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Statewide Framework Document for: 511614

Nursing Assistant

Standards may be added to this document prior to submission but may not be removed from the framework to meet state credit equivalency requirements. Performance assessments and leadership alignment may be developed at the local level. In order to earn state approval, performance assessments must be submitted within this framework. **This course is eligible for one credit of lab science.** The Washington State Science Standards performance expectations for high school blend core ideas (Disciplinary Core Ideas, or DCIs) with scientific and engineering practices (SEPs) and crosscutting concepts (CCCs) to support students in developing usable knowledge that can be applied across the science disciplines. These courses are to be taught in a three-dimensional manner. The details about each performance expectation can be found at Next Generation Science Standards, and the supporting evidence statements can be found under Resources.

School District Name		
Course Title: Nursing Assistant		**Total Framework Hours:** 540
CIP Code: 511614	☐ Exploratory ☒ Preparatory	**Date Last Modified:** October 30, 2020
Career Cluster: Health Science		**Cluster Pathway:** Therapeutic Services

Course Summary:
The course is designed to prepare students for employment with the entry-level skills of a certified nursing assistant in nursing homes, hospitals, clinics, long-term care facilities, home or community health agencies, or other healthcare facilities. The content includes, but is not limited to, basic essentials of healthcare, interpersonal skills, medical terminology, the structure and function of the human body, legal and ethical responsibilities, employability skills, and safety in the workplace. Students will learn emergency procedures such as cardiopulmonary resuscitation (CPR) – health saver level. Using the academic foundation of medical terminology, accurate mathematical operations and computations, and knowledge of the life sciences, students will demonstrate technical skill competency in real-life healthcare situations. The program criteria are dictated by the Washington State Department of Social and Health Services (DSHS) for a standard CNA program, and the National Healthcare Foundation Standards and Accountability Criteria.

For a secondary high school program, the sequence of courses should include Introduction to Health Science, Medical Terminology, and Human Body Systems (Anatomy and Physiology). These courses cover the core foundational knowledge and skills for Health Science, the National Healthcare Foundation Standards from the National Consortium for Health Science Education.

As part of the 540-hour framework, time will be allocated to the National Healthcare Foundation Standards (e.g., academic foundations, communications, systems, safety, and employability skills). The foundation standards for Health Science are critical competencies for students who are pursuing any healthcare career pathway.

After demonstrating competence in a classroom laboratory setting, students will participate in a clinical practicum experience where they will analyze and synthesize information to solve problems, make decisions, and record information in the form of charts, graphs, and reports.

Certifications available to students upon successful completion of requirements:

- Food Worker Card (local decision)
- First Aid Card
- Heimlich maneuver training
- Healthcare Provider card
- AIDS/HIV Bloodborne pathogen 7-hour training
- Certified Nursing Assistant Licensing Exam
- Precision Exams (suggested): Anatomy and Physiology, Medical Terminology, and National Health Science Assessment

Eligible for Equivalent Credit in: Science	**Total Number of Units:** 14

Unit 1: Basic Human Anatomy and Physiology	**Total Learning Hours for Unit:** 180

Unit Summary:
Healthcare professionals will use this knowledge as needed in their role as a Certified Nursing Assistant.

Competencies and standards of practice are statements of skills and knowledge, and are written as descriptions of observable, measurable behaviors. All competencies are performed under the direction and supervision of a licensed registered nurse or licensed practical nurse as required by RCW 18.88A.030. The following competencies are considered standards of practice for both nursing assistant–certified and nursing assistant–registered.

Students engage in a series of hands-on laboratory and special projects about human anatomy and physiology. The goal of the unit is to prepare and equip students with basic skills and terminology they will need for college and career development in the medical field. Students learn about a variety of human organ systems, diseases associated with each, and how each system is connected with another.

The unit will be broken up into subunits during the study of Anatomy and Physiology. The assessments are designed around the organization and function of the body systems. A variety of leadership activities are described that students are expected to do throughout this unit.
Subunit: Levels of Organization in the Human Body – Cellular, Tissue, and Organ
Students will be able to:

- Trace the outline of a partner and label the anatomical regions, planes, and directions.
- Illustrate body regions, planes, directions, and cavities; label anatomical references and diagrams using correct medical terminology for each.

- Construct or label a model of the human cell.
- Observe, draw, or label various types of human tissue.
- Conduct labs: microscopic viewing of living and prepared slides of cells, and osmosis in plant cells.
- Examine histological slides and identify distinguishing features.
- Develop biology lab skills: compound microscope use, solution making, wet mount preparation, micro-measurement, and uncertainty estimates.
- Lab portfolio management.
- Inquiry-based cell organelle activity.
- Describe the six levels of structural organization of the human body (chemical, cellular, tissue, organ, system, organism).
- Identify and examine the structures and relationship of each cell structure, and components and functions of a typical cell.
- Describe how structure and function are related in terms of cell and tissue types.
- Investigate the interdependence of the various body systems to each other and to the body as a whole.
- Describe the steps of cell differentiation and the role of stem cells.
- Diagram the structure of the nucleic acid DNA.
- Differentiate between the four basic types of membranes (mucous, serous, synovial, cutaneous).
- Compare and contrast the stages of cell division (mitosis and meiosis).
- Explore and explain the processes that move materials in and out of cells. (Passive processes: diffusion, osmosis, facilitated diffusion, dialysis, filtration. Active processes: phagocytosis; exocytosis and active transport; endocytosis and pinocytosis.)
- Identify the general characteristics and functions of each of the four principle types of tissues. (Epithelia – strategies for tissue identification [arrangement and cell shape]; Connective – adipose, cartilage, dense fibrous, blood, bone; Muscular – skeletal, smooth, cardiac; nervous.)
- Define and explain the relationship between cells, tissue, organs, and systems.
- Describe metabolism and its anabolic and catabolic processes.
- Identify, describe, and apply directional terms used in human anatomy.
- Demonstrate and describe anatomical positions using directional terms.
- Apply commonly used planes to divide the body (sagittal, midsagittal, transverse [horizontal], frontal [coronal]).
- Identify and label body cavities and the main organs found in each cavity on an anatomical model.
- Name the abdominal regions and identify the major organ(s) in each abdominal quadrant.
- Apply knowledge of human growth and development to the structure and function of each body system.
- Describe the effect of aging on all body systems.
- Describe the physical, social, and emotional changes that occur in the elderly and chronically ill.
- Demonstrate recognition of subjective and objective observations, documenting signs and symptoms.
- Describe homeostasis and how it is maintained in the human body through the processes of negative and positive feedback.
- Explain the role of homeostasis and its mechanisms in relation to the body as a whole and predict the consequences of failure to maintain homeostasis.
- Examine the relationship between homeostasis and stress.
- Describe common diseases associated with homeostatic imbalances associated with the various cells of the body.
- Predict abnormalities that can occur with disorders of cell structures.

- Examine various conditions that change normal body functions (e.g., tissue rejection, allergies, injury, diseases, disorders) and how the body responds.
- Identify and explain factors relating to the transmission of disease.
- Recognize normal body functions, deviations from normal body functions, and the importance of reporting deviations in a timely manner to a supervising nurse.
- Define and use terminology related to anatomy, physiology, homeostasis, metabolism, cellular respiration, and the structure of the human body.
- Investigate career possibilities in the field of histology.

Subunit: Movement and Support in the Human Body – The Integumentary System, Skeletal System, and Muscular System

Integumentary System

Students will be able to:

- Construct, draw, or label a model of skin layers, identifying the unique features and functions of each layer as they relate to the function of the integumentary system as a whole.
- Conduct labs: microscopic viewing of skin and its features and layers, and distribution of sweat glands.
- Research various types of injuries and burns affecting the skin and perform the mathematical calculations using the Rule of Nines.
- Research a disease or disorder of the integumentary system, write a research paper on the disease or disorder, and present it using an electronic method.
- Demonstrate biology lab skills: skin color, touch receptors, two-point threshold, tactile localization.
- Manage a lab portfolio.
- Describe the functions and structures of the integumentary system (skin, glands, hair, nails).
- Describe the layers of the skin (epidermis, dermis, subcutaneous [hypodermis]).
- Identify the appendages of the skin, labeling and describing the functions of each appendage.
- Describe the functions of sudoriferous (sweat) and sebaceous (oil) glands.
- Explore causes of abnormal skin colors.
- Describe common disorders of the integumentary system (acne, skin cancers [basal cell carcinoma, squamous cell carcinoma, malignant melanoma], and decubitus ulcers).
- Make observations of the skin to include color, temperature to touch, scarring, bruising, abrasions, lacerations, or other abnormalities.
- Describe the process by which wounds heal.
- Describe and discuss the role of the integumentary system in homeostasis regarding body temperature.
- Demonstrate measuring and recording of temperature, and identify abnormal results.
- Define and use terminology related to the integumentary system.
- Investigate career possibilities in a medical field related to the integumentary system.

