STRANDS AND STANDARDS
MEDICAL ASSISTANT

Course Description

An instructional program that prepares individuals to support physicians by providing assistance during patient examinations, treatment administration and monitoring; by keeping patient and related health record information; and by performing clinical, administrative, and laboratory duties.

Intended Grade Level	12
Units of Credit	2.0
Core Code	36.0.00.00.120
Concurrent Enrollment Core Code	
Prerequisite	None
Skill Certification Test Number	710,712, 714, 716
Test Weight	1.0
License Type	CTE and/or Secondary Education 6-12
Required Endorsement(s)	
Endorsement 1	Medical Assisstant
Endorsement 2	
Endorsement 3	

MEDICAL TERMINOLOGY-Benchmark 1

STRAND 1

Students will interpret and apply medical terminology.

Standard 1

Identify basic structure of medical words associated with Medical Assisting.

- Recognize word construction and dissection.
- Apply word building and definitions.

Standard 2

Identify and utilize anatomical positions, planes, and directional terms.

- Demonstrate what anatomical position is and how it is used to reference the body.
- Distinguish between the commonly used anatomical planes and recognize their individual views.
    - Sagittal/Midsagittal Plane
    - Frontal/Coronal Plane
    - Transverse/Horizontal Plane
- Apply directional terms to other locations on the human body.
    - Superior/Inferior
    - Anterior/Posterior
    - Medial/Lateral
    - Distal/Proximal
    - Superficial/Deep
    - Ventral/Dorsal
    - Prone/Supine
    - Unilateral/Bilateral

STRAND 2

Students will identify medical abbreviations in a healthcare setting.

Standard 1

Interpret and apply identified medical abbreviations.

- Interpret and extract information from realistic medical documents.
- Apply medical abbreviations to interpreting and writing prescriptions.

Standard 2

Interpret identified healthcare symbols.

- Identify pharmacological symbols.
- Identify medical symbols.

Strand 2 Performance Skills Included Below

MEDICAL OFFICE MANAGEMENT-Benchmark 2

STRAND 1

Students will explore the medical assisting profession and its role in the healthcare setting.

Standard 1

Describe the job responsibilities of a medical assistant.

- Describe the training required for a medical assistant.
    - Compare and contrast endorsed, certified, and registered medical assistants.
        - State
        - National
    - Describe the current Utah medical assistant job training requirements.
- Compare administrative and clinical skills.
    - Administrative skills, including office management and clerical functions.
    - Clinical skills, including therapeutic procedures and diagnostic procedures.

Strand 1 Performance Skills Included Below

Standard 2

Analyze characteristics needed for a quality medical assistant and apply the skills necessary for obtaining employment.

- Examine the following workplace skills:
    - Positive attitude
    - Teamwork
    - Adapt to change
    - Communication skills
    - Professional appearance
    - Confidentiality (verbal and written correspondence)
    - Exhibit initiative
    - Cultural competency
    - Integrity
    - Discretion
    - Organize and prioritize
    - Continuing education
    - Critical thinking
    - Dependability
    - Accountability
- Discuss professionalism.
- Apply job-seeking skills.

    - Prepare a resume
    - Write a cover letter
    - Practice job interviewing skills
    - Write a follow-up letter
- Identify job opportunities available for Medical Assistants.
    - Inpatient setting
    - Ambulatory setting
    - Healthcare departments and specialties

Standard 3

Describe other healthcare professionals with whom medical assistants will work.

- Categorize medical practice specialties.
- Identify ancillary healthcare departments.

STRAND 2

Students will analyze the legal and ethical issues that impact the medical office.

Standard 1

Identify the legal guidelines/requirements for a medical office.

- Define a medical assistant's scope of practice and understand the principle of delegation.
- Apply risk management procedures.
- Define HIPAA regulations for the medical office.
- Discuss patient self-determination acts.
    - Medical (Durable) Power of Attorney
    - Living will/Advanced directives
    - Anatomical Gift Act (Organ donation)

Standard 2

Define classifications of law.

- Discuss criminal law.
- Discuss civil law.
    - Torts
        - Battery
        - Assault
        - Libel
        - Slander
        - False imprisonment
        - Defamation
        - Invasion of privacy
    - Contracts

Standard 3

Explain malpractice and the terms associated with malpractice litigation.

- Compare and contrast negligence and malpractice.
- Identify malpractice terms.
    - Informed consent
    - Patient rights
    - Good Samaritan Law
    - Statute of Limitations
    - Commission and Omission

Standard 4

Evaluate medical ethics and related issues.

- Differentiate between law, etiquette, and ethics.
- Discuss ethical situations.
- Apply ethical situations in personal and professional practice.

STRAND 3

Students will identify procedures that contribute to a professional and safe medical office environment.

