




Multiple Category Scope and Sequence: Scope and Sequence Report For Course Standards and Objectives, Content, Skills, Vocabulary

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District Advanced <u>Medical Assistant (58.0801) (District)</u> 2014-2015 <u>Morgan, Misha</u>	Unit <u>Intro to A/P</u> (Week 2, 1 Week) 	Course Standards and Objectives	Content	Skills	Vocabulary
		UT: CTE: Health Education, UT: Grades 9-12, Medical Assistant Standard 1 MEDICAL TERMINOLOGY Students will interpret and apply medical terminology.	How the anatomical position, anatomical planes and directional terms are used to reference the body.	Demonstrate the anatomical position, and identify and utilize anatomical position, anatomical planes and directional terms to reference the body.	anatomical position anatomical planes
		<ul style="list-style-type: none"> ▪ Objective 2 Identify and utilize anatomical positions, planes, and directional terms. <ul style="list-style-type: none"> a. Demonstrate what anatomical position is and how it is used to reference the body. b. Distinguish between the commonly used anatomical planes and recognize their individual views. <ul style="list-style-type: none"> • Sagittal / Midsagittal Plane • Frontal / Coronal Plane • Transverse / Horizontal Plane c. Apply directional terms to their locations on the human body. <ul style="list-style-type: none"> • Superior / Inferior • Anterior / Posterior • Medial / Lateral • Distal / Proximal • Superficial / Deep • Ventral / Dorsal • Prone / Supine • Unilateral / Bilateral 	How the body is divided into cavities and quadrants, and which organs are located in each.	Categorize the body's organs into the body cavities and abdominal quadrants.	Sagittal Mid-sagittal
			What the differences are between mitosis and meiosis.	Distinguish between mitosis and meiosis, the transport mechanisms, the levels of body organization, and the four types of tissue.	Frontal/Coronal
			What the differences are between diffusion, osmosis and filtration.		Transverse/Horizontal directional terms
			How the six levels of body organization differ.		Superior
			How the the four tissue types differ in their functions and locations.		Inferior
					Anterior
					Posterior
					Medial
					Lateral
					Distal
					Proximal
					Superficial
					Deep Ventral Dorsal
		Standard 1 ANATOMY and PHYSIOLOGY Students will identify the body cavities and quadrants and the organs they contain. <ul style="list-style-type: none"> ▪ Objective 1 Locate the body cavities and the organs contained therein. <ul style="list-style-type: none"> a. Cranial: Brain b. Spinal or Vertebral: Spinal cord c. Thoracic: Heart and lungs d. Abdominal: Liver, most of the intestines, stomach, gallbladder, 			

spleen, kidneys
e. Pelvic: Urinary bladder, internal reproductive organs

- Objective 2
Identify the four major abdominal quadrants and the organs in each quadrant.
 - a. Right upper quadrant (RUQ):
Liver, gallbladder, right kidney
 - b. Left upper quadrant (LUQ):
Stomach, spleen, pancreas, left kidney
 - c. Right lower quadrant (RLQ):
Appendix, right ovary
 - d. Left lower quadrant (LLQ):
Left ovary

Standard 2

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

- Objective 1
Compare and contrast mitosis and meiosis.
 - a. Describe the purpose of mitosis and meiosis.
 - b. Identify the outcome of chromosomes for each.
 - c. Identify the outcome of numbers of cells for each.
- Objective 2
Differentiate between cellular transport mechanisms.
 - a. Describe diffusion.
 - b. Describe osmosis.
 - c. Describe filtration.
- Objective 3
Identify the six levels of body organization.
 - a. Describe the chemical level.
 - b. Describe the cellular level.
 - c. Describe the tissues.
 - d. Describe the organs.
 - e. Describe the organ systems.
 - f. Describe the organism.
- Objective 4
Distinguish between the four basic tissue types.
 - a. Contrast the functions of the four tissue types.
 - Epithelial – coverings and linings
 - Connective – support and structure

Prone

Supine

Unilateral

Bilateral

body cavities

abdominal quadrants

mitosis

meiosis

diffusion

osmosis

filtration

- Muscular – movement
- Nervous – interpretation and nerve impulse conduction
- b. 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

Integumentary System



(Week 3, 1 Week)

UT: CTE: Health Education, UT: Grades 9-12, Medical Assistant Standard 3
Students will describe the anatomy and physiology of the integumentary system.

- Objective 1
Identify the layers of the skin.
 - Epidermis
 - Dermis
 - Subcutaneous
- Objective 2
Identify the appendages.
 - Nails
 - Sweat (sudoriferous) glands
 - Oil (sebaceous) glands
 - Hair
- Objective 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
- Objective 4
Identify the signs and symptoms of disorders of the integumentary system.
 - Athlete's foot
 - Hives
 - Herpes
 - Melanoma
 - Decubitus ulcers
 - Warts

How the 3 layers of skin differ.

The function and locations of the appendages of the skin.

The functions of the Integumentary System.

The signs and symptoms of disorders of the Integumentary System.

The signs and symptoms of infection and inflammation.

How the inflammation process is initiated.

Differentiate skin lesions and the signs and symptoms of infection.

Distinguish the disorders of the Integumentary system in relation to their signs and symptoms.

Explain the structures and functions of the Integumentary system to peers/patients.

Integumentary System

Epidermis
Dermis
Subcutaneous

Sudoriferous

Sebaceous



Histamine

Inflammation

Lesion

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

- g. Pediculosis
- h. Rash
- i. Ringworm
- Objective 5
Describe the signs and symptoms of infection and inflammation.
 - a. Recognize redness, swelling, heat, and pain.
 - b. Identify how the inflammation process is initiated.
 - c. Describe the effects of histamine in inflammation.

Nervous System 
(Week 4, 1 Week) 

UT: CTE: Health Education, UT: Grades 9-12, Medical Assistant Standard 10
Students will describe the anatomy and physiology of the nervous system.

- Objective 1
Describe the general functions of the nervous system.
 - a. Detects and interprets sensory information
 - b. Voluntary and involuntary integration of the stimulus
 - c. Response to stimulus (movement or secretion)
- Objective 2
Differentiate between the central nervous system (CNS) and the peripheral nervous system (PNS).
 - a. CNS
 - Brain
 - Spinal cord
 - b. PNS
 - Peripheral nerves
 - Sympathetic division
 - Parasympathetic division
- Objective 3
Identify the structures of the nervous system and their major functions.
 - a. Brain
 - Cerebrum
 - a. Frontal lobe – personality, reason, and speech
 - b. Parietal lobe – taste and skin sensations
 - c. Occipital lobe – sight
 - d. Temporal lobe – hearing and memory

The structures of the nervous system and their specific functions.

The general functions of the nervous system.

The differences between the Central and Peripheral nervous system.

The signs and symptoms of disorders of the nervous system

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

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

Distinguish between the disorders of the nervous system in relation to their signs and symptoms.

Central Nervous System
Peripheral Nervous System
Peripheral nerves
Sympathetic division
Parasympathetic division
Cerebrum
Frontal lobe
Parietal lobe
Occipital lobe
Temporal lobe
Cerebellum
Midbrain
Brainstem
Medulla
Pons
Hypothalamus
Spinal cord
Cerebrospinal fluid (CSF)
Meninges (dura mater, arachnoid mater, pia)

- Cerebellum – balance and coordination
- Midbrain – relay station for impulses
- Brainstem – heart rate and respirations
 - a. Medulla
 - b. Pons
- Hypothalamus – control of endocrine functions, blood pressure and temperature regulation
- Pituitary gland – secretes many hormones
 - b. Spinal cord – reflex center, conduction of nerve impulses
 - c. Cerebrospinal fluid (CSF) – shock absorption and provide nutrients to CNS
 - d. Meninges (dura mater, arachnoid mater, pia mater) – protection of CNS
 - e. Neurons (sensory, motor, and interneuron) – nerves
- Objective 4
Identify the signs and symptoms of disorders of the nervous system.
 - a. Alzheimer’s disease
 - b. Meningitis
 - c. Headaches
 - d. Epilepsy
 - e. Paralysis (Hemiplegia, Paraplegia, Quadriplegia)
 - f. Herpes zoster
 - g. Multiple sclerosis
 - h. Sciatica

mater)

Neurons

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

Musculoskeletal

System  (Week 5, 1 Week) 

UT: CTE: Health Education, UT: Grades 9-12, Medical Assistant Standard 4
Students will describe the anatomy and physiology of the skeletal system.

