# BIOL **2302** Anatomy & Physiology II Fall 2024



#### INSTRUCTOR CONTACT INFORMATION

Instructor: Dr. Connie J. Grass Email: cjgrass@lit.edu Office Phone: (409) 247-4863 Office Location: MPC 217 Office Hours: See Starfish for available office hours-<u>Click Here for Starfish</u>

Credit: 3 semester credit hours (3 hours lecture)

# Mode of Instruction: Online

#### Prerequisite/Co-requisite:

Pre-requisite Biol 2101 and 2301 Passed the Reading/Writing Sections of TSI or any other accepted test Co-requisite Biol 2102

# **Course Description**

Anatomy & Physiology II is the second part of a two-part sequence. It is a study of the structure and function of the human body, including the following systems: endocrine, cardiovascular, immune, lymphatic, respiratory, digestive (including nutrition), urinary (including fluid and electrolyte balance), and reproductive (including human development and genetics). Emphasis is on interrelationships among systems and regulation of physiological functions involved in maintaining homeostasis.

# **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 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 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

# **TEXTBOOK AND MATERIALS:**

REQUIRED = Textbook - OpexStax Anatomy & Physiology Levels I and II https://openstax.org/details/books/anatomy-and-physiology?Book%20details

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. (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

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

# Policies

- 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. <u>This includes copying and pasting information.</u>
- 3. If you wish to drop this course, you must drop it administratively. If you stop logging-in to the course and do not complete the course drop process, then you will receive an "F" grade for the course.
- 4. Internet usage- students are to use proper netiquette when participating in course email, assignment submissions, and online discussions.

#### **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 3credit-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:

		10007
5.	Assignments (Video Quizzes)	20%
4.	Midterm & Final Exam	30%
3.	Individual & Group Project	20%
2.	Discussion Participation	10%
1.	Quizzes	20%

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 (for courses using Blackboard)

The latest technical requirements, including hardware, compatible browsers, operating systems, etc. can be online at <a href="https://lit.edu/online-learning/online-learning-minimum-computer-requirements">https://lit.edu/online-learning/online-learning/online-learning/online-learning-minimum-computer-requirements</a>. A functional broadband internet connection, such as DSL, cable, or WiFi is necessary to maximize the use of online technology and resources.

#### **Disabilities Statement**

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. <a href="https://lit.edu/student-success/starfish">https://lit.edu/student-success/starfish</a>

#### **Student Code of Conduct**

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.

#### AI Statement

Lamar Institute of Technology (LIT) recognizes the recent advances in Artificial Intelligence (AI), such as ChatGPT, have changed the landscape of many career disciplines and will impact many students in and out of the classroom. To prepare students for their selected careers, LIT desires to guide students in the ethical use of these technologies and incorporate AI into classroom instruction and assignments appropriately. Appropriate use of these technologies is at the discretion of the instructor. Students are reminded that all submitted work must be their own original work unless otherwise specified. Students should contact their instructor with any questions as to the acceptable use of AI / ChatGPT in their courses.

#### 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 video quizzes and discussion boards for each chapter.
- 3. Students will complete an individual project and group project.
- 4. Five quizzes will be given. Each quiz can be taken twice, with an **average of all attempts** being used for the final score.
- 5. Late assignments will be accepted with a deduction as a late penalty. Students will receive a zero for assignments not completed.

WEEK:	To Do:	DUE DATES
Week 1	Discussion Board 1: Introduction	• 09.01.24
Aug 26th - 30th	<ul> <li>Netiquette Discussion Board</li> <li>Syllabus Quiz</li> </ul>	
~Introduction ~Endocrine System	<ul> <li>Video Quiz: Endocrine (Chapter 17) [13m 5s]</li> <li>Look over instructions for Individual Project – Organ Poster due 10.21.24</li> </ul>	
<u>Total Video Time:</u> 14 minutes	<ul> <li>Join a group for Group Project – Body Systems &amp; Disease due 11.20.24</li> </ul>	
Week 2	Discussion Board 2: Endocrine	• 09.08.24
Holiday Sep 2 <sup>nd</sup> Sep 3 <sup>rd</sup> – 6 <sup>th</sup>	<ul> <li>Video Quiz: Fight or Flight (or Freeze) Response (Chapter 17) [5m 52s]</li> </ul>	
~Endocrine System	<ul> <li>Start working on Individual Project – Organ Poster due 10.21.24</li> </ul>	
<u>Total Video Time:</u> 6 minutes	<ul> <li>Start working with group members on Group Project – Body Systems &amp; Disease due 11.20.24</li> </ul>	
Week 3	<ul> <li>Discussion Board 3: Blood Type</li> <li>Video Quiz: Blood (Chapter 18)</li> </ul>	• 09.15.24
Sep 9 <sup>th</sup> – 13 <sup>th</sup>	<ul> <li>Video Quiz: Blood (Chapter 18) [1m 16s]</li> </ul>	
~Endocrine System	<ul> <li>What are Blood Types (Chapter 18) [3m 5s]</li> </ul>	
<u>Total Video Time:</u>	<ul> <li>Work on Individual Project – Organ Poster due 10.21.24</li> </ul>	
5 minutes	<ul> <li>Work with group members on Group Project – Body Systems &amp; Disease due 11.20.24</li> </ul>	
Week 4	Discussion Board 4: Heart     Video Quirt Uppert (Charater 10)	• 09.22.24
Sep 16 <sup>th</sup> – 20 <sup>th</sup>	<ul> <li>Video Quiz: Heart (Chapter 19) [3m 15s]</li> </ul>	

