

Health Science Career Field
Medical Terminology
Subject Code: 072150
Outcome & Competency Descriptions

Course Description:

This course focuses on the applications of the rules for constructing and defining medical terms with an emphasis on building a working medical vocabulary. Topics include using the appropriate abbreviations and symbols for anatomical, physiological and pathological classifications and the associated medical specialties and procedures. Students will decipher medical terms by identifying and using word elements with an emphasis on derivation, meaning, and pronunciation. Further, students will interpret and translate medical records and documents.

Strand 2. Human Body System

Learners will discuss the various forms, functions and pathophysiology associated with body systems and alterations related to the normal aging process, obtain a health history, perform an evaluation of body systems and document using medical terminology.

Outcome: 2.1. Human Body Form, Function and Pathophysiology

Discuss the various human body systems, alterations related to the normal aging process and possible dysfunctions.

Competencies

- 2.1.1. Describe the physical characteristics, components and function of blood (e.g., ABO, Rh, blood cells, precursors and respiratory).
- 2.1.2. Describe the cardiovascular system and trace the path of blood and factors affecting blood flow.
- 2.1.3. Describe how blood pressure is controlled and factors influencing changes in blood pressure.
- 2.1.4. Describe the function and components of the respiratory system and pulmonary ventilation and factors influencing respiratory rates.
- 2.1.5. Describe nerve tissue and the nervous system including regions of the brain and their function, the spinal nerves, signal transmission at synapses, and the sympathetic and parasympathetic system.
- 2.1.6. Describe the musculoskeletal system including skeletal, cardiac and smooth muscle, various bone structures and the role of bone marrow, and joints and injuries.
- 2.1.7. Describe the gastrointestinal system including structures of chewing, swallowing, digestion, and elimination and the role of accessory organs including the liver, pancreas and gallbladder.
- 2.1.8. Describe the urinary system structures and principles of glomerular filtration, electrolyte exchanges, role in the production of red blood cells and control of blood pressure.
- 2.1.9. Describe the immune system and the lymphatic system's role in immunity.
- 2.1.10. Describe the sensory system, related structures and functions.
- 2.1.11. Describe the endocrine system, structures and the role of hormones.
- 2.1.12. Differentiate between the male and female reproductive system, structures, and function.
- 2.1.13. Describe the integumentary system, related structures, and functions.
- 2.1.14. Describe the difference between pathology and physiology and the conditions typically observed during a disease state.
- 2.1.15. Explain the pathophysiology changes associated with or resulting from disease or injury.

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An "X" indicates that the pathway applies to the outcome.

Pathways	X	Health Information Management		Medical Bioscience	X	Allied Health and Nursing	X	Exercise Science and Sports Medicine
Green Practices		Green-specific		Context-dependent		Does not apply		

Outcome: 2.3. Medical Terminology

Decipher medical terms through word origin and structure with an emphasis on derivation, meaning, pronunciation, and spelling.

Competencies

- 2.3.1. Build and decipher medical term meanings by identifying and using word elements (e.g., word roots, prefixes, suffixes, and combining forms).
- 2.3.2. Apply the rules used to build singular and plural forms of medical terminology derived from the Greek and Latin language.
- 2.3.3. Use diagnostic, symptomatic, and procedural terms to read and interpret various medical reports.
- 2.3.4. Use the appropriate abbreviations and symbols to identify anatomical, physiological and pathological classifications and the associated medical specialties and procedures.
- 2.3.5. Use proper spelling and pronunciation of medical terms when communicating medical instructions and preparing medical documentations.

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Strand 3. Therapeutic Interventions

Learners will administer or assist with environmental, health promotion, pharmacological, emergency, nutritional, exercise and rehabilitative and dental and surgical interventions and/or procedures to improve the individuals' outcome and quality of life across the life span within their scope of practice, evaluate outcomes and ensure individual's rights.

Outcome: 3.3. Pharmaceutical Interventions

Prepare, administer, store and document medications and reactions and outcomes according to laws, regulations and authorized health care provider orders and protocols.

Competencies

- 3.3.1. Identify and define terms related to drugs, pharmacology and medicines.
- 3.3.2. Identify drug classifications.
- 3.3.3. Recognize brand and generic names of prescription medications, over-the-counter drugs and herbal preparations.

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Strand 4. Assistive Care

Learners will demonstrate the skills and knowledge to provide personal assistive care for the activities of daily living to a variety of individuals across the life span within their scope of practice.

Outcome: 4.1. Scope of Practice

Demonstrate the roles and responsibilities of assistive personnel and identify the medical specialists who treat disorders of each body system.

Competencies

- 4.1.4. Describe the primary purpose of healthcare settings (e.g., long-term care facility (LTCF), acute care, and home health).
- 4.1.5. Identify the medical specialists who treat disorders of each body system.
- 4.1.6. Identify body planes, directions, cavities, quadrants, and regions.

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Outcome: 4.3. Microorganisms, Infection Control and Infection

Use basic principles of infection control to prevent the growth and spread of pathogenic microorganisms and infection.