- Objective 1
Identify the functions of the skeletal system.
 - a. Hematopoiesis (blood cell production)
 - b. Structure
 - c. Support
 - d. Muscle attachment and movement
 - e. Mineral storage

The functions of the skeletal and muscular systems.

The basic bones of the human skeleton.

The differences in fractures.

The differences between the three types of muscle.

The basic muscles of the human body.

The differences between tendons and

Identify the basic bones of the skeleton.

Differentiate between the three types of muscle tissue.

Identify the functions of the skeletal and muscular systems.

Contrast the differences between tendons and ligaments.

Hematopoiesis

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,

- Objective 2
Identify the basic bones of the skeleton.
 - a. Cranium (frontal, parietal, occipital, temporal, maxillae, mandible)
 - b. Vertebrae (cervical, thoracic, lumbar, sacral, coccyx)
 - c. Rib cage (ribs, sternum, xiphoid process)
 - d. Arm (humerus, radius, ulna, carpals, metacarpals, phalanges)
 - e. Pelvis (ilium, ischium, pubis)
 - f. Leg (femur, tibia, fibula, tarsals, metatarsals, phalanges)
- Objective 3
Distinguish between the following fractures:
 - a. Simple (closed)
 - b. Compound (open)
 - c. Greenstick
 - d. Impacted (compression)
 - e. Comminuted
 - f. Spiral
 - g. Colles
- Objective 4
Identify the signs and symptoms of disorders of the skeletal system.
 - a. Arthritis (osteoarthritis, rheumatoid arthritis, gouty arthritis)
 - b. Osteoporosis
 - c. Scoliosis, Lordosis, Kyphosis
 - d. Herniated disc
 - e. Carpal tunnel syndrome
 - f. Bursitis
 - g. Sprains

Standard 5
Students will describe the anatomy and physiology of the muscular system.

- Objective 1
Identify the functions of the muscular system.
 - a. Heat production
 - b. Movement
 - c. Structure
 - d. Protection
- Objective 2
Differentiate between the three types of muscle tissue.
 - a. Locate cardiac muscles and describe its characteristics

ligaments.

The signs and symptoms of disorders of the skeletal and muscular systems.

Distinguish between fractures.

Distinguish between the disorders of the musculoskeletal systems in relation to their signs and symptoms.

tarsals, metatarsals, phalanges)

Fractures-

Greenstick

Impacted (compression)
Comminuted
Spiral
Colles

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

Deltoid
Gluteus
Rectus femoris
Vastus lateralis
Diaphragm

Tendons

Ligaments

Strains
Atrophy
Tendonitis
Fibromyalgia

(striated, involuntary, and found in the heart).

b. Locate smooth muscles and describe its characteristics (non-striated, involuntary, and found in hollow organs like the stomach).

c. Locate skeletal muscles and describe its characteristics (striated, voluntary, found on the bones).

- Objective 3
Contrast the differences between tendons and ligaments.
 - a. Tendons – connect muscles to bones
 - b. Ligaments – connect bone to bone
- Objective 4
Identify the basic muscles of the human body.
 - a. Deltoid
 - b. Gluteus (maximus, medius)
 - c. Rectus femoris
 - d. Vastus lateralis
 - e. Diaphragm
- Objective 5
Identify the signs and of disorders of the muscular system.
 - a. Strains
 - b. Atrophy
 - c. Tendonitis
 - d. Fibromyalgia

Cardiopulmonary

System  (Week 5, 2 Weeks) 

UT: CTE: Health Education, UT: Grades 9-12, Medical Assistant Standard 6
Students will describe the anatomy and physiology of the cardiovascular system.

- Objective 1
Identify the components of the cardiovascular system.
 - a. Blood
 - b. Heart
 - c. Blood vessels
- Objective 2
Identify the functions of the cardiovascular system.
 - a. Transportation of nutrients and wastes
 - b. Transportation of heat
 - c. Transportation of oxygen and

The components of the cardiovascular system.

The structures of the respiratory system.

The functions of the cardiovascular and respiratory systems.

The structures of the human heart.

The locations of the major arteries and veins.

The layers and functions of the blood vessels.

Identify the components, structures, and the functions of the cardiovascular and respiratory systems.

Distinguish between the disorders of the cardiovascular and respiratory systems in relation to their signs and symptoms.

Aorta
Coronary arteries
Septum
Myocardium

Vena cavae
Atrium
Tricuspid valve

Bicuspid valve

Mitral valve
Ventricle
Pulmonary semilunar valve,

Aortic semilunar valve

carbon dioxide d. Transportation of hormones, antibodies, and enzymes	The symptoms of respiratory distress.	Pulmonary
<ul style="list-style-type: none"> ▪ Objective 3 Identify the structures of the heart. <ol style="list-style-type: none"> a. Aorta b. Coronary arteries c. Septum d. Myocardium e. Inferior and superior vena cavae f. Right and left atrium g. Tricuspid valve, Bicuspid valve (mitral valve) h. Right and left ventricle i. Pulmonary semilunar valve, aortic semilunar valve j. Pulmonary arteries, pulmonary veins ▪ Objective 4 Locate the major arteries and veins of the cardiovascular system. <ol style="list-style-type: none"> a. Identify appropriate arteries for taking an accurate blood pressure and pulse. <ul style="list-style-type: none"> • Apical • Carotid • Radial • Brachial • Femoral b. Identify appropriate veins for venipunctures. <ul style="list-style-type: none"> • Median cubital • Basalic • Cephalic ▪ Objective 5 Describe the layers of and functions of blood vessels. <ol style="list-style-type: none"> a. Arteries <ul style="list-style-type: none"> • Takes blood away from the heart. • Thicker to withstand the pressure from the heart. b. Veins <ul style="list-style-type: none"> • Takes blood toward the heart. • Modified with valves to prevent backflow of blood. c. Capillaries <ul style="list-style-type: none"> • Gas and nutrient exchange between the blood and body cells. • Single cell layered. ▪ Objective 6 Identify the signs and symptoms of disorders of the cardiovascular system. <ol style="list-style-type: none"> a. Myocardial infarction 	The signs and symptoms of disorders of the cardiovascular and respiratory systems	Apical Carotid Radial Brachial Femoral Arteries Capillaries Veins Myocardial infarction Cerebrovascular accident (CVA – stroke) Hypertension Embolus Thrombus Arteriosclerosis Atherosclerosis Cardiac arrest Phlebitis Arrhythmia Congestive heart failure Aneurysm Nasal cavity Pharynx Epiglottis Larynx Trachea Bronchi Bronchioles Lungs Alveoli Asthma Tuberculosis (TB) Upper respiratory infection (URI) Pneumonia Respiratory Syncytial Virus (RSV) Chronic obstructive pulmonary disease

- b. Cerebrovascular accident (CVA – stroke)
- c. Hypertension
- d. Embolus/Thrombus
- e. Arteriosclerosis, Atherosclerosis
- f. Cardiac arrest
- g. Phlebitis
- h. Arrhythmia
- i. Congestive heart failure
- j. Aneurysm

(COPD)
Bronchitis
Epistaxis

S.O.B.

Dyspnea
Tachypnea
Wheezing

Standard 8

Students will describe the anatomy and physiology of the respiratory system.

- Objective 1
Identify the structures of the respiratory system.
 - a. Nose and nasal cavity
 - b. Pharynx
 - c. Epiglottis
 - d. Larynx
 - e. Trachea
 - f. Bronchi
 - g. Bronchioles
 - h. Lungs
 - i. Alveoli
- Objective 2
Describe the functions of the respiratory system.
 - a. Warm, moisten, and filter air
 - b. Sound production
 - c. Carbon dioxide-oxygen gas exchange
- Objective 3
Identify the signs and symptoms of disorders of the respiratory system.
 - a. Asthma
 - b. Tuberculosis (TB)
 - c. Upper respiratory infection (URI)
 - d. Pneumonia
 - e. Respiratory Syncytial Virus (RSV)
 - f. Chronic obstructive pulmonary disease (COPD)
 - g. Bronchitis
 - h. Epistaxis (Bloody nose)
- Objective 4
Identify the signs and symptoms of respiratory distress.
 - a. Dyspnea (pursed lip breathing)
 - b. Tachypnea

c. Wheezing

Digestive System



(Week 7, 1 Week)

UT: CTE: Health Education, UT: Grades 9-12, Medical Assistant Standard 9

Students will describe the anatomy and physiology of the digestive system.