Skeletal System

Students will be able to:

- Distinguish between four classifications of bones and examine the microscopic development and structure of bone tissue.
- Label a skeletal model or diagram of the bones comprising the axial and appendicular skeletons and discuss their various functions.
- Label on a skeleton the names of the bones for each of the following, identifying points of attachment:

  - Skull 22 bones (cranium 8, facial 14)
  - Spinal column/vertebra 24 with explanation of three parts of a typical vertebra (body, foramen, processes)
  - Thoracic cavity
  - Upper extremities: shoulder girdle, arms, wrist, and hands including long bone processes, and three parts of each finger
  - Lower extremities: hip girdle, legs, ankles, and feet, including long bone parts, and parts of toes
- Demonstrate biology lab skills: bone identification (examine a freshly dissected bone from a local butcher). Describe how the body maintains bone integrity through remodeling and repair.
- Research a disease or disorder of the skeletal system, write a research paper on the disease or disorder, and present using an electronic method.
- Conduct lab studies on the composition of bones.
- Manage a lab portfolio.
- Identify and describe the functions of the skeletal system including the major parts:
  - Locate the following skull bones: mandible, maxilla, zygomatic, frontal, parietal, occipital, sphenoid, ethmoid, hyoid, temporal, mastoid process).
  - Contrast the average number, location, and function of each of the five groups of vertebrae.
  - Explain the structural classification of articulations (fibrous, synovial, cartilaginous).
  - Describe the terms "suture" and "fontanel."
- Describe the structure and formation of bone.
  - Identify the roles of the osteoblasts, osteocytes, and osteoclasts in bone growth and ossification.
  - Describe the features of a long bone (periosteum, diaphysis, epiphysis, medullary cavity, red marrow, yellow marrow, articular cartilage, endosteum, compact bone, spongy bone).
  - Describe and locate the following bone markings: foramen, meatus, sinus, fossa, condyle, tuberosity, trochanter, tubercle, process).
  - Describe the formation of bone (ossification) beginning with infancy and ending with adulthood.
    - Discuss bone loss in elderly.
    - List factors that contribute to bone loss.
- Identify types of bones with characteristics and examples of each (long, short, flat, irregular).
- Contrast the axial and appendicular skeletons.
- Identify the different types of joints and locations in the skeletal system.
  - Differentiate between ligaments and tendons.
- Perform range of motion (ROM) for joints such as the shoulder, wrist, and ankle.
  - Differentiate between active and passive range of motion.
- Demonstrate proper techniques for ambulation with assistive devices (crutches, cane, walker), and identify limitations and abnormalities.
- Differentiate among types of bone fractures.
- Explore bone and joint injuries and disorders identifying the following diseases or disorders of the skeletal system (arthritis, herniated disk, osteoarthritis, osteoporosis, scoliosis, spina bifida).
- Differentiate between the diseases in a pediatric, adult, and elderly person.
- Define and use terminology related to the skeletal system.

- Investigate career possibilities in a field related to the skeletal system.

Muscular System

Students will be able to:

- Observe, draw, or label the different types of muscle tissues, noting the function and anatomical differences of each type.
- Explain the guidelines used in naming skeletal muscles, such as location, size, direction, etc.
- Develop a graphic that identifies the name of the muscle, the directional motion, location, and function of the following muscle groups: Muscles of facial expressions; muscles of mastication; muscles of the neck; muscles of the trunk and upper extremities; muscles of the lower extremities.
- Debate in class or in written or digital format the purpose of white and red muscle fibers as related to muscle strength, power, and endurance for fitness/athletic training and rehabilitation of muscle.
- Perform range of motion exercises and evaluate joint angles using a goniometer.
- Conduct a lab experiment on the effect of ATP on rabbit muscle.
- Develop biology lab skills: muscle identification, cat dissection, and observation of skeletal muscles through a microscope.
- Analyze the basic structure and functions of the muscular system.
- Identify the principal muscles of the body by name, location, origin, insertion, and function.
- Describe the three specific types of muscle tissue (skeletal, smooth, cardiac) by contrasting the general location, microscopic appearance, control, and functions.
- Discuss voluntary and involuntary muscles.
- Identify the general functions of muscular system to include explaining the role of prime movers (agonists), antagonists, synergists, and fixators.
- Identify the characteristics of muscles (elasticity, excitability [irritability], extensibility, flexibility).
- Contrast thick and thin myofilaments.
- Describe the sliding-filament theory of muscle contraction and how it obtains energy.
- Explain how types of muscular contractions produce body movements and help maintain postures.
- Describe what occurs at the neuromuscular junction.
- Demonstrate muscle movement.
- Practice active and passive range of motion exercises.
- Research different sports to determine which muscles are used; explore the effect of exercise and sports training on muscles.
- Explain the relationship between the muscular and skeletal systems, and identify their interdependence as they relate to body structure, movement, and posture.
- Identify and describe the following muscle diseases, disorders, and injuries: fibromyalgia, muscular dystrophy, shin splints, tendinitis, hernia, strains, cramps, contusion.
- Differentiate between the diseases in a pediatric, adult, and elderly person.
- Define and use terminology related to the muscular system.
- Investigate career possibilities that are related to the muscular system.

<u>Subunit: Transport in the Human Body – The Cardiovascular System and Lymphatic System</u>

Circulatory and Cardiovascular System

Students will be able to:

- Dissect and identify the parts of a mammalian heart.
- Interpret an electrocardiogram (ECG) of a normal sinus rhythm, identifying the P, Q, R, S, and T waves with an explanation of the electrical and mechanical event of each. Identify ECG strips with explanation of sinus, junctional, and ventricular arrhythmias.
- Develop an informational fact sheet on diseases of the cardiovascular system. Include the signs and symptoms, diagnostic procedures, underlying causation, clinical manifestations, evaluation, and treatment.
- Write a research paper or construct an electronic slide presentation on a cardiovascular system dysfunction and present it to the class. Include an interview with a health professional as a resource for this assignment.
- Lab reports: composition of blood, cardiac cycle using stethoscope.
- Biology lab skills: dissection of cow heart, EKG via local fire department, blood pressure, pressure points for pulse rates, structure and name of blood vessels.
- Describe the components and functions of the blood system.
- Distinguish differences in anatomy and physiology of blood vessels to include arteries, arterioles, capillaries, venules, and veins.
- Analyze the basic structures and functions of the cardiovascular system.
- Describe the parts of the circulatory system.
- Identify and describe the functions of heart structures (chambers, valves, and associated vessels of the heart).
- Describe the physiology of blood circulation. Identify and trace the flow of blood through the heart, and provide the distinction between the pulmonary and systemic circulation.
- Describe the composition of blood and the function of each component. Research when blood components are prescribed for a patient and why.
- Discuss blood types.
- Describe the blood-clotting process.
- Name the parts of the conduction system of the heart, and trace the impulses during initiation and conduction.
- Explore disorders and diseases of the blood (anemias, hemolytic disease of the newborn, hemophilia, leukemia, mononucleosis, polycythemia).
- Explore disorders of the cardiovascular system (aneurysm, arteriosclerosis, atherosclerosis, cerebrovascular accident/stroke, coronary artery disease, hypertension, murmur, myocardial infarction).
- Connect the regulation of blood volume, heart rate, stroke, volume, cardiac output, and blood pressure.
- Demonstrate measuring and recording blood pressure and pulse, and identify abnormal results.
- Define and use terminology related to the circulatory and cardiovascular system.
- Investigate career possibilities in a medical field related to the circulatory and cardiovascular system.

