Anatomy and Physiology I Lab

8 Modules / Credit-by-Course / Credits 1

Course Description:

This stand-alonelabcoursecan be used alongside an A&P; I lecture.This lab course serves to developa comprehensive understanding of the close interrelationship between anatomy and physiology as seen in the human organism.Thisisaccomplishedbyhaving students complete at-home laboratory experiments, guided byonline exploration activities, exercises, and evaluations.It is the first part of atwo partseries.Thelabcourse places emphasis on organization and overview of the human body, chemical reactions, maintenance of the body, integration, regulatory mechanisms and the dynamics of support and motion.Specific topics covered include anatomical terminology, organization of the body, histology, cell biology, and tissues, the integumentary system, the skeletal system, joints, the muscular system, nervous system, neural integration, specialsensesand the autonomic nervous system.

Course Outcomes:

After completing this course, you will be able to:

- Apply correct safety standards.
- Locate and identify anatomical structures.
- Correctly utilize laboratory equipment, such as microscopes, general lab equipment, physiology data acquisition systems, and virtual simulations.
- Communicate results of scientific investigations, analyze data and formulate conclusions.
- Recognize the fundamental concepts of anatomy and physiology, and the organizational scheme and standard terminology of the body;
- Identify and apply the major chemical reactions, chemical constituents of the body, and the equilibrium state;
- Categorize and recognize the skeletal system, the supporting tissue, tissue physiology, and muscle tissue;
- Locate and label the types, functions, and locations of the classes of joints contained in the human body;
- Compare and contrast the structure, type, location, and function of the skeletal muscles of the body;
- Recognize the functional organization of the nervous system, including the brain, spinal cord, cranial and spinal nerves, special senses, and nervous signaling, integration, and control;
- Apply the role of the autonomic nervous system to homeostasis and normal physiologic control.

E-Book:

- McGraw-Hill Connect – Lab activities based on Seeley's Anatomy and Physiology, 13th International Edition, McGraw Hill Education.

• Textbook reading is not required for this course; however, if you need information on topics covered, you can use the textbook above.

Open Education Resources (OER's)

If you are struggling with a term or concept, you can utilize the links below to search for the concept or term to find additional resources and explanations.

The Crash Course

Inner Body

Visible Body

Carnegie Mellon University: Open Learning Initiative

Closed Captioning

Lecture videos and extra resource videos have automatic closed captioning. These captions are generated by computer algorithms. To utilize closed captioning, you can click on the CC button at the bottom of a video.

Accommodating Disabilities

Gateway Education is committed to the belief that every individual should have an equal opportunity in education. Gateway Education seeks to assure access by providing accommodations to individuals with a disability as defined under the Americans with Disabilities Act of 1990 (ADA) and the ADA Amendments Act of 2008 (ADAAA). Accommodation includes, but is not limited to: aids or modification to courses, materials, or testing; and other services that allow better access by individuals with disabilities.

Individuals requesting accommodation should submit a request in writing or in an alternative format appropriate for their limitations. The request should include documentation of the disability, including information with recommendations of appropriate accommodation. Once eligibility has been established, accommodations must be requested on a course-by-course basis.

Requests can sent to the student services department atsupport@gatewayeducation.com