- Objective 1
Describe the functions of the digestive system.
 - a. Ingestion
 - b. Digestion
 - c. Absorption
 - d. Excretion
- Objective 2
Identify the structures of the alimentary canal organs and their basic functions.
 - a. Mouth – chemical and mechanical digestion
 - b. Pharynx – passageway
 - c. Esophagus – passageway to stomach
 - d. Stomach – chemical and mechanical digestion
 - e. Small intestine – nutrient absorption
 - f. Large intestine – absorption of water, collects food residue for excretion
- Objective 3
Identify the structures of the accessory organs and their basic functions.
 - a. Salivary glands – produce saliva to breakdown food
 - b. Pancreas – releases digestive enzymes into the small intestine
 - c. Liver – produces bile to breakdown fats
 - d. Gallbladder – storage of bile
- Objective 4
Identify the signs and symptoms of disorders of the digestive system.
 - a. Irritable bowel syndrome (IBS)
 - b. Diverticulitis
 - c. Hemorrhoids
 - d. Celiac disease
 - e. Appendicitis
 - f. Hepatitis
 - g. Ulcers

The functions of the digestive system.

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

The structures of the accessory organs and their basic functions.

The signs and symptoms of disorders of the digestive system.

Describe the function of the digestive system, the structures and related functions of the digestive tract and its related accessory organs.

Distinguish between the disorders of the digestive system in relation to their signs and symptoms.

Ingestion
Digestion
Absorption
Excretion

Peristalsis

Mouth
Pharynx
Esophagus
Stomach
Small intestine

Villi
Large intestine

Salivary glands
Pancreas
Liver
Gallbladder

Irritable bowel syndrome (IBS)
Diverticulitis
Hemorrhoids
Celiac disease
Appendicitis
Hepatitis
Ulcers

Hernia
Colon

- h. Hernia
- i. Colon cancer

Immune/Lymphatic

Systems  (Week 8, 1
Week) 

UT: CTE: Health Education, UT: Grades 9-12, Medical Assistant Standard 7
Students will describe the anatomy and physiology of the lymphatic/immune system.

- Objective 1
List the functions of the lymphatic system.
 - a. Transport excess tissue fluid to the blood vessels
 - b. Immunity
- Objective 2
Describe the functions of the major structures of the immune system.
 - a. Tonsils
 - Lymphatic tissue in the pharynx
 - Helps to remove pathogens from food and air
 - b. Lymph nodes
 - Masses of lymphatic tissue
 - Filters pathogens from lymph
- Objective 3
Describe the human body's lines of defense against disease.
 - a. Discuss the physical and chemical barriers.
 - Mucous membranes (traps pathogens)
 - Cilia (propel pathogens out of respiratory tract)
 - Coughing and Sneezing
 - Hydrochloric acid (stomach)
 - Tears in the eyes (contain bactericidal chemicals)
 - b. Discuss non-specific immunity.
 - Fever
 - Inflammation (WBC's destroy pathogens)
 - c. Discuss specific immunity.
 - Immune response
 - Production of antibodies
 - d. Differentiate between active and passive immunity.
 - Vaccination
 - Delivery of antibodies
 1. Through mother
 2. Through injection (gamma globulin)

The functions of the lymphatic system.

The functions and structures of the immune system.

The human body's lines of defense against disease.

The signs and symptoms of disorders of the lymphatic and immune systems.

Describe the functions of the lymphatic system and the functionality of the major structures of the immune system.

Differentiate between the human body's lines of defense against disease.

Distinguish between the disorders of the lymphatic and immune system in relation to their signs and symptoms.

- Immunity
- Pathogens
- Fever
- Antibodies
- Lymphocytes
- Inflammation
- Autoimmune
- WBC
- Lymphatic
- Tonsils
- Specific-Immunity
- HIV/AIDS
- Mononucleosis
- Influenza
- T-cells
- B-cells
- Natural Killer Cells
- Immune Response

- Objective 4
Identify the signs and symptoms of disorders of the lymphatic and immune systems.
 - a. Influenza
 - b. H1N1
 - c. HIV/AIDS
 - d. Mononucleosis
 - e. Autoimmune disorders

Infection Control and the Exam Room 

(Week 8, 3 Weeks) 

UT: CTE: Health Education, UT: Grades 9-12, Medical Assistant Standard 1
CLINICAL and LABORATORY PROCEDURES
Students will examine basic concepts of asepsis.

- Objective 1
Describe the infection control cycle.
 - a. Review the five types of microorganisms.
 - Bacteria
 - Virus
 - Protozoa
 - Fungi
 - Rickettsiae
 - b. Discuss the chain of infection.
- Objective 2
Demonstrate disease prevention principles.
 - a. Describe the three levels of infection control.
 - Sanitization
 - Disinfection
 - Sterilization
 - b. Describe the common standard precautions of infection control.
 - Hand washing / Hand sanitizing
 - Gloving
 - Personal protective equipment (PPE)
 - Coughing etiquette / masks
 - Hygiene
 - Nutrition
- Objective 3
Apply personal safety procedures based on OSHA and CDC regulations.
 - a. List blood-borne pathogens.
 - Hepatitis B and C
 - HIV

Components of the chain of infection and how to break each chain.

Five types of organisms:

Bacteria
Virus
Protozoa
Fungi
Rickettsiae

Three levels of cleaning:

Sanitization/Sanitizing instruments
Disinfection/Chemical disinfecting (including bleach)
Sterilization/Autoclaving

Common standard precautions of infection control:

Hand washing / Hand sanitizing
Gloving
Personal protective equipment (PPE)
Coughing etiquette / masks
Hygiene

Personal safety procedures based on OSHA and CDC regulations:

Prevention of transmission of Blood borne pathogens Hepatitis B and HIV

Use of safety devices
Use of Materials Safety Data Sheets (MSDS)

Use of Incident/injury reports

Use of Sharps containers

Demonstrate procedures for the proper cleaning and sanitizing of instruments.

Demonstrate ability to prepare and clean the examination room properly.

Demonstrate ability to properly position and drape patients for exams.

Demonstrate ability to apply personal safety procedures.

Bacteria
Virus
Protozoa
Fungi
Rickettsiae

Sanitization/Sanitizing instruments
Disinfection
Sterilization

Autoclave

Incident report

Sharps containers

Personal Protective Equipment PPE

Bio-hazardous waste

Blood Borne Pathogens

Supine
Prone
Lithotomy
Dorsal recumbent
Trendelenburg
Fowler's
Semi-Fowler's

Sims'

- b. Describe techniques for preventing pathogen transmission.
 - Sharps containers
 - Biohazardous waste
- c. Discuss the use of safety devices.
- d. Discuss the use of Materials Safety Data Sheets (MSDS).
- e. Discuss the use of Incident/injury reports.

- Objective 4
 - Demonstrate procedures for the proper cleaning and sanitizing of instruments.
 - a. Sanitizing instruments
 - b. Chemical disinfecting (including bleach)
 - c. Autoclaving

Standard 3
 Students will accurately obtain the patient history and assist with the physical examination.

- Objective 2
 - Prepare the patient and the examination room.
 - a. Prepare and clean the examination room properly.
 - b. Assemble all necessary equipment and supplies.
 - c. Demonstrate patient positioning.
 - Supine
 - Prone
 - Lithotomy (pelvic exam)
 - Dorsal recumbent (abdominal exam)
 - Trendelenburg (shock)
 - Fowler's (respiratory)
 - Semi-Fowler's (respiratory)
 - Sims' (rectal)
 - d. Demonstrate draping techniques.
 - e. Assist the physician as necessary.
 - f. Clean the examination table and replace supplies.

Use of Bio hazardous waste containers

Proper preparation and cleaning of the examination room and equipment.

Proper assembly of all necessary equipment and supplies.

