

Course Syllabus\_Spring\_2024  
202410\_BIOL\_2102\_Online  
Anatomy & Physiology II (Lecture)  
January 16<sup>th</sup> – May 10<sup>th</sup>



**INSTRUCTOR CONTACT INFORMATION**

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

**CREDIT**

1 Semester Credit Hours (2)

**MODE OF INSTRUCTION**

Online

**PREREQUISITE/CO-REQUISITE:**

Pre-requisite BIOL 2101. And passed the Reading/Writing Sections of THEA or any other accepted test/  
Co-requisite BIOL 2302.

**COURSE DESCRIPTION**

Study of the structure and function of human anatomy, including the neuroendocrine, integumentary, musculoskeletal, digestive, urinary, reproductive, respiratory, and circulatory systems. Content may be either integrated or specialized.

**LEARNING OUTCOMES**

**Upon successful completion of this course, students will:**

- Apply appropriate safety and ethical standards.
- Locate and identify anatomical structures.
- Appropriately utilize laboratory equipment, such as microscopes, dissection tools, general lab ware, physiology data acquisition systems, and virtual simulations.
- Work collaboratively to perform experiments.
- Demonstrate the steps involved in the scientific method.
- Communicate results of scientific investigations, analyze data and formulate conclusions.
- Use critical thinking and scientific problem-solving skills, including, but not limited to , inferring, integrating. Synthesizing, and summarizing, to make decisions, recommendations, and predictions.

## **COURSE OBJECTIVES**

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

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1. Know and identify the parts of the endocrine system.
2. Know and identify the parts of the circulatory system.
3. Know and identify the parts of the lymphatic system.
4. Know and identify the organs important in the immune system.
5. Know and identify the parts of the respiratory system.
6. Know and identify the parts of the digestive system.
7. Identify items important in nutrition and metabolism.
8. Know and identify the parts of the urinary system.
9. Identify what is important in fluid electrolyte and acid-base balance.
10. Know and identify the parts of the reproductive system

## **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**

- A. Chap 15 Endocrine
  1. Structures
  2. Functions
  3. Diagnose different diseases
- B. Chap 16 Blood
  1. Types of blood cells
  2. Solve a crime based on a blood type
- C. Chap 17 The Cardiovascular System: The Heart
  1. Structures
  2. Functions
  3. Blood Flow
  4. Electrical Conduction
  5. Deduce what is wrong with a patient's heart by the ECG strip
- D. Chap 18 The Cardiovascular System: Blood Vessels
  1. Name the major arteries on a model

2. Name the major veins on a model
  3. Demonstrate how to take blood pressure with a sphygmomanometer
- E. Chap 19 The Lymphatic System
1. Structures
  2. Functions
  3. Diseases
- F. Chap 21 The Respiratory System
1. Structures
  2. Functions
  3. Use a spirometer to measure your lung capacity
- G. Chap 22 The Digestive System
1. Structures
  2. Functions
  3. Analyze a victim's last meal by running forensic tests
- H. Chap 23 Nutrition, Metabolism, and Body Temperature Regulation
1. Current nutritional trends
  2. Problems
  3. Reading labels
- I. Chap 24 The Urinary System
1. Structures
  2. Functions
  3. Diagnose what is wrong with various patients by their urine samples
- J. Chap 25 Fluid, Electrolyte, and Acid-Base Balance
1. Fluid balance
  2. Role of the brain
  3. Are all sports drinks the same
- K. Chap 26 The Reproductive System
1. Structures
  2. Functions

## REQUIRED TEXTBOOK AND MATERIALS

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

<https://openstax.org/details/books/anatomy-and-physiology?Book%20details> REQUIRED = WILK-BLASZCZAK [https://shsu.blackboard.com/bbcswebdav/pid-5055087-dtcontent-rid-107840795\\_1/xid-107840795\\_1](https://shsu.blackboard.com/bbcswebdav/pid-5055087-dtcontent-rid-107840795_1/xid-107840795_1) 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 format 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. (Simple printouts sold by third parties on Amazon are not verifiable and not as high-quality.) Anatomy and Physiology from OpenStax, Print ISBN 1938168135, Digital ISBN 1947172042, [www.openstax.org/details/anatomy-and-physiology](http://www.openstax.org/details/anatomy-and-physiology).

