

MEDICAL TERMINOLOGY

490033

Medical Terminology is a one-credit course that is designed for students to develop health care specific knowledge for a career in the medical field. The course uses an integrated approach for teaching the language of medicine to the health care student by incorporating medical terminology with anatomy and physiology and the disease process. This method has been proven to be a logical and effective method of learning the language of medicine.

Career and technical student organizations are integral, co-curricular components of each career and technical education course. These organizations serve as a means to enhance classroom instruction while helping students develop leadership abilities, expand workplace-readiness skills, and broaden opportunities for personal and professional growth.

Students will:

Introduction to Medical Terminology

1. Utilize basic components of words to create medical terms.
 - Describing medical terminology and strategies for translating medical terms
 - Recognizing word roots and combining forms
 - Arranging combining forms, prefixes, and suffixes to correctly build medical words
Examples: Combine arthr with -itis = arthritis
Combine arthr with -scope = arthroscope
 - Stating the importance of correct spelling of medical terms
 - Explaining protocols for forming and interpreting abbreviations and caution with use
 - Understanding the importance of confidentiality and the Health Insurance Portability and Accountability Act of 1996 (HIPAA)
Examples: moral and legal responsibilities
 - Classifying prefixes and suffixes in words
 - Identifying commonly used prefixes and suffixes
 - Identifying prefixes pertaining to numbers, color, measurements, and negatives
 - Explaining how prefixes and suffixes change word meaning
 - Identifying suffixes pertaining to instruments, diagnostic procedures, and surgical procedures
 - Identifying suffixes pertaining to symptoms or diagnosis
 - Identifying suffixes pertaining to specialties and specialists

Levels of Body Organization

2. Differentiate medical terminology based on body organization.
 - Discussing the organization of the body in terms of cells, tissues, organs, and systems

- Locating body planes and body regions
- Identifying the body cavities and organs contained within those cavities
- Distinguishing the anatomical and clinical divisions of the abdomen
 - Examples: Anatomical Divisions - Right Hypochondriac, Epigastric, Left Hypochondriac, Right Lumbar, Umbilical, Left Lumbar, Right Iliac, Hypogastric, Left Iliac
 - Clinical Divisions - Right Upper Quadrant (RUQ), Right Lower Quadrant (RLQ), Left Upper Quadrant (LUQ), Left Lower Quadrant (LLQ)
- Analyzing directional and positional terms
 - Examples: Superior versus inferior
 - The adrenal glands are superior to the kidneys
 - The intestine is inferior to the heart
- Interpreting abbreviations associated with body organization

Integumentary System

3. Demonstrate understanding of medical terminology relating to the anatomical structures of the integumentary system.
 - Identifying the appropriate combining form(s) for terms relating to the integumentary system
 - Interpreting the abbreviations common to the integumentary system
 - Examining anatomical structures relating to the integumentary system
 - Describing diagnostic procedures common to the integumentary system
 - Examples: Biopsy (bx), exfoliative cytology, frozen section, and fungal scrapings
 - Explaining therapeutic procedures common to the integumentary system
 - Examples: skin graft, cauterization, debridement, electrocautery, Incision and Drainage (I&D), dermabrasion, and liposuction
 - Investigating pathological conditions of the integumentary system
 - Examples: laceration, macule, pustule, ulcer, abscess, acne rosacea, basal cell carcinoma, burn, cellulitis, decubitus ulcer, malignant melanoma, pediculosis, varicella, and alopecia

Musculoskeletal System

4. Demonstrate understanding of medical terminology relating to the anatomical structures of the musculoskeletal system.
 - Identifying the appropriate combining form(s) for terms relating to the musculoskeletal system
 - Interpreting the abbreviations common to the musculoskeletal system
 - Examining anatomical structures relating to the musculoskeletal system
 - Describing diagnostic procedures common to the musculoskeletal system
 - Examples: arthrography, bone scan, dual-energy absorptiometry, myelography, radiography, and arthroscopy
 - Explaining therapeutic procedures common to the musculoskeletal system

Examples: amputation, arthroscopic surgery, bone graft, laminectomy, total hip arthroplasty, fixation, reduction, and traction

- Investigating pathological conditions of the musculoskeletal system
Examples: closed fracture, compound fracture, stress fracture, Ewing's sarcoma, osteoporosis, scoliosis, osteoarthritis, rheumatoid arthritis, sprain, and Systemic Lupus Erythematosus (SLE)