<p>physiology of the endocrine system.</p> <ul style="list-style-type: none"> ▪ Objective 1 Describe the general functions of the endocrine system. <ul style="list-style-type: none"> a. Regulates growth, development, and maturation b. Regulates chemical balance by the production of hormones ▪ Objective 2 Describe what a hormone is and how it works. <ul style="list-style-type: none"> a. Chemicals secreted into the blood to have an effect on a target tissue b. Produced by endocrine glands ▪ Objective 3 Describe the major locations, secretions (hormones), and functions of the following glands: <ul style="list-style-type: none"> a. Pituitary – growth hormone, ACTH, TSH, oxytocin b. Thyroid – thyroxine c. Pancreas – insulin d. Adrenal – cortisol, adrenaline e. Ovaries – estrogen, progesterone f. Testes – testosterone ▪ Objective 4 Identify the signs and symptoms of disorders of the endocrine system. <ul style="list-style-type: none"> a. Diabetes Mellitus (Types 1 and 2) b. Hypothyroidism/Hyperthyroidism c. Dwarfism/Gigantism <p>Standard 12 Students will describe the anatomy and physiology of the urinary system.</p> <ul style="list-style-type: none"> ▪ Objective 1 Describe the functions of the urinary system. <ul style="list-style-type: none"> a. Excrete waste and water from the body b. Regulate fluid balance and blood composition ▪ Objective 2 Identify the structures of the urinary system and their major functions. <ul style="list-style-type: none"> a. Kidneys – filter the blood and form urine 	<p>The function of hormones.</p> <p>The locations, functions and hormones of basic endocrine glands.</p> <p>The structures of the urinary system and their specific functions.</p> <p>The functions of the structures of the male and female reproductive system.</p> <p>The signs and symptoms of the disorder of the endocrine, urinary and reproductive systems.</p>	<p>system.</p> <p>Describe the structures and functions of the urinary and reproductive systems.</p> <p>Distinguish between the disorders of the endocrine, urinary, and reproductive systems, in relation to their signs and symptoms.</p>	<p>Kidneys</p> <p>Ureters</p> <p>Bladder</p> <p>Urethra</p> <p>Cystitis</p> <p>Pyelonephritis</p> <p>Incontinence</p> <p>Gametes</p> <p>sperm</p> <p>ovaries</p> <p>Uterine</p> <p>Cervix</p> <p>Endometrium</p> <p>Vagina</p> <p>Menstrual</p> <p>penis</p> <p>Testes</p> <p>Scrotum</p> <p>Epididymis</p> <p>Vas deferens</p> <p>Prostate</p> <p>Menopause</p>
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- b. Ureters – passageway for urine from the kidneys to the bladder
- c. Bladder – temporary storage of urine
- d. Urethra – passageway of urine to the outside of the body

- Objective 3
Identify the signs and symptoms of disorders of the urinary system.
 - a. Kidney stones
 - b. Cystitis
 - c. Pyelonephritis
 - d. Incontinence
 - e. Renal failure

Standard 13

Students will describe the anatomy and physiology of the reproductive system.


- Objective 1
Describe the functions of the reproductive system.
 - a. Production of gametes (egg and sperm) by the gonads
 - b. Produce hormones to help in the maturation process
- Objective 2
Identify the structures of the female reproductive system and their major functions.
 - a. Breasts – lactation
 - b. Ovaries – production of eggs, estrogen, and progesterone
 - c. Uterine tubes – site of fertilization, passage between ovaries and uterus
 - d. Uterus – nourishment and protection of the fetus
 - Cervix
 - Endometrium
 - e. Vagina – birth canal, exit for menstrual flow
- Objective 3
Identify the structures of the male reproductive system and their major functions.
 - a. Penis – protects the urethra
 - b. Testes – production of testosterone and sperm
 - c. Scrotum – muscular sac containing the testicles
 - d. Epididymis – storage and maturation of sperm

Pituitary

Thyroid

Adrenal

- e. Vas deferens – passageway of semen from the testicles meeting connecting with the urethra
- f. Prostate gland – secretes fluids for sperm motility
- g. Urethra – passageway for urine and semen
- Objective 4
Identify the signs and symptoms of disorders of the reproductive system.
 - a. Female
 - Ovarian cyst
 - Premenstrual syndrome (PMS)
 - Menopause
 - Cancer
 - a. Cervical cancer
 - b. Ovarian cancer
 - c. Breast cancer
 - Endometriosis
 - Human Papillomavirus (HPV)
 - Pelvic Inflammatory Disease (PID)
 - b. Male
 - Cancer
 - a. Prostate cancer
 - b. Testicular cancer
 - Epididymitis
 - Prostatitis
 - Benign Prostatic Hypertrophy (BPH)

Medical Office Communications
(Week 11, 3 Weeks)  

UT: CTE: Health Education, UT: Grades 9-12, Medical Assistant Standard 2
Students will identify medical abbreviations in a healthcare setting.

- Objective 1
Interpret and apply identified medical abbreviations.
 - a. Interpret and extract information from realistic medical documents.
 - b. Apply medical abbreviations to interpreting and writing prescriptions.
- Objective 2
Interpret identified healthcare symbols.
 - a. Identify pharmacological symbols.

The communication elements important in an effective medical office.

- The environment appropriate to maintain comfort for patients
- The professional way of greeting and responding to patients.
- The process of collecting new and updated information from patients.
- The professional way of escorting and instructing patients.
- The general techniques of how to resolve conflicts with patients.

The general guidelines for telephone communication:

Demonstrate professionalism when answering telephone calls.

Demonstrate professionalism when interacting with or solving conflicts with patients.

Accurately differentiate and document appropriate medical abbreviations in medical records.

Distinguish between Subjective and Objective information during patient assessment.

Demonstrate ability to obtain an accurate and complete patient

ADA

Double booking
Group/Cluster booking

Matrix

Triage

Repression
Regression
Rationalization
Sarcasm
Denial
Compensation
Projection
Displacement

Physical avoidance

<p>b. Identify medical symbols.</p>	<ul style="list-style-type: none"> ▪ The medical assistant's role in the triage of telephone calls 	<p>history.</p>	<p>Apathy</p>
<p>Standard 3 Students will identify procedures that contribute to a professional and safe medical office environment.</p>	<ul style="list-style-type: none"> ▪ The importance of documenting telephone calls ▪ The process of obtaining and making referrals ▪ The process of calling in prescription refills 	<p>Accurately document information gathered during patient assessment.</p>	<p>Empathy Interventions</p>
<ul style="list-style-type: none"> ▪ Objective 1 Identify the elements important in the medical office. <ul style="list-style-type: none"> a. Discuss the environment appropriate to maintain comfort for patients. <ul style="list-style-type: none"> • Aesthetics • Temperature • Cleanliness • Compliance with ADA b. Describe the professional way of greeting and responding to patients. <ul style="list-style-type: none"> • 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. <ul style="list-style-type: none"> a. Late appointment b. Angry patient c. Talkative patient d. Missed appointment ▪ Objective 2 Identify the duties of opening and closing the office. <ul style="list-style-type: none"> a. Discuss steps used in opening the medical office. b. Discuss steps used in closing the medical office. 	<p>Scheduling techniques:</p> <ul style="list-style-type: none"> ▪ The process to establish a matrix/master schedule. ▪ Double booking ▪ Group/Cluster booking ▪ Open office hours ▪ How to document a no-show appointment and a cancellation <p>The common documentation and chart management approaches for medical records.</p> <ul style="list-style-type: none"> ▪ The process to obtain an accurate patient history ▪ The pharmacological and medical symbols, and abbreviations used in medical records. ▪ The contents of a medical record <ul style="list-style-type: none"> ▪ SOAP ▪ POMR ▪ How to initiate a new patient medical record. ▪ Subjective information ▪ Objective information ▪ Correcting errors in the patient chart ▪ The importance of documenting all interventions ▪ The benefits of alphabetic and numerical filing ▪ The steps for locating a missing file 	<p>Demonstrate the correct method of filing patient information.</p>	<p>Documentation</p>
<p>Standard 4 Students will apply effective medical office communication principles in the healthcare setting.</p>			
<ul style="list-style-type: none"> ▪ Objective 1 Describe general guidelines for telephone communication. <ul style="list-style-type: none"> a. Describe the medical assistant's role in the triage of telephone calls. b. Explain the importance of documenting telephone calls. c. Demonstrate professionalism 	<p>Verbal and Nonverbal Communication:</p> <ul style="list-style-type: none"> ▪ The importance of body language and gestures during 		

when answering telephone calls.
d. Identify the process of obtaining and making referrals.
e. Discuss the process of calling in prescription refills.

- Objective 2
Describe scheduling techniques.
 - a. Establish a matrix/master schedule.
 - b. Describe different types of scheduling.
 - Double booking
 - Group/Cluster booking
 - Open office hours
 - c. Describe how to document a no-show appointment and a cancellation.

