

Rev 10/24/2018

Anatomy & Physiology II (BIOL 2302) Online



Credit: 3 semester credit hours (3 hours lecture)

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 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>

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

Text Book: *Human Anatomy & Physiology* by E. Marieb, 8th Edition (ISBN 9780805395693)

Recommended Workbook

1. *The Anatomy Assignment*, Level 2 "Revised Printing" is ISBN: 978-1-4652-5038-4 Author S. Lanoue. Kendall-Hunt, 2014
2. Computer internet access to class website: <http://lanoue.webstarts.com>
3. Complete an online orientation. Netiquette Core Rules assignment; <http://www.albion.com/netiquette/corerules.html>

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.

Formatted: Font: 14 pt, Bold

Formatted: Normal

Formatted: Font: 14 pt

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

BIOL 2302 Online
Course Syllabus
10/24/2018

- 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

- A 90 – 100
- B 80 – 89
- C 70 – 79
- D 60 – 69 , F-59 or less

Course Evaluation 2302

Final grades will be calculated according to the following criteria:

1. 2 major exams (a mid-term worth 30% covering Chapters 15-19 and a Final Exam worth 30%. total 60% (600 points)
 2. ***Group Current Event report(worth 10% (100 points)**
 3. Nutrition Anti-Cancer Paper (worth 10% (100 points)
 4. Discussion board participation – 1 per chapter (10 chapters total) at 10 points each for a total of or 10 % (100 points)
 5. 3 Quizzes averaged for a total of 10%. (100 points)
- TOTAL: 100% (1000 points)**

***GROUP CURRENT EVENT (COMMON ASSIGNMENT)**

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)

BIOL 2302 Online
Course Syllabus
10/24/2018

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

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.