

Human Anatomy & Physiology - Honors

Course Syllabus 2013-2014

Mrs. Harmony Nakamura Paz

Course Description:

This is a year course in Human Anatomy and Physiology, which includes the study of human embryology, gross anatomy, microanatomy, physiology, pathology, and homeostatic relationships. The basic goals of this course are to fulfill the Hawaii Content and Performance Standards for Human Physiology. This course will be focusing on the following standards:

Hawaii Content and Performance Standards for Human Physiology:

- Standard 1 – Scientific Investigations: Discover, invent, and investigate using the skills necessary to engage in the scientific process.
- Standard 2 – Nature of Science: Understand that science, technology, and society are interrelated.
- Standard 3 – Structure and Function: Understand cells, tissue, and orientation.
- Standard 4 – Organ Systems: Understand the functions of various organ systems.
- Standard 5 – Interdependence of Body Systems: Understand the interdependence of body systems and the hazards associated with system failure and aging.

In addition to the Standards above, students are expected to complete the following items by the conclusion of this course:

- Discuss the major chemical elements found in the human body and describe the different ways in which these elements combine to form molecules and compounds.
- Understand the functions of cellular organelles, and be able to trace the path of protein manufacture in the cell.
- Compare and contrast the physical, chemical, and biological factors governing the transport of materials across a cell membrane.
- Discuss the link between cells and tissues and describe how tissue structure determines its suitability for secretion, absorption, support, or protection.
- Describe how lipids, carbohydrates, proteins, and nucleic acids are digested, assimilated, and catabolized to obtain energy and raw materials.
- Use standard medical terminology to describe body positions and the orientations.
- Describe the link between the anatomy of human tissues and organs and their functions within the human body.
- Describe the anatomy and function of the integumentary, skeletal, muscular, nervous, circulatory, lymphatic, endocrine, digestive, urinary, and reproductive systems, and discuss how these systems maintain homeostasis in the human body.
- Discuss how negative feedback maintains homeostasis in each of the above body systems. Also, be able to explain how disease and disorders disrupt the homeostasis of each of the above body systems and discuss how common medical treatments and drugs are used to restore homeostasis.
- Write a research paper of a disease affecting of the body systems using primary and secondary scientific literature.

At the same time, this course will help students to meet the **State of Hawaii General Learner Outcomes (GLO's)**:

Students will be able to:

- Be responsible for their own learning
- Work well with others
- Engage in complex thinking and problem solving
- Recognize quality performance and produce quality products
- Communicate effectively
- Use a variety of technologies effectively and ethically

General Learner Outcomes are the observable behaviors or evidence that a student has achieved a standards-based education. They apply to students in all grade levels and are fostered in daily classroom activities and in a student's application of learning.

General Course Outline

<i>Quarter 1</i>	<i>Quarter 2</i>	<i>Quarter 3</i>	<i>Quarter 4</i>
Introduction to the Human Body	Joints	Sensory, Motor, & Integrative Sys.	The Digestive System
The Chemical Level of Org.	Muscular Tissue	The Special Senses	Metabolism and Nutrition
The Cellular Level of Org.	The Muscular System	The Endocrine System	The Urinary System
The Tissue Level of Org.	Nervous Tissue	The Blood	Fluid, Electrolyte, and Acid-Base
The Integumentary System	The Spinal Cord & Spinal Nerves	The Heart	Homeostasis
The Skeletal Sys.: Bone Tissue	The Brain & Cranial Nerves	Blood Vessels & Hemodynamics	The Reproductive System
The Skeletal Sys.: Axial	The Autonomic Nervous System	The Lymphatic Sys. & Immunity	Development and Inheritance
The Skeletal Sys.: Appendicular		The Respiratory System	

Textbooks:

"Principles of Anatomy and Physiology" 11th Edition (2006) Tortora and Derrickson

Students will be issued a copy of the main textbook to support their learning. Loss or damage of the textbook will result in the appropriate obligation.

Supplies:

In addition to basic supplies, the following are needed for this course:

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| 1. Roll of paper towel/tissue/pack of folder paper/pack of pencils
(REQUIRED – choose one) | 3. A 3-subject notebook, 8.5" x 11"
(REQUIRED) | 5. Markers/Color Pens or Pencils
(recommended) |
| 2. Binder for notes (REQUIRED) | 4. Bottle of Glue or Double Sided Tape
(recommended) | 6. Highlighter (recommended) |
| | | 7. Calculator (recommended) |

Credit Information & Grading Policies:

Students will receive 1 credit at the end of the year with a passing grade of A, B, C, or D. Students who earn an F for the year will not receive any credit. Grades will be based on following categories listed below. Numerical grades are given for each assignment and weighted to calculate the final grade for the quarter.

Formative Assessments (30%)

Participation	Interactive Notebook
Classwork	Homework
Anatomy Drills	Lab Worksheets

Summative Assessments (70%)

Lab Reports	Research Paper
Projects	Chapter Quizzes
Mid-Term Assessments	
Performance Assessment	
Final Assessment	

Letter grades will be based on a standard scale: A (90-100%), B (80-89%), C (70-79%), D (60-69%), and F (0-59%). Semester and year grades will be determined by averaging the percentages earned each quarter.

