



## Human Biology and Anatomy 5-6 Syllabus

### Course Goals

#### 1 Anatomy

Students learn about the roles of our organ systems and about their substituent organs.

### Course Topics

#### 1 Terminology of Anatomy

Students learn the vocabulary used to describe parts and areas of a body.

#### 2 Musculoskeletal System

Students learn about the function and composition of muscles and bones.

#### 3 Nervous System

Students learn about the components of the nervous system, including the brain.

#### 4 Cardiovascular System

Students learn about the components of the cardiovascular system, including the heart.

#### 5 Respiratory System

Students learn about how we breathe and the organs involved.

#### 6 Sensory System

Students learn about the function and components of our eyes, ears, nose, and mouth.

#### 7 Immune System

Students learn about the components of the immune system and how it helps to fight disease.

#### 8 Gastrointestinal System

Students learn about how food is digested, absorbed, and used in the body.

#### 9 Medical Simulations

Students learn how to identify which body system(s) are affected based on a trauma case.

### Course Schedule

#### Day 1

##### Intro to Course

Students introduced to the instructor and to the material they will learn throughout the course.

##### Anatomic Terms

Students become familiar with the terms used to describe organ placements.

## **Tissue**

Students learn about different types of tissue that can be found in the body.

## **Anatomy Activity**

Students apply the knowledge they've gained about anatomic terms and tissue.

## **Cut-Outs**

Students create cutouts of their bodies to use in future activities.

## **Day 2**

### **Muscular System**

Students discover how muscles work and begin to memorize important ones.

### **Skeletal System**

Students discuss the function of our skeleton and learn important bones.

### **Skeletal System Crossword**

Students complete an activity to further their understanding of the skeletal system.

### **Bone and Muscle Placement**

Students add bone and muscle cutouts to the cutouts of their bodies.

## **Day 3**

### **Nervous System Overview**

Students learn about the structure of a neuron and about the central nervous system.

### **Peripheral Nervous System**

Students learn about the peripheral nervous system and its subset, the autonomic nervous system.

### **Reflexes**

Students complete various demonstrations of reflexes.

### **Nervous System Recap**

Students complete an activity to review what they have learned about the nervous system.

### **Nerve Placement**

Students add cutouts of nervous system components to the cutouts of their bodies.

## **Day 4**

### **The Heart**

Students learn how the heart moves blood throughout the body.

### **Blood**

Students learn how blood travels through the body.

### **Respiratory System**

Students discover how air flows and how lungs provide oxygen to blood.

### **Circulo-Respiratory Placement**

Students add cutouts of circulatory and respiratory system components to the cutouts of their bodies.

## **Day 5**

### **Review**

Students review the information they have learned throughout the course thus far.

### **Medical Simulations**

Students analyze medical situations to arrive at a diagnosis and method of treatment.

## **Day 6**

### **Sensory System**

Students learn how each of the sensory organs functions.

### **Blind Spot and Depth Perception**

Students discover their blind spots and how the eyes perceive depth.

### **Sensory Placement**

Students add sensory organs to the cutouts of their bodies.

### **Immune System**

Students learn the components of the immune system.

## **Day 7**

### **Gastrointestinal System**

Students learn about the organs that make up the gastrointestinal system and their functions.

### **Gastrointestinal System Activities**

Students participate in various activities to solidify their understanding of the GI system.

## **Day 8**

### **Nutrition and Metabolism**

Students review what they have learned about the digestive organs and learn how food is metabolized to provide nutrients.

### **Urinary System**

Students learn about the organs of the urinary system and how they work.

## **Day 9**

### **Review**

Students review the information they have learned throughout the course thus far.

### **Medical Simulations**

Students analyze medical situations to arrive at a diagnosis and method of treatment.

## **Day 10**

### **Final Project**

Students write a story that utilizes their knowledge of the organ systems discussed in the course.

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