



Course Syllabus

Franklin High School		2020-2021
DIRECTIONS: For each course, complete the syllabus and share with your evaluating/supervising administrator as a pdf ("File-download-PDF document") by 9/28/20 . Syllabi will be posted on the FHS website under your name for the public to view.		
Course Overview		
NOTE: For core classes, all elements of this section (except for name and contact information) are the same.		
Course Title: Anatomy and Physiology		
Instructor Name: Sherden	Contact Info: dsherden@pps.net	
Grade Level(s): 11-12		
Credit Type: (i.e. "science", "elective") elective	# of credits per semester: 0.5	
Prerequisites (if applicable): There are no prerequisites, but strong performance in the Sciences, especially Biology is recommended. Completion of Medical Terminology is suggested but not required.		
General Course Description: A rigorous, in-depth look at selected human body systems. The course is taught at college prep level, including lecture and laboratory units and is not a "survey" course.		
<u>Prioritized</u> National/State Standards: The National Health Science Standards provide a clear and consistent understanding of industry and postsecondary expectations for health science teachers and students. These standards are designed to provide the essential knowledge common across health professions to prepare and increase the number of students that are college and career ready. Foundation Standard 1: Academic Foundation Understand human anatomy, physiology, common diseases and disorders, and medical math principles. 1.1 Human Anatomy and Physiology 1.11 Identify basic levels of organization of the human body. a. Chemical b. Cellular c. Tissue d. Organs e. Systems f. Organism 1.12 Identify body planes, directional terms, cavities, and quadrants. a. Body planes (sagittal, mid-sagittal, coronal/frontal, transverse/horizontal) b. Directional terms (superior, inferior, anterior/ventral, posterior/dorsal, medial, lateral, proximal, distal, superficial, and deep) c. Cavities (dorsal, cranial, spinal, thoracic, abdominal, and pelvic) d. Quadrants (upper right, lower right, upper left, and lower left) 1.13 Analyze basic structures and functions of human body systems (skeletal, muscular, integumentary, cardiovascular, lymphatic, respiratory, nervous, special senses, endocrine, digestive, urinary, and reproductive). a. Skeletal (bone anatomy, axial and appendicular skeletal bones, functions of bones, ligaments, types of joints) b. Muscular (microscopic anatomy of muscle tissue, types of muscle, locations of skeletal muscles, functions of muscles, tendons, directional movements) c. Integumentary (layers, structures and functions of skin) d. Cardiovascular (components of blood, structures and functions of blood components, structures and functions of the cardiovascular system, conduction system of the heart, cardiac cycle) e. Lymphatic (structures and functions of lymphatic system, movement of lymph fluid) f. Respiratory (structures and functions of respiratory system, physiology of respiration) g. Nervous (structures and functions of nervous tissue and system, organization of nervous system) h. Special senses (structures and functions of eye, ear, nose and tongue; identify senses for sight, hearing, smell, taste, touch) i. Endocrine (endocrine versus exocrine, structures and functions of endocrine system, hormones, regulation of hormones) j. Digestive (structures and functions of gastrointestinal tract, chemical and mechanical digestion, structures and functions of accessory organs) k. Urinary (structures and functions of urinary system, gross and microscopic anatomy,		



process of urine formation, urine composition, homeostatic balance). Reproductive (structures and functions of male and female reproductive systems, formation of gametes, hormone production and effects, menstrual cycle, and conception) 1

Course Details

Learning Expectations

Materials/Texts:

Holes Essentials of Human Anatomy and Physiology
Various handouts and articles.

Course Content and Schedule:

Semester 1:

Introduction/Planes and Directions

Embryology

Systems Overview (Lab Unit)

Tissues and Skin

Axial Skeleton (Lab Unit)

Semester 2:

Bone Physiology

Appendicular Skeleton (Lab Unit)

Muscle Physiology

Muscles (Lab Unit)

Cardiovascular Physiology

Nerve and Brain Physiology (time permitting)

Differentiation/accessibility strategies and supports (TAG, ELL, SpEd, other):

All accommodations in student IEPs will be observed.

Instructors will be available for tutorial during tutorial periods or by appointment.

Extra credit opportunities will be available.

Safety issues and requirements (if applicable):

All students will be bound by a laboratory safety contract

Classroom norms and expectations:

Teachers and students will conduct themselves in a manner consistent with a professional health care setting.

Evidence of Course Completion

Assessment of Progress and Achievement:

The student will answer theoretical and application questions on information covered in class and reading assignments.

The student will participate in hands-on laboratory activities, demonstrating competency and skills gained.

The student will research a specific injury of his/her choice, write a research paper and present to the class.

Assessments will include quizzes, exams, laboratory activities and written assignments.

Progress Reports/Report Cards (what a grade means):

A: Thorough mastery of all concepts. Able to apply concepts to new information and situations

B: Good mastery of all concepts. Able to explain concepts.

C: Adequate mastery of most or all concepts. Able to answer questions about concepts.

D: Minimum acceptable mastery of key concepts. Able to state facts about concepts.

F: Inadequate evidence of sufficient mastery. Unable to demonstrate mastery of key concepts.

Career Related Learning Experience (CRLEs) and Essential Skills:

- ✘ Field trips
- ✘ Career Related Learning Experiences (CRLE's)
- ✘ Internships or other Career Related
- ✘ Multiple guest speakers will present during tutorials on career related and other topics

Communication with Parent/Guardian

What methods are used to communicate curriculum, successes, concerns, etc.?

- ✘ email, phone calls, conferences, and on-line meetings.

Personal Statement and other needed info

This is a demanding, fast-paced course for advanced science students. It is not recommended for those without a strong science background.