



# Anatomy

2025-2026

Instructor: Bridget Upton

## Contact Information

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Google Classroom code: grbfahe5

## Course Overview

In Anatomy, students conduct laboratory and field investigations, use scientific practices during investigations, and make informed decisions using critical thinking and scientific problem solving. Students study a variety of topics that include characteristics of all the body systems, anatomy and physiology, and technological applications in medicine. Students will investigate how anatomy is an integral part of our daily lives.

## Classroom Rules

- Be on time, on task & prepare to learn EVERYDAY
- Respect the teacher, the classroom, other students & yourself
- Be responsible for your own learning
- Clean up after yourself & your peers
- **Keep all personal electronics PUT AWAY along with smart watches, headphones, ipads, etc. They are not allowed out during school hours.**

## Materials Needed for Class

- Folder
- Pen/pencil
- Color pen/pencil, highlighters, glue stick/tape, scissors
- Google password
- Tissues
- Hand Sanitizers
- Hot glue sticks
- Note cards

## Make up work

Class resources and assignments will be updated daily on the Google Classroom page for the class. If you are absent for any reason, you will be responsible for checking

Google Classroom to make up what is missed in class that day, or you are responsible for coming to me and asking for make-up work. I WILL NOT REMIND YOU.

### **Grading**

<b>Daily (30%)</b>	<b>Test (35%)</b>	<b>Project (35%)</b>
Notebook checks including “do now’s”, “exit tickets”, notes, and in-class activities.	After each unit. Questions will include multiple-choice, short answer, and essay	Lab write-ups
Practice problems		Projects (one per unit)
Online quizzes		

### **Other requirements**

**a. Food and Drinks** – NO FOOD OR FLAVORED DRINKS are allowed in the classroom or lab. I WILL ALLOW PRE-BOTTLED WATER (clean clear water) IN THE CLASSROOM ONLY. NO CUPS OR GLASSES! This is a school wide rule!!!!!!!!!!!!!!

**b. Group work** – We will be working in groups. The groups may vary in size and may be different each time. Groups will be assigned. Do not complain about the people in your group. You will receive consequences for rude outbursts about students. I expect each member of the group to work hard and work well with each other. Work quietly so that everyone can concentrate on the task at hand.

**c. Cell phones/electronic devices** – Cell phones, cassette tapes, and other electronic devices are NOT allowed out. If a cell phone goes off in class, or an electronic device such as headphones, ipads, smart watches there will be consequences. SEE HANDBOOK FOR RULES

**d. Cheating** – Don’t be a cheater! All involved will be given a grade of 0, and your parents will be contacted. THIS ALSO INCLUDES COPYING ANOTHER STUDENT’S HOMEWORK. Other consequences may apply. I will document the situation.

**f. Attitude** – In this class we will keep a positive attitude. I will not allow insults on other students, cursing, talking back to me, complaining about assignments or tests, (complaining will get you more work), and talking when you should be working. YOU WILL treat others as you want to be treated. We will become a classroom family that respects, helps and cares about one another.

**g. Problems** - If you have problems with another student or with me, then ask for an outside the door conference. I WILL NOT allow loud verbal outbursts in front of

any class of students. If you are sick or having a bad day, then let me know and we will make arrangements for you that day!!! ALWAYS have respect for others!!!!

### **5. Ms./Coach Upton Grades Guarantee:**

You have full control over your success. I will not alter any grade based on request or proximity to a desired level. Every decision you make throughout the year will lead to a predictable outcome with criteria that is consistent for every student.

### **6. Consequences: Discipline Plan**

The discipline procedure for violations of classroom rules is given below:

- Offense #1 Conference with student
- Offense #2 Phone call to parent
- Offense #3 Student will be assigned to detention
- Offense #4 Referral to administrator

Students may be referred directly to an administrator for offenses such as fighting, dress code violations, possession of drugs or weapons, use of profanity, disrupting class learning, disrespect to teachers or other students, and other behavior that is detrimental to the learning environment of the classroom. If you receive three demerits in class you will have three days of lunch D-hall.

### **7. Student Rewards:**

Extra visit time at the end of the week or day.

### **8. Grades**

- a. Your grades will be entered under three headings, daily grades (30%), test (30%), and projects and lab grades (40%). Parents are able to access your grades at all times. **If there is a “5” in the grade book it means the assignment is missing and there is still time to turn it in.**  
**If there is a “0” then time has passed for you to turn in the assignment.**

## Course Schedule

### 1st Six Weeks

#### Unit 01: Human Body Organization

TEKS: AP21.2.A, AP21.3.A, AP21.5.C, AP21.6.A, AP21.6.B, AP21.6C, AP21.6.D, AP21.6.E

- This unit bundles student expectations that address the foundational concepts of an Anatomy and Physiology course. Students will distinguish between the six levels of organization in the human body, identify and describe the major characteristics of living organisms, and identify and use appropriate anatomical terminology to describe the organization of the human body. Finally, students will research and describe how homeostasis is maintained and the effects of not maintaining homeostasis on the human body.