Standard 5

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

- Objective 1
Differentiate between verbal and nonverbal communication.
 - a. Describe the importance of body language and gestures during communications.
 - b. Explain the importance of tone of voice, word choice, and silence during communications.
 - c. Identify the parts of a communication model.
- Objective 2
Identify effective listening skills/habits.
 - a. Differentiate between active and passive listening.
 - b. Identify types of questions to elicit patient information.
 - Open ended questions
 - Restating
 - Reflecting
 - Clarification
 - Leading
- Objective 3
Identify communication barriers.
 - a. Describe the following communication barriers.
 - Physical
 - Mental
 - Cultural

communications.

- The importance of tone of voice, word choice, and silence during communications.
- The parts of a communication model

Effective communication and listening skills/habits:

- The difference between active and passive listening
- The types of questions to elicit patient information
- The common communication barriers
- The common defense mechanisms
- The difference between sympathy and empathy

- Maturity
- Age
- Stress
- b. Describe the following defense mechanisms.
 - Repression
 - Regression
 - Rationalization
 - Sarcasm
 - Denial
 - Compensation
 - Projection
 - Displacement
 - Physical avoidance
 - Apathy
- Objective 4

Contrast sympathy and empathy.

 - a. Describe appropriate body language to express empathy.
 - b. Demonstrate appropriate expressions of empathy.
- Objective 5

Describe the steps of the grieving process.

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

Standard 6

Students will accurately maintain medical records.

- Objective 1

Identify the contents of a medical record.

 - a. Discuss the standard medical record and various types of reports.
 - Patient's past records
 - History and physical
 - Insurance
 - Office notes
 - Progress notes
 - Pathology results
 - Nursing notes
 - Medication
 - Physician orders
 - X-ray reports

- Laboratory reports
- Operative reports
- Consultation reports
- EKG
- Miscellaneous
- b. Describe common documentation approaches for medical records.
 - SOAP
 - POMR
- c. Describe how to initiate a new patient medical record.
- Objective 2

Differentiate between subjective and objective information.

 - a. Use subjective information to document patient complaints.
 - b. Use objective information to document patient complaints.
- Objective 3

Discuss the legalities associated with the medical record.

 - a. Demonstrate how to correct errors in the patient chart.
 - b. Explain the importance of documenting all interventions.
- Objective 4

Demonstrate the correct method of filing patient information.

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

Standard 3

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

- Objective 1

Demonstrate the ability to obtain an accurate patient history.

 - a. Chief complaint
 - b. Use of open-ended questions to obtain information
 - c. Pain scale
 - d. Document allergies
 - e. Relevant observations or information
 - f. Differentiate between subjective

and objective information

Assisting with Physical

Exams

(Week 13, 3

Weeks) 

UT: CTE: Health Education, UT: Grades 9-12, Medical Assistant Standard 2

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

- Objective 1
Measure and obtain the five vital signs.
 - a. Temperature (tympanic, electronic oral, temporal)
 - b. Pulse (rate, rhythm, volume) (peripheral, apical)
 - c. Respiration (rate, rhythm, depth)
 - d. Blood Pressure
 - e. Oxygen Saturation
- Objective 2
Define terms which describe normal and abnormal vital signs values.
 - a. Bradycardia / Tachycardia
 - b. Hypotension / Hypertension
 - c. Febrile / Afebrile
 - d. Bounding / Thready pulse
 - e. Shallow / Dyspnea / Stridor / Hyperventilation / Wheezing
 - f. Hypoxia
- Objective 3
Obtain body measurements for adults.
 - a. Height
 - b. Weight
- Objective 4
Obtain body measurements for infants.
 - a. Length
 - b. Weight
 - c. Head circumference (hydrocephalus, microcephaly)
 - d. Chest circumference

Standard 3
Students will accurately obtain the patient history and assist with the physical examination.

- Objective 2
Prepare the patient and the examination room.

The processes of taking the five vital signs:

- Temperature
- Pulse
- Respiration
- Blood Pressure
- Oxygen Saturation

The terms which describe normal and abnormal vital signs values:

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

The processes and rationales for obtaining body measurements:

- Height
- Weight
- Infant Length
- Infant Weight
- Infant Head circumference
- Infant Chest circumference

The patient and the examination room:

- The process and rationales to prepare and clean the examination room, assemble necessary equipment and supplies, position and drape patients, assist the physician, and clean the exam room and replace supplies.

The common examinations and procedures in medical specialties:

Demonstrate ability to obtain accurate tympanic temperature, radial pulse, respirations, blood pressure, and O₂ saturation.

Demonstrate ability to position patients in Dorsal Recumbent, Prone, Supine, Sims', Trendelenburg, Fowlers, Semi-Fowlers, and Lithotomy.

Demonstrate ability to set up and assist with Physical exams, Gynecological exams, and explain ear/eye irrigation/instillation.

Demonstrate ability to measure visual acuity, and determine color vision acuity by Ishihara method, near sighted vision with Jaeger card, far sighted vision with Snellen chart.

Demonstrate ability to obtain body measurements: adult height and weight, and infant length & head circumference and weight.

Demonstrate ability to instruct patient in use of crutches, cane and walker.

- Supine
- Prone
- Lithotomy
- Dorsal recumbent
- Trendelenburg
- Fowler's
- Semi-Fowler's
- Sims'

Bradycardia

Tachycardia

Hypotension

Hypertension

Febrile

Afebrile

Bounding

Thready pulse

Dyspnea

Hyperventilation

Wheezing

Sigmoidoscopy

Instillation

Irrigation

Pap Test

Speculum

Circumference

- a. Prepare and clean the examination room properly.
- b. Assemble all necessary equipment and supplies.
- c. Demonstrate patient positioning.
 - Supine
 - Prone
 - Lithotomy (pelvic exam)
 - Dorsal recumbent (abdominal exam)
 - Trendelenburg (shock)
 - Fowler's (respiratory)
 - Semi-Fowler's (respiratory)
 - Sims' (rectal)
- d. Demonstrate draping techniques.
- e. Assist the physician as necessary.
- f. Clean the examination table and replace supplies.
- Objective 3
Describe common examinations and procedures in medical specialties.
 - a. Sigmoidoscopy
 - b. Prostate exam
 - c. Pap test (smear)
 - d. Snellen eye chart (visual acuity)
 - e. Ishihara (color visual acuity)
 - f. Jaeger (near vision acuity)
 - g. Ear wax removal (irrigation)
 - h. Eye irrigation
- Objective 4
Assist the patient with ambulatory devices.
 - a. Assist patient from a wheelchair to an exam table and back to the wheelchair.
 - b. Instruct patient in using walkers, canes, and crutches.

- Sigmoidoscopy
- Prostate exam
- Pap test (pap smear)
- Snellen eye chart (visual acuity)
- Ishihara (color visual acuity)
- Jaeger (near vision acuity)
- Ear wax removal (irrigation)
- Eye drop instillation
- Using walkers, canes, and crutches

Assist

Hypoxia

Pharmacology  (Week 15, 2 Weeks) 

UT: CTE: Health Education, UT: Grades 9-12, Medical Assistant Standard 2
Students will identify medical abbreviations in a healthcare setting.

- Objective 1
Interpret and apply identified medical abbreviations.
 - a. Interpret and extract information from realistic medical documents.

The medical abbreviations used in interpreting and writing prescriptions.

The common Medications Classifications.

The Schedules for Controlled Substances I-V.

The resources to find medication

Apply medical abbreviations to interpreting and writing prescriptions

Differentiate between Medication Classifications

Differentiate between the Schedules of Controlled Substances.

