

Franklin Community High School

Course Description Guide for Anatomy and Physiology

CONTACT INFORMATION:

Andi Ferris ferrisa@fcsc.k12.in.us 317/346-8117 <http://www2.fcsonline.org/staff/ferrisa>

TEACHER'S PHILOSOPHY:

My educational philosophy parallels that of the school corporation and high school. "Provide all students with a well-defined curriculum and a broad-based program of instruction and a nurturing environment that will ensure the opportunity to acquire and apply the knowledge, skills, and values necessary to become life-long learners and responsible contributors to society." This is the mission of our school corporation. The belief statements of the high school state that students learn at different rates and in different ways, that students who are actively engaged in learning will learn more effectively than students who are given information, and that students who develop a positive relationship with at least one adult in the school are more likely to stay in school.

My purpose as an educator is to provide required and needed knowledge to the student while simultaneously developing problem solving and critical thinking skills, as well as expanding on the individual student's ability to learn and benefit them as they live in society. I truly believe that the students are going to learn at different rates, and better with different styles. Varying my lessons daily ensures that all students are actively engaged. By modifying lessons to connect to the students I teach, I believe that I will also forge strong relationships with my students. This should help them to be more confident and have a better possibility to achieve both inside and outside of the classroom.

COURSE DESCRIPTION:

Welcome to Anatomy and Physiology! This is an advanced biology course. Since you are taking an advanced course, I will expect much from you. By taking advanced courses, you are preparing yourself for college. This class will be taught on a college prep level.

In this course, you will learn about the structure and function of the human body. Since we are incredibly complex creatures, this is no easy feat. You should spend at least one hour studying outside of class for each hour you spend in class. You will be learning A LOT of difficult medical terminology. You will learn the entire skeletal system, muscular system, etc... This class isn't easy, but I PROMISE it will be interesting. How could the human body be anything other than interesting?

We will be doing many labs this year, including some dissections. You need to choose a lab partner for the semester. This person will be your partner for every lab, so choose carefully! I expect excellent behavior during labs. There will be absolutely no horseplay allowed. I hope you enjoy your experience in this class and take pride in what you achieve.

COURSE GOALS:

Upon completion of Anatomy and Physiology, students will be able to:

1. Follow laboratory procedures and maintain safe lab environment.
2. Articulate and correctly use anatomical terminology on a daily basis
3. Locate and correctly identify all of the anatomical regions of the human body
4. State the function and describe the structure of the parts within each system in the human body
5. Compare and contrast the similarities and differences of the human body with those of dissection specimens

COURSE TEXT(S):

Human Anatomy & Physiology, Sixth Edition, Pearson

IN CASE OF AN ABSENCE:

Make-Up Work... You will have one class period to complete work missed when absent. It is your responsibility to find someone in class you can depend on to copy the notes you missed when you are absent. You are responsible for getting the work you missed, which you will find in the make up work binder or on the website. Tests must be made up during the first possible study table after the absence, on the next available Wednesday morning or Wednesday Coach, or during your normal study hall the day you return to school following the absence; which ever comes first. If you fail to make up the test, it will become a 0 at that point.

REQUIRED CLASSROOM SUPPLIES:

1. Textbook
2. Loose leaf paper or notebook
3. Pencil or pen (black or blue)
4. A set of colored pencils
5. Folder or Binder (specifically for A & P ONLY...Every student is responsible for keeping a folder containing all of the papers and notes that are given in class as well as those graded and returned. Periodically these may be graded. Past assignments may also be needed for future reference, and used as study guides for midterm and final exams.)

COURSE CONTENT OUTLINE:

See Curriculum Guide attached.

MAJOR PROJECTS TO BE COMPLETED IN THIS COURSE:

We will be constructing a full scale model of the human skeleton during the 2nd 9 weeks. The assignment will start with the skeletal system lectures and continue through the unit. You will work on the model as we progress with each bone, until its completion due before winter break. Most of the other projects will be directly related to dissection or in class labs; therefore, time will be given in class for their completion.

GRADING FORMAT:

Tests, Quizzes, Labs and Activities (80/90%)	A	90-100%	D	60-69%
Homework (10-20%)	B	80-89%	F	Below 59%
	C	70-79%		

RE-TAKE PROCEDURES:

If all homework and assignments are completed (graded and non-graded) and remediation assignment is completed, you may choose to retake a test. This must be done within five school days of getting the initial test back. Once you have turned in your remediation assignment and made arrangements with me, you may retake the test.

LATE WORK POLICY:

HOMEWORK... Turn your work in! If you forget an assignment, you will have **ONE** opportunity to claim "I am human" to finish and turn in the assignment with no academic penalty. After the one exemption any other work turned in one day late will only be worth 90% of the value (10% off). After one day late I will not accept late work under any other circumstances.

