Georgia CTAE

Essentials of Healthcare (2013)

Demonstrate employability skills required by business and industry. HS-EHS-1	1 **Communicate effectively through writing, speaking, listening, reading, and interpersonal abilities.** 1.1
	2 **Demonstrate creativity by asking challenging questions and applying innovative procedures and methods.** 1.2
	3 **Exhibit critical thinking and problem solving skills to locate, analyze and apply information in career planning and employment situations.** 1.3
	4 **Model work readiness traits required for success in the workplace including integrity, honesty, accountability, punctuality, time management, and respect for diversity.** 1.4
	5 **Apply the appropriate skill sets to be productive in a changing, technological, diverse workplace to be able to work independently and apply team work skills.** 1.5
	6 **Present a professional image through appearance, behavior and language.** 1.6
Classify the basic structural and functional organization of the human body and identify body planes, cavities, regions, directional terms, tissues, organs and parts of the cell. HS-EHS-2	1 **Define anatomy, physiology, homeostasis, metabolism and cellular respiration.** 2.1
	2 **Identify body planes, cavities, abdominal regions and directional terms. (These will be utilized later in the various anatomy systems).** 2.2
	3 **Describe and demonstrate anatomical position utilizing directional terms.** 2.3
	4 **Classify the basic structural and functional organization of the human body beginning at the cellular level to also include tissues, organs and systems.** 2.4
	5 **Identify the structural components of a cell, and describe the function and relationship of each component.** 2.5
	6 **Explain the process of mitosis and meiosis.** 2.6
	7 **Identify the major types of tissue, and provide examples of each type.** 2.7
	8 **Demonstrate recognition of subjective and objective observations. Document signs and symptoms in the simulated electronic medical record.** 2.8

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Analyze the anatomy, physiology and basic pathophysiology of the integumentary system, and evaluate and monitor body temperature. HS-EHS-3	**1** Analyze the basic structures and functions of the integumentary system. 3.1
	2 Identify and explain medical terms related to the integumentary system, and utilize appropriately when documenting in a simulated electronic medical record. 3.2
	3 Research common diseases, disorders and emerging diseases of the integumentary system including the pathophysiology, prevention, diagnosis and treatment that might be utilized in each 3.3
	4 Make observations of the skin to include: color, temperature to touch, scarring, bruising, abrasions, lacerations, or other abnormalities. 3.4
	5 Discuss the role of the integumentary system in homeostasis regarding body temperature. 3.5
	6 Demonstrate measuring and recording of temperature, and identify abnormal results. 3.6
Investigate the anatomy, physiology, and basic pathophysiology of the cardiovascular system, and evaluate and monitor blood pressure and pulse HS-EHS-4	**1** Analyze the basic structures and functions of the cardiovascular system. 4.1
	2 Identify and explain medical terms related to the cardiovascular system, and utilize when documenting in electronic medical record. 4.2
	3 Research common diseases, disorders, and emerging diseases of the cardiovascular system including the pathophysiology, prevention, diagnosis and treatment (including biomedical therapies) that might be utilized in each. 4.3
	4 Describe the components of blood, and the functions of each. Research when blood components are prescribed for a patient and why. 4.4
	5 Identify and describe the functions of the chambers, valves and associated vessels of the heart. 4.5
	6 Distinguish differences in anatomy and pathology of blood vessels to include arteries, arterioles, capillaries, venules, and veins. 4.6
	7 Identify and trace the flow of blood through the heart, and provide distinction between the pulmonary and systemic circulation. 4.7
	8 Name the parts of the conduction system of the heart, and trace the impulses during initiation and conduction. 4.8
	9 Demonstrate measuring and recording blood pressure and pulse, and identify abnormal results. 4.9
Examine the anatomy, ph pa Skip to main content **respiratory system, and**	**1** Analyze the basic structures and functions of the respiratory system. 5.1

evaluate and monitor respirations. HS-EHS-5	**2** Identify and explain medical terms related to the respiratory system, and utilize when documenting in electronic medical record. 5.2
	3 Research common diseases, disorders, and emerging diseases of the respiratory system including the pathophysiology, prevention, diagnosis and treatment (including biomedical therapies) that might be utilized in each. 5.3
	4 Differentiate between the upper and lower respiratory tract while tracing the pathway of air into and out of the respiratory system. 5.4
	5 Explain the physiology of breathing, to include the process of gas exchange. 5.5
	6 Analyze the interdependence of the cardiovascular and respiratory systems as they relate to gas exchange, circulation, and the support of vital organs of the human body. 5.6
	7 Demonstrate measuring and recording respirations, and identify abnormal results. 5.7
Evaluate the anatomy, physiology, and basic pathophysiology of the muscular and skeletal systems, and perform technical skills related to the systems. HS-EHS-6	**1** Analyze the basic structures and functions of the muscular system. 6.1
	2 Analyze the basic structures and functions of the skeletal system, including locating and identifying the bones of the skeletal system and hemopoiesis. 6.2
	3 Explain the relationship between the muscular and skeletal systems, and identify their interdependence as they relate to body structure, movement and posture. 6.3
	4 Identify and explain medical terms related to the muscular and skeletal systems, and utilize when documenting in the electronic medical record. 6.4
	5 Research common diseases, disorders, and emerging disorders of the muscular and skeletal systems including pathophysiology, prevention, diagnosis and treatment that might be utilized. 6.5
	6 Differentiate between the axial and appendicular skeletons. 6.6
	7 Describe the development of the skeletal system. 6.7
	8 Locate and identify the types of joints in the skeletal system. 6.8
	9 Locate and identify the types of muscles in the muscular system. 6.9
	10 Perform range of motion (ROM) for joints such as the shoulder, wrist and ankle. 6.10
	11 Differentiate between active and passive range of motion. 6.11