Standard 1

Identify the elements important in the medical office.

- Discuss the environment appropriate to maintain comfort for patients.
    - Aesthetics
    - Temperature
    - Cleanliness
    - Compliance with ADA
- Describe the professional way of greeting and responding to patients.
    - Explain the process of collecting new and updated information from patients.
    - Describe the professional way of escorting and instructing patients.
    - Learn general techniques of how to resolve conflicts with patients.
        - Late appointment
        - Angry patient
        - Talkative patient
        - Missed appointment

Standard 2

Identify the duties of opening and closing the office.

- Discuss steps used in opening the medical office.
- Discuss steps used in closing the medical office.

Strand 3 Performance Skills Included Below

STRAND 4

Students will apply effective medical office communication principles in the healthcare setting.

Standard 1

Describe general guidelines for telephone communication.

- Describe the medical assistant's role in the triage of telephone calls.
- Explain the importance of documenting telephone calls.
- Demonstrate professionalism when answering telephone calls.
- Identify the process of obtaining and making referrals.
- Discuss the process of calling in prescription refills.

Standard 2

Describe scheduling techniques.

- Establish a matrix/master schedule.
- Describe different types of scheduling.
    - Double booking
    - Group/Cluster booking
    - Open office hours
- Describe how to document a no-show appointment and a cancellation.

STRAND 5

Students will apply effective interpersonal communication principles in a healthcare setting.

Standard 1

Differentiate between verbal and nonverbal communication.

- Describe the importance of body language and gestures during communication.
- Explain the importance of tone of voice, word choice, and silence during communication.
- Identify the parts of a communication model.

Standard 2

Identify effective listening skills/habits.

- Differentiate between active and passive listening.
- Identify types of questions to elicit patient information.
    - Open ended questions
    - Restating
    - Reflecting
    - Clarification
    - Leading

Standard 3

Identify communication barriers.

- Describe the following communication barriers:
  - Physical
  - Mental
  - Cultural
  - Maturity
  - Age
  - Stress
- Describe the following defense mechanisms.
  - Repression
  - Regression
  - Rationalization
  - Sarcasm
  - Denial
  - Compensation
  - Projection
  - Displacement
  - Physical avoidance
  - Apathy

Standard 4

Contrast sympathy and empathy.

- Describe appropriate body language to express empathy.
- Demonstrate appropriate expressions of empathy.

Standard 5

Describe the steps of the grieving process.

- Identify the psychological implications of disease to a patient.
- Describe the five psychological stages of grieving.
  - Denial
  - Anger
  - Bargaining
  - Depression
  - Acceptance

STRAND 6

Students will accurately maintain medical records.

Standard 1

Identify the contents of a medical record.

- Discuss the standard medical record and various types of reports.

- Patient's past records
- History and physical
- Insurance
- Office notes
- Progress notes
- Pathology results
- Medication
- Physician orders
- Diagnostic reports
- Laboratory reports
- Operative reports
- Consultation reports

- Describe common documentation approaches for medical records.
  - SOAP
  - POMR
- Describe how to initiate a new patient medical record.
  - Paper charting
  - Electronic Medical Record (EMR)

Strand 6 Performance Skills Included Below

Standard 2

Differentiate between subjective and objective information.

- Use subjective information to document patient complaints.
- Use objective information to document patient complaints.

Standard 3

Discuss the legalities associated with the medical record.

- Demonstrate how to correct errors in the patient chart.
- Explain the importance of documenting all interventions.

Standard 4

Demonstrate the correct method of filing patient information.

- Compare and contrast the benefits of alphabetic and numeric filing.
- Explain the steps for locating a missing file.

STRAND 7

Students will perform bookkeeping and financial functions in a medical office setting.

Standard 1

Differentiate between accounts receivable and accounts payable.

- Define bookkeeping terms.

    - Credit
    - Debit
    - Adjustment
    - Balance
    - Asset
    - Liability
    - Collections
- Describe the following financial forms.
    - Bank deposit
    - Bank statement
    - Receipt
    - Petty cash
    - Day sheet

Strand 7 Performance Skills Included Below

Standard 2

Discuss the difference between various methods of payment.

- Differentiate between different types of checks.
    - Cashiers
    - Personal
    - Money order
    - Certified
    - Third party check (insurance company)
    - Electronic checks
- Define terms associated with a checking account.
    - Payee
    - Payer
    - Endorsement
- Describe differences between credit card and debit cards.
- Discuss flexible spending accounts.

Strand 7 Performance Skills Included Below

STRAND 8

Students will perform proper insurance, coding, and billing procedures.

Standard 1

Identify terms associated with medical insurance.