Grades will be available online, 24 hours a day, 7 days a week, via EdLine (http://www.edline.net/pages/Leilehua_High_School)

Your child will responsible for checking their own grade as the year progresses. At assigned times, they will also be required to show you their grade and obtain your signature and input.

Instructor Availability and Contact Information

Office Hours:

Mondays & Tuesdays: 2:30pm to 3:30pm
 Wednesdays: 2:45pm to 3:45pm
 Thursdays: At SMARTS (LHS Library Science Section) 6:00pm to 8:00pm
 Fridays: By appointment
 Saturdays & Sundays: Via email

Contact Information

Email: harmony_nakamura@notes.k12.hi.us
harmonypaz@gmail.com
 Phone: (808)622-6550

Class Resources

Class Website:
<http://www.LHSAnatomyPhysiology.weebly.com>
 Grades:
http://www.edline.net/pages/Leilehua_High_School
 Edmodo:
 LHSAnatomy&PhysiologySY13-14
 Group Code: _____

Teaching Procedures and Student Expectations

Students must take responsibility for their own learning and comprehension through careful reading of assigned materials, taking advantage of opportunities to ask questions for clarification, answering questions posed in the text, and reviewing supplementary sources.

The primary purpose of the lecture will not be to give the students pages of notes to be copied down. Rather, the primary purpose of the lecture will be to facilitate the learning of information already available in the text and other sources. **The student is expected to read the assigned sections before the lecture on that material.** However, do not become discouraged if some of the material at first seems too difficult to master. This difficulty is expected and that is why the lecture exists to help the student understand and find ways to recall the information. The lectures will be most useful to the students that have already struggled with the material as presented in the text and have a sense of where they need the most help.

Lectures will be presented in PowerPoint. The slides will be available on the class website (<http://www.LHSAnatomyPhysiology.weebly.com>) as pdf files that can be saved and printed prior to class meetings. Students will find it easier to follow along if they bring the handouts with them to class. Students without printer access can still copy the notes by hand or print them out at school for a cost of \$0.10/page. I will also have a presentation binder (hardcopy) in class for those students who have no internet access and must copy the notes in class.

How to Succeed in this Class

Understanding biological science involves understanding many difficult concepts and vocabulary. Students must realize that knowing the details to these concepts are important. In addition, students will be introduced to hundreds of new words and will need to understand and use these terms in a biological context.

While students will have lecture handouts, the student will not succeed in this class without taking careful notes and reading the corresponding material in the textbook before and after class. Students are encouraged to review these notes as often as possible. In addition, students are recommended to: draw labeled diagrams or graphs that illustrate important biological phenomena, review all the internet resources available, and make flashcards for each new vocabulary word presented.

Students are encouraged to form study groups and study together. The students in these groups may test each other's knowledge and understanding of the information. They may also take turns teaching each other. Students must also ask the instructor to explain things that they do not understand.

Classroom Agreements:

Students are to comply with the following agreements:

- Practice attentive listening
- Show appreciation towards others
- No put-downs
- Respect self, others, and property
- Put contraband away (includes phones, ipods, and other electronic devices)

In complying with these classroom agreements, we will be creating an environment conducive to learning. Failure to comply with the agreements will result in one or more of the following consequences:

- Verbal warning
- Counseling
- Recess/Lunch detention
- Call to parent/guardian
- Referral to Counselor or Vice Principal

Procedures & Policies:

Absences and Tardies: Please refer to the Leilehua High School Attendance Policy 2013-2014. Students are expected to be in their assigned seat, ready to work, when the tardy bell finishes ringing. They will remain seated until dismissed by the teacher (the bell does not dismiss the class).

Assignments and Make-Up Work: Assignments are expected to be turned in on time. Late work will be accepted, but with consequence. In the case of an authorized absence, it is the students' responsibility to find out what needs to be made up (please check the Quarterly Schedule). Lecture materials and assignments will be available at a designated area of the classroom and online.

Make-Up Work, Tests, & Lab Experiments: In the case of authorized absences, students will be given specific cut-off dates (per quarter) for make-up work, quizzes, and assessments. Make-up lab experiments will be done on an appointment basis. Missed experiments that require laboratory set-up need to be made-up within a week of the assigned date. For all other experiments, follow the guidelines for missed assignments.

Tutoring: Students who are having difficulty are encouraged to get help in a variety of different ways. Please do not wait until the last minute to ask for assistance. Extra help is available before school, at lunch, and during office hours. Students are also encouraged to attend SMARTS tutoring on Tuesday/Thursday nights (6p-8p) in the Library.

Grade Checks Field Trip Forms, Etc.: Anything requiring the teacher's signature should be given to the teacher at the beginning of the class period. It is the student's responsibility to pick it up at the end of the class period.