#### Unit 02: Histology

TEKS: AP21.2.D, AP21.7.A, AP21.7.B, AP21.7.C

- This unit bundles student expectations that focus on the topic of histology, or the study of tissues. Students will define tissue and the four primary tissue types, compare epithelial tissue with connective tissue, and describe the process of tissue repair.

#### Unit 03: The Integumentary System

TEKS: AP21.2.B, AP21.4.B, AP21.9.A, AP21.9.B, AP21.9.C, AP21.9.D

- This unit bundles student expectations that focus on the integumentary system. Students will identify and describe the structures of the integumentary system, describe factors that influence skin color, explain the process of tissue repair, and describe common diseases and disorders of the integumentary system.

### 2nd Six Weeks

#### Unit 04: The Skeletal System

TEKS: AP21.2G, AP21.8.A, AP21.8.B, AP21.8.C, AP21.8.D, AP21.8.E, AP21.8.F, AP21.8.G

- This unit bundles student expectations that focus on the skeletal system. Students will explain the functions of the skeletal system, differentiate between the axial and appendicular skeleton, locate the anatomy of spongy and compact bone, describe the cells involved in bone growth and repair, describe the types and movements of joints, describe different types of fractures, and describe common diseases and disorders of the skeletal system.

#### Unit 05: The Muscular System

TEKS: AP21.4.B, AP21.10.A, AP21.10.B, AP21.10.C, AP21.10.D, AP21.10.E, AP21.10.F, AP21.10.G, AP21.10.H, AP21.10.I

- This unit bundles student expectations that focus on the muscular system. Students will explain the major functions of the muscular system, examine common characteristics of muscle tissue, and analyze the effects of pressure, movement, torque, tension, and elasticity on the human body. From there, students will describe the appearance, innervation, and function of the three muscle types, examine the microscopic anatomy of a muscle fiber, and describe the mechanisms of muscle contraction at the neuromuscular junction. Students will then name, locate, and describe the action of major voluntary muscles; explain the coordination of muscles, bones, and joints that allow movement; and describe common diseases and disorders of the muscular system.

#### Unit 06: The Nervous System

TEKS: AP21.2.G, AP21.5.A, AP21.11.A, AP21.11.E, AP21.11.F, AP21.11.G, AP21.11.H, AP21.11.I, AP21.11.J

- This unit bundles student expectations that focus on the nervous system. Students will summarize and distinguish the major functions of the nervous system, identify the anatomical and physiological divisions of the peripheral and central nervous systems, and explain the role of glial cells within these two divisions. Students will then analyze differences between grey and white matter relative to neurons, distinguish between the types of neurons, explain the initiation of a nerve impulse, and categorize the major neurotransmitters. To finish this unit, students will identify and describe common diseases and disorders of the nervous system.

### 3rd Six Weeks

#### Unit 06: The Nervous System

TEKS: AP21.2.G, AP21.5.A, AP21.11.A, AP21.11.E, AP21.11.F, AP21.11.G, AP21.11.H, AP21.11.I, AP21.11.J

- This unit bundles student expectations that focus on the nervous system. Students will summarize and distinguish the major functions of the nervous system, identify the anatomical and physiological divisions of the peripheral and central nervous systems, and explain the role of glial cells within these two divisions. Students will then analyze differences between grey and white matter relative to neurons, distinguish between the types of neurons, explain the initiation of a nerve impulse, and categorize the major neurotransmitters. To finish this unit, students will identify and describe common diseases and disorders of the nervous system.

#### Unit 07: Sensory Function

TEKS: AP21.2.C, AP21.3.A, AP21.11.B, AP21.11.C, AP21.11.D

- This unit bundles student expectations that focus on sensory function. Students will identify the senses and explain their relationship to the nervous system, describe the anatomy of the structures associated with the senses, and investigate and explain the interdependence between the cranial and spinal nerves with the special senses of vision, hearing, smell, and taste.

#### Unit 08: Endocrine System

TEKS: AP21.2.G, AP21.21.A, AP21.12.B, AP21.12.C, AP21.12.D, AP21.12.E, AP21.12.F

- Unit bundles student expectations that focus on the endocrine system. Students will compare and contrast endocrine and exocrine glands. Additionally, they will identify the glands associated with each, identify and locate the nine glands associated with the endocrine system, and describe the hormones associated with each endocrine gland. Next, students will explain how the endocrine glands are regulated, research the impact of the endocrine system on homeostatic mechanisms and other body systems, and describe common diseases and disorders of the endocrine system.