- Define the following terms associated with medical billing.
    - Birthday rule
    - Preauthorization/Precertification

- Premium
- Copayment/Coinsurance
- Deductible
- Explanation of Benefits (EOB)
- Fee Schedule
- Assignment of Benefits

- Define various insurance carriers.
  - HMO
  - PPO
  - Medicare
  - Medicaid
  - Fee for Service
  - Tricare
  - Workers Compensation
  - Affordable Care Act (ACA)
- Explain the process to prepare a healthcare claim.

Strand 8 Performance Skills Included Below

Standard 2

Explain how to determine procedural and diagnostic coding.

- Define the following terms associated with medical coding.
  - CPT codes
  - ICD-10 codes
  - HCPCS codes
  - HCFA/CMS 1500 form
  - Understand legalities associated with coding and billing in a medical office including fraudulent claims.

ANATOMY AND PHYSIOLOGY-Benchmark 3

STRAND 1

Students will identify the body cavities and quadrants and the organs they contain.

Standard 1

Locate the body cavities and their organs.

- Cranial: Brain
- Spinal/Vertebral: Spinal cord
- Thoracic: Heart and lungs
- Abdominal: Liver, most of the intestines, stomach, gallbladder, spleen, kidneys
- Pelvic: Urinary bladder, internal reproductive organs

Standard 2

Identify the four major abdominal quadrants and the organs in each quadrant.

- Right upper quadrant (RUQ): Liver, gallbladder, right kidney
- Left upper quadrant (LUQ): Stomach, spleen, pancreas, left kidney
- Right lower quadrant (RLQ): Appendix, right ovary
- Left lower quadrant (LLQ): Left ovary

STRAND 2

Students will identify the structures and functions of the cell and tissues.

Standard 1

Differentiate between cellular transport mechanisms.

- Describe diffusion.
- Describe osmosis.
- Describe filtration.

Standard 2

Identify the six levels of body organization.

- Describe the chemical level.
- Describe the cellular level.
- Describe the tissues.
- Describe the organs.
- Describe the organ systems.
- Describe the organism.

Standard 3

Distinguish between the four basic tissue types.

- Contrast the functions of the four tissue types.
    - Epithelial-covering and lining
    - Connective-support and structure
    - Muscular-movement
    - Nervous-interpretation and nerve impulse conduction
- Identify the locations of the four tissue types.
    - Epithelial-skin and mucous membranes
    - Connective-bones, blood, adipose, cartilage
    - Muscular-muscles
    - Nervous-nerves, brain, spinal cord

STRAND 3

Students will describe the anatomy and physiology of the Integumentary System.

Standard 1

Identify the layers of the skin.

- Epidermis
- Dermis
- Subcutaneous

Standard 2

Identify the appendages.

- Nails
- Sweat (sudoriferous) glands
- Oil (sebaceous) glands
- Hair

Standard 3

Describe the functions of the integumentary system.

- Protection against water loss
- Protection against infection
- Vitamin D production
- Sensory organ
- Absorption of medications
- Excretion of water, salts, and waste
- Temperature regulation
- Protection against UV light

Standard 4

Identify the signs and symptoms of disorders of the integumentary system.

- Athlete's foot
- Hives
- Herpes
- Melanoma
- Decubitus ulcers
- Warts
- Pediculosis
- Rash
- Ringworm
- Lesion

Standard 5

Describe the signs and symptoms of infection and inflammation.

- Recognize redness, swelling, heat, and pain.
- Identify how the inflammation process is initiated.
- Describe the effects of histamine in inflammation.

STRAND 4

Students will describe the anatomy and physiology of the Skeletal System

Standard 1

Identify the functions of the skeletal system.

- Hematopoiesis (blood cell production)
- Structure
- Support
- Muscle attachment and movement
- Mineral storage

Standard 2

Identify the basic bones of the skeleton.

- Cranium (frontal, parietal, occipital, temporal, maxillae, mandible)
- Vertebrae (cervical, thoracic, lumbar, sacral, coccyx)
- Rib cage (ribs, sternum, xiphoid process)
- Arm (humerus, radius, ulna, carpals, metacarpals, phalanges)
- Pelvis (ilium, ischium, pubis)
- Leg (femur, tibia, fibula, tarsals, metatarsals, phalanges)

Standard 3

Distinguish between the following fractures:

- Simple (closed)
- Compound (open)
- Greenstick
- Impacted (compression)
- Comminuted
- Spiral
- Colles

Standard 4

Identify the signs and symptoms of disorders of the skeletal system.

- Arthritis (osteoarthritis, rheumatoid arthritis, gouty arthritis)
- Osteoporosis
- Scoliosis, Lordosis, Kyphosis
- Herniated disc
- Carpal tunnel syndrome
- Bursitis
- Sprains

STRAND 5

Students will describe the anatomy and physiology of the Muscular System.

Standard 1

Identify the functions of the muscular system.