Lymphatic System

Students will be able to:

- Draw and label the structures that comprise the lymphatic system and describe their role in the immune response.
- Describe in a written, oral, or digital format the structure and function of the lymphatic system, lymphatic vessels, and lymph nodes. Differentiate between the cells of the immune response and other defenses, and explain how they work with antigens, antibodies, and individual immunity to maintain homeostasis in the body.

- Write a research paper or construct an electronic slide presentation on an immunological system dysfunction and present it to the class. Include an interview with a health professional as a resource for this assignment.
- Lab reports: ELISA.
- Biology lab skills: measuring solutions of small amounts, microscopy, staining and identification of WBCs.
- Analyze the structures of the lymphatic system and their functions.
- Compare and contrast the types of immunity and identify the relationship of the WBC and the lymphatic system.
- Explain the relationship between the lymphatic system and the circulatory system.
- Trace the flow of lymphatic fluid through the human body.
- Discuss Acquired Immunodeficiency Syndrome (AIDS).
- Explore disorders of the lymphatic system (measles, mumps, rubella, tetanus, lupus, mononucleosis).
- Explain the mechanisms surrounding allergic response, autoimmune and alloimmune diseases. Explain what systems are involved and any preventive measures that can be initiated.
- Define and use terminology related to the lymphatic system.
- Investigate medical career possibilities that are related to the lymphatic system.

Subunit: Integration and Coordination in the Human Body System – The Nervous System, Sensory System, and Endocrine System

Nervous System

Students will be able to:

- Observe or construct microscopic slides of nervous tissue and differentiate the function of the nerve tissue structures.
- Observe a nerve through a microscope and complete a lab report.
- Identify the components of the central and peripheral nervous system and compare and contrast their functions.
- Investigate the physiology of electrochemical impulses and neural integration.
- Research and construct written and/or verbal presentation on disease or disorder of the nervous system.
- Analyze a case study of a neurological disorder to make a diagnosis or prognosis.
- Conduct the lab: reflex physiology lab.
- Demonstrate biology lab skills: dissection of sheep brain, cranial nerve anatomy lab, and microscopic view of nerve.
- Describe the basic structure and functions of the nervous system.
- Identify the components for each type of neuron and describe the functions of each.
- Discuss the main divisions of the nervous system.
- Compare and contrast the sympathetic nervous system and the parasympathetic nervous system.
- Identify and label the lobes of the brain and explain the functions associated with each lobe.
- Outline the structures and functions of the spinal cord.
- Discuss cerebrospinal fluid.
- Describe the functions of the cranial and spinal nerves.
- Explain reflex arc.

- Explain disorders and injuries of the nervous system (ALS, Alzheimer's, bacterial meningitis, cerebral palsy, epilepsy, multiple sclerosis, Parkinson's).
- Demonstrate technique for cranial nerve evaluation (reflexes) and identify abnormal responses.
- Differentiate between pediatric and adult reflexes.
- Research theories of pain, especially concerning the neuroanatomy of pain, concept of pain threshold, and pain tolerance. Include information on perception of pain in children and the elderly, and males and females.
- Research electrophysiological technologies such as electroencephalogram (EEG), electrocardiogram (ECG), transcutaneous electrical nerve stimulation (TENS) and cardioversion.
- Define and use terminology related to the nervous system.
- Investigate career possibilities in a medical field related to the nervous system.

Sensory System

Students will be able to:

- Identify the structure and functions of the body's sensory organs.
- Experiment testing the senses, including visual and auditory tests.
- Conduct labs: Sensory evaluation lab using Snellen eye chart, Ishihara's color blindness plates, tuning forks, scented oils, and foods.
- Demonstrate biology lab skills: dissection of cow eye and identify major structures, microscopy of the retina and cochlea.
- Analyze the structure and functions of the sensory system (eye, ear, nose, tongue).
- Identify the five main senses.
- Discuss why stimulation of a sense organ results in sensation.
- Explore disorders of the sensory system (presbyopia, myopia, hyperopia, cataracts, conjunctivitis, deafness [conductive, sensorineural], glaucoma, macular degeneration, middle ear infection, bismus, tinnitus, vertigo).
- Differentiate between the diseases in an infant, pediatric, adult, and elderly person.
- Demonstrate techniques for administering vision and hearing tests and identify abnormal results.
- Define and use terminology related to the sensory system.
- Investigate career possibilities related to the sensory system.

Endocrine System

Students will be able to:

- Differentiate among the major organs and tissues that comprise the endocrine system and how the hormones secreted by these tissues assist in the maintenance of homeostasis.
- Research and construct a written and/or verbal presentation on diseases or disorders of the endocrine system.
- Label the major endocrine glands using visual aid.
- Conduct a lab experiment: hyperinsulinism in guppies.
- Biology lab skills: microscopy of various endocrine glands: pancreas, thyroid, mixing solutions, care of living lab specimens.
- Analyze the structures of the endocrine system and their functions.
- Identify the hormones secreted by each organ of the endocrine system and their functions.
- Explain the role of the endocrine system in maintaining homeostasis.

- Outline the process of hormone regulation.
- Describe the role of the hypothalamus in linking the endocrine system and nervous system.
- Describe the response of the endocrine system to stress.
- Outline the uses of hormones as medical treatments.
- Describe diseases and disorders of the endocrine system (acromegaly, cretinism, diabetes mellitus, dwarfism, gigantism, hyperthyroidism, hypothyroidism, myxedema).
- Demonstrate the roles and responsibilities of patient education related to the endocrine systems (i.e., diabetic patient education).
- Explain the pathophysiology and abnormal anatomy and/or physiology surrounding the hypo- and hyper-secretion of hormones of the endocrine system.
- Explain how these abnormalities can affect one's physical and mental health.
- Describe how diseases can manifest themselves in different ways in pediatric, adult, and elderly persons.
- Demonstrate techniques for using simulated equipment and medical devices related to the endocrine system (i.e., simulated blood glucose monitor).
- Define and use terminology related to the endocrine system.
- Investigate career possibilities in a medical field related to the endocrine system.

<u>Subunit: Absorption and Excretion in the Human Body – The Respiratory System, Digestive System and Urinary System</u>

Respiratory System

Students will be able to:

- Draw and label the structures and function of the respiratory system and describe the exchange of gases at the cellular level.
- Write a research paper or construct an electronic slide presentation on a respiratory system dysfunction and present it to the class. Include an interview with a health professional as a resource for this assignment.
- Lab reports: lung capacity using water spirometer.
- Demonstrate biology lab skills: dissection of pig pluck, comparing a healthy lung to a smoker's lung.
- Manage a lab portfolio.
- Analyze the structures of the respiratory system and their functions.
- Discuss the process of breathing and respiration.
- Differentiate between the upper and lower respiratory tract while tracing the pathway of air into and out of the respiratory system.
- Explain the physiology of breathing to include the process of gas exchange.
- Analyze the interdependence of the cardiovascular and respiratory systems as they relate to gas exchange, circulation, and the support of the vital organs of the human body.
- Demonstrate measuring and recording respirations and identify abnormal results.
- Outline abnormal breathing conditions.
- Explore common disorders of the respiratory system (emphysema, influenza, lung cancer, pneumonia, SIDS, tuberculosis).
- Define and use terminology related to the respiratory system.
- Investigate medical career possibilities that are related to the respiratory system.

Digestive System

Students will be able to:

- Draw a label model of each organ within the digestive system, listing functions of each organ.
- Summarize research and disorders related to the digestive system and present to class.
- Conduct the lab experiment: chemical and physical processes of digestion.
- Demonstrate biology lab skills: microscopy of villus, duodenum, salivary gland, and liver, mixing and measuring of solutions.
- Manage a lab portfolio.
- Analyze the structures of the digestive system and their functions.
- Name the accessory organs of digestion.
- Outline the process of digestion.
- Compare and contrast chemical and mechanical digestion.
- Trace the path of food throughout the digestive pathway.
- Identify gastric secretions and describe the function of each.
- Explain the process of absorption.
- Explore the disorders of the digestive system (appendicitis, cirrhosis, colorectal cancer, gallstones, hepatitis, obesity, ulcers)
- Differentiate between diseases in a pediatric, adult, and elderly person.
- Demonstrate measuring height, weight, and Body Mass Index (BMI), and document in electronic medical record.
- Define and use terminology related to the digestive system.
- Investigate career possibilities in the field related to the digestive system.

