

BIOL 2302
Lecture Syllabus
Anatomy & Physiology II



Credit: 3 semester credit hours (3 hours lecture)

This class can be taken face-to-face or online.

Prerequisite/Co-requisite: Pre-requisite BIOL 2301. And have passed the Reading/Writing Sections of THEA or any other accepted test. **Co-requisite;** BIOL 2102

Course Description

Anatomy and Physiology II is the second part of a two-course 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. *This course is time-bound, structured, and completed totally online.*

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

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.

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

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|--------------------------------------|--|
| A. Endocrine System | 4. Blood Groups and compatibility |
| 1. Organs of the endocrine system | 5. Diseases |
| 2. Functions of the endocrine organs | C. Heart |
| 3. Hormones and target tissues | 1. Structure and function |
| 4. Endocrine disorders | 2. Blood flow through the heart |
| B. Blood | 3. Electrical conduction system and ECG interpretation |
| 1. Red Blood Cells | D. Circulatory System |
| 2. White Blood Cells | 1. 3 main types of blood vessels and characteristics of each |
| 3. Platelets and blood clotting | |

2. Learning the anatomy of the major arteries (anterior and posterior)
3. Learning the anatomy of the major veins (anterior and posterior)
- E. Lymphatic and Immune Systems
 1. Organs of the lymphatic system
 2. Functions of those organs
 3. Immunity and disease
- F. Respiratory System
 1. Structural anatomy
 2. Physiology
 3. Diseases
- G. Digestive System
 1. Organs and structures
 2. Functions of organs
3. Enzymes and the digestive process
4. Diseases
- H. Nutrition
 1. Proper nutrition (problems with N. American diet)
 2. Metabolism and Krebs's cycle
- I. Urinary System
 1. Structural anatomy
- J. Electrolytes and Fluid Balance
 1. Fluid
 2. Electrolyte balance
- K. Reproductive System
 1. Structural anatomy of both male and female
 2. Functions
 3. Meiosis

Grading Scale

90 – 100	= A
80 – 89	= B
70 – 79	= C
60 – 69	= D
0 – 59	= F

Course Evaluation

Final grades will be calculated according to the following criteria:

1. Mandatory Course Syllabus Exam	5%
2. Discussion Participation [10]	10%
3. Video Quizzes	10%
4. Chapter Quizzes (5)	20%
5. Exams Ch (17 – 21) Final Exam (Ch 22 – 28)	30%
6. Mandatory Group Project	20%
7. <u>Individual Project</u>	5%
	100%

Course 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. *This includes copying and pasting information.*

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.

Technical Requirements (for courses using Blackboard)

The latest technical requirements, including hardware, compatible browsers, operating systems, software, Java, etc. can be found online at:

[https://help.blackboard.com/en-](https://help.blackboard.com/en-us/Learn/9.1_2014_04/Student/015_Browser_Support/015_Browser_Support_Policy)

[us/Learn/9.1_2014_04/Student/015_Browser_Support/015_Browser_Support_Policy](https://help.blackboard.com/en-us/Learn/9.1_2014_04/Student/015_Browser_Support/015_Browser_Support_Policy) A

functional broadband internet connection, such as DSL, cable, or WiFi is necessary to maximize the use of the online technology and resources.

Disabilities Statement

The Americans with Disabilities Act of 1992 and Section 504 of the Rehabilitation Act of 1973 are federal anti-discrimination statutes that provide comprehensive civil rights for persons with disabilities. Among other things, these statutes require that all students with documented disabilities be guaranteed a learning environment that provides for reasonable accommodations for their disabilities. If you believe you have a disability requiring an accommodation, please contact the Special Populations Coordinator at (409) 880-1737 or visit the online resource:

<http://www.lit.edu/depts/stuserv/special/defaults.aspx>

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 or obtained in print upon request at the Student Services Office.

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.

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