- Heat production
- Movement
- Structure
- Protection

Standard 2

Differentiate between the three types of muscle tissue.

- Locate cardiac muscle and describe the characteristics (striated, involuntary, found in the heart.)
- Locate smooth muscles and describe characteristics (non-striated, involuntary, found in hollow organs like the stomach.)
- Locate skeletal muscles and describe the characteristics (striated, voluntary, found attached to bones.)

Standard 3

Contrast the differences between tendons and ligaments.

- Tendons-connect muscles to bones
- Ligaments-connect bone to bone

Standard 4

Identify the basic muscles of the human body.

- Deltoid
- Gluteus (maximus, medius)
- Rectus femoris
- Vastus lateralis
- Diaphragm

Standard 5

Identify the signs and symptoms of disorders of the muscular system.

- Strains
- Atrophy
- Tendonitis
- Fibromyalgia
- Muscular Dystrophy

STRAND 6

Students will describe the anatomy and physiology of the Cardiovascular System.

Standard 1

Identify the components of the cardiovascular system.

- Blood
- Heart
- Blood vessels
    - Arteries
    - Veins
    - Capillaries

Standard 2

Identify the functions of the cardiovascular system.

- Transportation of nutrients and wastes
- Transportation of heat
- Transportation of oxygen and carbon dioxide
- Transportation of hormones, antibodies, and enzymes

Standard 3

Identify the structures of the heart.

- Aorta
- Coronary arteries
- Septum
- Myocardium
- Inferior and superior vena cava
- Right and left atrium
- Tricuspid valve, Bicuspid valve (mitral valve)
- Right and left ventricle
- Pulmonary semilunar valve, aortic semilunar valve
- Pulmonary arteries, pulmonary veins

Standard 4

Locate the major arteries and veins of the cardiovascular system.

- Identify appropriate arteries for taking an accurate blood pressure and pulse.
    - Apical
    - Carotid
    - Radial
    - Brachial
    - Femoral
- Identify appropriate veins for venipunctures.
    - Median cubital
    - Basilic
    - Cephalic

Standard 5

Describe the layers of and functions of blood vessels.

- Arteries
  - Take blood away from the heart.
  - Thicker to withstand the pressure from the heart.
- Veins
  - Take blood toward the heart.
  - Modified with valves to prevent backflow of blood.
- Capillaries
  - Gas and nutrient exchange between the blood and body cells.
  - Single layer of cells.

Standard 6

Identify the signs and symptoms of disorders of the cardiovascular system.

- Myocardial infarction
- Cerebrovascular accident (CVA-stroke)
- Hypertension
- Embolus/Thrombus
- Arteriosclerosis, Atherosclerosis
- Cardiac arrest
- Phlebitis
- Arrhythmia
- Congestive heart failure
- Aneurysm

STRAND 7

Students will describe the anatomy and physiology of the Lymphatic/Immune System.

Standard 1

List the functions of the lymphatic system.

- Transport excess tissue fluid to the blood vessels.
- Immunity

Standard 2

Describe the functions of the major structures of the immune system.

- Tonsils
  - Lymphatic tissue in the pharynx.
  - Helps to remove pathogens from food and air.
- Lymph nodes
  - Masses of lymphatic tissue.
  - Filters pathogens from lymph.

Standard 3

Describe the human body's lines of defense against disease.

- Discuss the physical and chemical barriers.
    - Mucous membranes (trap pathogens)
    - Cilia (propel pathogens out of respiratory tract)
    - Coughing and sneezing
    - Hydrochloric acid (stomach)
    - Tears in the eyes (contain bactericidal chemicals)
- Discuss non-specific immunity.
    - Fever
    - Inflammation (WBC's destroy pathogens)
- Discuss specific immunity.
    - Immune response
    - Production of antibodies
- Differentiate between active and passive immunity.
    - Vaccination
    - Delivery of antibodies
        - Through mother
        - Through injection (gamma globulin)

Standard 4

Identify the signs and symptoms of disorders of the lymphatic/immune systems.

- Influenza
- H1N1
- COVID-19
- HIV/AIDS
- Mononucleosis
- Autoimmune disorders (Lupus)

STRAND 8

Students will describe the anatomy and physiology of the Respiratory System.

Standard 1

Identify the structures of the respiratory system.

- Nose and nasal cavity
- Pharynx
- Larynx
    - Epiglottis
- Trachea
- Lungs
- Bronchi
- Bronchioles

- Alveoli

Standard 2

Describe the functions of the respiratory system.

- Warm, moisten, and filter air
- Sound production
- Carbon dioxide-oxygen gas exchange

Standard 3

Identify the signs and symptoms of disorders of the respiratory system.