Urinary System

Students will be able to:

- Draw and label models of each organ within the urinary system, listing functions of each organ comparing male and female systems.
- Summarize research and disorders related to the urinary system and present to class.
- Construct a model of the kidney to include all parts.
- Conduct lab reports: urinalysis (simulated).
- Demonstrate biology lab skills: dissection of sheep kidney, microscopy of nephron.
- Outline the functions of the urinary system.
- Identify the structures of the urinary system and their functions.
- Identify the internal and external anatomy of the kidney.
- Analyze the blood supply that the kidney requires for functioning, the physiology of the nephrons, the process by which urine is formed, the pathways for excretion in males and females, and the chemical and nervous system control of urinary secretion.
- Explain the processes of secretion, filtration, and reabsorption, including where the processes occur.
- Discuss the process of urine formation
- Compare and contrast the male and female urinary systems.
- Explain the process of micturition.

- Demonstrate measuring intake and output, identify abnormal results (collection of specimen), and document measurements in an electronic medical record.
- Explore disorders of the urinary system (cystitis, diabetes insipidus, glomerulonephritis, incontinence, kidney stones, renal failure, urinary tract infections).
- Differentiate between the diseases in a child, adult, and elderly person.
- Define and use terminology related to the urinary system.
- Investigate career possibilities in the field related to the urinary system.

Subunit: Life Cycle in the Human Body – Reproduction, Growth, and Development

Reproductive System

Students will be able to:

- Demonstrate their understanding of the process of fertilization, mitosis, and meiosis, then outline the timeline and phases of development of a fetus from fertilization until birth.
- Describe the abnormalities that can occur at each phase, including genetic disorders and other congenital complications.
- Demonstrate biology lab skills, including the observation of human ovary, ovum, and sperm under a microscope.
- Identify the structures of the male reproductive system and their functions.
- Identify the structures of the female reproductive system and their functions
- Explain the phases of the menstrual cycle.
- Discuss the physiology of reproduction.
- Outline the changes that occur during menopause.
- Explain the relationship of the endocrine system to the function of the reproductive system.
- Describe how structure and function are related in terms of cell and tissue types.
- Discuss sexually transmitted diseases: gonorrhea, syphilis, genital herpes, chlamydia, trichomoniasis, genital warts, and human papillomavirus (HPV).
- Explore disorders of the reproductive system (reproductive cancers [breast, testicular, cervical, ovarian, prostate], endometriosis, and impotence).
- Define and use terminology related to the reproductive system.
- Investigate career possibilities in the field related to the reproductive system.

Performance Assessments: (Districts to complete for each unit)

Example assessments for this unit include:

- Use computer programs, resources, medical library journals and the Internet to research information on diseases.
- Research and write a paper about a disease or abnormal condition, with specific guidelines from the instructor.
- Read and summarize research about developmental changes that occur in the elderly. Students will then share their findings with the class using visual aids.
- Develop a treatment plan (based on research) of a specific disease or abnormality, discussing care skills as they apply to each body system.

- Demonstrate knowledge and awareness of preventative health behaviors specific to a group other than their peers. Students will lead a wellness project that could be presented to that specific group. The project should address the prevention of illness, reduction of health risk factors, alternative health practices, and strategies for individuals to manage their own health status.
- Assist school medical personnel with set-up of health screenings; record and graph the information.
- Participate in at least one health fair, clinic, or screening in order to practice and gain proficiency in performing related skills.
- Develop and follow a personal healthcare/fitness plan.
- Complete a fictional case study of a burn victim, including history and physical exam, lab tests and radiological reports, diagnosis, and treatment options with prognosis.
- Compare fictional case studies of fracture victims, including history and physical exam, lab tests and radiological reports, diagnosis, and treatment options with prognosis in order to create the best possible treatment plan for the patients.
- Participate in a large group simulation and video production to demonstrate cardiovascular circulation. Red balloons are used to represent arterial blood and blue balloons are used to represent venous blood. They must carry and exchange balloons while navigating through a group of classmates representing different anatomical structures in the heart.
- Research medical texts and peer-reviewed journals to explain the pathophysiology and abnormal anatomy and/or physiology surrounding diseases, disorders, and/or syndromes of one of the major body systems (i.e., the nervous system, digestive system, or the abnormal secretion of hormones by the endocrine system). Students will need to explain how these abnormalities can affect one's physical health, outlining signs and symptoms, underlying causes, clinical manifestations, diagnostic procedures, evaluation, and treatment. Students should differentiate between the diseases in a pediatric, adult, and elderly person.
- Develop a public service announcement, community awareness presentation, or health education presentation to inform a selected audience about one of these diseases or disorders, following National HOSA competitive events guidelines.
- Create models to explain the disruption of sensory mechanisms when a person uses narcotics.

Leadership Alignment: (Districts to complete for each unit)

Leadership alignment must include a unit specific project/activity that aligns with the 21st Century Leadership Skills.

Example:

- Students work effectively in diverse groups (identify group roles, leadership roles) to determine body systems and roles. Each group is responsible for teaching the class a body system and role-playing disease prevention.
- Students collaborate with others to learn the general medical anatomy of the human body. They will work creatively with others to practice directional terms that are used to locate specific regions of the body. In a problem-solving session, students will be given purposely vague descriptions and be challenged to reason effectively to identify the correct medical description of the body region. Students will collaborate together in open-ended lab scenarios focusing on cells and tissues of the human body.
- Students create a multimedia display showing their understanding of local, national, and international public health and safety issues regarding skin health awareness.
- Students work in small groups to create a presentation on a disease. They will compare case studies of cardiac, skeletal, and smooth muscle pathologies, including history and physical exam, lab tests and radiological reports, diagnosis, and treatment options with prognosis.
- Students create a multimedia presentation that describes a muscle disease, disorder, or injury.

- In small groups, students develop a children's book or play to tell the story of a blood cell's journey through the body. The story should include the flow of blood and the effects it has on organs along the way (or vice versa).
- Students evaluate and compare case studies of people who are infected with HIV/AIDS. When students have a general understanding of these concepts, they can role-play parts (macrophages, NK cells, B and T lymphocytes) of the immune system to demonstrate the process of fighting off a pathogen. They identify routes of infection and immune cells responsible for protection. If possible, students could meet with an epidemiologist to investigate and analyze a real-life scenario.
- Students communicate clearly as they role-play the role of a patient and a doctor performing a basic neurological assessment. Students should check sensory responses to sharp and dull objects; pupil response to light, eye movement, and the ability to follow objects; reflexes, coordination, balance, and gait.
- Students group into pairs, with one in each pair playing the role of the patient and the other performing a basic neurological assessment. Students should check sensory responses to sharp and dull objects; pupil response to light, eye movement, and the ability to follow objects; reflexes, coordination, balance, and gait. Each pair should perform the assessment in front of the class for peer review, with classmates noting any missed or inaccurate protocol.

Industry Standards and/or Competencies:

National Health Science Standards:

Foundation Standard 1: Academic Foundation

Healthcare professionals will understand human anatomy, physiology, common diseases and disorders, and medical math principles.