PARTICIPATION POLICY:

It is important in a laboratory based course to participate in all activities. If a student is consistently disrupting class or not participating in activities, disciplinary action will be taken. Although there is no grade directly tied to participation, it is directly reflected in the grade of the lab itself (not completing the lab results in a zero for the lab).

As for lecture... participate in class discussions...if not, class could get really boring!

FCHS/FCMS WRITING EXPECTATIONS:

The following writing expectations are to be implemented in all classrooms and are not subject to change.

7th, 8th, and Freshmen Expectations

Capitalize "I" always

No text language

Include end punctuation

Indent paragraphs

Capitalize sentences

Capitalize ALL proper nouns (including your name!)

Sophomore-Senior Expectations

All freshmen expectations plus...the following weak words are not acceptable in any writing:

a lot, fun, got, stuff, thing

No assignment will be accepted that violates the given rules of that grade level. "VWE" (violates writing expectations) will be written on the assignment and a zero will be recorded in the grade book until corrections are made and the assignment is resubmitted to the teacher. Students will have until the next class period to resubmit assignment. Penalties will be assigned based on grade-level teacher policies.

Help/Study Groups

Don't allow yourself to get lost! I am here to help you. I usually arrive at school by about 7:00 AM. I also am usually here after school until 4:00 PM. Study groups will be available upon request. You are welcome to come to me for help, as well as meet with other students for help or to study together.

Seating

Students will be assigned seats. Exceptions will be made for anyone having difficulty seeing the overhead screen or board as well as those with difficulty hearing instruction. I reserve the right to move any student at any time based on his/her behavior in class. You may adjust your chairs, but after the bell rings it must remain at the current position. You must remain in your seats until the bell rings. Lining up at the door is unacceptable.

Class Rules

1. Conduct yourself in a manner that is courteous and respectful at all times. The rules of conduct for this class are intended to provide a safe and pleasant learning environment.
2. Use classroom and lab materials properly with high regard to safety.
3. No food or drinks will be permitted in the classroom. Water is permitted in a see-through container only.
4. Restroom stops should be made during the student's passing time. Do not ask to go to the bathroom right after or before the bell rings. The answer is "no." Emergencies are the exception. You will be required to sign out and in when allowed to visit the restroom, and you must stay after class for the same amount of time you missed to go to the restroom. Do NOT interrupt my class to ask to go to the bathroom or to your locker. I will NOT let you go!!!
5. Tardies will be handled following the school policy. Please see your handbook and become familiar with this!! If you are tardy to class, you must sign in.
6. **HOMEWORK...** Turn your work in! If you forget an assignment, you will have **ONE** opportunity to claim "I am human" to finish and turn in the assignment with no academic penalty. Work turned in one day late will only be worth 90% of the value (10% off), after one day late I will not accept late work under any other circumstances.

7. **Make-Up Work...** You will have one class period to complete work missed when absent. It is your responsibility to find someone in class you can depend on to copy the notes you missed when you are absent. You are responsible for getting the work you missed, which you will find in the make up work binder or on the website. Tests must be made up during the first possible study table after the absence, on the next available Wednesday morning or Wednesday Coach, or during your normal study hall the day you return to school following the absence.; which ever comes first. If you fail to make up the test, it will become a 0 at that point.
8. If you are caught sleeping in class, you will be asked to stand for the remainder of the period.
9. Cheating will not be tolerated and will result in a 0 for the assignment or test.
10. Bags and purses must be hung on the desk hooks or placed on the floor behind the desk. Placing these items on the desk tops, on the lab benches, on laps, or in middle of the isles will not be permitted.

Do the right thing! If you really have to think about it, it probably is not okay!

I will handle all discipline problems using the school discipline forms.

I will handle all academic problems (not bringing class materials, not doing assignments, etc.) by assigning study tables. You must serve study tables on the days assigned. If you do not serve assigned study tables, you will be referred to the office, which may result in a night school being assigned.

How to Succeed in My Class

1. Pay attention
2. Follow directions.
3. Be prepared for class with your book, writing utensil, and supplies.
4. Do not pack up early to leave class...you will have plenty of time to leave and get to your next class.
5. Be in class before the bell rings.
6. Make sure your cell phone is off and put away.
7. Use the class website...it has helpful information (when up & running).
8. Turn work in on time.
9. Participate in class discussions...if not, class could get really boring.
10. Ask for help if you do not understand something!

The key elements of success in class are attendance, organization, and effort!
The only person who can prevent your success is you!

