BIOL 2102 Anatomy & Physiology II Spring 2024



INSTRUCTOR CONTACT INFORMATION

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Click Here for Starfish

CREDIT

1 Semester Credit Hours (3 hours lecture, 2 hours lab)

MODE OF INSTRUCTION

Online

PREREQUISITE/CO-REQUISITE:

Pre-requisite Biol 2101 and 2301 Passed the Reading/Writing Sections of THEA or any other accepted test

Co-requisite Biol 2302

COURSE DESCRIPTION

The lab provides a virtual learning experience for exploration of human system components and basic physiology. Systems to be studied include endocrine, cardiovascular, immune, lymphatic, respiratory, digestive (including nutrition), urinary (including fluid and electrolyte balance), and reproductive (including human development and genetics).

COURSE OBJECTIVES

Upon successful completion of this course, students 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 conclusions
- 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

REQUIRED TEXTBOOK AND MATERIALS

REQUIRED = Textbook - OpexStax Anatomy & Physiology Levels I and II - <u>OpenStax</u> <u>Anatomy & Physiology textbook</u>

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.

Anatomy and Physiology from OpenStax, Print ISBN 1938168135, Digital ISBN 1947172042, www.openstax.org/details/anatomy-and-physiology

Supplemental = Textbook - WikiBooks – Human Physiology https://en.wikibooks.org/wiki/Human Physiology

ATTENDANCE POLICY

- 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 be accepted with a deduction as a late penalty. Students will receive a zero for assignments not completed.
- 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.

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 <u>Academic Calendar</u>. 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.

COURSE EVALUATION

Final grades will be calculated according to the following criteria:

1. Assignments (Lab Activities)	= 25%
3. Quizzes MGH	= 25%
4. Mandatory Group Lab Project	= 20%
5. Midterm and Final Exam	= 30%

Total = 100%

GRADING SCALE

90-100 = A

- 80-89 = B
- 70-79 = C
- 60-69 = D
- 0 59 = F

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 <u>http://catalog.lit.edu/content.php?catoid=3&navoid=80#academic-dishonesty</u>.

TECHNICAL REQUIREMENTS

The latest technical requirements, including hardware, compatible browsers, operating systems, etc. can be online at <u>https://lit.edu/online-learning/online-learning-minimum-computer-requirements</u>. 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 <u>Special Populations - Lamar Institute of Technology (lit.edu</u>).

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 <u>www.lit.edu</u>. 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.

Course Requirements

- A Midterm and Final are <u>required</u> with two attempts given per assessment. The final score will be an **average of all attempts**.
- 2. Students will complete virtual labs for each chapter.
- 3. Students will complete a group lab project.
- 4. Late assignments will be accepted with a deduction as a late penalty. Students will receive a zero for assignments not completed.