1.1 Human Anatomy and Physiology

1.1.1 Describe the organization of the human body and directional terms.

a. Identify Levels of Organization

c. Identify body planes

d. Use directional terms

e. Identify body cavities

f. Identify the components of the abdominal quadrants

1.1.2 Identify basic structures and describe functions of human body systems.

a. Skeletal

• Structures of the skeletal system

• Functions of the skeletal system

b. Muscular

• Structures of the muscular system

• Functions of the muscular system

c. Integumentary

• Structures of the integumentary system

• Functions of the integumentary system

d. Cardiovascular

• Structures of the cardiovascular system

• Functions of the cardiovascular system

e. Lymphatic / Immune

• Structures of the lymphatic system

• Functions of the lymphatic system

f. Respiratory

• Structures of the respiratory system

• Functions of the respiratory system

g. Nervous

• Structures of the nervous system

• Functions of the nervous system

h. Endocrine

• Structures of the endocrine system

• Functions of the endocrine system

i. Digestive

• Structures of the digestive system

• Functions of the digestive system

j. Urinary

• Structures of the urinary system

• Functions of the urinary system

k. Reproductive

• Structures of the reproductive system

• Functions of the reproductive system

1.2 Diseases and Disorders

1.21 Describe etiology, pathology, diagnosis, treatment, and prevention of common diseases and disorders, including, but not limited to the following:

Arthritis • Asthma • Cancer • Cataracts • Concussion / Traumatic Brain Injury (TBI) • Cystic fibrosis • Diabetes mellitus • Dementia • Gastric ulcer • Hepatitis • Hypertension • Melanoma • Muscular Dystrophy • Myocardial Infarction • Sexually Transmitted Infection (STI) • Stroke / Cardiovascular Accident (CVA) • Tuberculosis • Urinary Tract Infection (UTI)

1.2.2 Describe biomedical therapies as they relate to the prevention, pathology, and treatment of disease.

• Gene testing • Gene therapy • Cloning • Stem cell research

Foundation Standard 2: Communications

Demonstrate methods of delivering and obtaining information, while communicating effectively.

2.1 Concepts of Effective Communication

2.1.1 Model verbal and nonverbal therapeutic communication.

• Active listening • Silence • Summarizing • Reflecting

2.1.2 Identify common barriers to communication.

2.1.3 Distinguish between subjective and objective information.
2.1.4 Interpret elements of communication using sender-message-receiver feedback model.
2.1.5 Modify communication to meet the needs of the patient/client and be appropriate to the situation.
2.1.6 Describe appropriate interactions with patients throughout various stages of psychosocial development.

2.2 Medical Terminology

2.2.1 Use common roots, prefixes, and suffixes to communicate information.
2.2.2 Interpret common medical abbreviations to communicate information.

2.3 Written Communication Skills

2.3.1 Use proper elements of written and electronic communication (spelling, grammar, and formatting).
2.3.2 Prepare examples of technical and informative writing.
2.3.3 Demonstrate appropriate use of digital communication in a work environment, such as email, text, and social media. Foundation Standard 4: Employability Skills

Use employability skills to enhance employment opportunities and job satisfaction.

4.1 Personal Traits of the Healthcare Professional

4.1.1 Identify personal traits and attitudes desirable in a career ready member of a health team.
4.1.2 Summarize professional standards as they apply to hygiene, dress, language, confidentiality and behavior.

4.2 Employability Skills

4.21 Apply employability skills in healthcare.

4.3 Career Decision-Making

4.31 Research levels of education, credentialing requirements, and employment trends in health professions.
4.3.2 Distinguish differences among careers within the health science pathways
• Biotechnology research and development • Diagnostic services • Health informatics • Support services • Therapeutic services

4.4 Employability Preparation

4.4.1 Develop components of a personal portfolio.
4.4.2 Identify strategies for pursuing employment
• Social media • Personal networking • Employer websites • Internships

Standard 9: Health Maintenance Practices

Differentiate between wellness and disease. Promote disease prevention and model healthy behaviors.

9.1 Healthy Behaviors

9.1.1 Promote behaviors of health and wellness.
• Exercise • Nutrition • Relationships • Sleep habits • Stress management • Weight control
9.1.3 Describe strategies for prevention of disease.
9.1.4 Investigate complementary and alternative health practices as they relate to wellness and disease prevention.
• Acupuncture • Eastern medicine • Holistic medicine • Homeopathy • Manipulative therapies • Natural therapies

Aligned Washington State Academic Standards	
Science	**Washington Science Standards (Next Generation Science Standards):**

	HS-LS1-1. Construct an explanation based on evidence for how the structure of DNA determines the structure of proteins which carry out the essential functions of life through systems of specialized cells. HS-LS1-2. Develop and use a model to illustrate the hierarchical organization of interacting systems that provide specific functions within multicellular organisms. HS-LS1-3. Plan and conduct an investigation to provide evidence that feedback mechanisms maintain homeostasis. HS-LS1-4. Use a model to illustrate the role of cellular division (mitosis) and differentiation in producing and maintaining complex organisms. HS-LS1-6. Construct and revise an explanation based on evidence for how carbon, hydrogen, and oxygen from sugar molecules may combine with other elements to form amino acids and/or other large carbon-based molecules. HS-LS1-7. Use a model to illustrate that cellular respiration is a chemical process whereby the bonds of food molecules and oxygen molecules are broken and the bonds in new compounds are formed resulting in a net transfer of energy. HS-LS3-1. Ask questions to clarify relationships about the role of DNA and chromosomes in coding the instructions for characteristic traits passed from parents to offspring. HS-LS3-2. Make and defend a claim based on evidence that inheritable genetic variations may result from: (1) new genetic combinations through meiosis, (2) viable errors occurring during replication, and/or (3) mutations caused by environmental factors. HS-ETS1-1. Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that accounts for societal needs and wants. HS-ETS1-2. Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering. HS-ETS1-3. Evaluate a solution to a complex real-world problem based on prioritized criteria and tradeoffs that account for a range of constraints, including cost, safety, reliability, and aesthetics as well as possible social, cultural, and environmental impacts.

Science and Engineering Practice	**Disciplinary Core Idea**	**Crosscutting Concept**

Unit 2: Communication: Interpersonal, Cultural, and Digital	**Total Learning Hours for Unit:** 25

Unit Summary:
In this unit, students:

- Understand and improve communication skills, including interpersonal skills and communication within a healthcare setting.
- Apply speaking and active listening skills.

- Develop basic observational skills and related documentation strategies in written and oral form.
  - Discuss how and when to report observations.
  - Identify the procedures and rules related to documentation.
- Identify characteristics of successful and unsuccessful communication, including communication styles and barriers.
  - Adjust his or her own behavior to accommodate client or resident's physical or mental limitations.
  - Explain policies and procedures before and during care of the client or resident.
- Interpret and respond to verbal and nonverbal communication cues in an appropriate manner.
- Read, write, speak, and understand English at the level necessary for performing duties.
- Compose written and electronic communication using correct spelling, grammar, formatting, and confidentiality.
- Recognize the importance of courtesy and respect for patients and other healthcare workers and maintain good interpersonal relationships.
- Recognize how his or her own behavior influences client or resident's behavior and uses resources for obtaining assistance in understanding the client or resident's behavior.
- Recognize the importance of patient/client education regarding healthcare.
- Adapt communication skills to varied levels of understanding and cultural orientation including diverse age, cultural, economic, ethnic, and religious groups.
- Interpret the elements of communication using a basic sender-receiver-feedback model.
- Distinguish between and report subjective and objective information.
  - Use medical terminology within a scope of practice in order to interpret, transcribe, and communicate information, data, and observations.
- Participate in care planning and nursing reporting process.
  - Recognize, respond to, and report a client or resident's emotional, social, cultural, and mental health needs.
- Report relevant information in order of occurrence.

Performance Assessments: (Districts to complete for each unit)

Example assessments for this unit include:

- Use appropriate communication techniques (e.g., role play, scenarios, formal presentations) to gather and assess information that contributes to the determination of the appropriate healthcare plan for individuals within a diverse client population. Students will analyze, clarify documents, and distribute information to the healthcare team, including at least one situation that requires conflict resolution skills.
- Learn to apply problem-solving and decision-making skills. Groups of students will be presented with a variety of scenarios, to include reporting abnormalities in treatment progress and environmental hazards. They will role-play a simulation of the communication of information among team members, then produce a written summary of gathered information to pass on to other members of the healthcare team.
- Given scenarios, practice both verbal and nonverbal communication skills.
- Given scenarios, communicate effectively with individuals at all levels of understanding.
- Develop a treatment plan based on research of a specific disease or abnormality and client input. The student will identify needed resources, evaluate the outcome, and organize priorities needed to carry out the plan. The safe use of any required equipment and the appropriate documentation process will be included in this treatment plan. Class members and industry representatives will evaluate the plan.

