202310.BIOL2301.2C1
Anatomy & Physiology I (Lec)
Spring 2023

INSTRUCTOR CONTACT INFORMATION

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

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 follow 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 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 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 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.

Approved: Initials/date

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

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.
February 1, 2023. Last day for students to drop classes and receive a full refund.
February 17, 2023. Last day for students to drop or withdraw **WITHOUT** academic penalty.
April 3, 2023. Last day for students to drop or withdraw **WITH** academic penalty.

COURSE CALENDAR/Weekly Checklist BIOL 2301 Spring 2023

Week:	To Do:	Due Date:
Week 1 Jan 17th – 20th Introduction Directional Terms Study of Life	☐ Discussion Board 1: Introduction ☐ Discussion Board: Netiquette ☐ Syllabus Quiz/Syllabus Acknowledgement	☐ **01.22.23**
	☐ Video Quiz: Introduction to Anatomy & Physiology (Chapter 1) [11 minutes] ☐ Video Quiz: Directional Terms (Chapter 1) [3 minutes 15 seconds] ☐ Video Quiz: Body Planes (Chapter 1) [1m 35s] ☐ Video Quiz: Body Cavities (Chapter 1) [1m 26s] ☐ Discussion Board 2: Regional & Directional Terms ☐ Look over instructions for Individual Project (Health Science Career Poster) **due 02.15.23**	☐ **01.30.23**

	☐ Join a group for Group Project (Muscle Video) **due 04.21.23**	
Week 2 Jan 23rd – 27th Elements, Cells, Tissues	☐ Video Quiz: Elements of the Human Body (Chapter 2) [1 m 52 s] ☐ Video Quiz: Levels of Organization in the Body (Chapter 3) [2m 45s] ☐ Start working on Individual Project (Health Science Career Poster) **due 02.15.23** ☐ Start working on Group Project (Muscles Video) **due 04.21.23**	☐ **02.03.23**
Week 3 Jan 30th – Feb 3rd Elements, Cells, Tissues	☐ Video Quiz: Cell Structure (Chapter 3) [7m 22s] ☐ Video Quiz: Tissues (Chapter 4) [10m 43s] ☐ **Quiz 1: Chapter 1 (Introduction), Chapter 2 (Elements), Chapter 3 (Cells), Chapter 4 (Tissues)** ☐ Work on Individual Project (Health Science Career Poster) **due 02.15.23** ☐ Work with group members on Group Project (Muscles Video) **due 04.21.23**	☐ **02.06.23** ☐ **Quiz 1** *opens 01.30.23* and *closes 02.02.23*
Week 4 Feb 6th -10th Integumentary System	☐ Discussion Board 3: Integumentary ☐ Video Quiz: Integumentary System (Chapter 5) [9m 40s] ☐ Work on Individual Project (Health Science Career Poster) **due 02.15.23** ☐ Work with group members on Group Project (Muscles Video) **due 04.21.23**	☐ **02.17.23**
Week 5 Feb 13th – 17th Complete Integumentary Start Skeletal System & Joints	☐ **Quiz 2: Chapter 5 (Integumentary)** ☐ Work on Individual Project (Health Science Career Poster) **due 02.15.23** ☐ Work with group members on Group Project (Muscles Video) **due 04.21.23**	☐ **Quiz 2** *opens 02.17.23*and *closes 02.20.23*
Week 6 Feb 20th – 24th Skeletal System & Joints	☐ Discussion Board 4: Skeletal System Anatomy ☐ Video Quiz: Skeletal (Chapter 6) [7m 59s] ☐ Video Quiz: Axial vs. Appendicular Skeleton (Chapter 7) [3m 19s] ☐ Video Quiz: What Bones Tell Us (Chapter 8) [6m 26s]	☐ **02.27.23**