# Weekly Checklist

# BIOL 2302 (Lecture) Fall 2024

4 minutes       11.20.24         Week 5       • Video Quiz: Blood Vessels (Chapter 20) [9m 30s]       • 09.2         Sep 23d - 27m       • QUIZ 1: Chapters 17 - 20 (Endocrine & Cardiovascular) Opens 09.28.24 and Closes 09.29.24       • 09.2         Iotal Video Time: 10 minutes       • Work on Individual Project - Organ Poster due 10.21.24       • 09.2         Week 6       • Work on Individual Project - Organ Poster due 10.21.24       • 10.0         Week 6       • Discussion Board 5: Immune/Lymphatic       • 10.0         Sep 30m - Oct 4m       • Video Quiz: Immune System 1 (Chapter 21) [9m 13s]       • 10.0         • Video Quiz: Immune System 2 (Chapter 21) [9m 44s]       • 10.0         • Video Quiz: Immune System 3 (Chapter 21) [9m 44s]       • 10.0         • Video Quiz: Immune System 3 (Chapter 21) [9m 44s]       • Video Quiz: Immune System 3 (Chapter 21) [9m 44s]         • Video Quiz: Immune System 3 (Chapter 21) [9m 44s]       • Video Quiz: Immune System 3 (Chapter 21) [9m 44s]         • Video Quiz: How the Respiratory • Video Quiz: How the Respiratory • Video Quiz: How the Respiratory • Video Quiz: How Oxygen Travels through your Body (Chapter 22) [5m 4s] • Video Quiz: How Oxygen Travels through your Body (Chapter 22) [5m 10s] • QUIZ 2: Chapter 21 (Immune) & Chapter 22 (Respiratory) Opens 10.11.24 and Closes 10.12.23.       • 10.1         • Total Video Time: 11 minutes       • Work with group members on Group       • 001	~Cardiovascular (Heart)	<ul> <li>Work on Individual Project – Organ Poster due 10.21.24</li> <li>Work with group members on Group</li> </ul>	
Sep 23td - 27th       (Chapter 20) [9th 30s]         -Cardiovascular (Blood Vessels)       QUIZ 1: Chapters 17 - 20 (Endocrine & Cardiovascular) Opens 09.28.24 and Closes 09.29.24         Iotal Video Time: 10 minutes       Work on Individual Project - Organ Poster due 10.21.24         Week 6       Discussion Board 5: Immune/Lymphatic         Sep 30th - Oct 4th       Video Quiz: Immune System 1 (Chapter 21) [9th 44s]         Video Quiz: Immune System 2       (Chapter 21) [9th 44s]         Video Quiz: Immune System 3 (Chapter 21) [9th 37s]         Iotal Video Time: 30 minutes       Work on Individual Project - Organ Poster due 10.21.24         Week 7       Video Quiz: Immune System 3 (Chapter 21) [9th 44s]         Video Quiz: Immune System 4       Work on Individual Project - Organ Poster due 10.21.24         Work with group members on Group Project - Body Systems & Disease due 11.20.24       10.1         Week 7       Discussion Board 6: Respiratory Video Quiz: How the Respiratory System Works (Chapter 22) [5th 45]       10.1         Video Quiz: How Oxygen Travels through your Body (Chapter 22) [5th 10s]       10s]         QUIZ 2: Chapter 21 (Immune) & Chapter 22 (Respiratory) Opens 10.11.24 and Closes 10.12.23.       10.1         Work with group members on Group       Work on Individual Project - Organ Poster due 10.21.24	<u>Total Video Time:</u> 4 minutes		9