Franklin Community High School Anatomy & Physiology Curriculum Guide

Semester I

1st Nine Weeks

- I. Introduction to Anatomy & Physiology
 - A. Scavenger Hunt
 - B. Anatomical Terminology
 - a. Levels of Organization of Living Things
 - b. Overview of Human Body Systems
 - c. Anatomical Directions/Planes/Axes
 - d. Lab – Anatomical Directions, Terms, and Locations of The Human Body
 - e. Anatomical Annies
 - C. Cell Biology
 - a. Review Cell Organelles/Review Relay
 - b. Lab – Egg Osmometers
 - c. Cell Analogy Collage Project
- II. Histology
 - A. Epithelial Tissue
 - a. Lab using the microscope to identify histological slides
 - B. Connective Tissue
 - a. Lab using the microscope to identify histological slides
 - C. Muscular Tissue
 - D. Nervous Tissue
 - a. Lab using the microscope to identify histological slides

2nd Nine Weeks

- III. Integumentary System
 - A. Histological features of the Integumentary system
 - a. Epidermis and Layers
 - b. Dermis and Dermal Structures
 - c. Functions
 - d. Appendages
 - e. Cutaneous Receptors
 - i. Lab – Cutaneous Sensations
 - ii. Lab – Sweat Gland Mapping
 - f. Skin Disorders
 - g. Hair and Nails
- IV. Skeletal System
 - A. Bone Histology
 - a. Chicken Bone Lab
 - B. Axial Skeleton
 - a. Skull
 - b. Vertebral Column and Bony Thorax
 - C. Appendicular Skeleton
 - a. Upper Extremity
 - b. Lower Extremity
 - D. Activity – create a life-size skeleton with labels

Semester II

3rd Nine Weeks

- I. Skeletal System
 - A. Fractures and Repair
 - B. Articulations and Movement
 - C. Inflammatory Diseases
 - D. Lab - Forensic Resurrection of a Skeleton
 - E. Lab – Determination of gender and age of classroom skeletons

- II. Muscular System
 - A. Muscle System Histology
 - a. Cardiac Muscle Tissue
 - b. Skeletal Muscle Tissue
 - c. Smooth Muscle Tissue
 - B. Skeletal Muscles Movements
 - a. Origin, Insertion, Action
 - b. Synergist, Antagonist, Agonist
 - C. Nomenclature
 - D. Skeletal Muscle Anatomy
 - a. Cephalic Muscles
 - 1. Memory Activity
 - b. Cervical Muscles
 - 1. Bingo Acitivity
 - c. Posterior Torso Muscles
 - 1. Board Race Activity
 - d. Anterior Torso Muscles
 - 1. Review Activity
 - e. Upper Extremity Muscles
 - 1. Bingo Activity
 - f. Lower Extremity Muscles
 - 1. Review Activity
 - E. Muscle physiology
 - A. Nomenclature
 - B. Neuromuscular junction
 - C. Sliding filament theory

- III. Blood and Cardiovascular System
 - A. Heart
 - a. Anatomy
 - b. Pulmonary and Systemic Circulation
 - c. Regulation of Cardiac Output
 - 1. Blood Flow
 - 2. His Purkinje System
 - d. Lab – Sheep Heart Dissection
 - e. Cardiovascular Diseases
 - f. Lab – Cardiac Output Lab (use Vernier computer software)
 - g. Lab – Blood Pressure
 - h. View Heart Transplant Video With Assessment
 - i. Lab – Exercise Lab

4th Nine Weeks

B. Blood

- a. Components of Whole Blood
- b. Hematopoiesis
- c. Lab – Blood Typing

IV Nervous System

A. The Central Nervous System

- a. Brain
 1. Physiology
 2. Anatomical Regions
 3. Cerebral Lobes
 4. Lab – Sheep Brain Dissection

B. The Peripheral Nervous System

- a. Afferent Versus Efferent
- b. Classification of Nerves/Neurons
- c. Anatomy of a Neuron
- d. Supporting Cells and Coverings
- e. Functional Properties of Neurons
- f. Synaptic Communication
- g. Reflex Arc
- h. View Sleep, Dreams, and Memory Documentary With Assessment
 1. Determine Right or Left Brained
- i. Lab - Chemical Senses
- j. Lab – Reaction Time

V. Respiratory System

- A. Physiology (pathway and mechanics)
- B. Speech and Sound
- C. Disfunctions
- D. Lab - Lung Capacity and Volume

VI. Digestive System (if time permits)

VII. Cat Dissection

COURSE INFORMATION GUIDE DISCLAIMER:

All of the above content of this document is subject to change at any time during the semester, by the classroom teacher, as deemed necessary based on instructional, classroom, and management needs.