



Anatomy & Physiology Lab II (Biol 2102)

Credit: 1 semester credit hour (1 hour lab)

Prerequisite/Co-requisite: Pre-requisite Biol 2101. And passed the Reading/Writing Sections of accepted entrance tests/ 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.

Required Textbook and Materials

1. *Human Anatomy & Physiology Laboratory Exercises, Level 2* by Stephanie Lanoue, ISBN 978-0-7575-7810-6
2. Regular (non-mechanical) #2 pencils – No PENS please
3. Calendar for recording assignment due dates, tests, projects, etc.
4. Small 0.5' - 1'' spine notebook with pocket (three ring for binding lab quizzes, laboratory exercises and extra notes)
5. 3-hole punch
6. Colored pencils
7. Digital or cell phone camera (access to a color printer)

Course Objectives

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

1. Know and identify the parts of the endocrine, circulatory, lymphatic, respiratory, digestive, urinary and reproductive systems.
2. Know and explain the physiology of the endocrine, circulatory, lymphatic, respiratory, digestive, urinary and reproductive systems.
3. Identify items important in nutrition and metabolism.

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
 - 1. Structures
 - 2. Functions
 - 3. Diagnose different diseases
- B. Blood
 - 1. Types of blood cells
 - 2. Solve a crime based on a blood type
- C. 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. 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. The Lymphatic & Immune Systems
 - 1. Structures
 - 2. Functions
 - 3. Diseases
- F. The Respiratory System
 - 1. Structures
 - 2. Functions
 - 3. Use a spirometer to measure your lung capacity
- G. The Digestive System
 - 1. Structures
 - 2. Functions
 - 3. Analyze a victim's last meal by running forensic tests
- H. Nutrition, Metabolism, and Body Temperature Regulation
 - 1. Current nutritional trends
 - 2. Problems
 - 3. Reading labels
- I. The Urinary System
 - 1. Structures
 - 2. Functions
 - 3. Diagnose what is wrong with various patient's by their urine samples
- J. Fluid, Electrolyte, and Acid-Base Balance
 - 1. Fluid balance
 - 2. Role of the brain
 - 3. Are all sports drinks the same
- K. The Reproductive System
 - 1. Structures

2. Functions

Grading Scale

- A 900 – 1000 points
- B 800 – 899 points
- C 700 – 799 points
- D 600 – 699 points
- F 599 points or less

Course Evaluation

Semester grades will be calculated according to the following criteria:

1. 5 quizzes given (drop one with the lowest grade) = 4 quizzes at 50 points each or 200 points possible. If you are absent for a quiz, it is automatically your dropped quiz. You may not miss more than 1 quiz per semester.
2. Mid-Term Practicum (hands-on comprehensive test) = 200 points- **REQUIRED ATTENDANCE** – you must take it on day specified (test is set up, you take it as a class and it then comes down). This grade cannot be dropped.
3. Completed Laboratory Notebook (all assigned laboratory exercises in the lab manual) = 200 points. This grade cannot be dropped. This grade represents your weekly work throughout the semester. And the lab manual will be turned in and graded at the end of the semester.
4. Final Exam Practicum (hands-on comprehensive test) = 200 points – **REQUIRED ATTENDANCE** – you must take it on day specified (test is set up, you take it as a class and it then comes down). Everyone takes the lab Final Exam. Sorry no exceptions from this test. And this grade cannot be dropped.
5. Common Assignment – 200 pts (required; Everyone must participate). This grade cannot be dropped.

TOTAL: 1000 possible points

Course Requirements

1. Five quizzes given with four grades recorded. 20% of grade (50 pts each)
2. Mid-Term worth 20% of grade
3. Completed Laboratory Notebook worth 20% of grade
4. Final Practicum worth 20% of grade
5. Group assignment worth 20% of grade

Everyone must take the Mid-Term and Final Exam (no exceptions)!

Course Policies

1. Cell phones may only be used as a camera in lab.
2. **No pens used in lab!** (We do not want pen marks on the models)

- 3. If you miss a lab you have 1 week to make it up.** After that, a zero will be assigned. So, get with your instructor right away – DO NOT WAIT!!!

NOTE: The Mid-Term and the Final are set up 'custom' (models out on tables with stickers) and are very time-consuming for instructors to set up. These tests have to be taken down by the instructors after they are administered because the lab has other students taking classes (not just Anatomy) and they need the table space. Therefore, it is advisable that you absolutely do not miss the Mid-Term or Final. You may not be allowed to make it up.

