

# BIOL 201: HUMAN PHYSIOLOGY

## Citrus College Course Outline of Record

Heading	Value
<b>Effective Term:</b>	Winter 2021
<b>Credits:</b>	4
<b>Total Contact Hours:</b>	108
<b>Lecture Hours :</b>	54
<b>Lab Hours:</b>	54
<b>Hours Arranged:</b>	0
<b>Outside of Class Hours:</b>	108
<b>Prerequisite:</b>	BIOL 200; CHEM 103 or CHEM 104 or CHEM 110 or CHEM 111 or CHEM 112.
<b>District General Education:</b>	B1. Natural Sciences - Life Sciences, B3. Natural Sciences - Laboratory
<b>Transferable to CSU:</b>	Yes
<b>Transferable to UC:</b>	Yes - Approved
<b>Grading Method:</b>	Standard Letter

## Catalog Course Description

An advanced course in human physiology emphasizing muscle, nerve, circulation, respiration, excretion, digestion, and reproduction systems. Required of pre-nursing students. 54 lecture hours, 54 lab hours.

## Course Objectives

- explain the dynamic mechanisms that make homeostasis possible
- describe the consequences of altered levels of function of the body systems
- describe the interrelationships that exist between the different body systems
- develop an understanding of how the human body is organized functionally to display the relationship of structure and function
- develop an understanding of the function of all of the body's systems to show the similarities and differences of how each system functions individually and with each other

## Major Course Content

1. Introduction to Physiology
2. Cell structure and function
3. Cellular metabolism
4. Cellular Neurobiology & Synaptic Transmission
5. Muscle Physiology
6. Special Senses
7. The Autonomic Nervous System
8. Immunology, Integumentary System

9. Cardiovascular Physiology
10. Respiratory Physiology
11. Gastrointestinal Physiology
12. Urinary Physiology
13. Reproductive Physiology
14. Endocrinology, Bone Metabolism, Thermoregulation

## Lab Content

1. Microscopy, Cell Structure, Histology, Homeostasis
2. Metabolism
3. Membrane Transport & Neurophysiology
4. Muscle Physiology
5. Special Senses
6. Blood Physiology
7. Cardiovascular Physiology: EKG & Blood Pressure
8. Respiratory Physiology
9. Digestive Physiology
10. Blood
11. Urinary Physiology

## Suggested Reading Other Than Required Textbook

Lab manual and research articles

## Examples of Required Writing Assignments

See attached file

## Examples of Outside Assignments

Answer discussion questions such as:

Outline the blood pressure regulation pathway Outline the skeletal muscle contraction pathway Outline the renin-angiotensin-ADH-aldosterone pathway Outline the female menstrual cycle Outline the visual transduction pathway Outline the pain pathway Outline synaptic transmission Outline the immune response

## Instruction Type(s)

Lecture, Lab, Online Education Lecture, Online Education Lab

## IGETC Area 5: Physical and Biological Sciences

5B. Biological Science, 5C. Science Laboratory