

HUMAN PHYSIOLOGY SYLLABUS

EHS, Science- Mr. DelPiano

Course Description: This course has been designed to introduce the high school student to human physiology. It targets the student who is interested in a possible medical/science career or the academic student interested in a solid experience in a college prep course. Foundations of Biology and Chemistry are pre-requisites for this course.

The course takes a systems approach to physiology. Due to the close interrelationship between structure and function in biological systems, each functional physiology topic will include a brief overview of anatomic structure. The physical and chemical laws that are the basis of the physiological processes will also be covered, and applications to current biomedical research and clinically relevant situations will be included.

Topics of Study:

The following is a list of units that will be addressed in order that they will be covered:

UNIT:

1. Introduction to Physiology, History, Homeostasis, Levels of Organization, Cellular and Tissue Physiology, Organs and Systems.
2. Nervous Systems
3. Muscle System
4. Circulatory System
5. Urinary System
6. The Blood
7. Respiratory System
8. Digestive System

***In addition to the foundation material, each will also cover a few of the common diseases associated with each organ system or tissue.

It is presently beyond the scope of this class to provide in depth physical, hands-on laboratory exercises (not enough time in a semester course). There will be however some form of lab exercise associated with each unit as well as, example simulated exercises available through CD and web-based venues associated with Human Physiology.

Readings from the text will be assigned prior to covering a particular unit. Exam questions **WILL** be drawn directly from lectures, class discussions, handouts, and lab exercises.

Grading:

Course performance and grading will be determined as follows:

70%- Test and Quiz grades.

30%- Labs, Homework Assignments, Internet Activities, Projects.

-----2 Projects and a term paper will also be evaluated in addition to a unit exam for each of the above topics of study.