EMT-1401: ANATOMY & PHYSIOLOGY FOR PARAMEDICS

Cuyahoga Community College

Viewing: EMT-1401 : Anatomy & Physiology for Paramedics

Board of Trustees:
2016-12-06

Academic Term:
Fall 2018

Subject Code
EMT - Emergency Medical Technology

Course Number:
1401

Title:
Anatomy & Physiology for Paramedics

Catalog Description:
Basic structure and function of body systems and diseases of these systems to provide a foundation for EMT and paramedic certification.

Credit Hour(s):
4

Lecture Hour(s):
4

Requisites

Prerequisite and Corequisite
None.

Outcomes

Course Outcome(s):
Apply knowledge of anatomy and physiology of human body systems to support the maintenance of homeostasis and to completely and accurately document patient care information.

Objective(s):
1. Identify the organs of the human body systems.
2. Describe the basic physiological processes of the human body systems and relate these processes to the maintenance of homeostasis.
3. Discuss important disease conditions of the human body systems.

Methods of Evaluation:
A. Examinations
B. Quizzes
C. Participation in group learning activities
D. Written reports
E. Assignments/projects

Course Content Outline:
1. Homeostasis
   a. Definition
   b. Positive and negative feedback
2. General body organization

   a. Cells
   b. Tissues
   c. Organs and organ systems
3. Skeletal system
   a. Functions
   b. Bone structure
   c. Specific bones
   d. Diseases and disorders
4. Joints
   a. Classification by structure and movement
   b. Diseases and disorders
5. Muscular system
   a. Gross anatomy
   b. Microscopic anatomy
   c. Physiology of muscle contraction
   d. Energy for muscle contraction
   e. Effects of exercise
6. Digestive system
   a. Functions
   b. Control of digestive processes
   c. Digestive organs
   d. Digestive enzymes
   e. Nutritional requirements
   f. Diseases and disorders
7. Respiratory system
   a. Functions
   b. Respiratory organs
   c. Mechanisms of breathing
   d. Transport of respiratory gases
   e. Respiratory volumes
   f. Control of respiration
   g. Diseases and disorders
8. Cardiovascular system
   a. Blood
   b. Heart
   c. Blood vessels
   d. Diseases and disorders of heart and blood vessels
9. Lymphatic system and immunity
   a. Components of the lymphatic system
   b. Immunity
10. Urinary system
   a. Functions
   b. Organs
   c. Urine formation
   d. Regulation of urine formation
   e. Diseases and disorders
11. Nervous system
   a. Neuron
   b. Nervous impulse
   c. Brain
   d. Spinal cord
   e. Peripheral nervous system
   f. Autonomic nervous system
   g. Special senses
12. Endocrine system
   a. Hormones
   b. Endocrine glands
13. Reproductive system

a. Male reproductive system
b. Female reproductive system
c. Pregnancy
d. Diseases and disorders of the reproductive system
e. Sexually transmitted disease

Resources

Mareib, Elaine N and Katja Hoehn. *Human Anatomy and Physiology.* 9th ed. San Francisco : Pearson Benjamin Cummings, 2012.

Martini, Frederic and Judi L. Nath. *Fundamentals of Anatomy and Physiology.* 10th ed. San Francisco, CA : Pearson Benjamin Cummings, 2014.

Tortora, Gerald, and Bryan Derrickson. *Principles of Anatomy and Physiology.* 14th ed. Hoboken, NJ : J. Wiley, 2013.

Bruce Colbert, Jeff Ankney, Karen T. Lee, and Bryan E. Bledsoe. *Essentials of AP for Emergency Care.* Prentice Hall, 2010.

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