- Record accurate observations on the appropriate forms and charts and verbally report observations and/or any abnormal findings report promptly to appropriate staff before leaving clinical site.
- Demonstrate proficiency at explaining the policies and procedures of care. Instructor evaluation of these skills will be included in the student's proficiency checklist.
- Role play structured scenarios to practice and demonstrate ability to interpret a variety of situations involving communication, behavioral adjustments and knowledge of resources to seek help as needed to interpret client behavior and adjust for a variety of client limitations.
- Demonstrate the following skills:
  - Ability to converse with residents
  - Give verbal reports
  - Ability to document/chart correctly
  - Give signs of declining condition

Leadership Alignment: (Districts to complete for each unit)

Leadership alignment must include a unit specific project/activity that aligns with the 21st Century Leadership Skills.

Example:

- Students role-play various scenarios in which they evaluate client (mock) injuries.
- Students role-play situations in which individuals have simulated communication barriers (language, learning/hearing/visual disabilities, stroke victim, cultural) and will determine and practice communication techniques.
- Given a case study, students will individually produce illness or injury reports and present to the appropriate medical authority in written and verbal form.
- Using National HOSA Care Plan guidelines, students develop a care plan as related to changes identified for each body system of a geriatric patient.
- Using National HOSA Medical Reading guidelines, small groups of students will be assigned one of the five books on special topics related to leadership development and the healthcare community to read and present to the class.
- Invite guest speakers of different cultures and religions into the classroom so that they can share their beliefs related to healthcare.
- Students participate appropriately in the intra-team communication systems at the clinical sites

Industry Standards and/or Competencies:

National Health Science Standards:

Foundation Standard 2: Communications

Demonstrate methods of delivering and obtaining information, while communicating effectively.

2.1 Concepts of Effective Communication

2.1.1 Model verbal and nonverbal therapeutic communication.

• Active listening • Silence • Summarizing • Reflecting

2.1.2 Identify common barriers to communication.

2.1.3 Distinguish between subjective and objective information.

2.1.4 Interpret elements of communication using sender-message-receiver feedback model.

2.1.5 Modify communication to meet the needs of the patient/client and be appropriate to the situation.

2.1.6 Describe appropriate interactions with patients throughout various stages of psychosocial development.

2.2 Medical Terminology

2.2.1 Use common roots, prefixes, and suffixes to communicate information.

2.2.2 Interpret common medical abbreviations to communicate information.

2.3 Written Communication Skills

2.3.1 Use proper elements of written and electronic communication (spelling, grammar, and formatting).

2.3.2 Prepare examples of technical and informative writing.

2.3.3 Demonstrate appropriate use of digital communication in a work environment, such as email, text, and social media.

Aligned Washington State Academic Standards

Science and Engineering Practice	Disciplinary Core Idea	Crosscutting Concept

Unit 3: Information Technology Applications | **Total Learning Hours for Unit:** 15

Unit Summary:

In this unit, students:

- Use information technology applications required within all healthcare professional specialties. They will demonstrate use as appropriate to healthcare applications.
- Describe technology applications in healthcare.
- Identify methods of communication to access and distribute data such as fax, e-mail, Internet.
- Appropriately record and report observations, actions, and information accurately and in a timely manner.

Performance Assessments: (Districts to complete for each unit)

Example assessments for this unit include:

- Collaborate with healthcare professionals, using technology to teach facility protocol and procedures to new staff or to provide instructions to the general public on a health issue.
- Effectively use electronic record-keeping systems both for data input and patient care.

Leadership Alignment: (Districts to complete for each unit)

Leadership alignment must include a unit specific project/activity that aligns with the 21st Century Leadership Skills.

Example:

- Students apply technology effectively, access and evaluate information, and manage information to interpret medical reports in a clinical setting.

Industry Standards and/or Competencies:

National Health Science Standards:

Foundation Standard 11: Information Technology in Healthcare

Apply information technology practices common across health professions.

11.1 Key Principles, components and practices of Health Information Systems

11.1.1 Identify components of an electronic health record (EHR) and/or electronic medical record (EMR).

• Diagnostic tests • History and physical • Medications • Patient demographics • Progress notes • Treatment Plan

11.1.2 Explore different types of health data collection tools.
• Medical wearable devices • Patient monitoring equipment • Phone application • Telemedicine/telehealth
11.1.3 Create electronic documentation that reflects timeliness, completeness, and accuracy.
11.1.4 Adhere to information systems policies, procedures, and regulations as required by national, state, and local entities

Aligned Washington State Academic Standards

Science and Engineering Practice	Disciplinary Core Idea	Crosscutting Concept

Unit 4: Healthcare Systems: History, Delivery Methods, and Teaming	**Total Learning Hours for Unit:** 30

Unit Summary:
In this unit, students:

- Understand how healthcare professionals' roles fit into their department, their organization, and the overall healthcare environment. They will identify how key systems affect services they perform and quality of care.
- Understand the roles and responsibilities of individual members as part of the healthcare team, including their ability to promote the delivery of quality healthcare. They will interact effectively and sensitively with all members of the healthcare team.
- Understand the role and function of the certified nursing assistant within the healthcare system.

Performance Assessments: (Districts to complete for each unit)
Example assessments for this unit include:

- Research traditional and alternative healthcare delivery facilities to compare and contrast the philosophy, management structures, and healthcare system components of each. Students will create a graphic organizer that illustrates the healthcare system in their community and which component of that system would be used by patients in specific medical situations.
- Research and present findings to a community group on the evolving healthcare trends that have demanded system changes and their effect on healthcare costs.
- Working in simulated healthcare teams, discuss various assigned scenarios and solve problems while recognizing the diversity of team members and respecting interdisciplinary differences in various healthcare professions.
- Complete a hospital staff organizational chart depicting chain of command for nursing staff and other supportive healthcare providers with 100% accuracy.
- Present information to other high school students regarding the responsibilities of a teen using the local healthcare system.
- Accomplish tasks, working in simulated healthcare teams, meeting leadership requirements, while recognizing the diversity of team members and respecting interdisciplinary differences in various healthcare professions.
- Complete a hospital staff organizational chart depicting chain of command for nursing staff and other support healthcare providers with 100% accuracy.
- Collaborate, using conflict management skills as needed, to accomplish their common goals while also following the proper line of authority, as needed in the classroom and in clinical settings.
- Research hospital care, subacute care, coronary care, hospice, and home health. Select one of the healthcare areas and do a presentation and demonstration to the class. The instructor will assess the presentation on a rubric.

Leadership Alignment: (Districts to complete for each unit)
Leadership alignment must include a unit specific project/activity that aligns with the 21st Century Leadership Skills.
Example:

- Students demonstrate leadership skills and industry standards while participating in community-based services (e.g., blood drives, vision check, blood pressure clinics).
- Students engage in role-play as they present a variety of medical data at a medical team meeting.
- In groups, students will role-play a scenario of conflict in a team and how to resolve conflicts.

Industry Standards and/or Competencies:
National Health Science Standards:
Foundation Standard 3: Systems
Identify how key systems affect services performed and quality of care.

3.1 Healthcare Delivery Systems

3.1.1 Differentiate healthcare delivery systems and healthcare related agencies.
3.1.2 Examine the healthcare consumer's rights and responsibilities within the healthcare system.
• Self-advocacy • Compliance • Patient's Bill of Rights
3.1.3 Analyze the impact of emerging issues on healthcare delivery systems.
• Addictions • Bioethics • Epidemiology • Socioeconomics • Technology
3.1.4 Analyze healthcare economics and related terms.

Aligned Washington State Academic Standards

Science	**Washington Science Standards (Next Generation Science Standards):** HS-ETS1-1. Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that accounts for societal needs and wants. HS-ETS1-2. Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering. HS-ETS1-3. Evaluate a solution to a complex real-world problem based on prioritized criteria and tradeoffs that account for a range of constraints, including cost, safety, reliability, and aesthetics as well as possible social, cultural, and environmental impacts

Science and Engineering Practice	Disciplinary Core Idea	Crosscutting Concept

Unit 5: Career Development and Employability	**Total Learning Hours for Unit:** 25

Unit Summary:
In this unit, students:

- Understand how employability skills enhance their employment opportunities and job satisfaction. They will demonstrate key employability skills and will maintain and upgrade skills, as needed.

