

**Anatomy and Physiology SYLLABUS FALL 2016**

**I. Teacher Information**

Teachers Name: Room:

Andrea Stephens 1258

Tutorial Days: Course Website:

Wednesdays 3:30 - 4:30 PM & By Appointment [http://www.astephensscience.com/](http://www.astephensscience.com/environmental-science.html)

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Teachers E-mail: School Website:

astephensscience@gmail.com <http://www.atlanta.k12.ga.us/Domain/3508>

School Phone #: 404-802-5200

**II. Course Description and Objectives**

Course Description:

The human anatomy and physiology curriculum is designed to continue student investigations that began in grades K-8 and high school biology. This curriculum is extensively performance and laboratory based. It integrates the study of the structures and functions of the human body, however rather than focusing on distinct anatomical and physiological systems (respiratory, nervous, etc.) instruction should focus on the essential requirements for life. Areas of study include organization of the body; protection, support and movement; providing internal coordination and regulation; processing and transporting; and reproduction, growth and development. Chemistry should be integrated throughout anatomy and not necessarily taught as a stand-alone unit. Whenever possible, careers related to medicine, research, health-care and modern medical technology should be emphasized throughout the curriculum. Case studies concerning diseases, disorders and ailments (i.e. real-life applications) should be emphasized. (GA Dept. of Education)

Course Objectives:

SAP1. Students will analyze anatomical structures in relationship to their physiological functions.

 a. Apply correct terminology when explaining the orientation of body parts and regions.

 b. Investigate the interdependence of the various body systems to each other and to the body as a whole.

 c. Explain the role of homeostasis and its mechanisms as these relate to the body as a whole and predict the consequences of the failure to maintain homeostasis.

 d. Relate cellular metabolism and transport to homeostasis and cellular reproduction.

 e. Describe how structure and function are related in terms of cell and tissue types.

SAP2. Students will analyze the interdependence of the integumentary, skeletal, and muscular systems as these relate to the protection, support and movement of the human body.

 a. Relate the structure of the integumentary system to its functional role in

 protecting the body and maintaining homeostasis.

 b. Explain how the skeletal structures provide support and protection for tissues, and function together with the muscular system to make movements possible.

SAP3. Students will assess the integration and coordination of body functions and their dependence on the endocrine and nervous systems to regulate physiological activities.

 a. Interpret interactions among hormones, senses, and nerves which make possible the coordination of functions of the body.

 b. Investigate the physiology of electrochemical impulses and neural integration and trace the pathway of an impulse, relating biochemical changes involved in the conduction of the impulse.

 c. Describe how the body perceives internal and external stimuli and responds to maintain a stable internal environment, as it relates to biofeedback.

SAP4. Students will analyze the physical, chemical, and biological properties of process systems as these relate to transportation, absorption and excretion, including the cardiovascular, respiratory, digestive, excretory and immune systems.

 a. Describe the chemical and physical mechanisms of digestion, elimination, transportation, and absorption within the body to change food and derive energy.

 b. Analyze, and explain the relationships between the respiratory and cardiovascular systems as they obtain oxygen needed for the oxidation of nutrients and removal of carbon dioxide.

 c. Relate the role of the urinary system to regulation of body wastes (i.e. water electrolyte balance, volume of body fluids).

 d. Examine various conditions that change normal body functions (e.g. tissue rejection, allergies, injury, diseases and disorders) and how the body responds.

 e. Describe the effects of aging on body systems.

SAP5. Students will analyze the role of the reproductive system as it pertains to the growth and development of humans.

 a. Explain how the functions of the reproductive organs are regulated by hormonal interactions.

 b. Describe the stages of human embryology and gestation including investigation of gestational and congenital disorders (e.g. ectopic pregnancy, miscarriage, cleft palate, hydrocephaly, fetal alcohol syndrome).

 c. Describe the stages of development from birth to adulthood (i.e. neonatal period, infancy, childhood, adolescence and puberty, and maturity).

**III. Materials and Supplies**

Pencils, 2 packs of loose leaf notebook paper, 3 ring binder, notecards, one pack of copy paper

**IV. Course Outline/Curriculum Overview**

 The following academic concepts will be covered. THIS IS ONLY A GUIDE AND IS SUBJECT TO CHANGE.