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	12 Demonstrate proper techniques for ambulation with assistive devices (crutches, cane, walker); and identify limitations and abnormalities. 6.12
Analyze the anatomy, physiology, and basic pathophysiology of the urinary system, and apply knowledge in performance of technical skills related to the system. HS-EHS-7	1 Analyze the basic structures and functions of the urinary system. 7.1
	2 Identify and explain the medical terms related to the urinary system, and utilize when documenting in the electronic medical record. 7.2
	3 Describe the structure and function of the nephron, and explain the processes of secretion, filtration and reabsorption including where the processes occur. 7.3
	4 Compare and contrast the urinary system of the female with the urinary system of a male. 7.4
	5 Research common diseases, disorders, and emerging diseases of the urinary system including pathophysiology, prevention, diagnosis and treatment that might be utilized. 7.5
	6 Demonstrate measuring intake and output, and identify abnormal results (collection of specimen) and document in an electronic medical record. 7.6
Analyze the anatomy, physiology, and basic pathophysiology of the reproductive system, and perform technical skills related to the system. HS-EHS-8	1 Analyze the basic structures and functions of the reproductive system. 8.1
	2 Identify and explain medical terms related to the reproductive system, and utilize when documenting in the electronic medical record. 8.2
	3 Research common diseases, disorders, and emerging diseases of the reproductive system including pathophysiology, prevention, diagnosis and treatment that might be utilized. 8.3
	4 Compare and contrast the reproductive system of the female with the reproductive system of the male. 8.4
	5 Explain the relationship of the endocrine system to the function of the reproductive system. 8.5
	6 Demonstrate appropriate technical skills related to the reproductive system for selected pathway. 8.6
Examine the anatomy, physiology, and basic pathophysiology of the nervous system and special senses, and perform technical skills related to these sy ba	1 Analyze the basic structures and functions of the nervous system. 9.1
	2 Analyze the basic structures and functions of the special sense organs (eye, ear, nose, tongue). 9.2
	3 Identify and explain medical terms related to the nervous system and special senses, and utilize when documenting in the electronic medical record 9.3

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functions of the nervous system. HS-EHS-9	**4** Identify the components for each type of neuron, and describe the function of each. 9.4
	5 Identify and label the cranial nerves, and explain the function of each nerve. 9.5
	6 Compare and contrast the sympathetic nervous system with the parasympathetic nervous system. 9.6
	7 Identify and label the lobes of the brain, and explain the functions associated with each lobe. 9.7
	8 Trace sound waves through the ear. 9.8
	9 Explain the physiology of vision. 9.9
	10 Research common diseases, disorders, and emerging diseases of the nervous system and special senses including pathophysiology, prevention, diagnosis and treatment that might be utilized. 9.10
Evaluate the anatomy, physiology, and basic pathophysiology of the endocrine system, and perform technical skills related to the system. HS-EHS-10	**1** Analyze the basic structures and functions of the endocrine system. 10.1
	2 Identify the hormones secreted by each organ of the endocrine system, and describe the role of each hormone. 10.2
	3 Identify and explain medical terms related to the endocrine system, and utilize when documenting in the electronic medical record. 10.3
	4 Explain the role of the endocrine system in maintaining homeostasis. 10.4
	5 Describe the role of the hypothalamus in linking the endocrine system and nervous system. 10.5
	6 Research common diseases, disorders, and emerging diseases of the endocrine system including pathophysiology, prevention, diagnosis and treatment that might be utilized. 10.6
	7 Demonstrate the roles and responsibilities of patient education related to endocrine system (i.e. Diabetic patient education). 10.7
	8 Demonstrate technique for utilizing simulated equipment and medical devices related to the endocrine system (Ex. simulated blood glucose monitor). 10.8
Investigate the anatomy, physiology, and basic pathophysiology of the digestive system, and perform technical skills rel sy	**1** Analyze the basic structures and functions of the digestive system. 11.1
	2 Identify and explain medical terms related to the digestive system, and utilize when documenting in the electronic medical record. 11.2
	:ompare and contrast chemical and mechanical digestion. 11.3

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4 **Trace the path of food throughout the digestive pathway.** 11.4

5 **Identify the gastric secretions and describe the function of each.** 11.5

6 **Explain the process of absorption.** 11.6

7 **Research common diseases, disorders, and emerging diseases of the digestive system including pathophysiology, prevention, diagnosis and treatment that might be utilized.** 11.7

8 **Demonstrate measuring height, weight, and Body Mass Index (BMI), and document in electronic medical record.** 11.8

Analyze the anatomy, physiology, and pathophysiology of the lymphatic system, and perform technical skills related to the system. HS-EHS-12

1 **Analyze the basic structures and functions of the lymphatic system.** 12.1

2 **Identify and explain medical terms related to the lymphatic system, and utilize when documenting in the simulated electronic medical record.** 12.2

3 **Research common diseases, disorders, and emerging diseases of the lymphatic system including pathophysiology, prevention, diagnosis and treatment that might be utilized.** 12.3

4 **Compare and contrast types of immunity and identify the relationship of the WBC and the lymphatic system.** 12.4

5 **Explain the relationship between the lymphatic system and the circulatory system.** 12.5

6 **Trace the flow of lymphatic fluid through the human body.** 12.6

7 **Demonstrate technical skill related to the lymphatic system of selected pathway.** 12.7