Cardiovascular System

5. Demonstrate understanding of medical terminology relating to the anatomical structures of the cardiovascular system.
 - Identifying the appropriate combining form(s) for terms relating to the cardiovascular system
 - Interpreting the abbreviations common to the cardiovascular system
 - Identifying anatomical structures relating to the cardiovascular system
 - Describing diagnostic procedures common to the cardiovascular system
Examples: cardiac enzymes, angiography, echocardiography, cardiac catheterization, electrocardiography, and stress testing
 - Explaining therapeutic procedures common to the cardiovascular system
Examples: defibrillation, Cardiopulmonary Resuscitation (CPR), thrombolytic therapy, and embolectomy
 - Investigating pathological conditions of the cardiovascular system
Examples: arrhythmia, bundle branch block, cardiac arrest, Congenital Septal Defect (CSD), Congestive Heart Failure (CHF), Coronary Artery Disease (CAD), Myocardial Infarction (MI), aneurysm, arteriosclerosis, hypertension, hypotension, and thrombus
 - Identifying the pathway of blood as it travels through the heart, to the lungs, and back through the heart

Blood, Lymphatic, and Immune Systems

6. Demonstrate understanding of medical terminology relating to the anatomical structures of the blood, lymphatic, and immune system.
 - Identifying the appropriate combining form(s) for terms relating to the blood, lymphatic, and immune systems
 - Interpreting the abbreviations common to the blood, lymphatic, and immune systems
 - Identifying anatomical structures relating to the blood, lymphatic, and immune systems
 - Describing diagnostic procedures common to the blood, lymphatic, and immune systems
Examples: Blood - Complete Blood Count (CBC), Erythrocyte Sedimentation Rate (ESR), and Hemoglobin (Hgb)
Lymphatic and Immune - Enzyme-Linked Immunosorbent Assay (ELISA), Western Blot, lymphangiography, Monospot, and scratch test

- Explaining therapeutic procedures common to the blood, lymphatic, and immune systems
Examples: Blood - blood transfusion, Bone Marrow Transplant (BMT) homologous transfusion, and plasmapheresis
Lymphatic and Immune - immunotherapy, vaccination, and lymphadenectomy
- Investigating pathological conditions of the blood, lymphatic, and immune systems
Examples: Blood - hemophilia, hyperlipidemia, anemia, sickle cell anemia, thalassemia, and leukemia
Lymphatic - Hodgkin's disease, mononucleosis, non-Hodgkin's lymphoma, lymphadenitis, and elephantiasis
Immune - Acquired Immunodeficiency Syndrome (AIDS), Kaposi's Sarcoma, and Sarcoidosis

Respiratory System

7. Demonstrate understanding of medical terminology relating to the anatomical structures of the respiratory system.
 - Identifying the appropriate combining form(s) for terms relating to the respiratory system
 - Interpreting the abbreviations common to the respiratory system
 - Identifying anatomical structures relating to the respiratory system
 - Describing diagnostic procedures common to the respiratory system
Examples: Arterial Blood Gases (ABGs), chest x-ray, bronchoscopy, oximetry, Pulmonary Function Test (PFT), and tuberculin skin tests
 - Explaining therapeutic procedures common to the respiratory system
Examples: endotracheal intubation, postural drainage, supplemental oxygen therapy, ventilator, thoracentesis, and tracheostomy
 - Investigating pathological conditions of the respiratory system
Examples: croup, pertussis, asthma, bronchogenic carcinoma, Adult Respiratory Distress Syndrome (ARDS), Chronic Obstructive Pulmonary Disease (COPD), Sudden Infant Death Syndrome (SIDS), and tuberculosis
 - Describing the process of breathing and identify the pathway of air as it travels from the nose to the capillaries of the lungs

Digestive System

8. Demonstrate understanding of medical terminology relating to the anatomical structures of the digestive system.
 - Identifying the appropriate combining form(s) for terms relating to the digestive system
 - Interpreting the abbreviations common to the digestive system
 - Identifying anatomical structures relating to the digestive system
 - Describing diagnostic procedures common to the digestive system

Examples: Fecal Occult Blood Test (FOBT), Ova and Parasites (O&P), lower gastrointestinal series, and colonoscopy

- Explaining therapeutic procedures common to the digestive system
Examples: Nasogastric Tube (NG Tube), Total Parenteral Nutrition (TPN), colostomy, gastric stapling, and exploratory laparotomy
- Investigating pathological conditions of the digestive system
Examples: cleft palate, periodontal disease, hiatal hernia, peptic ulcer, Crohn's disease, diverticulitis, irritable bowel syndrome, hepatitis

Urinary System

9. Demonstrate understanding of medical terminology relating to the anatomical structures of the urinary system.
 - Identifying the appropriate combining form(s) for terms relating to the urinary system
 - Interpreting the abbreviations common to the urinary system
 - Identifying anatomical structures relating to the urinary system
 - Describing diagnostic procedures common to the urinary system
Examples: Blood Urea Nitrogen (BUN), Creatinine Clearance (CC), Urinalysis (U/A), and Urine Culture and Sensitivity (C&S)
 - Explaining therapeutic procedures common to the urinary system
Examples: catheterization, Hemodialysis (HD), peritoneal dialysis, lithotripsy, nephrolithotomy, and renal transplant
 - Investigating pathological conditions common to the urinary system
Examples: diabetic nephropathy, pyelonephritis, Wilm's tumor, bladder cancer, cystocele, neurogenic bladder, and Urinary Tract Infection (UTI)