- Asthma
- Tuberculosis (TB)
- Upper respiratory infection (URI)
- Pneumonia
- Respiratory Syncytial Virus (RSV)
- Chronic obstructive pulmonary disease (COPD)
- Bronchitis
- Epistaxis (bloody nose)

Standard 4

Identify the signs and symptoms of respiratory distress.

- Dyspnea (pursed lip breathing)
- Tachypnea
- Wheezing

STRAND 9

Students will describe the anatomy and physiology of the Digestive System.

Standard 1

Describe the functions of the digestive system.

- Ingestion
- Digestion
- Absorption
- Excretion

Standard 2

Identify the structures of the alimentary canal organs and their basic functions.

- Mouth-chemical and mechanical digestion
- Pharynx-passageway
- Esophagus –passageway to stomach
- Stomach-chemical and mechanical digestion
- Small intestine-nutrient absorption

- Large intestine-absorption of water, collects food residue for excretion

Standard 3

Identify the structures of the accessory organs and their basic functions.

- Salivary Glands – produce saliva to breakdown food
- Pancreas – release digestive enzymes in the small intestine
- Liver – produces bile to breakdown fats
- Gallbladder – storage of bile

Standard 4

Identify the signs and symptoms of disorders of the digestive system.

- Irritable bowel syndrome (IBS)
- Diverticulitis
- Hemorrhoids
- Celiac disease
- Appendicitis
- Hepatitis
- Ulcers
- Hernia
- Colon cancer

STRAND 10

Students will describe the anatomy and physiology of the Nervous System.

Standard 1

Describe the general functions of the nervous system.

- Detects and interprets sensory information
- Voluntary and involuntary integration of the stimulus
- Response to stimulus (movement or secretion)

Standard 2

Differentiate between the central nervous system (CNS) and the peripheral nervous system (PNS).

- CNS
    - Brain
    - Spinal cord
- PNS
    - Peripheral nerves
    - Sympathetic division
    - Parasympathetic division

Standard 3

Identify the structures of the nervous system and their major functions.

- Brain
  - Cerebrum
    - Frontal lobe-personality, reason, speech
    - Parietal lobe-taste, skin sensations
    - Occipital lobe-sight
    - Temporal lobe-hearing, memory
  - Cerebellum-balance and coordination
  - Midbrain-relay station for impulses
  - Brainstem-heart rate and respirations
    - Medulla oblongata
    - Pons
  - Hypothalamus-control of endocrine functions, blood pressure, and temperature regulation
  - Pituitary gland-secretes many hormones
- Spinal cord-reflex center, conduction of nerve impulses
- Cerebrospinal fluid (CSF)-shock absorption and provide nutrients to CNS
- Meninges (dura mater, arachnoid mater, pia mater)-protection of CNS
- Neurons (sensory, motor, and interneuron)-nerves

Standard 4

Identify the signs and symptoms of disorders of the nervous system.

- Alzheimer's disease
- Meningitis
- Headache
- Epilepsy
- Paralysis (Hemiplegia, Paraplegia, Quadriplegia)
- Herpes zoster
- Multiple sclerosis
- Sciatica

STRAND 11

Students will describe the anatomy and physiology of the Endocrine System.

Standard 1

Describe the general functions of the endocrine system.

- Regulates growth, development, and maturation.
- Regulates chemical balance by the production of hormones.

Standard 2

Describe what a hormone is and how it works.

- Chemicals secreted into the blood to have an effect on a target tissue
- Produced by endocrine glands

Standard 3

Describe the major locations, secretions (hormones), and functions of the following glands:

- Pituitary-growth hormone, ACTH, TSH, oxytocin
- Thyroid-thyroxine
- Pancreas-insulin
- Adrenal-cortisol, adrenaline
- Ovaries-estrogen, progesterone
- Testes-testosterone

Standard 4

Identify the signs and symptoms of disorders of the endocrine system.

- Diabetes mellitus (Types 1 and 2)
- Hypothyroidism/Hyperthyroidism
- Dwarfism/Gigantism

STRAND 12

Students will describe the anatomy and physiology of the Urinary System

Standard 1

Describe the functions of the urinary system.

- Excrete waste and water from the body
- Regulate fluid balance and blood composition

Standard 2

Identify the structures of the urinary system and their major functions.

- Kidneys-filter the blood and form urine
- Ureters-passageway for urine from the kidneys to the bladder
- Bladder-temporary storage of urine
- Urethra-passageway of urine to the outside of the body

Standard 3

Identify the signs and symptoms of disorders of the urinary system.

- Kidney stones
- Cystitis/UTI
- Pyelonephritis
- Incontinence
- Renal failure

STRAND 13

Students will describe the anatomy and physiology of the Reproductive System.

Standard 1

Describe the functions of the reproductive system.

- Production of gametes (egg and sperm) by the gonads
- Produces hormones to help in the maturation process

Standard 2

Identify the structures of the female reproductive system and their major functions.