**V. Primary Text(s)**

 Marieb, Elaine; Essentials of Human Anatomy and Physiology,

 Boston: Pearson; 9th edition; 2007.

**VI. Grading Policy:**

|  |  |  |
| --- | --- | --- |
| Formative Pre-Assessment | 0% | Pre-Test/Diagnostic Test/Pre-SLO |
| Assessment During Learning | **25%** | Performance-based Assessments/Quizzes |
| Group/Independent Practice (In Class) | **40%** | Classwork/Projects/Labs/Group work |
| Homework | **5%** | Homework |
| Summative Assessment | **30%** | Culminating Projects/Unit Tests/Final Exam/Post-SLO |

**Grading scale** A: 90-100 B: 80-89 C: 70-79 F: 0-69

***Grading Systems-Grading Expectations [See Board Policy IHA-R (1)]***

*2.1.    Students shall receive report cards after the end of the 9th, 18th, 27th and 36th weeks of the school year. The report cards received after the semester midpoints (9th and 27th weeks) will be considered progress reports for all students.*

*2.3.    For grades 6-12, evaluation of student mastery shall be cumulative for the semester.*

*2.4.    All students shall receive interim progress reports at least four (4) times per year—4.5 weeks into the school year and midway between report card issuance dates.*

**VII. Assessment Calendar**

Unit/Benchmark Assessments

At the beginning of each unit students will be given a benchmark assessment.

An assessment will be given at the end of each unit to determine if the student has mastered the standards.

Final Exam (December/May)

The last week of school during semester 1 & during semester 2 students will be given a final exam.

SLO:.

This class has a Student Learning Objective Exam (SLO). Students will take it at the beginning of the course and again at the end of the course to determine their growth.

**VIII. Classroom Expectations:**

Come to class prepared to focus only with the before mentioned material. Be on time and be prepared to learn. At all times everyone in this classroom will conduct himself or herself in a professional manner. ANY deviation from acceptable behavior shall require immediate attention up to and including referral to an administrator. Any student receiving a grade of 70% or below on any graded work is expected to see me for assistance. Come prepared to discuss how to improve your performance.

**Class Rules:**

Be respectful, Be prepared, Be kind, Be safe, Be punctual, Work hard

## Notebooks/Note-taking:

There are notes associated with each unit in this class. We will give you guided notes (or fill-in-the-blank notes) as needed. If you ever lose a copy or miss a day of class, you are responsible for taking your notes with the book or through the PowerPoints on Ms. Stephens’ website.

 **Quizzes/Labs**:

Quizzes will be given periodically throughout the year. Some will be announced beforehand and some will be “pop”. They are often done as ticket-in-the-doors or ticket-out-the-doors, root word vocabulary quizzes.

In this class we will do labs as frequently as possible. Students will be expected to comply with all lab safety procedures.

## Make-up Policy

MAKING UP MISSED ASSIGNMENTS OR TESTS It is the student’s and parent’s responsibility to make arrangements for make-up work. Students should ask their teacher for any missed assignments on the first day they return to school.

## Deficiency Notices and Progress Reports

The student will periodically receive from the teacher GRADE PROGRESS reports and DEFICIENCY NOTICES. You should review with your parent(s) or guardian(s) **AND** they must sign and return both the GRADE PROGRESS REPORT and DEFICIENCY NOTICE on or before the assigned due date.

**Expectations for Technology:**

There may be times when the teacher will ask you to utilize your own technology during a class. This technology can include a smart phone, laptop, or tablet. When personal technology is not required by the teacher, the electronic device should be OFF and AWAY.

**Academic Integrity**

The Atlanta Board of Education recognizes that academic integrity is the foundation of academic excellence and student success. It is the responsibility of every student and employee to exhibit honesty, trust, fairness, respect, and responsibility in academic work at all times to support a positive learning environment in the school. Violations of [board policy JFA Academic Integrity](http://www.boarddocs.com/ga/aps/Board.nsf/goto?open&id=9CKTW868A3B2) shall be handled as violations of the student code of conduct and addressed via the progressive discipline guidelines in the Student Handbook.

**Parent Expectations**

Parental communication and involvement is essential to the success of all students. We fully welcome your involvement. Parents are encouraged to contact the teacher for updates and concerns. If a parent requests a conference, one will be scheduled as soon as possible.