Female Reproductive System

10. Demonstrate understanding of medical terminology relating to the anatomical structures of the female reproductive system.
 - Identifying the appropriate combining form(s) for terms relating to the female reproductive system
 - Interpreting the abbreviations common to the female reproductive system
 - Identifying anatomical structures relating to the female reproductive system
 - Describing diagnostic procedures common to the female reproductive system
Examples: Papanicolaou Smear, pregnancy test, mammography, colposcopy, amniocentesis, cervical biopsy, and pelvic examination
 - Explaining therapeutic procedures common to the female reproductive system
Examples: cesarean section (C-section), Dilation and Curettage (D & C), radical mastectomy, and tubal ligation
 - Investigating pathological conditions of the female reproductive system
Examples: ovarian carcinoma, fibroid tumor, cervical cancer, prolapsed uterus, candidiasis, endometriosis, Pelvic Inflammatory Disease (PID), breast cancer, and sexually transmitted diseases

Male Reproductive System

11. Demonstrate understanding of medical terminology relating to the anatomical structures of the male reproductive system.
 - Identifying the appropriate combining form(s) for terms relating to the male reproductive system
 - Interpreting the abbreviations common to the male reproductive system
 - Identifying anatomical structures of the male reproductive system
 - Describing diagnostic procedures common to the male reproductive system
Examples: Prostate-Specific Antigen (PSA) and rectal exam
 - Explaining therapeutic procedures common to the male reproductive system
Examples: circumcision, transurethral resection of the prostate, and vasectomy
 - Investigating pathological conditions of the male reproductive system
Examples: cryptorchidism, hydrocele, testicular carcinoma, prostate cancer, hypospadias, and sexually transmitted diseases

Endocrine System

12. Demonstrate understanding of medical terminology relating to the anatomical structures of the endocrine system.
 - Identifying the appropriate combining form(s) for terms relating to the endocrine system
 - Interpreting the abbreviations common to the endocrine system
 - Identifying anatomical structures relating to the endocrine system
 - Describing diagnostic procedures common to the endocrine system
Examples: blood serum test, fasting blood sugar, Glucose Tolerance Test (GTT), Thyroid Function Test (TFT), thyroid echogram, and thyroid scan
 - Explaining therapeutic procedures common to the endocrine system
Examples: chemical thyroidectomy, hormone replacement therapy, and laparoscopic adrenalectomy
 - Investigating pathological conditions of the endocrine system
Examples: Addison's disease, Cushing's syndrome, diabetes mellitus, diabetic retinopathy, ketoacidosis, non-insulin dependent diabetes mellitus, Graves' disease, Hashimoto's disease, and adenocarcinoma

Nervous System

13. Demonstrate understanding of medical terminology relating to the anatomical structures of the nervous system.
 - Identifying the appropriate combining form(s) for terms relating to the nervous system
 - Interpreting the abbreviations common to the nervous system

- Identifying anatomical structures relating to the nervous system
- Describing diagnostic procedures common to the nervous system
Examples: cerebrospinal fluid analysis, brain scan, echoencephalography, myelography, Electroencephalography (EEG), and Lumbar Puncture (LP)
- Explaining therapeutic procedures common to the nervous system
Examples: nerve block, carotid endarterectomy, cerebrospinal fluid shunts, and laminectomy
- Investigating pathological conditions common to the nervous system
Examples: absence seizures, Alzheimer's disease, brain tumor, cerebral aneurysm, Cerebrovascular Accident (CVA), concussion, migraine, Parkinson's disease, Transient Ischemic Attacks (TIA), and shingles

Special Senses System

14. Demonstrate understanding of medical terminology relating to the anatomical structures of the special senses system.
 - Identifying the appropriate combining form(s) for terms relating to the special senses system
 - Interpreting the abbreviations common to the special senses system
 - Examining anatomical structures relating to the special senses system
 - Describing diagnostic procedures common to the special senses system
Examples: Eye - ophthalmoscopy, fluorescein staining, Snellen chart, and visual acuity test
Ear - audiometry, Rinne and Weber tuning-fork tests, otoscopy, and tympanometry
 - Explaining therapeutic procedures common to the special senses system
Examples: Eye - keratoplasty, laser photocoagulation, radial keratotomy, and strabotomy
Ear - hearing aid, cochlear implant, myringotomy, pressure equalizing tube, and stapedectomy
 - Investigating pathological conditions of the special senses system
Examples: Eye - astigmatism, corneal abrasion, glaucoma, macular degeneration, myopia, retinal detachment, retinoblastoma, trachoma, hordeolum, strabismus, and nystagmus
Ear - anacusis, ceruminoma, otitis externa, otitis media, otosclerosis, acoustic neuroma, labyrinthitis, and Meniere's disease