Antihypertensives
Antihistamines
Antidiuretics / Diuretics
Antitussives
Antidepressants
Antianxiety
Antipyretics
Analgesics
Antibiotics
Laxatives
Antidiabetic / Hypoglycemic

<ul style="list-style-type: none"> b. Apply medical abbreviations to interpreting and writing prescriptions. ▪ Objective 2 Interpret identified healthcare symbols. <ul style="list-style-type: none"> a. Identify pharmacological symbols. b. Identify medical symbols. 	<p>information.</p> <p>The process and rationales of medication and immunization administration, and documentation.</p> <p>The principles involved with prescription medications.</p>	<p>Demonstrate ability to find medication information using a Physicians' Desk Reference or Nursing Drug Book.</p> <p>Perform accurate dosage calculations.</p> <p>Apply the 5 "rights" of medication administration.</p>	<p>Anticoagulants Hormones PDR Controlled Substance Anesthetics Anti-inflammatories Bronchodilators Narcotics</p>
<p>Standard 4 Students will discuss pharmacology principles and demonstrate accurate medication administration.</p>	<p>The processes and rationales for accurate dosage calculations.</p> <p>The 5 "rights" of medication administration.</p>	<p>Demonstrate ability to properly document medication and immunization administration.</p>	<p>Dosage Calculations</p>
<ul style="list-style-type: none"> ▪ Objective 1 Classify common medications. <ul style="list-style-type: none"> a. Antihypertensives b. Antihistamines c. Antidiuretics / Diuretics d. Antitussives e. Antidepressants f. Antianxiety g. Contraception h. Antipyretics i. Analgesics j. Antibiotics k. Laxatives l. Antidiabetic / Hypoglycemic m. Anticoagulants n. Hormones o. Anesthetics p. Anti-inflammatories q. Bronchodilators r. Narcotics 	<p>The common and life threatening side-effects of medications.</p>	<p>Describe the necessary components of a valid prescription.</p> <p>Demonstrate between prescription and over-the-counter medications.</p> <p>Explain the appropriate procedure for calling or faxing a prescription</p>	<p>Lot number Prescription Side effects</p>
<ul style="list-style-type: none"> ▪ Objective 2 Describe the schedule for controlled substances. <ul style="list-style-type: none"> a. Schedule I – illegal, not prescribed b. Schedule II – high potential for addiction and abuse c. Schedule III – moderate to low potential for addiction and abuse d. Schedule IV – lower potential for addiction and abuse e. Schedule V – low potential for addiction and abuse ▪ Objective 3 Demonstrate how to find medication information. <ul style="list-style-type: none"> a. Physician's Desk Reference (PDR) 			

- b. Nursing Drug Reference
- c. Internet
- Objective 4
Document medication administration.
 - a. Medication record
 - Medication
 - Dosage
 - Site
 - Patient reaction
 - b. Immunization record
 - Lot number
 - Expiration date
 - Site
- Objective 5
Understand principles involved with prescription medication.
 - a. Describe the necessary components of a valid prescription.
 - b. Compare and contrast prescription and over-the-counter medications.
 - c. Explain the appropriate procedure for calling or faxing a prescription.
- Objective 6
Perform accurate dosage calculations.
 - a. Evaluate and simplify numerical expressions containing real numbers using the order of operations.
 - Addition, subtraction, multiplication, division
 - Fractions
 - Decimals
 - Ratios
 - Proportions
 - Metrics
 - Conversions
 - b. Compute solutions to problems and determine the reasonableness of an answer by relating them to the problem.
- Objective 7
Identify the following "rights" of medication administration.
 - a. Right patient
 - b. Right medication
 - c. Right time
 - d. Right route
 - e. Right dosage
- Objective 9

Describe the side-effects of medications.
 a. Compare and contrast common side effects with adverse effects.
 b. Recognize signs and symptoms of Anaphylactic shock and describe its treatment.

Minor Basic Surgery
 (Week 16, 2 Weeks) 

UT: CTE: Health Education, UT: Grades 9-12, Medical Assistant Standard 5
 Students will demonstrate the ability to assist with minor surgery.

- Objective 1
 Identify common instruments by name, use, and category.
 - a. Cutting instruments
 - Scissor (bandage, suture)
 - Scalpel
 - b. Grasping and Clamping
 - Hemostat
 - Forceps
 - Towel Clamp
 - c. Probing and Dilating
 - Scope
 - Speculum
 - Punch (biopsy)
 - d. Suture Materials
 - Sutures (absorbable, non-absorbable)
 - Suture needles
 - Needle holder
 - Steri-Strips
 - Staples
 - Dermabond
- Objective 2
 Prepare the patient and the procedure room.
 - a. Obtain a patient consent form.
 - b. Explain pre- and post- procedure care and education of the patient.
 - c. Demonstrate a surgical hand wash.
 - d. Demonstrate applying sterile gloves.
 - e. Demonstrate creating a sterile field and opening a sterile pack.
 - f. Describe ways of maintaining the sterile field.
 - g. Demonstrate the ability to assist with procedures, including skin preparation.

The name, use and category of commonly used instruments.

The wound closing materials used in common procedures.

The MA's pre-op, intra-op and post-op duties for common office procedures.

Obtain a patient consent form for office procedure.

Explain pre and post procedure care and education of the patient.

Demonstrate a surgical hand wash.

Demonstrate applying sterile gloves.

Demonstrate creating a sterile field and opening a sterile pack.

Demonstrate the ability to assist with procedures, including skin preparation.

Demonstrate simulated suture and staple removal techniques.

Scalpel
 Hemostat
 Forceps
 Towel Clamp
 Scope

Speculum
 Punch (biopsy)
 Suture
 Needle holder
 Steri-Strips
 Staples
 Dermabond

Cryosurgery


Pre-op
 Post-op

Sterile field

Surgical

Informed Consent

- h. Demonstrate sterile dressing changes.
- i. Demonstrate suture and staple removal techniques.

Employment Skills and Professionalism 

(Week 17, 2 Weeks) 

UT: CTE: Health Education, UT: Grades 9-12, Medical Assistant Standard 1
MEDICAL OFFICE MANAGEMENT
 Students will explore the medical assisting profession and its role in the healthcare setting.

- Objective 1
 Describe the job responsibilities of a medical assistant.
 - a. Describe the training required for a medical assistant.
 - Compare and contrast endorsed and certified and registered medical assistants.
 - Describe the current Utah medical assistant job training requirements.
 - b. Compare administrative and clinical skills.
 - Administrative skills including office management and clerical functions.
 - Clinical skills including therapeutic procedures and diagnostic procedures.
- Objective 2
 Analyze characteristics needed for a quality medical assistant and apply the skills necessary for obtaining employment.
 - a. Recognize the following basic attributes:
 - Positive attitude
 - Team work
 - Adapt to change
 - Communication skills
 - Professional appearance
 - Confidentiality (verbal and written correspondence)
 - Exhibit initiative
 - Cultural competency
 - Integrity
 - Discretion
 - Organize and prioritize
 - Continuing education
 - b. Discuss professionalism.
 - c. Apply job-seeking skills.

The duties and responsibilities of a medical assistant.

The differences between administrative and clinical MA duties.

The characteristics needed for a quality medical assistant.

The skills necessary for obtaining employment.

The areas of potential employment for MAs.

Differentiate between MA administrative and clinical duties.

Analyze characteristics needed for a quality medical assistant.

Apply the job-seeking skills necessary for obtaining employment.

- Professional appearance
- Professionalism
- Cultural sensitivity
- Discretion
- Integrity
- Confidentialty
- Employment
- Resume

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

**Physician's Office Lab
and Procedures**

(Week 18, 3 Weeks)



UT: CTE: Health Education, UT: Grades 9-12, Medical Assistant Standard 1
CLINICAL and LABORATORY PROCEDURES
Students will examine basic concepts of asepsis.

- Objective 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 Materials Safety Data Sheets (MSDS).
 - Discuss the use of Incident/injury reports.

Standard 7
Students will learn skills necessary to work in a physician's office laboratory.

- Objective 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).
 - Demonstrate the ability to use a

The personal safety procedures based on OSHA and CDC regulations.

The techniques for preventing pathogen transmission, including blood-borne pathogens.

The use of safety devices, sharps containers, bio-hazard containers, Materials Safety Data Sheets (MSDS), and Incident/injury reports.

The procedures, associated with the analysis of urine, which are done in a POL.

The terms and procedures associated with hematology.

The the components of blood and the function of each.

The common blood tests and their normal values.

The common capillary and venipuncture sites, and process for obtaining specimens from these sites.

The terms and procedures associated with microbiology.

The difference between gram positive and gram negative bacteria.

The process of how to obtain a throat culture specimen.

Apply personal safety procedures based on OSHA and CDC regulations.

Demonstrate techniques for preventing pathogen transmission.

Prepare specimen for transport to an outside lab.

Describe Clean-catch midstream urine collection instructions.

Demonstrate the ability to use a reagent strip to identify abnormalities in urine.

Demonstrate a skin puncture with a sterile lancet.

Demonstrate simulated venipuncture (and Butterfly method) using vacuum method with multiple tubes.

Perform a microhematocrit collection.

Preform hemocult simulation.

Describe the procedure for obtaining a PKU.

Demonstrate the ability to obtain a throat culture specimen.

OSHA

CDC

Blood-borne pathogens

MSDS

Risk mangemnt

Incident report

Urinalysis

Hematology

Venipuncture

Vacuum method

Hematocrit

Lancet

Hemoglobin

Culture

Gram Staining

reagent strip to identify abnormalities in urine.
d. Demonstrate the ability to set up a wet mount for microscopic analysis.
e. Describe urine pregnancy testing.

