Virginia CTE

Introduction to Health and Medical Sciences (8302)

Understanding the U.S. Healthcare System IHMS.1	1	**Highlight the major developments of healthcare history.** IHMS.1.1
	2	**Differentiate among the types of health insurance.** IHMS.1.2
	3	**Differentiate among the types of medical care delivery systems.** IHMS.1.3
	4	**Describe the roles of healthcare team members.** IHMS.1.4
	5	**Differentiate among the scope and functions of the Virginia Department of Health Professions and the Virginia Department of Health.** IHMS.1.5
	6	**Examine the influence of the Internet on the healthcare industry and on the individual consumer.** IHMS.1.6
Learning Basic Healthcare Terminology IHMS.2	1	**Identify common medical prefixes, roots, and suffixes and their meanings, and medical terms related to human systems.** IHMS.2.1
	2	**Describe how word parts are combined to form medical terms.** IHMS.2.2
	3	**Interpret common abbreviations used in the healthcare field.** IHMS.2.3
	4	**Define terminology that relates to the various elements and systems of the body.** IHMS.2.4
Understanding Anatomy and Physiology IHMS.3	1	**Identify basic anatomical structure and body cavities.** IHMS.3.1
	2	**Identify chemical components of the body.** IHMS.3.2
	3	**Identify the structures and functions of the cell.** IHMS.3.3
	4	**Identify the structures and functions of tissues.** IHMS.3.4
	5	**Identify the structures, functions, and diseases of the integumentary system.** IHMS.3.5
	6	**Identify the structures, functions, and diseases of the skeletal system.** IHMS.3.6
	7	**dentify the structures, functions, and diseases of the muscular system.** IHMS.3.7

Skip to main content

	8 **Identify the structures, functions, and diseases of blood.** IHMS.3.8
	9 **Identify the structures, functions, and diseases of the heart.** IHMS.3.9
	10 **Identify the structures, functions, and diseases of blood vessels and blood circulation.** IHMS.3.10
	11 **Identify the structures, functions, and diseases of the lymphatic system.** IHMS.3.11
	12 **Explain immunity and its relationship with the lymphatic system.** IHMS.3.12
	13 **Identify the structures, functions, and diseases of the respiratory system.** IHMS.3.13
	14 **Identify the structures, functions, and diseases of the gastrointestinal system.** IHMS.3.14
	15 **Identify the structures, functions, and diseases of the endocrine system.** IHMS.3.15
	16 **Identify the structures, functions, and diseases of the reproductive system.** IHMS.3.16
	17 **Identify the structures, functions and diseases of the nervous system.** IHMS.3.17
	18 **Identify the structures, functions and diseases of the urinary system.** IHMS.3.18
	19 **Identify the structures, functions, and diseases of the sensory system.** IHMS.3.19
Performing Medical Laboratory Procedures IHMS.4	1 **(Optional) Describe specimen preparation and handling.** IHMS.4.1
	2 **(Optional) Identify the diagnoses, laboratory tests, and procedures used in the treatment for the diseases/disorders of each body system.** IHMS.4.2
	3 **(Optional) Examine body fluids and cells for bacteria, parasites, and other microorganisms.** IHMS.4.3
	4 **(Optional) Analyze the chemical content of fluids and tissues.** IHMS.4.4
	5 **(Optional) Examine cells to determine the quantity of and/or to look for abnormal cells in blood and other body fluids and tissues.** IHMS.4.5
	6 **(Optional) Assess lab findings, using automated equipment and computerized instruments.** IHMS.4.6
	7 **(Optional) Document the results of laboratory findings.** IHMS.4.7
	Optional) Report lab results to physicians. IHMS.4.8

Skip to main content

Understanding the Role of Nutrition in Health Care IHMS.5	1	**Identify the six essential nutrients, sources, and functions for optimal health and wellness.** IHMS.5.1
	2	**Describe the digestion and metabolism of food.** IHMS.5.2
	3	**Describe dietary guidelines recommended for health promotion.** IHMS.5.3
	4	**Identify the principles of food management and safety.** IHMS.5.4
	5	**Explain basic dietary management techniques.** IHMS.5.5
	6	**Identify common medical conditions related to poor nutrition.** IHMS.5.6
	7	**Identify dietary patterns.** IHMS.5.7
Opioid Abuse Prevention Education IHMS.6	1	**Opioid Abuse Prevention Education PPT.pdf** IHMS.6.1
	2	**Opioid Resources for Teachers** IHMS.6.2
Exploring Pharmacology Fundamentals IHMS.7	1	**(Optional) Identify general principles of pharmacology.** IHMS.7.1
	2	**(Optional) Describe sources, types, and uses of common drugs.** IHMS.7.2
	3	**(Optional) Explain the naming processes for drugs.** IHMS.7.3
	4	**(Optional) Explain the importance of pharmacokinetics.** IHMS.7.4
	5	**(Optional) Describe the elements of a prescription.** IHMS.7.5
	6	**(Optional) Explain common abbreviations used on prescriptions.** IHMS.7.6
	7	**(Optional) Calculate doses of medications.** IHMS.7.7
	8	**(Optional) Identify drug administration routes.** IHMS.7.8
	9	**(Optional) Explain the importance of drugs and supplements in preventive medicine.** IHMS.7.9
	10	**(Optional) Explain current state and federal regulations regarding the practice of pharmacy.** IHMS.7.10
Understanding Patient Care IHMS.8	1	**(Optional) Summarize the approaches to health care for a variety of patient categories.** IHMS.8.1
	2	**(Optional) Explain the nature and importance of a medical history.** IHMS.8.2
	3	**(Optional) Examine concepts of care relating to ethnic, religious, cultural, and personal preferences.** IHMS.8.3
	.	**Explain the principles of effective communication.** IHMS.8.4

