

EXEMPTION TEST INFORMATION FORM
ALHS 1011 – Structure and Function of the Human Body

A currently enrolled or accepted program student may receive course credit by passing the ALHS 1011 exemption examination administered by the Gwinnett Technical College Assessment Center. The policy regarding Experiential Credit and Credit by Examination is in the College catalog. **The examination must be completed prior to registration for the class for which the student is seeking credit by examination. Students may not request exemption tests for courses in which they have been enrolled nor may they take an exemption test more than once.**

COURSE COMPETENCIES & LEARNING OUTCOMES

A. GENERAL PLAN AND FUNCTION OF THE HUMAN BODY

1. Define anatomy and physiology
2. Describe anatomical position
3. Define and use the principle directional terms in human anatomy.
4. Identify the sagittal, transverse and frontal sections of the body.
5. Define and locate the principle regions, quadrants and cavities of the human body.
6. Identify the structure of a cell tissue, organ, and system, and explain the relationship among these structures as they constitute an organism.
7. Define the term homeostasis and metabolism, and cellular respiration.
8. Differentiate between inorganic and organic compounds and give examples of each.
9. Describe the properties of water that make it essential for body functions.
10. Contrast acids and bases and use pH scale in describing acidity and alkalinity of a solution.
11. Identify the biologically significant elements from a given list by their chemical symbols and summarize the main functions of each in the body.
12. Describe the structure of a typical cell.
13. List the organelles and discuss the functions of each.
14. Describe active and passive transport mechanisms.
15. Define mitosis and meiosis.
16. Define the term tissue and list the four major types.
17. List and describe different categories of membranes in the body.

B. INTEGUMENTARY SYSTEM

1. Identify the main and accessory structures of the integumentary system and their functions.
2. Discuss the function of the skin in homeostasis of body temperature.

C. SKELETAL SYSTEM

1. Describe functions of the skeletal system.
2. Identify major bones of the axial and appendicular skeletons.
3. Explain relationships of the endocrine system to the skeletal system.
4. Describe development of the skeletal system.
5. Define articulation and identify types of joints.

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D. MUSCULAR SYSTEM

1. Explain functions of skeletal muscular system.
2. Identify major skeletal muscles and functions.
3. Explain physiology of a muscle contraction.
4. Describe actions of muscles.

E. NERVOUS AND SENSORY SYSTEMS

1. Identify the general functions of the nervous system.
2. Explain the anatomical and functional classification of the nervous system.
3. Identify types of neurons and describe their functions. Identify parts of a neuron.
4. Describe the physiology of nerve impulse transmission.
5. Describe spinal cord and spinal reflexes.
6. Describe and give the functions of the layers of the meninges and cerebral spinal fluid.
7. Identify spinal nerves and define plexus.
8. Identify cranial nerves and give functions of each.
9. Compare and contrast the sympathetic with the parasympathetic nervous system.
10. Name the principle areas and functions associated with the lobes of the cerebrum.
11. Identify and describe the functions of the major regions of the brain.
12. Describe the structure and functions of the three major parts of the ear.
13. Describe the structure and function of the eye.
14. Describe the physiology of vision.
15. Trace sound waves through the ear.
16. Differentiate special and general senses.
17. Describe tactile sensation and proprioception.

F. ENDOCRINE SYSTEM

1. Define the endocrine gland and hormones, describe how the endocrine system works to maintain homeostasis.
2. Locate the principle endocrine glands and identify the principle hormones, functions and target issues.
3. Describe the mechanism by which the hypothalamus links the nervous and endocrine systems. Describe feedback mechanisms.

G. CARDIOVASCULAR SYSTEM

1. Describe the functions of the cardiovascular system.
2. Describe the major components of plasma and the functions of each.
3. Describe and give the function of each type of formed element.
4. Describe and give the function of each type of formed element.
5. Explain the ABO and Rh blood grouping systems.
6. Describe the location of the heart in relation to other organs of the thoracic cavity and the associated serous membranes.
7. Identify the chambers, valves, and associated vessels of the heart.
8. Trace flow of blood through the heart, and distinguish between the pulmonary and systemic circulation.
9. Describe location of the parts of the conduction system of the heart, and trace the pathway of impulse initiation and conduction.
10. Identify major blood vessels.

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11. Describe the structure and function of the different kinds of blood vessels.
12. Define blood pressure and contrast the clinical significance of systolic, diastolic, and pulse pressure.

H. LYMPHATIC SYSTEM

1. Describe the structures of the lymphatic system and their functions.
2. Explain adaptive and innate resistance to disease.

I. RESPIRATORY SYSTEM

1. Describe parts of the upper and lower respiratory tract.
2. Trace the pathway of air into and out of the respiratory tract.
3. Explain the physiology of breathing.
4. Differentiate external and internal respirations.
5. Explain how oxygen and carbon dioxide are carried by the blood.

J. DIGESTIVE SYSTEM

1. Differentiate chemical and mechanical digestion.
2. Identify the parts of the digestive system, their locations, and explain the function of each.
3. Trace the pathway of food through the gastrointestinal system.
4. Identify the major digestive secretions and their functions.
5. Describe the process of absorption.

K. URINARY SYSTEM

1. Identify the parts of the urinary system.
2. Explain general functions of the urinary system.
3. Explain the relationships of the urinary system to the endocrine and circulatory system.
4. Describe the structure and function of the nephron.
5. Compare the urinary system of the female with that of the male.
6. Identify the constituents of urine.
7. Differentiate the processes of secretion, filtration, and reabsorption and where they occur in the nephron.

L. REPRODUCTIVE SYSTEM

1. Describe the anatomy and physiology of the female reproductive system.
2. Explain the relationship of the endocrine system to the menstrual cycle and the function of the female reproductive system.
3. Describe the physiology of the male and female gonads and the production of gametes.
4. Describe the anatomy and physiology of the male reproductive system.
5. Relate the urinary system to the reproductive system of the male.
6. Explain the relationship of the endocrine system to the function of the male reproductive system.

The exam consists of 50 questions including multiple choice, multiple select and diagrams. The exam is out of 155 points. The exam must be completed within 2 hours.

A student needs to score an 80 % on the exemption exam for exemption credit.

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A student may want to review the following textbook before taking the exemption exam:
Marieb, Elaine. Essentials of Human Anatomy & Physiology
12th ed. ISBN: 978-01343-95326

By signing this form I am stating I have read and understood the policy regarding the ALHS 1011 exemption examination.

I am not enrolled in ALHS 1011 nor have I taken the ALHS 1011 exemption exam.

Student Signature _____ Date: _____

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