### 4th Six Weeks

#### Unit 09: The Lymphatic System

TEKS: AP21.2.F, AP21.15.A, AP21.15.B, AP21.15.C, AP21.15.D, AP21.15.E, AP21.15.F, AP21.15.G

- This unit bundles student expectations that focus on the lymphatic system and immunity. Students will evaluate the interaction of the lymphatic system with other body systems, describe the structure and function of the lymphatic organs, and explain how lymph moves through the body. They will then describe the general role of antigens and antibodies in the immune response, describe the role and function of the immune cells within the lymphatic system structures, and determine antigens associated with ABO blood typing. To conclude the unit, students will summarize ways the body protects against disease and describe common diseases and disorders associated with the lymphatic and immune systems.

#### Unit 10: Cardiovascular System

TEKS: AP21.2.E, AP21.3.B, AP21.4.B, AP21.14.A, AP21.14.B, AP21.14.C, AP21.14.D, AP21.14.E, AP21.14.F, AP21.14.G, AP21.14.H

This unit bundles student expectations that focus on the cardiovascular system. Students will identify the major functions of the cardiovascular system and compare and contrast anatomical structures. Students will then compare and contrast types of circulation, describe the major vessels of each type, and investigate the transport of substances. Next, students will illustrate how the PQRST waves of an electrocardiogram (EKG) demonstrate the conduction of electricity through the structures of the heart. Students will then describe the relationship between blood flow and blood pressure in addition to the relationship between the cardiovascular system, nervous system, and muscular system in regulating cardiac output. To conclude this unit, students will identify and describe common diseases and disorders of the cardiovascular system.

## 5th Six Weeks

### Unit 11: Respiratory System

TEKS: AP21.2.B, AP21.2.H, AP21.3.C, AP21.4.A, AP21.17.A, AP21.17.B, AP21.17.C, AP21.17.D, AP21.17.E, AP21.17.F

This unit bundles student expectations that focus on the respiratory system. Students will identify and sequence the anatomical structures and functions of the respiratory system and compare the functions of the upper and lower respiratory tract. Students will then describe the physiology of respiration and the relationship between the respiratory and cardiovascular systems during pulmonary circulation. Next, students will investigate factors that affect respiration and identify and describe common diseases and disorders of the respiratory system.

### Unit 12: The Digestive System, Nutrition, and Metabolism

TEKS: AP21.2.C, AP21.4.C, AP21.7.D, AP21.16.A, AP21.16.B, AP21.16.C, AP21.16.D

This unit bundles student expectations that focus on the digestive system, nutrition, and metabolism. Students will examine the anatomical structures and function of the digestive system and compare the mechanical and chemical digestive processes that occur within these structures. Students will then evaluate the modes by which energy is processed and stored within the body. Additionally, students will describe general metabolic pathways and common diseases and disorders of the digestive system.

## 6th Six Weeks

### Unit 13: The Urinary System

TEKS: AP21.2.B, AP21.3.D, AP21.4.A, AP21.13.A, AP21.13.B, AP21.13.C, AP21.13.D, AP21.13.E, AP21.13.F, AP21.13.G

This unit bundles student expectations that focus on the urinary system and fluid balance. Students will describe the anatomical structures and functions of the male and female urinary systems and summarize and illustrate the structures, functions, and types of nephrons. They will also analyze urine composition and the process of urine formation, examine fluid balance homeostasis, describe the relationship between the body systems that regulate micturition, and describe common diseases and disorders of the urinary system.

### Unit 14: The Reproductive System, Pregnancy, Growth, and Development

TEKS: AP21.2.A, AP21.2.F, AP21.18.A, AP21.18.B, AP21.18.C, AP21.18.D, AP21.18.E, AP21.18.F

This unit bundles student expectations that focus on the reproductive system. Students will describe and examine the location, structure, and functions of the internal and external female and male reproductive organs and accessory glands. They will also research the physiological effects of hormones on the stages of the menstrual cycle; distinguish the hormones involved in maturation and development throughout the life cycle; compare the process of oogenesis and spermatogenesis; explain the embryological development of cells, tissues, organs, and systems; and describe common diseases and disorders of the reproductive system.

### Unit 15: Regional Applications in Medicine

TEKS: AP21.1.A, AP21.1.B, AP21.1.C, AP21.4.C, AP21.5.A, AP21.5.B, AP21.5.C, AP21.19.A, AP21.19.B

This unit bundles student expectations that focus on identifying emerging technological advances in science and healthcare treatment. Students will research and describe advances in science and medicine at the cellular level, such as stem cells and gene therapy. They will also research and discuss advances at the organ and tissue level, such as bionics and wearable monitoring technologies. Additionally, students will demonstrate mastery of professional standards and employability skills required in health professions.

Dear Parent,

I am happy to have your child in anatomy this year, and I am excited about all that they will learn and experience!

I read and understand what anatomy and physiology will be like with Coach Upton.

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Student Name

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Parent signature

Date

If you have any questions you may contact me at **uptonb@hooksisd.net**. Please list below the best way to contact you if necessary. Thank you!