Competencies

- 4.3.1. Describe the chain of infection (e.g. host, vectors, and portal of entry).
- 4.3.2. Describe mechanisms for the spread of infection including airborne, vector-borne, common vehicle, droplet, and contact.
- 4.3.3. Describe methods of controlling or eliminating microorganisms and the importance of practices that hinder the spread of infection (e.g. hand washing, disinfecting care areas).

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Strand 5. Bioscience Research and Development

Learners will demonstrate the skills and knowledge of interpreting laboratory requests, using protective clothing and hazardous material containment, specimen collection procedures, a variety of laboratory testing and techniques and maintenance of laboratory equipment and supplies.

Outcome: 5.3. Microbiology Testing & Technology

Describe the morphology and process of reproduction of microorganisms important in clinical disease and biotechnology applications and perform assays as a diagnostic tool to detect the presence of a pathogen.

Competencies

- 5.3.1. Explain microbial taxonomy and classification systems and use to identify microbial organisms.
- 5.3.2. Compare and contrast cellular structure and functions of prokaryotic, eukaryotic cells.
- 5.3.3. Explain bacterial metabolism, reproduction, cell structures and their functions.
- 5.3.4. Identify aerobic bacteria through morphological, physical and biochemical properties.

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Strand 6. Health Information Management

Learners will demonstrate basic computer literacy, health information literacy and skills, confidentiality and privacy of health records, information security and basic skills in the use of electronic health records.

Outcome: 6.1. Health Information Literacy

Apply principles of systems operations used to capture, retrieve, and maintain information from internal and external sources.

Competencies

- 6.1.1. Define Health Information Management and differentiate data versus information or competency.
- 6.1.5. Use health record data collection tools (e.g input screens, document templates).
- 6.1.6. Recognize standard data definitions, vocabularies, terminologies, nomenclatures (e.g. SNOMED-CT), classifications (e.g. ICD9CM, ICD10, CPT), and/or relevant healthcare data sets (e.g. OASIS, HEDIS, UHDDS) as used in the organization’s health information systems.
- 6.1.7. Differentiate between the types and content of patient health records and the data collected (e.g. paper-based, electronic health records, and personal health records).
- 6.1.8. Describe health record documentation requirements of external agencies and organizations (e.g. those specified by accrediting bodies, regulatory bodies, professional review organizations, licensure, reimbursement, discipline-specific “good practice”).
- 6.1.9. Describe typical internal organizational health record documentation requirements, policies, and procedures

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Outcome: 6.2. Confidentiality, Privacy and Security

Apply the fundamentals of confidentiality, privacy and security to communicate health/medical information accurately and within legal/regulatory bounds across the organization and between organizations.

Competencies

- 6.2.1. Identify components of the court systems and distinguish between public and private law, civil and criminal law and tort, contract actions, and the trial process.
- 6.2.4. Identify what constitutes the authorized access, release, and use of personal health data.
- 6.2.5. Distinguish between confidential and non-confidential information within the healthcare system and document, categorize, and prioritize requests for personal health information according to internal/external privacy and confidentiality guidelines (e.g. HIPAA).
- 6.2.8. Describe the possible consequences of inappropriate use of health data in terms of disciplinary action.
- 6.2.10. Describe elements that are included in the design of audit trails and data quality monitoring programs.

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Outcome: 6.3. Electronic Health Records and Coding

Perform functions within Electronic Health Records (EHR) and Personal Health Record (PHR) to ensure accurate information, retrieve information and maintain data.

Competencies

- 6.3.1. Create and update documents within the electronic health record EHR and personal health record PHR systems.
- 6.3.2. Locate and retrieve information in the electronic health record EHR and other electronic sources for a variety of purposes.
- 6.3.3. Populate and use health data content.
- 6.3.4. Apply documentation management principles to ensure data quality, legal compliance and integrity.
- 6.3.5. Apply methods to ensure authenticity, timeliness, and completeness of health data entries in electronic information systems.
- 6.3.6. Document profession-specific information in an electronic health record EHR.
- 6.3.7. Identify methods to correct errors entered in an electronic health record EHR.
- 6.3.8. Access reference material available through an electronic health record EHR.
- 6.3.9. Identify the source of information entered in an electronic health record (EHR).
- 6.3.10. Resolve minor technology problems associated with using an electronic health record (EHR).
- 6.3.11. Follow access protocols for entry to an electronic health record (EHR).
- 6.3.12. Manage documents within the electronic health record (EHR) and personal health record (PHR) utilizing filing and patient identification methodologies.
- 6.3.13. Complete health information management (HIM) functions (e.g. scanning, transcription, releasing information) in an electronic environment.
- 6.3.14. Perform procedural and diagnostic coding according to managed care policies and procedures (including third-party guidelines).
- 6.3.15. Describe the common insurance claim procedures and apply guidelines of documentation and processing to ensure federal, state, and third party insurance reimbursements are included and complete insurance claim forms.
- 6.3.16. Select accurate medical terminology to record and code charges and reimbursement aligned with regulatory and legal purposes.

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