Performance Assessments: (Districts to complete for each unit)

Example assessments for this unit include:

- In lab/clinical settings, students will demonstrate, in writing and orally, professionalism, flexibility, problem solving, critical thinking, and job-related skills, as evaluated by the instructor in accordance with industry standards.
  - Possible scoring guides:
    - 1. The same tool used for professionals in this lab/clinical setting adapted appropriately for use with students.
    - 2. A scoring guide based on the 21st Century Skills.
- Using current technology applications, students will create a career plan reflecting research of the preparation required for a variety of healthcare career options. Include information about their clinical experience or job shadow experience and the skills they need to acquire to meet their career options, in a portfolio, to be used in career planning. Instructors assess with a rubric.

Leadership Alignment: (Districts to complete for each unit)

Leadership alignment must include a unit specific project/activity that aligns with the 21st Century Leadership Skills.

Example:

- Using National HOSA Community Awareness guidelines, present a project to the Board of Directors of the local healthcare facility. The project could include but is not limited to healthcare worker needs, education, salaries, cross training, concerns, and activities necessary to meet the workforce needs in healthcare for ten years.
- Students log 30 hours of additional community service hours outside the classroom.

Industry Standards and/or Competencies:

National Health Science Standards:

Foundation Standard 4: Employability Skills

Use employability skills to enhance employment opportunities and job satisfaction.

4.1 Personal Traits of the Healthcare Professional

4.1.1 Identify personal traits and attitudes desirable in a career ready member of a health team.

4.1.2 Summarize professional standards as they apply to hygiene, dress, language, confidentiality and behavior.

4.2 Employability Skills

4.2.1 Apply employability skills in healthcare.

4.3 Career Decision-Making

4.3.1 Research levels of education, credentialing requirements, and employment trends in health professions.

4.3.2 Distinguish differences among careers within a health science pathway.

• Biotechnology research and development • Diagnostic services • Health informatics • Support services • Therapeutic services

4.4 Employability Preparation

4.4.1 Develop components of a personal portfolio.

4.4.2 Identify strategies for pursuing employment.

• Social media • Personal networking • Employer websites • Internships

Aligned Washington State Academic Standards

Science and Engineering Practice	Disciplinary Core Idea	Crosscutting Concept

Unit 6: Legal/Ethics: Rules, Regulations, Information Collection, OSHA	**Total Learning Hours for Unit:** 25

Unit Summary:

In this unit, students:

- Understand the legal responsibilities, limitations, and implications of their actions within the healthcare delivery system. They will perform their duties according to regulations, policies, laws, and legislated rights of clients.
- Understand accepted ethical practices with respect to cultural, social, and ethnic differences within the healthcare environment. They will perform quality healthcare delivery.
- Understand the legal and ethical responsibilities of the nursing assistant within the healthcare system.
- Understand the rights of client or residents and know how to promote independence in these individuals.

Performance Assessments: (Districts to complete for each unit)

Example assessments for this unit include:

- Identify, examine, and analyze, in writing, key components of various medical/legal case studies in order to recognize appropriate legal/ethical behaviors related to liability, scope of practice, documentation, regulatory guidelines, and the reporting of activity that could cause risk or adverse effect to anyone.
- Demonstrate ethical and legal responsibility in their behavior/actions in the lab/clinical settings by maintaining confidentiality and recognizing the importance of the client and the client's rights.
- Working in teams, students will identify different legal issues with specifically assigned case studies (i.e., negligence, abandonment, abuse, harassment).
- Role-play specific scenarios in small groups to explore, practice, and refine their behavior in response to various situations concerning respect for clients' rights, independence, and respect for diversity.
- Work in small groups with a given series of scenarios related to ethics, patient's rights, and professional standards violations. Each group will research the legal and ethical responsibilities, limitations, and implications of the certified nursing assistant and report their conclusions to the class.
- Locate, read, and demonstrate awareness of mandatory reporting procedures of client abuse, neglect, abandonment, and exploitation; scope of practice; Workers Right to Know; and Uniform Disciplinary Act to a group of healthcare professionals.
- Perform care skills in a compassionate manner demonstrating respect for the client, the client's possessions, and creating an environment through the student's behavior that promotes trust and comfort. Students will arrange care to accommodate for arrival and participation in planned activities and also be accountable in noticing and reporting any care that is abusive or neglectful. Evaluation of these skills will be included on the students' skill competency checklists.
- During clinical rotations, students will demonstrate appropriate and professional behavior concerning privacy, confidentiality, and client personal choices and concerns as observed by instructor.
- Learn WACs, Uniform Disciplinary Code, HIPPA confidentiality, Patient Rights, Scope of Practice, and charting. Students will be assessed on demonstration and paper and pencil tests.

- Interview residents of long-term care facilities to determine their understanding of their rights and write a persuasive paper on why maintaining their rights is so important.

Capstone Project for Unit:

Students evaluate a solution to a complex real-world problem and prioritize criteria and tradeoffs that account for a range of constraints including cost, safety, reliability, and cultural and social impact.

- Given a case study that includes two or more body systems, students in a group will research the diagnosis or problem and discuss the ethical dilemma presented, as well as positive and negative implications related to the decision. Students should be able to clarify myths and facts regarding the decision and develop treatment recommendations for a patient.
- Select a topic and defend their position on a current medical ethical dilemma.

Leadership Alignment: (Districts to complete for each unit)

Leadership alignment must include a unit specific project/activity that aligns with the 21st Century Leadership Skills.

Example:

- Using National HOSA Biomedical Debate guidelines, students will debate issues that are related to the rights of the patient in a healthcare facility.
- In small groups, they can develop and present a PowerPoint presentation regarding ethics, legal responsibilities, professional standards, and/or client rights.

Industry Standards and/or Competencies:

National Health Science Standards:

Foundation Standard 5: Legal Responsibilities

Describe legal responsibilities, limitations, and implications on healthcare worker actions.

5.1 Legal Responsibilities and Implications

5.1.1 Analyze legal responsibilities and implications of criminal and civil law.

5.2 Legal Practices

5.2.1 Apply standards for the safety, privacy and confidentiality of health information (HIPAA, privileged communication).

5.2.2 Describe advance directives.

5.2.3 Summarize the essential characteristics of a patient's basic rights within a healthcare setting.

5.2.4 Differentiate informed and implied consent.

5.2.5 Explain laws governing harassment.

5.2.6 Describe the concept of scope of practice.

5.2.7 Utilize procedures for reporting activities and behaviors that affect the health, safety, and welfare of others (incident report).

Foundation Standard 6: Ethics

Understand accepted ethical practices with respect to cultural, social, and ethnic differences within the healthcare environment.

6.1 Ethical Practice

6.1.1 Differentiate between ethical and legal issues impacting healthcare.

6.1.2 Identify ethical issues and their implications related to healthcare

• Ethics committee • Euthanasia • In vitro fertilization • Organ donation • Scope of practice

6.2 Cultural, Social, and Ethnic Diversity

6.2.1 Discuss religious and cultural values as they impact healthcare

. • Ethnicity • Gender • Race • Religion

6.2.2 Demonstrate respectful and empathetic treatment of ALL patients/clients

• Civility • Customer service • Patient satisfaction

Aligned Washington State Academic Standards			
Science	**Washington Science Standards (Next Generation Science Standards):** HS-ETS1-3. Evaluate a solution to a complex real-world problem based on prioritized criteria and tradeoffs that account for a range of constraints, including cost, safety, reliability, and aesthetics as well as possible social, cultural, and environmental impacts.		
Science and Engineering Practice	**Disciplinary Core Idea**	**Crosscutting Concept**	

Unit 7: Safety and Emergency Situations	**Total Learning Hours for Unit:** 25

Unit Summary:

In this unit, students:

- Recognize and practice safety and security procedures

Performance Assessments: (Districts to complete for each unit)

Example assessments for this unit include:

- Demonstrate their ability to perform safe practice by adhering to principles of body mechanics and standard precautions within all classroom and healthcare settings.
- While transferring a client in a clinical/lab setting, student will demonstrate, according to industry standards: proper body mechanics; application of chest/vest, limb, pelvic, and waist restraints; and application of safety techniques for client/personal use. This will also include the safe use of equipment. The instructor or healthcare professionals will evaluate the students' practical application of defined tasks.
- Demonstrate the following skills:
  - Proper body mechanics
  - Care of patients/residents who fall
  - Safety/emergency procedures, including abdominal thrusts (i.e., Heimlich maneuver)
  - Application of chest/vest, limb, pelvic, and waist restraints.
- Demonstrate skills and ability to provide comfort, environmental safety, accident prevention, and use of protective devices to comply with the standards for those skills as outlined in the certification test skills handbook. Students will demonstrate correct use of body mechanics in the lab and during clinical site rotations. Evaluation of these skills will be included in the student's competency checklist.
- Obtain Food Worker card.