<ul> <li>Work with group members on Group Project - Body Systems &amp; Disease due 11.20.24</li> <li>Week 6</li> <li>Discussion Board 5: Immune/Lymphatic</li> <li>Video Quiz: Immune System 1 (Chapter 21) [9m 13s]</li> <li>Video Quiz: Immune System 2 (Chapter 21) [9m 44s]</li> <li>Video Quiz: Immune System 3 (Chapter 21) [9m 37s]</li> <li>Video Quiz: Immune System 3 (Chapter 21) [9m 37s]</li> <li>Work on Individual Project - Organ Poster due 10.21.24</li> <li>Work with group members on Group Project - Body Systems &amp; Disease due 11.20.24</li> <li>Week 7</li> <li>Discussion Board 6: Respiratory</li> <li>Video Quiz: How the Respiratory System Works (Chapter 22) [5m 4s]</li> <li>Video Quiz: How Oxygen Travels through your Body (Chapter 22) [5m 10s]</li> <li>QUIZ 2: Chapter 21 (Immune) &amp; Chapter 22 (Respiratory) Opens 10.11.24 and Closes 10.12.23.</li> <li>Work with group members on Group</li> </ul>	Sep 23 <sup>rd</sup> – 27 <sup>th</sup> ~Cardiovascular (Blood Vessels) <u>Total Video Time:</u>	<ul> <li>(Chapter 20) [9m 30s]</li> <li>QUIZ 1: Chapters 17 – 20 (Endocrine &amp; Cardiovascular) Opens 09.28.24 and Closes 09.29.24</li> <li>Work on Individual Project – Organ Poster</li> </ul>	• 09.27.24 r
Immune/LymphaticSep 30th - Oct 4thVideo Quiz: Immune System 1 (Chapter 21) [9m 13s]~Immune SystemVideo Quiz: Immune System 2 (Chapter 21) [9m 44s]Total Video Time: 30 minutesVideo Quiz: Immune System 3 (Chapter 21)[9m 37s]Work on Individual Project - Organ Poster due 10.21.24Work with group members on Group Project - Body Systems & Disease due 11.20.24Week 7 Oct 7th - 11thDiscussion Board 6: Respiratory System Works (Chapter 22) [5m 4s] Video Quiz: How Oxygen Travels through your Body (Chapter 22) [5m 10s]10.1Total Video Time: 11 minutesQUIZ 2: Chapter 21 (Immune) & Chapter 22 (Respiratory) Opens 10.11.24 and Closes 10.12.23.0.11.24Work with group members on Group Project - Discussion Board 6: Respiratory System Works (Chapter 22) [5m 10s]10.1	Tommores	<ul> <li>Work with group members on Group Project – Body Systems &amp; Disease due</li> </ul>	
Iotal Video Time: 30 minutes• Video Quiz: Immune System 3 (Chapter 21)[9m 37s] • Work on Individual Project – Organ Poster due 10.21.24 • Work with group members on Group Project – Body Systems & Disease due 11.20.24Week 7 Oct 7th – 11th • Video Quiz: How the Respiratory • Video Quiz: How the Respiratory System Works (Chapter 22) [5m 4s] • Video Quiz: How Oxygen Travels through your Body (Chapter 22) [5m 10s] • QUIZ 2: Chapter 21 (Immune) & Chapter 22 (Respiratory) Opens 10.11.24 and Closes 10.12.23. • Work with group members on Group		<ul> <li>Immune/Lymphatic</li> <li>Video Quiz: Immune System 1 (Chapter 21) [9m 13s]</li> </ul>	• 10.06.24
<ul> <li>Video Quiz: How the Respiratory System Works (Chapter 22) [5m 4s]</li> <li>Video Quiz: How Oxygen Travels through your Body (Chapter 22) [5m 10s]</li> <li>QUIZ 2: Chapter 21 (Immune) &amp; Chapter 22 (Respiratory) Opens 10.11.24 and Closes 10.12.23.</li> <li>Work on Individual Project - Organ Poster due 10.21.24</li> <li>Work with group members on Group</li> </ul>	Total Video Time:	<ul> <li>Video Quiz: Immune System 3 (Chapter 21)[9m 37s]</li> <li>Work on Individual Project – Organ Poster due 10.21.24</li> <li>Work with group members on Group Project – Body Systems &amp; Disease due</li> </ul>	r
11.20.24	Oct 7 <sup>th</sup> – 11 <sup>th</sup> ~Respiratory System <u>Total Video Time:</u>	<ul> <li>Video Quiz: How the Respiratory System Works (Chapter 22) [5m 4s]</li> <li>Video Quiz: How Oxygen Travels through your Body (Chapter 22) [5m 10s]</li> <li>QUIZ 2: Chapter 21 (Immune) &amp; Chapter 22 (Respiratory) Opens 10.11.24 and Closes 10.12.23.</li> <li>Work on Individual Project – Organ Poster due 10.21.24</li> <li>Work with group members on Group Project – Body Systems &amp; Disease due</li> </ul>	• 10.11.24
		<ul> <li>MIDTERM EXAM Opens 10.17.24 and Closes 10.18.24 (Chapters 17 – 22)</li> <li>DUE SOON → Individual Project – Organ</li> </ul>	• 10.18.24

