group members on Group Project (Muscles Video) due 04.12.24 <input type="checkbox"/> Quiz 4: Chapters 10 – 11 (Muscular System) | <ul style="list-style-type: none"> <input type="checkbox"/> 03.29.24 <input type="checkbox"/> Quiz 4 opens 03.29.24 and closes 03.31.24 |
| <p style="text-align: center;"><u>Week 11</u></p> <p style="text-align: center;">April 1st – 5th</p> <p style="text-align: center;">Nervous System</p> <p style="text-align: center;"><u>Total Video Time:</u> 10 minutes</p> | <ul style="list-style-type: none"> <input type="checkbox"/> Discussion 9: Nervous System <input type="checkbox"/> Video Quiz: Nervous System (Chapter 12) [9m 22s] <input type="checkbox"/> Due SOON → Work with group members on Group Project (Muscles Video) due 04.12.24 | <ul style="list-style-type: none"> <input type="checkbox"/> 04.05.24 |

Weekly Checklist - BIOL 2301 (LECTURE) SPRING 2024

| | | |
|---|---|--|
| <p><u>Week 12</u></p> <p>April 8th – 12th</p> <p>Nervous System</p> <p><u>Total Video Time:</u> 11 minutes</p> | <ul style="list-style-type: none"> <input type="checkbox"/> Discussion 10: Divisions of Nervous System <input type="checkbox"/> Video Quiz: Anatomy of the Nervous System (Chapter 13) [10m 26s] <input type="checkbox"/> DUE: Group Project-Muscles Video due 04.12.24 | <p><input type="checkbox"/> 04.12.24</p> |
| <p><u>Week 13</u></p> <p>April 15th – 19th</p> <p>Nervous System</p> <p><u>Total Video Time:</u> 11 minutes</p> | <ul style="list-style-type: none"> <input type="checkbox"/> Video Quiz: Nervous System- Action Potential (Chapter 13) [11m 43 s] | <p><input type="checkbox"/> 04.19.24</p> |
| <p><u>Week 14</u></p> <p>April 22nd – 26th</p> <p>Nervous System</p> <p><u>Total Video Time:</u> 11 minutes</p> | <ul style="list-style-type: none"> <input type="checkbox"/> Video Quiz: Nervous System-Senses (Chapter 14) [10m 32s] <input type="checkbox"/> Quiz 5: Chapters 12 - 16 (Nervous System) | <p><input type="checkbox"/> Quiz 5 opens 04.26.24 and closes 04.28.24</p> |
| <p><u>Week 15 & 16</u></p> <p>April 29th – May 1st May 2nd – 8th</p> <p>Review Final Exam</p> | <ul style="list-style-type: none"> <input type="checkbox"/> Review for Final Exam (Chapters 1 - 16) <input type="checkbox"/> Be sure you are caught up on all <u>assignments</u> <input type="checkbox"/> FINAL EXAM Opens 05.03.24 and Closes 05.06.24 (Chapters 1 – 16) <input type="checkbox"/> Congratulations!! You made it!! Celebrate 😊 | <p><input type="checkbox"/> Final is due 05.06.24 by 11:59 pm</p> |

COURSE EVALUATION

Final grades will be calculated according to the following criteria:

| | |
|---|-----|
| 1. Exams | 30% |
| 2. Quizzes | 20% |
| 3. Discussions | 10% |
| 4. Assignments (Video Quizzes & Project Plan) | 20% |
| 5. Projects (Individual & Group) | 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 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 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.
<https://www.lit.edu/student-success/starfish>

ADDITIONAL COURSE POLICIES/INFORMATION

COURSE REQUIREMENTS

1. Cheating of any type will not be tolerated.
2. Students will participate in discussion boards for each of the chapters.
2. Students will complete exams by the due dates. No late exams or assignments will be accepted.
3. Students will complete an Individual Assignment: (Health Science Career Poster)
No late assignments are accepted after the due date.
4. Students will complete a Mandatory Group Project. Individual Assignments will not be accepted for the Group Project. Group Projects **must** be submitted by the due date.
5. Five (5) quizzes total:
 - Quiz I: Chapter 1 (Introduction), Chapter 2 (Elements), Chapter 3 (Cells)
Chapter 4 (Tissues).
 - Quiz 2: Chapter 5 (Integumentary)
 - Quiz 3: Chapters 6-9 (Skeletal System & Joints)
 - Quiz 4: Chapters 10 – 11 (Muscular System)
 - Quiz 5: Chapters 12 – 16 (Nervous System)

To be completed on the due dates. No late quizzes are accepted.