- Breasts-lactation
- Ovaries-production of eggs, estrogen, and progesterone
- Uterine tubes-site of fertilization, passage between ovaries and uterus
- Uterus-nourishment and protection of the fetus
    - Cervix
    - Endometrium
- Vagina-birth canal, exit for menstrual flow

Standard 3

Identify the structures of the male reproductive system and their major functions.

- Penis-protects the urethra
- Testes-production of testosterone and sperm
- Scrotum-muscular sac containing the testicles
- Epididymis-storage and maturation of sperm
- Vas deferens-passageway of semen from the testicles meeting connection with the urethra
- Prostate gland-secretes fluids for sperm motility
- Urethra-passageway for urine and semen

Standard 4

Identify the signs and symptoms of disorders of the reproductive system.

- Female
    - Ovarian cyst
    - Premenstrual syndrome (PMS)
    - Menopause
    - Cancer
        - Cervical cancer
        - Ovarian cancer
        - Breast cancer
    - Endometriosis
    - Human Papillomavirus (HPV)
    - Pelvic Inflammatory Disease (PID)
- Male
    - Cancer
        - Prostate cancer

        - Testicular cancer
    - Epididymitis
    - Prostatitis
    - Benign Prostatic Hypertrophy (BPH)

Standard 5

Review the following self-examinations:

- Breast self-exam (BSE)
- Testicular self-exam (TSE)

CLINICAL AND LABORATORY PROCEDURES-Benchmark 4

STRAND 1

Students will examine basic concepts of asepsis.

Standard 1

Describe the infection control cycle.

- Review the five types of microorganisms.
    - Bacteria
    - Virus
    - Protozoa
    - Fungi
    - Rickettsiae
- Discuss the chain of infection.

Standard 2

Demonstrate disease prevention principles.

- Describe the three levels of infection control.
    - Sanitization
    - Disinfection
    - Sterilization
- Describe the common standard precautions of infection control.
    - Hand washing/Hand sanitizing
    - Personal protective equipment (PPE)
        - Gloving
        - Masks
        - Gowning
        - Eye protection
    - Coughing etiquette
    - Hygiene
    - Nutrition

Standard 3

Apply personal safety procedures based on OSHA and CDC regulations.

- List blood-borne pathogens.
  - Hepatitis B and C
  - HIV
- Describe techniques for preventing pathogen transmission.
  - Sharps containers
  - Biohazardous waste
- Discuss the use of safety devices.
- Discuss the use of Safety Data Sheets (SDS).
- Discuss the use of incident/injury reports.

Standard 4

Demonstrate procedures for the proper cleaning and sanitizing of instruments.

- Sanitizing instruments
- Chemical disinfecting (including bleach)
- Autoclaving

STRAND 2

Students will obtain baseline vital signs information and compare it to normal values.

Standard 1

Measure and obtain the five baseline vital signs.

- Temperature (tympanic, electronic, oral, temporal)
- Pulse (rate, rhythm, volume) (peripheral, apical)
- Respiration (rate, rhythm, depth)
- Blood pressure
- Oxygen saturation

Standard 2

Define terms which describe normal and abnormal vital signs values.

- Bradycardia/Tachycardia
- Hypotension/Hypertension
- Febrile/Afebrile
- Bounding/Thready pulse
- Shallow/Dyspnea/Stridor/Hyperventilation/Wheezing
- Hypoxia

Standard 3

Obtain body measurements for adults.

- Height
- Weight

Standard 4

Obtain body measurements for infants.

- Length
- Weight
- Head circumference (hydrocephalus, microcephaly)
- Chest circumference

Strand 2 Performance Skills Included Below

STRAND 3

Students will accurately obtain the patient history and assist with the physical examination.

Standard 1

Demonstrate the ability to obtain an accurate patient history.

- Chief complaint
- Use of open-ended questions to obtain information
- Pain scale
- Document allergies
- Relevant observations or information
- Differentiate between subjective and objective information

Standard 2

Prepare the patient and the examination room.

- Prepare and clean the examination room.
- Assemble all necessary equipment and supplies.
- Demonstrate patient positioning.
    - Supine
    - Prone
    - Lithotomy (pelvic exam)
    - Dorsal recumbent (abdominal exam)
    - Trendelenburg (shock)
    - Fowler's (respiratory)
    - Sims' (rectal)
- Demonstrate draping techniques.
- Assist the practitioner as necessary.
- Disinfect the examination table and replace supplies.

Standard 3

Describe common procedures in medical specialties.

- Sigmoidoscopy
- Prostate exam
- Pap test (smear)

- Snellen eye chart (distance visual acuity)
- Ishihara (color visual acuity)
- Jaeger (near vision acuity)
- Ear wax removal (irrigation)

Standard 4

Assist the patient with ambulatory devices

- Assist patient from a wheelchair to an exam table and back to the wheelchair.
- Instruct patient in using walkers, canes, and crutches.