- Objective 2
Describe terms and procedures associated with hematology.
 - a. 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
 - b. Differentiate between plasma and serum.
 - c. Describe the normal values for these tests:
 - Hematocrit (37 – 47% women; 40 – 54% men)
 - Hemoglobin (14 – 18 g men; 12 – 16 g women)
 - WBC count (5000 – 10000)
 - RBC count (4.2 million – 6 million)
 - Platelet count (150,000 – 350,000)
 - Glucose (80 – 120 mg)
 - Total Cholesterol (<200)
 - d. Locate capillary and common venipuncture sites.
 - e. Demonstrate a skin puncture with a sterile lancet/autolet.
 - f. Demonstrate venipuncture using vacuum method with multiple tubes.
 - g. Perform a microhematocrit and glucose from finger stick.
 - h. Demonstrate a hemocult (guaiac).
 - i. Describe the procedure for obtaining a PKU.
 - j. Describe common blood tests (FBS, GTT, blood typing).
- Objective 3
Describe terms and procedures associated with microbiology.
 - a. Differentiate between gram positive and gram negative bacteria.
 - b. Demonstrate the ability to obtain a throat culture specimen.

The difference between culturing bacteria and rapid testing.

The parts of and use of the microscope.

- c. Differentiate between culturing bacteria and rapid testing.
- d. Identify the parts of and use of the microscope.

Medication

Administration

(Week 20, 2 Weeks)

UT: CTE: Health Education, UT: Grades 9-12, Medical Assistant Standard 4
Students will discuss pharmacology principles and demonstrate accurate medication administration.

- Objective 7
Identify the following "rights" of medication administration.
 - a. Right patient
 - b. Right medication
 - c. Right time
 - d. Right route
 - e. Right dosage
- Objective 8
Demonstrate the procedures for administering medications.
 - a. Oral, including buccal and sublingual
 - b. Transdermal (topical)
 - c. Intradermal
 - d. Subcutaneous
 - e. Intramuscular, including Z track method
 - f. Ear/Eye Drops
 - g. Ointments
 - h. Inhalation
 - i. Epi-pen

The safety measures for administering medications.

The process for administering the following medications:

- Oral, including buccal and sublingual
- Transdermal
- Topical, ointments
- Intradermal
- Subcutaneous
- Intramuscular, including Z track method
- Ear/Eye Drops
- Inhalation
- Epi-pen

Demonstrate ability to administer medications safely and effectively

Demonstrate ability to administer oral medication

Demonstrate ability to administer inhalation medications

Demonstrate ability to prepare an injection from a vial

Demonstrate ability to administer intradermal injection

Demonstrate ability to administer subcutaneous injection

Demonstrate ability to apply topical medications

Demonstrate ability to administer intramuscular injection

Demonstrate ability to use Z-track method

Demonstrate ability to administer eye/ear medications

Describe the electrical conduction system of the heart.

Demonstrate appropriate placement of EKG leads.

Demonstrate competency in CPR and First Aid.

Oral

Buccal

Sub-lingual
Transdermal

Topical

Intradermal
Subcutaneous

Intramuscular

Instillation

Z track method

Injections

Needle gauge

Viscosity

Cardiac Procedures

(Week 21, 2 Weeks)

UT: CTE: Health Education, UT: Grades 9-12, Medical Assistant Standard 6
Students will demonstrate how to use the electrocardiograph machine.

- Objective 1
Describe the electrical conduction system of the heart.
 - a. Identify the SA node, AV node, AV bundle, bundle branches, and

The components of the electrical conduction system of the heart.

The correlation of the "PQRST" waves on an EKG (ECG) with the conduction system of the heart.

The potential artifacts and ways to prevent them.

Describe the electrical conduction system of the heart.

Demonstrate appropriate placement of EKG leads.

Demonstrate competency in CPR and First Aid.

Electrocardiogram

Leads

SA node

AV node

Purkinje fibers.
 b. Correlate the "PQRST" waves on an EKG (ECG) with the conduction system of the heart.

- Objective 2
 Prepare the patient for an EKG (ECG).
 - a. Demonstrate electrode placement and obtain a 12 lead EKG (ECG).
 - b. Identify artifacts and describe ways to prevent them.
 - Somatic tremor
 - Wandering baseline
 - Current interference
- Objective 3
 Identify other tests used to determine heart function.
 - a. Holter monitor (24-48 hour)
 - b. Stress test
 - c. Event monitor (30 days)

The other common tests used to determine heart function.

How to perform CPR and basic First Aid.

AV bundle
 Bundle branches
 Purkinje fibers
 Artifacts
 Stress Test
 Chest compressions
 Rescue breaths

Standard 8
 Student will be able to respond to emergencies.

- Objective 1
 Obtain CPR certification.
 - a. Adult, child, and infant CPR
 - b. AED training
- Objective 2
 Obtain First Aid certification.
 - a. Describe how to respond to bleeding, shock, and poisoning emergencies.
 - b. Demonstrate bandaging techniques.

Medical Office Billing and Insurance

(Week 22, 3 Weeks)

UT: CTE: Health Education, UT: Grades 9-12, Medical Assistant Standard 2
 Students will identify medical abbreviations in a healthcare setting.

- Objective 1
 Interpret and apply identified medical abbreviations.
 - a. Interpret and extract information from realistic medical documents.
 - b. Apply medical abbreviations to interpreting and writing

The bookkeeping and financial terms, and the functions of the medical office.

The difference between the processing of accounts receivable and accounts payable

The difference between various methods of payments.

The terms associated with bank accounts.

The terms associated with Medical/Health

Demonstrate ability to prepare accounts payable & receivable

Demonstrate ability to prepare a daysheet

Demonstrate ability to prepare petty cash

Demonstrate ability to prepare ledger


Credit
 Debit
 Adjustment
 Balance
 Asset

prescriptions.	Insurance and Medical Billing.	Demonstrate ability to prepare patient's itemized monthly statement	Liability Collections
Standard 7 Students will perform bookkeeping and financial functions in a medical office setting.	The common Insurance Carriers.	Demonstrate ability to prepare a bank deposit	Bank deposit
<ul style="list-style-type: none"> ▪ Objective 1 Differentiate between accounts receivable and accounts payable. <ul style="list-style-type: none"> a. Define bookkeeping terms. <ul style="list-style-type: none"> • Credit • Debit • Adjustment • Balance • Asset • Liability • Collections b. Describe the following financial forms. <ul style="list-style-type: none"> • Bank deposit • Bank statement • Receipt • Petty cash • Day sheet ▪ Objective 2 Discuss the difference between various methods of payment. <ul style="list-style-type: none"> a. Differentiate between different types of checks. <ul style="list-style-type: none"> • Cashiers • Personal • Money order • Certified • Third party check • Electronic checks b. Define terms associated with a checking account. <ul style="list-style-type: none"> • Payee • Payer • Endorsement c. Describe differences between credit card and debit cards. d. Discuss flexible spending accounts. 	<ul style="list-style-type: none"> ▪ Group Insurance plans ▪ Independent Insurance plans ▪ Medicare ▪ Medicaid ▪ Fee for Service ▪ Tri-care ▪ Workers Compensation 	Demonstrate ability to write checks	Bank statement Receipt
	The process to prepare a healthcare claim.	Demonstrate ability to complete HCFA insurance claim form	Petty cash Day sheet
	How to determine procedural and diagnostic coding.		Personal check Money order
	The common terms associated with medical coding.		Certified check Third party check
	<ul style="list-style-type: none"> ▪ CPT code ▪ ICD-9/10 ▪ HCFA/CMS 1500 ▪ E codes / V codes 		Electronic checks Payee Payer
	The legalities associated with coding and billing in a medical office including fraudulent claims.		Check endorsement
Standard 8 Students will perform proper insurance, coding, and billing procedures.			<ul style="list-style-type: none"> • Birthday Rule • Pre-authorization/Pre-certification • Premium • Co-payment (Coinsurance) • Deductible • Explanation of Benefits (EOB) • Fee Schedule
<ul style="list-style-type: none"> ▪ Objective 1 Identify terms associated with medical insurance. 			<ul style="list-style-type: none"> • HMO • PPO • Medicare • Medicaid • Fee for Service • Tricare

- a. Define the following terms associated with medical billing.
 - Birthday Rule
 - Preauthorization/Precertification
 - Premium
 - Copayment/Coinsurance
 - Deductible
 - Explanation of Benefits (EOB)
 - Fee Schedule
- b. Define various insurance carriers.
 - HMO
 - PPO
 - Medicare
 - Medicaid
 - Fee for Service
 - Tricare
 - Workers Compensation
- c. Explain the process to prepare a healthcare claim.
- Objective 2
 - Explain how to determine procedural and diagnostic coding.
 - a. Define the following terms associated with medical coding.
 - CPT code
 - ICD-9
 - HCFA/CMS 1500
 - E codes / V codes
 - b. Understand legalities associated with coding and billing in a medical office including fraudulent claims.