Skip to main content

	5 (Optional) Apply principles of communication in establishing therapeutic relationships. IHMS.8.5
	6 (Optional) Explain the concept and importance of the Patient's Bill of Rights. IHMS.8.6
	7 Explain the function and importance of advance directives for health care. IHMS.8.7
	8 Examine the concepts of death and dying. IHMS.8.8
	9 Explain the concept of integrated and holistic care. IHMS.8.9
Ensuring a Clean and Safe Healthcare Environment IHMS.9	1 Explain the concept of infection control and asepsis. IHMS.9.1
	2 Explain the chain of infection. IHMS.9.2
	3 Demonstrate hand hygiene procedures. IHMS.9.3
	4 Explain transmission-based precautions. IHMS.9.4
	5 Demonstrate the use of personal protective equipment (PPE) and safe workplace practices. IHMS.9.5
	6 Describe policies and procedures for handling and disposing of infectious and/or hazardous materials. IHMS.9.6
	7 Explain sterile processes. IHMS.9.7
	8 Identify the importance of the CDC and Occupational Safety and Health Administration (OSHA) guidelines. IHMS.9.8
	9 Identify emergency protection areas and devices. IHMS.9.9
	10 Explain methods of fire safety. IHMS.9.10
	11 Identify environmental hazards. IHMS.9.11
	12 Describe the principles of body mechanics. IHMS.9.12
	13 (Optional) Explain radiographic safety. IHMS.9.13
	14 Explain the importance of maintaining a safe and clean work environment. IHMS.9.14
Performing Administrative Fu He Profession IHMS.10	1 Explain the process and importance of patient identification. IHMS.10.1
	Optional) Explain the purpose of medical records. IHMS.10.2

Skip to main content

	3	(Optional) Identify the components of the electronic medical record (EMR). IHMS.10.3
Handling Traumatic and Medical Emergencies IHMS.11	1	Explain basic traumatic and medical emergency procedures. IHMS.11.1
	2	Identify the essential components of disaster planning. IHMS.11.2
	3	Identify items found in a basic emergency kit. IHMS.11.3
	4	Describe the causes, symptoms, and treatments of selected medical emergencies. IHMS.11.4
	5	Demonstrate CPR with the AED. IHMS.11.5
Exploring Biotechnology Concepts IHMS.12	1	(Optional) Explain the concept of biotechnology. IHMS.12.1
	2	(Optional) Identify the effects of innovations in biotechnology. IHMS.12.2
	3	(Optional) Describe the effects of biotechnology on preventive health care. IHMS.12.3
	4	(Optional) Describe the role biotechnology plays in medical forensics. IHMS.12.4
Examining Professionalism in the Healthcare Industry IHMS.13	1	Identify professional agencies and organizations in the healthcare field and the roles of each. IHMS.13.1
	2	Examine the legal issues related to the health and medical science profession. IHMS.13.2
	3	Explain confidentiality and its connection to HIPAA. IHMS.13.3
	4	Analyze the role of public health in providing health care. IHMS.13.4
Exploring Healthcare Careers and Employability Skills IHMS.14	1	Conduct a self-assessment to determine career interests in the healthcare field. IHMS.14.1
	2	Describe the major career fields in health and medical sciences. IHMS.14.2
	3	Research selected healthcare career(s). IHMS.14.3
	4	Explain the importance of ongoing professional development and methods of attaining ongoing training in the healthcare industry. IHMS.14.4
Describing the Opioid Crisis IHMS.15	1	Describe the history and current state of the opioid crisis in the United States. IHMS.15.1
		)escribe the history and current state of the opioid crisis in Virginia. IHMS.15.2

Skip to main content

	3	**Define the pharmacological components and common uses of opioids.** IHMS.15.3
Examining the Key Factors of Drug Addiction IHMS.16	1	**Examine the science of addiction.** IHMS.16.1
	2	**Explain prevention and early intervention strategies.** IHMS.16.2
	3	**Identify addiction and its behavioral elements, as defined by the Diagnostic and Statistical Manual of Mental Disorders (DSM-5).** IHMS.16.3
	4	**Describe the treatment models of addiction therapy.** IHMS.16.4
	5	**Describe the medication management antidote used to prevent fatal opioid overdoses.** IHMS.16.5
Understanding Pain Management Protocols IHMS.17	1	**Explain the science of physiological and mental pain.** IHMS.17.1
	2	**Describe the diagnostic tools used in developing pain management plans.** IHMS.17.2
	3	**Describe pain treatment options available to various populations of patients.** IHMS.17.3
	4	**Describe the effects of opioid dependency on the human body systems.** IHMS.17.4
	5	**Explain the mechanism and physical effects of opioids on the human body.** IHMS.17.5
	6	**Explain the use of opioids in practice settings, the role of opioids in pain management, and risk factors associated with the use of the medication.** IHMS.17.6
	7	**Describe the withdrawal and tapering side effects of opioid use.** IHMS.17.7
	8	**Describe storage and disposal options for opioids.** IHMS.17.8
	9	**Explain community resources for education about opioid use.** IHMS.17.9
Working with Patients and Caregivers IHMS.18	1	**Describe key communication topics involving opioids for patients.** IHMS.18.1
	2	**Describe communication topics for caregivers and family members.** IHMS.18.2