Strand 3 Performance Skills Included Below

STRAND 4

Students will discuss pharmacology principles and demonstrate accurate medication administration.

Standard 1

Classify common medications.

- Antihypertensives
- Antihistamines
- Antidiuretics/Diuretics
- Antitussives
- Antidepressants
- Antianxiety
- Contraception
- Antipyretics
- Analgesics
- Antibiotics
- Laxatives
- Antidiabetic/Hypoglycemic
- Anticoagulants
- Hormones
- Anesthetics
- Anti-inflammatories
- Bronchodilators
- Narcotics

Standard 2

Describe the schedule for controlled substances.

- Schedule I-illegal, not prescribed
- Schedule II-high potential for addiction and abuse
- Schedule III-moderate to low potential for addiction and abuse

- Schedule IV-lower potential for addiction and abuse
- Schedule V-low potential for addiction and abuse

Standard 3

Demonstrate how to find medication information.

- Physician's Desk Reference (PDR)
- Nursing Drug Reference
- Internet

Standard 4

Document medication administration.

- Medication record
  - Medication
  - Dosage
  - Site
  - Patient reaction
- Immunization record
  - Lot number
  - Expiration date
  - Site

Strand 4 Performance Skills Included Below

Standard 5

Understand principles involved with prescription medication

- Describe the necessary components of a valid prescription.
- Compare and contrast prescription and over-the-counter medications.
- Explain the appropriate procedure for calling or faxing a prescription.

Standard 6

Perform accurate dosage calculations.

- Evaluate and simplify numerical expressions containing real numbers using the order of operations.
  - Addition, subtraction, multiplication, division
  - Fractions
  - Decimals
  - Ratios
  - Proportions
  - Metrics
  - Conversions
- Compute solutions to problems and determine the reasonableness of an answer by relating them to the problem.

Standard 7

Identify the following "rights" of medication administration

- Right patient
- Right medication
- Right time
- Right route
- Right dosage
- Right technique
- Right documentation

Standard 8

Demonstrate the procedures and describe the supplies for administering medications.

- Oral, including buccal and sublingual
- Transdermal (topical)
- Intradermal
- Subcutaneous
- Intramuscular, including Z track method
- Ear/Eye drops
- Ointments
- Inhalation
- Epi-pen

Standard 9

Describe the side effects of medications.

- Compare and contrast common side effects with adverse effects.
- Recognize signs and symptoms of anaphylactic shock and describe its treatment.

STRAND 5

Students will demonstrate the ability to assist with minor surgery.

Standard 1

Identify common instruments by name, use, and category.

- Cutting instruments
  - Scissor (bandage, suture)
  - Scalpel
- Grasping and clamping
  - Hemostat
  - Forceps
  - Towel clamp
- Probing and dilating
  - Scope
  - Speculum

    - Punch (biopsy)
- Suture materials
    - Sutures (absorbable, non-absorbable)
    - Suture needles
    - Needle holder
    - Steri-strips
    - Staples
    - Skin glue

Standard 2

Prepare the patient and the procedure room.

- Obtain a patient consent form.
- Explain pre- and post-procedure care and education to the patient.
- Demonstrate a surgical hand wash.
- Demonstrate applying sterile gloves.
- Demonstrate creating a sterile field and opening a sterile pack.
- Describe ways of maintaining the sterile field.
- Demonstrate the ability to assist with procedures, including skin preparation.
- Demonstrate sterile dressing changes.
- Demonstrate suture and staple removal techniques.

Strand 5 Performance Skills Included Below

STRAND 6

Students will demonstrate how to use the electrocardiograph machine.

Standard 1

Describe the electrical conduction system of the heart.

- Identify the SA node, AV node, AV bundle, bundle branches, and Purkinje fibers.
- Correlate the "PQRST" waves on an EKG (ECG) with the conduction system of the heart.

Standard 2

Prepare the patient for an EKG (ECG).

- Demonstrate electrode placement for a 12 lead EKG (ECG).
- Identify artifacts and describe ways to prevent them.
    - Somatic tremor
    - Wandering baseline
    - Current interference

Strand 6 Performance Skills Included Below

Standard 3

Identify other tests used to determine heart function.

- Holter monitor (24-48 hour)
- Stress test
- Event monitor (30 days)

STRAND 7

Students will learn skills necessary to work in a physician's office laboratory.

Standard 1

Describe procedures associated with urinalysis.

- Explain different types of urine collection.
    - Clean-catch midstream
    - Catheterization
- Explain the physical characteristics of urine (color, odor, appearance).
- Describe urine pregnancy testing.