- 4. You Must Be Present to Take the Mid-Term and the Final. (this is non-negotiable because they are 'live', hands-on tests)**
- 5. Final Grade at Semester's End.** Final grades are non-negotiable. The grade you earn equals the grade you receive. (There are limited extra credit opportunities in this lab course).
- 6. Personal Disposition and Behavior in Class** – you are now in a higher education environment; your mature behavior is expected
- 7. Discipline Policy.** In the case of disruptive behavior, the instructor reserves the right to ask you to leave the classroom. The instructor also reserves the right not to allow you back in the class if you continue with further disruptive behavior.

Participate in class discussions when appropriate and indicate your desire to ask questions or make comments to the instructor/class by raising your hand.

- 8. No food or Drinks in Class.** Per LIT, no food or drinks in the Multi-Purpose Building classrooms.
- 9. Attendance Policy.** Roll will be taken weekly. Be sure to initial the roll each and every class period. NOTE: You are NOT allowed to initial/sign roll for another student.

Students with perfect attendance (**no absences whatsoever whether excused or unexcused**) will be awarded 10 points added to your semester average. *NOTE: This does not mean you can miss your regularly schedule class and catch another one of my classes at a different time! It means PERFECT attendance!*

You are expected to be present at class times. (*NOTE: Absences place you at an academic disadvantage because it is difficult to learn from just class notes*). Absences should be reserved for severe illness, hospitalization, and funerals. Especially with lab class, remember you only meet once a week so attendance is vital.

Class Arrival Time:

Please be prompt! You are expected to be in your seat, on time, when roll is taken. Do not make coming in late a habit or noticeable pattern. If you do find yourself in the position of arriving late due to unavoidable circumstances, enter the classroom with the **least** amount of disruption possible. Tardy is more than 10 minutes late.

Summary of Class Arrival Time

4 tardies = 1 absence.

IMPORTANT: On test days, the instructor reserves the right not to administer a test to a student who arrives more than 15 minutes late.

Class Departure Time:

You are required to stay until you finish each lab every week.

Do not ask to “leave class early” for doctor’s appointments, picking up children from day care/ school, etc. Pre-arrange for these things ahead of time. You are expected to be in class the entire time.

Missing Class:

If you miss a general class day, I typically do not need to know why.

However, it is your responsibility to obtain missed material and complete it within one week.

Missing Tests:

Both major tests (the mid-term and the Final) must be taken and not missed.

- 10. Drop/Add/Withdraw.** It is the student’s responsibility to make sure you are officially enrolled or dropped from this course. If at any point, you decide to drop the class, it is your responsibility to officially drop (i.e., using proper administrative offices/ paperwork). Any student who stops attending class and does not officially drop the course will be given an “F” as the semester grade.

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 her office located in the Cecil Beeson Building, room 116B.

Course Schedule (Tentative)

Course Syllabus
Spring 2018

Friday	Topic	Reference
Jan 19	Go over syllabus; Begin Lab 1 Endocrine Disorders	Lab manual & lecture notes
Jan 26	Continue Lab 1 Endocrine, complete pages 6 – 10 and 12-13	Lab manual
Feb 2	Quiz 1 (over Lab 1 Endocrine System) Complete Lab 2 -“Blood: Using CSI Techniques to Solve Crimes”	Lab manual
Feb 9	Lab 3 -“The Case of the Unhappy Heart”	Lab manual
Feb 16	Quiz 2 (over Lab 3 Heart) Lab 4-“Circulatory System: I’m Under Pressure!”	Lab manual
Feb 23	Quiz 3 (over Lab 4 Circulatory) Lab 5 -“Lymphatic System and New Diseases That Threaten Our Society”	Lab manual
March 2	Lab 6- “Respiratory System: Take a Deep Breath!”	Lab manual
March 9	Mid-Term Exam (over labs 1 – 6)	REQUIRED ATTENDANCE EVERYONE – NO ABSENCES
March 16	Spring Break	NO CLASS
March 23	Lab 7 Digestion Part 1 pages 83-86	Lab manual
March 30	HOLIDAY	NO CLASS

Course Syllabus
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April 6	Lab 7 continued, Part 2 Pages 87-93	Lab manual
April 13	Quiz 4 (over Lab 7 Digestion) Omit Lab 8. Begin Lab 9 Urinary	Lab manual
April 20	Finish Lab 9 Urinary & Complete Group Assignment over this lab topic	Lab manual
April 27	Quiz 5 (over Urinary). Omit Lab 10. Begin Lab 11 - Reproduction	Lab manual
May 4	Final Exam (over labs 7, 9 and 11) Lab Manuals Due	REQUIRED ATTENDANCE EVERYONE – NO ABSENCES
May 7 - 9	Finished with lab course	No more class

Contact Information

Instructor's Name: Ms. Stephanie Lanoue

Office Location: 204, D Multi-Purpose Center

Email: salanoue@lit.edu

Office Hours: Updated each semester