Supplemental = Textbook - WikiBooks – Human Physiology  
[https://en.wikibooks.org/wiki/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 not be accepted. 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.
5. 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.htm> |

## 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.

## DROP POLICY

If you wish to drop a course, you are responsible for initiating and completing the drop process by the specified drop date 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.

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 2102 – Spring 2024 - Online

Week	ASSIGNMENTS	Due Dates
<b>Week 1</b> Jan 16 <sup>th</sup> – 19 <sup>th</sup> <b>Module 4:</b> ~Introduction ~Endocrine System	<input type="checkbox"/> Discussion Board: Introduction <input type="checkbox"/> <b>Syllabus Quiz</b> <input type="checkbox"/> <a href="#">Join a group for Group Project – Pathogen Presentation due 04.19.24</a> <input type="checkbox"/> Complete McGraw Hill Orientation/Introductory Materials	<input type="checkbox"/> 01.21.24
<b>Week 2</b> Jan 22 <sup>nd</sup> – 26 <sup>th</sup> <b>Module 4:</b>	<input type="checkbox"/> McGraw Hill Labs: Endocrine System <b>1. Endocrine System Overview</b> <b>2. Effects of Blood Glucose Level</b> <a href="#">Start working with group members on Group Project – Pathogen Presentation due 04.19.24</a>	<input type="checkbox"/> 01.28.24

~Endocrine System		
<b>Week 3</b> Jan 29 <sup>th</sup> – Feb 2 <sup>nd</sup> <b>Module 4</b> ~Endocrine System	<input type="checkbox"/> McGraw Hill Labs: Endocrine System 3. Thyroid Hormone & Temperature Regulation 4. Endocrine System Lab Quiz <input type="checkbox"/> Work with group members on Group Project – Pathogen Presentation due 04.19.24	<input type="checkbox"/> 02.04.24
<b>Week 4</b> Feb 5 <sup>th</sup> – 9 <sup>th</sup> <b>Module 4:</b> ~Cardiovascular (Blood & Heart)	<input type="checkbox"/> MGH Labs: Cardiovascular 1. Blood Typing 2. Blood Pressure Overview 3. Blood Pressure Physiology 4. Cardiac Cycle Overview <input type="checkbox"/> Work with group members on Group Project – Pathogen Presentation due 04.19.24	<input type="checkbox"/> 02.11.24
<b>Week 5</b> Feb 12 <sup>th</sup> – 16 <sup>th</sup> <b>Module 4:</b> ~Cardiovascular (Heart & Blood Vessels)	<input type="checkbox"/> MGH Labs: Cardiovascular 5. Cardiovascular – Heart Auscultation 6. Cardiovascular – Pulse Rate 7. Cardiovascular Quiz <input type="checkbox"/> Work with group members on Group Project – Pathogen Presentation due 04.19.24	<input type="checkbox"/> 02.18.24
<b>Week 6</b> Feb 19 <sup>th</sup> – 23 <sup>rd</sup> <b>Module 5:</b> ~Immune System	<input type="checkbox"/> MGH Labs: Immune/Lymphatic 1. Innate Immunity Overview 2. Adaptive Immunity Overview 3. Differential Blood Cell Count 4. Immune System Quiz <input type="checkbox"/> Work with group members on Group Project – Pathogen Presentation due 04.19.24	<input type="checkbox"/> 02.25.24
<b>Week 7</b> Feb 26 <sup>th</sup> – March 1 <sup>st</sup> <b>Module 5:</b> ~Respiratory System	<input type="checkbox"/> MGH Labs: Respiratory 1. Respiratory System Overview 2. Mechanism of Breathing 3. Pulmonary Function Tests 4. Respiratory System Lab Quiz <input type="checkbox"/> Work with group members on Group Project – Pathogen Presentation due 04.19.24	<input type="checkbox"/> 03.03.24
<b>Week 8</b> Mar 4 <sup>th</sup> – 8 <sup>th</sup> ~Midterm Exam	<input type="checkbox"/> <b>MIDTERM EXAM</b> Opens 03.06.24 and Closes 03.08.24 (Chapters 17 – 22) <input type="checkbox"/> Work with group members on Group Project – Pathogen Presentation due 04.19.24	<input type="checkbox"/> 03.08.24
<b>Mar 11<sup>th</sup> – 15<sup>th</sup></b> <b>Spring Break</b>	<input type="checkbox"/> Sleep, rest, relax <input type="checkbox"/> Enjoy time with family and friends <input type="checkbox"/> Netflix, etc. <input type="checkbox"/> Exercise <input type="checkbox"/> Read a good book <input type="checkbox"/> Do something nice for someone	
<b>Week 9</b>	<input type="checkbox"/> MH Labs: Digestive and Metabolism	<input type="checkbox"/> 03.24.24