	☐ Work with group members on Group Project (Muscles Video) **due 04.21.23**	
Week 7 Feb 27th – Mar 3rd Skeletal System & Joints	☐ Discussion Board 5: Skeletal System/Osteoporosis ☐ Discussion Board 6: Joints ☐ Video Quiz: Whose Bones Are These? (Chapter 8) [7m 7s] ☐ Video Quiz: Introduction to Joints (Chapter 9) [2m 52s] ☐ Video Quiz: Bones and Joints (Chapter 9) [9m 22s] ☐ **Quiz 3: Chapters 6 – 9 (Skeletal System & Joints)** ☐ Work with group members on Group Project (Muscles Video) **due 04.21.23**	☐ **03.05.23** ☐ **Quiz 3** *opens 03.03.23 and closes 03.06.23*
Week 8 Mar 5th – 10th **Midterm Exam**	☐ **Midterm Exam** Opens 03.08.23 and Closes 03.11.23(Chapters 1 - 9) ☐ Work with group members on Group Project (Muscles Video) **due 04.21.23**	☐ **Midterm due 03.11.23**
Week 9 Mar 13th – 17th **Spring Break**	☐ Sleep, rest, relax. ☐ Enjoy time with family and friends. ☐ Netflix, etc. ☐ Exercise ☐ Read a good book. ☐ Do something nice for someone	
Week 10 Mar 20th – 24th Muscular System	☐ Discussion Board 7: Muscular System ☐ Video Quiz: Muscular System (Chapter 10) [5m 59s] ☐ Work with group members on Group Project (Muscles Video) **due 04.21.23**	☐ 03.24.23 ☐ **due 04.21.23**
Week 11 Mar 27th – 31st Muscular System	☐ Video Quiz: How the Muscular System Works (Chapter 11) [4m 45s] ☐ Video Quiz: Muscles (Chapter 11) [10m 41s] ☐ Discussion Board 8: Post 2 Comments on Individual Poster Projects ☐ **Quiz 4: Chapters 10 – 11 (Muscular System)** ☐ Work with group members on Group Project (Muscles Video) **due 04.21.23**	☐ **04.03.23** ☐ **Quiz 4:** opens Mar 27th closes Mar 30th.

Week 12 April 3rd – 6th Nervous System	☐ Discussion 9: Nervous System ☐ Video Quiz: Nervous System (Chapter 12) [9m 22s] ☐ Work with group members on Group Project (Muscles Video) **due 04.21.23**	☐ **04.11.23**
Week 13 April 11th – 13th Nervous System	☐ Discussion 10: Divisions of Nervous System ☐ Video Quiz: Anatomy of the Nervous System (Chapter 13) [10m 26s] ☐ Work with group members on Group Project (Muscles Video) **due 04.21.23**	☐ **04.17.23**
Week 14 April 17th -21st Nervous System	☐ Video Quiz: Nervous System-Senses (Chapter 14) [10m 32s]	☐ **04.24.23**
Week 15 April 24th – 28th **Final Exam Review**	☐ **Quiz 5: Chapters 12 - 16 (Nervous System)** ☐ Review for Final Exam (Chapters 10-16) ☐ Be sure you are caught up on all assignments	☐ **Quiz 5:** Opens April 28th. Closes May 1st
Week 16 May 1st – 5th **Final Exam Review**	☐ **Final Exam Review** ☐ Complete all remaining assignments	
Week 17 May 8th – 10th **FINAL EXAM**	☐ **FINAL EXAM** Opens 05,08,23 and Closes 05,10,23 (Chapters 10 – 16) **Congratulations!! You made it!! Celebrate** ☺ 	☐ ***Final Exam due 05,10,23 by 11:59 pm***

COURSE EVALUATION

Final grades will be calculated according to the following criteria:

1. Mandatory Course Syllabus Quiz	5%
2. Discussion Participation	10%
3. Video Quizzes	10%
4. Chapter Quizzes (5)	20%
5. Exams Ch 1 – 8 (Midterm) Ch 9 – 16 (Final Exam)	30%
6. Mandatory Group Project (Common Assignment)	20%
7. Individual Project	5%
	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 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 My-LIT 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. Five (5) Chapter quizzes total:
    1. Quiz 1: Chapter 1 (Introduction), Chapter 2 (Elements), Chapter 3 (Cells), Chapter 4 (Tissues)
    2. Quiz 2: Chapter 5 (Integumentary)
    3. Quiz 3: Chapters 6 – 9 (Skeletal System & Joints)
    4. Quiz 4: Chapters 10 – 11 (Muscular System)
    5. Quiz 5: Chapters 12 - 16 (Nervous System)

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