~Midterm Exam	<ul> <li>Work with group members on Group Project – Body Systems &amp; Disease due 11.20.24</li> </ul>	
Week 9 Oct 21 <sup>st</sup> – 25 <sup>th</sup> ~Digestive System <u>Total Video Time:</u> 10 minutes	<ul> <li>Discussion Board 7: Digestive</li> <li>Video Quiz: Digestive (Chapter 23) [9m 38s]</li> <li>DUE: Individual Project – Organ Poster</li> <li>Work with group members on Group Project – Body Systems &amp; Disease due 11.20.24</li> </ul>	• 10.27.24
Week 10 Oct 28 <sup>th</sup> – Nov 1 <sup>st</sup> ~Digestive System ~Metabolism <u>Total Video Time:</u> 11 minutes	<ul> <li>Video Quiz: Metabolism &amp; Nutrition (Chapter 24) [10 m 33s]</li> <li>QUIZ 3: Chapter 23 (Digestive) &amp; Chapter 24 (Metabolism &amp; Nutrition) Opens 11.01.24 and Closes 11.02.24</li> <li>Work with group members on Group Project – Body Systems &amp; Disease due 11.10.23</li> </ul>	• 11.01.24
Week 11 Nov 4 <sup>th</sup> – 8 <sup>th</sup> ~Urinary System <u>Total Video Time:</u> 7 minutes	<ul> <li>Discussion 8: Post your poster and comment on two other posters</li> <li>Discussion 9: Urinary</li> <li>Video Quiz: Urinary System (Chapter 25) [6m 32 s]</li> <li>Due SOON → Work with group members on Group Project – Body Systems &amp; Disease due 11.10.23</li> </ul>	• 11.10.24
Week 12 Nov 11th – 15th ~Urinary System <u>Total Video Time:</u> 2 minutes	<ul> <li>Video Quiz: Fluids &amp; Electrolytes (Chapter 26) [1m 12s]</li> <li>QUIZ 4: Chapter 25 (Urinary) &amp; Chapter 26 (Fluids &amp; Electrolytes) Opens 11.115.24 and Closes 11.16.24</li> <li>DUE: Group Project – Body Systems &amp; Diseases</li> </ul>	• 11.15.24
Week 13 Nov 18 <sup>th</sup> – 22 <sup>nd</sup> ~Reproductive System ~Development ~Inheritance <u>Total Video Time:</u> 16 minutes	<ul> <li>Discussion 10: Reproductive</li> <li>Video Quiz: Reproductive (Chapter 27) [10m 45s]</li> <li>Video Quiz: The Surprising Effects of Pregnancy (Chapter 27) [5m 46s]</li> <li>Video Quiz: Development and Inheritance (Chapter 28)</li> </ul>	• 11.22.24

Week 14	QUIZ 5: Chapter 27 (Reproductive) &	11.20.24
Nov 25th - 26th	Chapter 28 (Development & Inheritance) Opens 11.19.24 and closes 11.20.24	
Thanksgiving Break Nov 27th – 29th	<ul> <li>Sleep, rest, relax</li> <li>Enjoy time with family and friends</li> <li>Netflix, etc.</li> <li>Exercise</li> </ul>	
	<ul> <li>Read a good book</li> </ul>	
	<ul> <li>Do something nice for someone</li> </ul>	
Week 15	Review for Final Exams	
	<ul> <li>Complete missing work</li> </ul>	
Dec $2^{nd} - 6^{th}$		
~Final Exam Review		
Week 16	FINAL EXAM Opens 12.09.24 and Closes	• 12.10.24
	12.10.24 @11:59 pm (Chapters 23 – 28)	
Dec 9 <sup>th</sup> - 11 <sup>th</sup>	You made it‼ Celebrate ©∙	
~Final Exam		