<p>Mar 18<sup>th</sup> – 22<sup>nd</sup></p> <p><b>Module 5:</b> ~Digestive System</p>	<p>1. Enzymes &amp; Digestion 2. Assignment: Digestive System Work with group members on Group Project – Pathogen Presentation due 04.19.24</p>	
<p><b>Week 10</b></p> <p>Mar 25<sup>th</sup> – 29<sup>th</sup></p> <p><b>Module 5:</b> ~Digestive System ~Metabolism</p>	<p><input type="checkbox"/> MH Labs: Digestive and Metabolism 3. Digestion Lab Quiz <input type="checkbox"/> Work with group members on Group Project – Pathogen Presentation due 04.19.24</p>	<input type="checkbox"/> 03.30.24
<p><b>Week 11</b></p> <p>April 1<sup>st</sup> – 5<sup>th</sup></p> <p><b>Module 5:</b> ~Urinary System</p>	<p><input type="checkbox"/> MGH LABS: Urinary System 1. Glomerular Filtration 2. Tubular Reabsorption and SecretiOn 3. Urinalysis <input type="checkbox"/> Work with group members on Group Project – Pathogen Presentation due 04.19.24</p>	<input type="checkbox"/> 04.06.24
<p><b>Week 12</b></p> <p>April 8<sup>th</sup> – 12<sup>th</sup></p> <p><b>Module 5:</b> ~Urinary System</p>	<p><input type="checkbox"/> MGH LABS: Urinary System 1. Glomerular Filtration 2. Tubular Reabsorption and SecretiOn 3. Urinalysis 4. Urinary System Quiz <input type="checkbox"/> Work with group members on Group Project – Pathogen Presentation due 04.19.24</p>	<input type="checkbox"/> 04.13.24
<p><b>Week 14</b></p> <p>April 15<sup>th</sup> – 19<sup>th</sup></p> <p><b>Module 5:</b> ~Reproductive System (Development &amp; Inheritance)</p>	<p><input type="checkbox"/> MGH Labs: Reproductive 1. Development &amp; Inheritance 2. Reproductive System 3. Reproductive System Quiz <input type="checkbox"/> <b>DUE</b> Group Project – Pathogen Project</p>	<input type="checkbox"/> 04.20.24
<p><b>Week 15</b></p> <p>April 22<sup>nd</sup> – 26<sup>th</sup></p> <p>~Systems Review</p>	<p><input type="checkbox"/> MGH Labs: Review of Systems 1. Fetal Pig Dissection Part 1 2. Fetal Pig Dissection Part 2</p>	<input type="checkbox"/> 04.27.24
<p><b>Week 16 &amp; 17</b></p> <p>April 29<sup>th</sup> – May 3<sup>rd</sup> May 6<sup>th</sup> – 8<sup>th</sup></p> <p>Final Exam Review <b>Final Exam</b></p>	<p><input type="checkbox"/> Make up missing assignments. <input type="checkbox"/> Review for Final Exam <input type="checkbox"/> <b>FINAL EXAM</b> Opens 05.03.24 and Closes 05.06.24 (Chapters 23 – 28) You made it!! Celebrate 😊</p>	<input type="checkbox"/> 05.06.24

## **COURSE EVALUATION**

Final grades will be calculated according to the following criteria:

- |  |       |
|--|-------|
| 1. Exams: Midterm (Ch 1-8); Final Exam (Ch 9-16) | = 30% |
| 2. Group Project                                 | = 20% |
| 3. Assignments (Discussion & Virtual Labs)       | = 25% |
| 4. Quizzes                                       | = 25% |

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

## **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](mailto: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://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 log in 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

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. 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-learning-tips/netiquette-online-students/>

Seth Ross = <http://www.albion.com/netiquette/corerules.html>