Strand 7 Performance Skills Included Below

Standard 2

Describe terms and procedures associated with hematology.

- Identify the components of blood and the function of each.
    - White blood cells-fight infection
    - Red blood cells-carry oxygen
    - Platelets-clotting
    - Plasma-liquid portion of the blood
- Differentiate between plasma and serum.
- Describe the normal values for these tests:
    - Hematocrit (37-47% women; 40-54% men)
    - Hemoglobin (12-16 g women; 14-18 g men)
    - WBC count (5,000-10,000)
    - RBC count (4.2 million-6 million)
    - Platelet count (150,000-350,000)
    - ESR (1-13mm male; 1-20mm female)
    - Glucose (80-120)
    - A1c (4.0 -5.6 %; age dependent)
    - Total Cholesterol (<200)
- Locate capillary and common venipuncture sites.
- Describe the procedure for hemoccult testing (guaiac).
- Describe the procedure for obtaining a NBS (newborn screen).
- Describe common blood tests (FBS, GTT, blood typing).

Strand 7 Performance Skills Included Below

Standard 3

Describe terms and procedures associated with microbiology.

- Differentiate between gram positive and gram-negative bacteria.
- Differentiate between culturing bacteria and rapid testing.
- Identify the parts and use of the microscope.

STRAND 8

Students will be able to respond to emergencies.

Standard 1

Learn basic lifesaving skills.

- Adult, child, and infant CPR
- AED training

Standard 2

Learn basic first aid skills.

- Describe how to respond to bleeding, shock, and poisoning emergencies.
- Demonstrate bandaging techniques.

Strand 8 Performance Skills Included Below

EXTERNSHIP

STRAND 1

Students will successfully complete a clinical externship.

Standard 1

Complete a 160 hour minimum externship.

- Have clinical site complete evaluation and return to instructor.
- Discuss student externship evaluation with instructor.

Standard 2

Externship evaluations will indicate satisfactory or higher rating.

STRAND 2

Students will demonstrate professional attributes.

Standard 1

Demonstrate workplace skills.

Standard 2

Externship evaluations will indicate satisfactory or higher rating.

Performance Skills

Benchmark 1-MEDICAL TERMINOLOGY

1. Basic computer skills to generate a patient record.

Benchmark 2-MEDICAL OFFICE MANAGEMENT

2. Oral communication
   - Demonstrate methods of receiving, placing and recording calls.
   - Answer the office telephone.
   - Receive, evaluate, and record a phone message.
   - Make referrals by phone, schedule appointments by phone.
3. Patient reception
   - Collation of patient records.
   - Opening the office and closing the office.
   - Greeting the patient, responding to the patient, escorting and instructing the patient.
4. Medical records
   - Demonstrate filing: alphabetically and numerically.
5. Office Finance:
   - Prepare a bank deposit.
   - Post a payment to a patient account.
   - Enter patient account information.
6. Insurance: Complete a CMS 1500 insurance claim form.

Benchmark 4-CLINICAL AND LABORATORY PROCEDURES

7. Gather vital signs information.
8. Assist with a physical exam.
9. Perform the following vision test:
   - Snellen eye chart (distance visual acuity)
   - Ishihara (color visual acuity)
   - Jaeger (near vision acuity)
10. Document administration of medication.
11. Using sterile technique, set up a basic minor surgery tray.
12. Demonstrate a surgical hand wash.
13. Demonstrate applying sterile gloves.
14. Demonstrate creating a sterile field and opening a sterile pack.
15. Demonstrate the ability to assist with procedures, including skin preparation.
16. Demonstrate sterile dressing changes.
17. Demonstrate suture and staple removal techniques.
18. Perform a standard 12 lead EKG.
19. Perform a urinalysis.

20. Set up a microscopic urinalysis.
21. Demonstrate a capillary puncture with a sterile lancet/autolet.
22. Simulate venipuncture using vacuum method with multiple tubes.
23. Prepare a specimen for the laboratory.
24. Perform a throat swab.
25. Obtain CPR/BLS certification.

Workplace Skills

- Positive attitude
- Teamwork
- Adapt to change
- Communication skills
- Professional appearance
- Confidentiality (verbal and written correspondence)
- Exhibit initiative
- Cultural competency
- Integrity
- Discretion
- Organize and prioritize
- Continuing education
- Critical thinking
- Dependability
- Accountability

Skill Certificate Test Points by Strand

Test Name	Test #	Number of Test Points by Standard															Total Points	Total Questions
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15		
Medical Terminology	710	63	16														79	79
Medical Office Management	712	2	8	1	6	6	7	8	13								51	51
Medical Anatomy/Physiology	714	1	2	6	11	4	10	4	8	6	7	7	3	6			76	75
Clinical & Lab Procedures	716	10	13	10	17	9	7	13									79	79