

## Human Anatomy and Physiology II - Spring, 2023

### **COURSE INFORMATION:**

Course Title: Human Anatomy and Physiology II

Course Number and Section: BSC 2086 - section 02

Credit hours: 03

Meeting times and location:

BSC 2086 - 02	Tues & Thurs	12:30-1:45	2-119
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Instructor: Bertha Freeman

Office location: 2-217H; Ocala campus

Telephone number: 352-854-2322 x1352

email: [freemanb@cf.edu](mailto:freemanb@cf.edu)

**Office hours:**

- Wednesday 8:30 am - 12:30 pm
- Wednesday 1:30 pm - 5:00 pm
- Thursday 8:00 am - 9:30 pm
- Friday 1:00 pm - 3:00 pm

### **EXTENDED EMERGENCY CLOSURE:**

For emergency campus closings (natural disasters, etc.) 352-291-4499 or 800-831-9244 or check our website [www.cf.edu](http://www.cf.edu).

### **COURSE DESCRIPTION:**

The sciences of anatomy and physiology are the foundation for understanding the structures and functions of the human body. We will look at how each structure of the body is designed to carry out a particular function and how the structure of a part often determines the functions it can perform. In this course you will examine: (a) how the body systems

relate to one another, and (b) the physiological processes responsible for maintaining homeostasis. This course is the second in a 2-semester sequence of course required for degrees in nursing, physical therapy, or other health-care related disciplines.

### **COURSE OBJECTIVES:**

- Examine how the body constantly regulates its internal environment (homeostasis).
- Discuss how the various systems that compose the human body cooperate with one another to maintain the health of the body as a whole.
- Compare pathological and non-pathological conditions as they relate to various systems.
- Establish a vocabulary that allows us to speak about the body in a way that is understood by scientists and health-care professionals.

### **COURSE OUTLINE**

Endocrine System

Cardiovascular System (Blood) and Lymphatic System

Cardiovascular System (Heart and Blood Vessels)

Reproductive System and Development/Inheritance

Respiratory System

Digestive System and Metabolism

Urinary System & Electrolyte/Acid-base Balance

### **REQUIRED TEXT:**

Title: Fundamentals of Anatomy and Physiology

Authors: Frederic Martini, Judi Nath, and Edwin Bartholomew

Edition: 11th

ISBN: 9780134810423

### **LEARNING OUTCOMES:**

**Communication: the student will read, write, speak, and listen effectively.**

1. Read materials and effectively understand essential facts and concepts.
2. Listen actively to comprehend main ideas and essential details.
3. Express clear, well-organized ideas through oral and written communication.

**Quantitative and Analytical Reasoning: the student will understand and apply mathematical and scientific principles/methods.**

1. Interpret and communicate understanding of visual presentation of data.
2. Demonstrate mathematical number and unit sense.

**Computer and information Skills: the student will be able to evaluate the importance of technology and its application.**

1. Organize data or information using appropriate electronic media.
2. Access, research, and retrieve information using the internet.
3. Communicate with others using electronic media.

## **ASSESSMENT:**

**Final course grade = 70% Tests; 30% Homework/Quizzes**

Absences may adversely affect your performance and result in lost points due to missed homework deadlines and quizzes. Late assignments will be accepted with a penalty assessed (reduction in earned score on assignment).

The instructor does not give you a grade. He/she awards you the grade you earn. Discussion of your grade will only take place in the instructor's office. Tests, once graded and reviewed in class, will be returned to the instructor and filed. Homework assignments will be returned to the student. **It is your responsibility to keep them.** Should you feel that the final grade assigned to you is in error, you will need to bring in these assignments so we can check to see if an error was made when recording the scores or adding up points. Without this documentation, the recorded grades will be assumed to be correct.

Grades will be posted in Canvas, so you can check that they are recorded correctly, if you are missing any scores, and how you are progressing in the class. The grade in Canvas is not your final grade.

## **Your final grade will be calculated based on 1000 points**

### Grading Scale

A	Excellent	900-1000 points
B+	Very good	870-899 points
B	Good	800-869 points
C+	High average	770-799 points
C	Average	700-769 points
D	Poor	600-699 points
F	Failure	0-599 points

## **ATTENDANCE**

Attendance is of utmost importance in this and any other science course. From past experience, there seems to be a high correlation between a student's class attendance and his/her performance on tests

Documentation of student absences will begin the first day of class. When a student has a legitimate reason for being absent, the instructor has the option of permitting the student to make up the work. While you do not need to disclose personal details, let your professor know as soon as possible if something is preventing you from participating or completing work. Make up work must be submitted within one week of the original assignment due date unless an emergency prohibits it. Assignments received more than 10 days from the due date will receive a maximum of 70% of the earned points.