Medical Law, Ethics, Interpersonal

Communications 

(Week 24, 2 Weeks) 

UT: CTE: Health Education, UT: Grades 9-12, Medical Assistant Standard 2

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

- Objective 1
 - Identify the legal guidelines/requirements for a medical office.
 - a. Define a medical assistant's scope of practice and understand the principle of delegation.
 - b. Apply risk management procedures.
 - c. Define HIPAA regulations for the medical office.
 - d. Discuss patient self-determination acts.
 - Medical (Durable) Power of

The medical assistant's scope of practice.

The HIPAA regulations for the medical office.

The patient self-determination acts:

- Medical (Durable) Power of Attorney
- Living Will / Advanced Directives
- Anatomical Gift Act (Organ Donation)

The classifications of law (criminal and civil).

Analyze the legal and ethical issues that impact the medical office.

Describe ways to apply HIPAA regulations for the medical office.

Evaluate medical ethics and related issues.

Demonstrate appropriate and effective interpersonal skills.

Medical (Durable) Power of Attorney
Living Will/Advanced Directives
Anatomical Gift Act (Organ Donation)

HIPAA

Torts
Battery
Assault


Liabe
Slander
False imprisonment
Defamation

<p>Attorney</p> <ul style="list-style-type: none"> • Living Will / Advanced Directives • Anatomical Gift Act (Organ Donation) <ul style="list-style-type: none"> ▪ Objective 2 Define classifications of law. <ul style="list-style-type: none"> a. Discuss criminal law. b. Discuss civil law. • Torts <ul style="list-style-type: none"> a. Battery b. Assault c. Liable d. Slander e. False imprisonment f. Defamation g. Invasion of privacy • Contracts ▪ Objective 3 Explain malpractice and the terms associated with malpractice litigation. <ul style="list-style-type: none"> a. Compare and contrast negligence and malpractice. b. Identify malpractice terms. • Informed Consent • Patient Rights • Good Samaritan Law • Statute of Limitations • Commission and Omission ▪ Objective 4 Evaluate medical ethics and related issues. <ul style="list-style-type: none"> a. Differentiate between law, etiquette, and ethics. b. Discuss ethical situations. c. Apply ethical situations in personal and professional practice. 	<p>The differences between the medical law terms and Torts associated with a medical practice:</p> <ul style="list-style-type: none"> ▪ Battery ▪ Assault ▪ Liable ▪ Slander ▪ False imprisonment ▪ Defamation ▪ Invasion of privacy ▪ Contracts (verbal, implied, written) <p>The common terms associated with negligence and malpractice.</p> <ul style="list-style-type: none"> ▪ Informed Consent ▪ Patient Rights ▪ Good Samaritan Law ▪ Statute of Limitations ▪ Commission and Omission <p>The difference between law, etiquette, and ethics.</p> <p>The importance of body language and gestures during communications.</p> <p>The importance of tone of voice, word choice, and silence during communications.</p> <p>The appropriate body language to express empathy</p> <p>The difference between active and passive listening.</p> <p>The five psychological stages of grieving.</p>	<p>Invasion of privacy</p> <p>Ethics</p> <p>Morality</p> <p>Implied</p>
<p>Standard 5 Students will apply effective interpersonal communication principles in a healthcare setting.</p> <ul style="list-style-type: none"> ▪ Objective 1 Differentiate between verbal and nonverbal communication. <ul style="list-style-type: none"> a. Describe the importance of body language and gestures during communications. b. Explain the importance of tone of voice, word choice, and silence during communications. c. Identify the parts of a 	<ul style="list-style-type: none"> ▪ Denial ▪ Anger ▪ Bargaining ▪ Depression ▪ Acceptance 	

- communication model.
- Objective 2
Identify effective listening skills/habits.
 - a. Differentiate between active and passive listening.
 - b. Identify types of questions to elicit patient information.
 - Open ended questions
 - Restating
 - Reflecting
 - Clarification
 - Leading
- Objective 3
Identify communication barriers.
 - a. Describe the following communication barriers.
 - Physical
 - Mental
 - Cultural
 - Maturity
 - Age
 - Stress
 - b. Describe the following defense mechanisms.
 - Regression
 - Regression
 - Rationalization
 - Sarcasm
 - Denial
 - Compensation
 - Projection
 - Displacement
 - Physical avoidance
 - Apathy
- Objective 4
Contrast sympathy and empathy.
 - a. Describe appropriate body language to express empathy.
 - b. Demonstrate appropriate expressions of empathy.
- Objective 5
Describe the steps of the grieving process.
 - a. Identify the psychological implications of disease to a patient.
 - b. Describe the five psychological stages of grieving.
 - Denial
 - Anger
 - Bargaining
 - Depression

- Acceptance

Clinical Externship

(Week 26, 11 Weeks)  

UT: CTE: Health Education, UT: Grades 9-12, Medical Assistant

Standard 1

EXTERNSHIP

Students will successfully complete a clinical externship.

- Objective 1
Complete a 160 hour minimum externship.
 - a. Have clinical site complete evaluation and return to instructor.
 - b. Discuss student externship evaluation with instructor.
- Objective 2
Externship evaluations will indicate satisfactory or higher rating.

Standard 2

Students will demonstrate professional attributes.

- Objective 1
Demonstrate the following characteristics:
 - a. Honesty and integrity.
 - b. Reliability and punctuality.
 - c. Appropriate communication skills.
 - d. Cooperation and teamwork.
 - e. Initiative and adaptability.
- Objective 2
Externship evaluations will indicate satisfactory or higher rating.

Administrative Route

(Week 26, 11 Weeks)  

UT: CTE: Health Education, UT: Grades 9-12, Medical Assistant

Standard 3

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

- Objective 2
Identify the duties of opening and closing the office.
 - a. Discuss steps used in opening the medical office.

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

Standard 4

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

- Objective 2
Describe scheduling techniques.
 - a. Establish a matrix/master schedule.
 - b. Describe different types of scheduling.
 - Double booking
 - Group/Cluster booking
 - Open office hours
 - c. Describe how to document a no-show appointment and a cancellation.

Standard 6

Students will accurately maintain medical records.

- Objective 4
Demonstrate the correct method of filing patient information.
 - a. Compare and contrast the benefits of alphabetic and numerical filing.
 - b. Explain the steps for locating a missing file.

Standard 7

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

- Objective 1
Differentiate between accounts receivable and accounts payable.
 - a. Define bookkeeping terms.
 - Credit
 - Debit
 - Adjustment
 - Balance
 - Asset
 - Liability
 - Collections
 - b. Describe the following financial

forms.

- Bank deposit
- Bank statement
- Receipt
- Petty cash
- Day sheet

Standard 8

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

- Objective 1
Identify terms associated with medical insurance.
 - a. Define the following terms associated with medical billing.
 - Birthday Rule
 - Preauthorization/Precertification
 - Premium
 - Copayment/Coinsurance
 - Deductible
 - Explanation of Benefits (EOB)
 - Fee Schedule
 - b. Define various insurance carriers.
 - HMO
 - PPO
 - Medicare
 - Medicaid
 - Fee for Service
 - Tricare
 - Workers Compensation
 - c. Explain the process to prepare a healthcare claim.
- Objective 2
Explain how to determine procedural and diagnostic coding.
 - a. Define the following terms associated with medical coding.
 - CPT code
 - ICD-9
 - HCFA/CMS 1500
 - E codes / V codes
 - b. Understand legalities associated with coding and billing in a medical office including fraudulent claims.

Standard 2

Students will demonstrate professional attributes.

- Objective 1
Demonstrate the following characteristics:
 - a. Honesty and integrity.
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 - c. Appropriate communication skills.
 - d. Cooperation and teamwork.
 - e. Initiative and adaptability.

