



## BIO 209 Anatomy & Physiology II

### Course Prerequisites

Anatomy and Physiology I

### Introduction

This is the second course in a two-course sequence that investigates the cells, tissues, organs, and organ systems of the human body. In this course, the focus is on the endocrine, cardiovascular, immune, respiratory, digestive, and urinary systems.

### Required Textbook

*Hole's Human Anatomy and Physiology*, 12<sup>th</sup> Edition, Shier, Butler, Lewis, McGraw Hill., Copyright 2009.

### Course Description

This is the second part of Human Anatomy & Physiology. We are going to study the fundamental building blocks of the human body structure, functions and some disorders using an organ system approach. We are going to focus on the endocrine, cardiovascular, immune, respiratory, urinary and digestive system and their interactions with each other. The laboratory portion of this course is integrated with the lecture portion and will reinforce many of the concepts presented in discussions and in the text. This will be accomplished through organ dissections, model studies and simulation labs.

We will also examine how certain malfunctions in these systems affect the delicate balance known as homeostasis and how the body compensates to maintain itself.

### Course Objectives

1. You will continue to explore the organ systems of the body, their structure and their function. Most importantly, you will learn how the interaction of these systems provides for the natural functional state of the body known as homeostasis. You will also see how disruptions to the function of one organ system may be compensated by other systems.

2. You will learn about the following organ systems:

- Endocrine System
- Cardiovascular System
- Immune System
- Respiratory System
- Urinary System
- Digestive System

3. You will also learn about the concept of water balance, electrolyte balance and Acid/Base balance and the implications of disturbances in these balances.

4. Unifying themes to explore:

- the necessary relationship between form and function in the body
- the importance of homeostasis
- the consequences of disturbances in homeostasis
- the mechanisms by which the body compensates for disturbances in homeostasis
- the great degree of interdependence among the organ systems of the body

**GRADING:**

- FOUR equally weighted exams 70%
- Lab assignments 20%
- Essay and presentation 10%
- Total 100%

Grade Conversion Scale:

Spanish Grade:	10	9.5-9.9	9-9.4	8.5-8.9	8-8.4	7.5-7.9	7-7.4	6.5-6.9	6-6.4	5.5-5.9	5-5.4	0-4.9
U.S. grade:	A+	A	A-	B+	B	B	B-	C+	C	C	C-	F

There will be no extra credit work to improve your grade.

Exams missed due to an excused (medical) absence must be made up within a week of returning to classes. It is each student's responsibility to be informed of exam dates, paper due dates, required course activities, etc. before making any travel plans during the semester.

**Student Expectations**

1. Show integrity and act in a professional and respectful manner at all times;
2. Attend each scheduled lecture and lab;
3. Write, speak, and articulate thoughts at a college level;
4. Students should be organized and prepared for each class;
5. Integrate large amounts of information into coherent thoughts and apply these thoughts to solve biological problems;
6. Learn information so that they can explain ideas in their own words;
7. Spend several hours studying outside of class times in order to be successful in this course.
8. Be organized before coming to the lab.

**Academic Honesty**

Academic Integrity is a guiding principle for all academic activity at Pablo de Olavide University. Cheating on exams and plagiarism (which includes copying from the Internet) are clear violations of academic honesty. A student is guilty of plagiarism when he or she presents another person's intellectual property as his or her own. Students committing acts of academic dishonesty shall be penalized by a failing grade for the assignment and a failing grade for the course.

## Semester schedule

	<b>Lecture</b>	<b>Lab</b>
	Endocrine System 1 (Ch 13)	
		Introduction. Hormones
	Endocrine System 2 (Ch 13)	
	Endocrine System 3 (Ch 13)	
		Blood
	Blood 1 (Ch 14)	
	Blood 2 (Ch 14)	
		No Lab
	Review	
	EXAM 1	
		Simulation of AP
	Cardiovascular System 1 (Ch 15)	
	Cardiovascular System 2 (Ch 15)	
		Heart Physiology
	Cardiovascular System 3 (Ch 15)	
	Cardiovascular System 4 (Ch 15)	
		ECG
	Lymphatic System & Inmunity (Ch 16)	
	Review	
		Lab Practical 1 (MIDTERM)
	EXAM 2	
	Respiratory System 1 (Ch 19)	
		Cardiov. effects of excercise
	Respiratory System 2 (Ch 19)	
	Respiratory System 3 (Ch 19)	
		Osmosis
	Renal System 1 (Ch 20)	
	Renal System 2 (Ch 20)	
		Kidney Anat. and Physiol.
	Review	
	EXAM 3	
		Digestive Anat. and Physiol.
	Fluid Elec 1 (Ch 21)	
	Fluid Elec 2 (Ch 21)	
		Lab review
	Metabolism 1 (Ch 18)	
	Metabolism 2 (Ch 18)	
		Lab Practical 2 (FINAL)
	Digestion 1 and 2 (Ch 17)	
	Review	
	EXAM 4	