## **CLASS POLICIES AND ANNOUNCEMENTS:**

- Students who decide to drop the course must go to Enrollment Services to make arrangements. I am not responsible for doing this for you. Do not just stop participating in the class.
- A student will not be given an I (incomplete) or W (withdrawal) to avoid receiving an "F" in the class.
- Cell phones should be set on vibration during class. Please do not make calls or have family/friends call you (except in an emergency). All conversations should be conducted in the hallway.
- Cell phones may be used during class to access class material in Canvas.
- Students must furnish their own scantron sheets and #2 pencil for tests.
- Students need a set of colored pencils for diagrams used in class.
- Put your name (first and last) and course/section on back of the assignment (upper left corner).
- All assignments (except for tests) must be completed in ink (blue or black only). Five points will be deducted from the earned score for assignments submitted in pencil or other color ink.
- Do not abbreviate any responses (words) in homework assignments.
- Do not use arrows to switch answers. Mark through incorrect response and write correct one above it or attach additional pages if necessary.
- Makeup work (for excused absences) must be completed (or arrangements made) within 10 days of the date the assignment was due to receive full credit.
- Late assignments will be accepted with a penalty assessed - minus 10 points from earned score. Assignments received more than 10 days after the due date will receive a maximum of 70% credit.

## **IMPORTANT DATES:**

- January 9 (M) - Classes begin

- January 16 (M) MLK Holiday Holiday (college closed)
- February 14 (T) - Faculty Professional Development Day; no classes
- March 13-19 (M-Su) - Spring Break
- April 28 (F) - Classes end
- April 28-May 4 (F-Th) - Exam week

## **TENTATIVE LECTURE AND TEST SCHEDULE:**

Due to unforeseen happenings, it may be necessary for the course assignment schedule to be altered. The instructor will always strive to be fair about any changes.

### **Chapter 18 - Endocrine System**

- Introduction to Endocrine System (pp 611-618);
- Endocrine Glands - (pp 619-646): pituitary, thyroid, parathyroid, adrenals, pancreas, thymus, pineal
- GAS (pp 648-649)

### **Test - Chapter 18 (Endocrine System)**

### **Chapter 19 - Blood**

- Composition of blood (pp 657-666, pp 670-683)
- Blood Typing and Transfusions (pp 666-670, pp672-673)
- Genetics of ABO Blood groups

### **Chapter 22 - Lymphatic System**

- Lymphatic System and Immunity (pp 786-797)

### **Test - Chapter 19 and 22 (Blood and Lymph)**

### **Chapter 20 - Heart**

- Heart Anatomy (pp 686-697)
- Heart Physiology (pp 697-722) - Conduction System, ECG, Cardiac Cycle, Cardiac Output, CHF

### **Chapter 21 - Blood Vessels and Circulation**

- Blood Vessels and capillary Exchange
- Circulatory Plan - Systemic arterial and venous blood flow

### **Test - Chapter 20 and 21 (Heart and Blood Vessels)**

### **Chapter 28 - Reproductive System and Chapter 29 - Inheritance**

- Male and Female Reproductive Systems
- Inheritance (genetic disorders)

### **Test - Chapter 28 and 29 (Reproduction and Inheritance); take home**

### **Chapter 23 - Respiratory System**

- Anatomy of Respiratory System (pp 835-850)
- Respiratory system Physiology - External and internal respiration, Oxygen and carbon dioxide transport, Gas laws, Respiratory disorders (pp 851-868)
- Respiratory System - Spirometry

### **Test - Chapter 23 (Respiratory System)**

### **Chapter 24 - Digestive System**

- Digestive System Anatomy
- Chemical Digestion (pp 885-926)

### **Chapter 25 - Metabolism**

- Glycolysis, Krebs Cycle. and Electron Transport System

### **Test - Chapter 24 and 25 (Digestion and Metabolism); take home**

### **Chapter 26 - Urinary System (pp 977-990)**

- Urinary System Anatomy
- Urinary system physiology and Urinalysis

**Chapter 27 - Fluid, Electrolyte, and Acid-base Balance**

- Acids and Bases (pp 1036-1050)
- Acidosis and Alkalosis
- Electrolytes

**Test - Chapter 26 and 27 (Urinary System, pH Balance, Electrolytes)**

- BSC 2086-02      Thursday ,May 4      12:30 pm