Weekly Checklist BIOL 2102 – Spring 2024 - Online

Maak	1		Due Dates
Week		ASSIGNMENTS	
Week 1		Discussion Board: Introduction	01.21.24
Jan 16 th – 19 th		Syllabus Quiz	
Juli 18 = 19		Join a group for Group Project – Pathogen Presentation due	
Module 4:		04.21.23	
~Introduction		Complete McGraw Hill Orientation/Introductory	
~Endocrine System		Materials	
Week 2		McGraw Hill Labs: Endocrine System	01.28.24
		1. Endocrine System Overview	
Jan 22 nd – 26 th		2. Effects of Blood Glucose Level	
Module 4:		Start working with group members on Group Project –	
~Endocrine System		Pathogen Presentation due 04.21.23	
Week 3		McGraw Hill Labs: Endocrine System	02.04.24
HEERO		3. Thyroid Hormone & Temperature Regulation	02.04.24
Jan 29 th – Feb 2 nd		4. Endocrine System Lab Quiz	
		Work with group members on Group Project – Pathogen	
Module 4	_	Presentation due 04.21.23	
Module 4 ~Endocrine System			
Week 4		MGH Labs: Cardiovascular	02.11.24
WEEK 4		1. Blood Typing	02.11.24
Feb 5 th – 9 th		2. Blood Pressure Overview	
		3. Blood Pressure Physiology	
		4. Cardiac Cycle Overview	
Module 4:		Work with group members on Group Project – Pathogen	
~Cardiovascular		Presentation due 04.21.23	
(Blood & Heart) Week 5		MGH Labs: Cardiovascular	02.18.24
WEEK J		5. Cardiovascular – Heart Auscultation	L 02.10.24
Feb 12 th - 16 th		6. Cardiovascular – Pulse Rate	
		7. Cardiovascular Quiz	
Module 4:		Work with group members on Group Project – Pathogen	
~Cardiovascular		Presentation due 04.21.23	
(Heart & Blood Vessels)			
Week 6		MGH Labs: Immune/Lymphatic	02.25.24
Feb 19th - 23rd		1. Innate Immunity Overview	
		 Adaptive Immunity Overview Differential Blood Cell Count 	
Module 5:			
~Immune System		4. Immune System Quiz	
8		Work with group members on Group Project – Pathogen	
Week 7		Presentation due 04.21.23	03.03.24
Week 7		MGH Labs: Respiratory	L 03.03.24
Feb 26 th – March 1 st		1. Respiratory System Overview	
		2. Mechanism of Breathing 3. Pulmonary Function Tests	
Module 5:			
~Respiratory System		4. Respiratory System Lab Quiz	
1000 - CO 890 CO 100 - 10387 CO85		Work with group members on Group Project – Pathogen	
1		Presentation due 04.21.23	

Weekly Checklist

BIOL 2102 – Spring 2024 – Online

Week 8	MIDTERM EXAM Opens 03.06.24 and Closes 03.08.24	03.08.24
Mar 4 th – 8 th	(Chapters 17 – 22)	
~Midterm Exam	Pathogen Presentation due 04.21.23	
Mar 11 th – 15 th Spring Break	 Sleep, rest, relax Enjoy time with family and friends Netflix, etc. Exercise Read a good book 	
Wester	Do something nice for someone	
Week 9	MH Labs: Digestive and Metabolism	03.24.24
Mar 18th - 22nd	 Enzymes & Digestion Assignment: Digestive System 	
Module 5: ~Digestive System	Work with group members on Group Project – Pathogen Presentation due 04.21.23	
Week 10	MH Labs: Digestive and Metabolism	03.30.24
Mar 25 th – 29 th	 3. Digestion Lab Quiz Work with group members on Group Project – Pathogen 	
Module 5: ~Digestive System ~Metabolism	Presentation due 04.21.23	
Week 11	MGH LABS: Urinary System	04.06.24
April 1 st – 5 th	 Glomerular Filtration Tubular Reabsorption and SecretiOn 	
Module 5: ~Urinary System	 Urinalysis Work with group members on Group Project – Pathogen Presentation due 04.21.22 	
Week 12	MGH LABS: Urinary System	04.13.24
April 8 th – 12 th	 Glomerular Filtration Tubular Reabsorption and SecretiOn 	
Module 5: ~Urinary System	 3. Urinalysis 4. Urinary System Quiz Work with group members on Group Project – Pathogen Presentation due 04.21.23 	
Week 13	MGH Labs: Reproductive	04.20.24
April 15 th – 19th	1. Development & Inheritance 2. Reproductive System	
Module 5: ~Reproductive System (Development & Inheritance)	3.Reproductive System Quiz DUE: Group Project – Pathogen Project	
Week 14	 MGH Labs: Review of Systems 1. Fetal Pig Dissection Part 1 	04.27.24
	2. Fetal Pig Dissection Part 2	

Weekly Checklist BIOL 2102 – Spring 2024 - Online

April 22 nd – 26 th		
~Final Exam Review		
Week 15 & 16	Make up missing assignments	05.06.24
April 29 th – May 3 rd May 6 th – 8 th	 Review for Final Exam FINAL EXAM Opens 05.03.24 and Closes 05.06.24 (Chapters 23 – 28) You made it!! Celebrate ^(C) 	
Final Exam Review Final Exam		