202310.BIOL2101.2C1
Anatomy & Physiology (Lab)
Spring 2023

INSTRUCTOR CONTACT INFORMATION

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

CREDIT: 1 Semester 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
Must have passed or be taking Biology 2101 at the same time. Lecture can be taken face-to-face or fully online.

COURSE DESCRIPTION
This 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, 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 OUTLINE

A. Human Body Introduction
    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. Introduction
    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. Functions of sensory organ structures
3. Spinal nerves

COURSE OBJECTIVES

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

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

REQUIRED TEXTBOOK AND MATERIALS

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
Wilk-Blaszczak (2018) Human Anatomy Lab Manual (Free Online) https://learn-us-east-1-prod-fleet02-xythos.content.blackboardcdn.com/5c0f632563f2b/10746209?X-Black

ATTENDANCE POLICY

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

DROP POLICY

If you wish to drop a course, you are responsible for initiating and completing the drop process by the specified drop date as listed on the Academic Calendar. If you stop coming to class and fail to drop the course, you will earn an "F" in the course.

STUDENT 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/Hybrid students should expect to spend at least as much time in this course as in the traditional, face-to-face class.

Weekly Checklist ~ SPRING 2023

ONLINE BIOL 2101- 2C1 (LAB)

Week:	Assignments:	Due Date:
Week 1 Introduction Jan17th – Jan 20th	☐ Discussion Board: Introduction ☐ Register for McGraw Hill Virtual Labs (Information on Blackboard under "Modules" then ☐ Syllabus Quiz ☐ Join a group for Group Lab: Musculoskeletal Disorders (Information on "Modules" page) due **04.21.23**	☐ **01.22.23**
	☐ Complete Introductory Materials McGraw Hill Connect Interactive Labs ☐ Work with group members on Group Lab (Musculoskeletal Disorders) **due 04.21.23**	☐ **02.03.23**
Week 2 Jan 23rd – 27th Directional Terms Elements, Cells, Tissues	☐ Module (1): McGraw Hill Connect Interactive Lab Activities covering Body Orientation, Tests for Macromolecules, and Microscope ☐ Work with group members on Group Lab (Musculoskeletal Disorders) due **04.21.23**	☐ **02.03.23**
Week 3 Jan 30th – Feb 3rd Elements, Cells, Tissues	☐ Module (1): McGraw Hill Connect Interactive Lab Activities covering Cells and Tissues ☐ Work with group members on Group Lab (Musculoskeletal Disorders) due **04.21.23**	☐ **02.03.23**
Week 4 Feb 6th – 10th Integumentary System	☐ Module 2: McGraw Hill Connect Interactive Lab Activities covering Integumentary System ☐ Work with group members on Group Lab (Musculoskeletal Disorders) due **04.21.23**	☐ **02.17.23**
Week 5 Feb 13th – 17th Skeletal System & Joints	☐ Module 2: McGraw Hill Connect Interactive Lab Activities covering Skeletal System & Joints ☐ Work with group members on Group Lab (Musculoskeletal Disorders) due **04.21.23**	☐ **02.17.23**
Week 6 Feb 20th – 24th Skeletal System & Joints	☐ Module 2: McGraw Hill Connect Interactive Lab Activities covering Skeletal System & Joints ☐ Work with group members on Group Lab (Musculoskeletal Disorders) due **04.21.23**	☐ **02.17.23**

Week 7 Feb 27th– Mar 3rd Skeletal System & Joints	☐ Module 2: McGraw Hill Connect Interactive Lab Activities covering Skeletal System & Joints ☐ Work with group members on Group Lab (Musculoskeletal Disorders) due **04.21.23**	☐ **03.03.23**
Week 8 Mar 8th – Mar 10th Midterm Exam	☐ Midterm Exam *Opens 03.08.23 and Closes 03.10.23* ☐ Work with group members on Group Lab (Musculoskeletal Disorders) due **04.21.23**	☐ **03.10.23**
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 Muscular System Mar 20th – 24th	☐ Module 2: McGraw Hill Connect Interactive Lab Activities covering Muscular System ☐ Work with group members on Group Lab (Musculoskeletal Disorders) due **04.21.23**	☐ **03.31.23**
Week 11 Nervous System Mar 27th – 31st	☐ Module 2: McGraw Hill Connect Interactive Lab Activities covering Muscular System ☐ Work with group members on Group Lab (Musculoskeletal Disorders) due **04.21.23**	☐ **03.31.23**
Week 12 Nervous System April 3rd – 6th	☐ Module 3: McGraw Hill Connect Interactive Lab Activities covering Nervous System ☐ Work with group members on Group Lab (Musculoskeletal Disorders) due **04.21.23**	☐ **04.14.23**
Week 13 Nervous System April 11th– 14th	☐ Module 3: McGraw Hill Connect Interactive Lab Activities covering Nervous System ☐ Work with group members on Group Lab (Musculoskeletal Disorders) due **04.21.23**	☐ **04.14.23**
Week 14 April 17th– 21st	☐ Module 3: McGraw Hill Connect Interactive Lab Activities covering Nervous System Due: **Group Lab (Musculoskeletal Disorders)**	☐ **04.21.23**
Week 15 April 24th– 28th FINAL EXAM Review	☐ **Review for Final Exam (Chapters 10-16)** ☐ Make up missing assignments	
Week 16 May 1st – May 5th FINAL EXAM Review	☐ **Review for Final Exam (Chapters 10-16)** ☐ Make up missing assignments	
Week 17 May 8th – 10th	☐ FINAL EXAM *Opens 05.08.23 and Closes 05.10.23* (Chapters 10 – 16)	☐ *05.10.23 by 11:59 pm*

	☐ **Congratulations! You made it!! Celebrate ☺** 	

COURSE EVALUATION

Final grades will be calculated according to the following criteria:

1. Mandatory Syllabus Quiz = 5%
2. Interactive Lab Activities = 25%
3. Quizzes = 20%
4. Mandatory Group Project = 20%
5. Exams: Midterm (Ch 1-8); Final Exam (Ch 9-16) = 30%

GRADING 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. 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://catalog.lit.edu/content.php?catoid=3&navoid=80#academic-dishonesty.
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

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. 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.
4. 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-learningtips/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-ofnetiquette-for-students.html

Academic Dishonesty

Students found to be committing academic dishonesty (cheating, plagiarism, or collusion) may receive disciplinary action. Students need to familiarize themselves with the institution's Academic Dishonesty Policy available in the Student Catalog & Handbook at http://catalog.lit.edu/content.php?catoid=3&navoid=80#academic-dishonesty.