Leadership Alignment: (Districts to complete for each unit)

Leadership alignment must include a unit specific project/activity that aligns with the 21st Century Leadership Skills.

Example:

- Students demonstrate comprehension of district emergency procedure documents.
- Students, in leadership positions, participate in school emergency procedure drills.
- Within student groups, the students practice transferring patients from different levels and surfaces (e.g., ambulatory aids, transfer boards, beds).
- Students teach, evaluate, and correct body mechanics of their peers during group practice sessions.
- In local nursing homes, students demonstrate knowledge of evacuation drills, lock-down drills, and accident procedures.
- Students practice activation of emergency plans and conduct a triage and/or disaster drill.

Industry Standards and/or Competencies:

National Health Science Standards:

Foundation Standard 7: Safety Practices

Identifying existing and potential hazards to clients, co-workers, and self. Employ safe work practices and follow health and safety policies and procedures to prevent injury and illness.

7.1 Infection Control

7.1.1 Explain principles of infection transmission.

7.1.2 Differentiate methods of controlling the spread and growth of pathogens.

7.2 Personal Safety

7.2.1 Apply personal safety procedures based on Occupational Safety and Health Administration (OSHA) and Centers for Disease Control (CDC) regulations.

7.2.2 Demonstrate principles of body mechanics during patient care.

7.2.3 Demonstrate and apply the use of personal protective equipment (PPE).

7.3 Environmental Safety

7.3.1 Apply safety techniques in the work environment.

7.4 Common Safety Hazards

7.4.1 Observe all safety standards related to the occupational exposure to hazardous chemicals standard (safety data sheets [SDS]).

7.4.2 Comply with safety signs, symbols, and labels.

7.5 Emergency Procedures and Protocols

7.5.1 Practice fire safety in a healthcare setting.

7.5.2 Apply principles of basic emergency response in natural disasters and other emergencies (safe location, contact emergency personnel, follow facility protocols)**.**

Aligned Washington State Academic Standards

Science and Engineering Practice	Disciplinary Core Idea	Crosscutting Concept

Unit 8: Infection Control	**Total Learning Hours for Unit:** 40

Unit Summary:
In this unit, students:

- Understand the existing and potential hazards to themselves or others in the clinical setting or workplace.
- Prevent injury or illness through safe work practices, the use of adequate personal protection, and by following health and safety policies and procedures.

Performance Assessments: (Districts to complete for each unit)
Example assessments for this unit include:

- Pass, at 80%, a written and practical test covering personal bloodborne pathogen prevention standards. Students will demonstrate critical thinking skills when applying these standards in all classroom and healthcare settings. This assessment will be linked to OSHA, WISHA, MSDS, and Centers for Disease Control (CDC) standards.
- Complete the required 7 hours Washington State HIV/AIDS Education for Health Care Providers course and pass the proficiency test. (AIDS Certification).
- List ways that AIDS, HIV, Tuberculosis (TB), and Hepatitis B can spread from one person to another.
- Distinguish between fact and fallacy about the transmission and treatment of diseases caused by bloodborne pathogens including Hepatitis B.
- Demonstrate knowledge regarding transmission of bloodborne pathogens.
- Demonstrate principles of medical asepsis, infection control techniques, and standard and transmission-based precautions.
- Demonstrate the following skills:
  - Hand washing
  - Gloving
  - Putting on and removing personal protective equipment (PPE)
  - Standard (universal) precautions
  - Transmission-based (isolation) precautions

Leadership Alignment: (Districts to complete for each unit)
Leadership alignment must include a unit specific project/activity that aligns with the 21st Century Leadership Skills.
Example:

- Students conduct research on a common communicable disease (e.g., common cold, flu, bronchitis, tuberculosis). They will interact effectively with others as they collaborate to research the signs of infection, symptoms, and prevention.
- Students develop a presentation with a poster that can be displayed in the school or local community.

Industry Standards and/or Competencies:
National Health Science Standards:
Foundation Standard 7: Safety Practices
Identifying existing and potential hazards to clients, co-workers, and self. Employ safe work practices and follow health and safety policies and procedures to prevent injury and illness.

7.1 Infection Control

7.1.1 Explain principles of infection transmission.

7.1.2 Differentiate methods of controlling the spread and growth of pathogens.

7.2 Personal Safety

7.2.1 Apply personal safety procedures based on Occupational Safety and Health Administration (OSHA) and Centers for Disease Control (CDC) regulations.

Aligned Washington State Academic Standards

Science and Engineering Practice	Disciplinary Core Idea	Crosscutting Concept

Unit 9: Basic Technical Skills: BLS/CPR, AIDS Certification, Charting | **Total Learning Hours for Unit:** 40

Unit Summary:

In this unit, students:

- Demonstrate the competencies outlined in WAC 246-841-400.
  - Students will prepare and demonstrate the basic skill (Washington Nursing Assistant Candidate handbook) of their choice for the class and/or community healthcare team. These basic skills include: hand hygiene, applies one knee-high elastic stocking, assists to ambulate using transfer belt, assists with use of bedpan, cleans upper or lower denture, counts and records radial pulse, counts and records respirations, donning and removing PPE, dresses client with affected right arm, feeds client who cannot feed self, gives modified bed bath (face and one arm, hand and underarm), measures and records blood pressure, measures and records urinary output, measures and records weight of ambulatory client, performs modified passive range of motion for one knee and one ankle, performs modified passive range of motion for one shoulder, positions on side, provides catheter care for female, provides foot care on one foot, provides mouth care, provides perineal care for female, transfers from bed to wheelchair using transfer belt.
- Demonstrate basic technical skills, care skills, and communication skills that facilitate optimal level of functioning for client or resident, recognizing individual, cultural, and religious diversity.

Performance Assessments: (Districts to complete for each unit)

Example assessments for this unit include:

- Demonstrate proper adherence to technical skills through a scenario representing a situation that is within the scope of training for a certified nursing assistant. Students will use the long-term care facility resources to solve problems and determine the course of treatment.
- Engage in the following simulation: A patient has AIDS and has many conditions directly related to AIDS. The student will use the local facility policies and procedures to determine the proper techniques to use in caring for the patient. Using National HOSA Nursing Assistant or National Nurse Aid Assessment program guidelines, transfer the AIDS patient from the bed to a wheelchair, make the bed, transfer the patient back into the bed, and place him or her in a comfortable position. Calculate intake and output using National HOSA Medical Math guidelines.
- Role-play various scenarios in which they demonstrate their ability to listen, adjust to a variety of client situations, check for understanding, respond appropriately to clients with empathy, and maintain privacy. Students will accurately document relevant information and write a set of instructions to use in a home setting.
- Develop a treatment plan based on research of a specific disease or abnormality and client input. The student will identify needed resources, evaluate the outcome, and organize the priorities needed to carry out the plan. The safe use of equipment needed, and the appropriate documentation process will be included in the treatment plan. The plan will be evaluated by class members and industry representatives.

- Complete the American Heart Association Healthcare provider CPR Module as taught by a certified CPR instructor and pass the standardized test with a minimum score of 80%.
- Obtain their First Aid and CPR card and know how to read vaccines and immunization records.
- Practice CPR and care of choking conscious and unconscious victims.
- Perform mathematical functions to convert body temperature (using Celsius/Fahrenheit method); patient weight and height; and output and food consumption percentages.
- Perform accurate return demonstrations of measurement and recording of vital signs, height and weight, and fluid intake and output.
- Record, during clinical rotations, accurate observations on the appropriate forms and charts as well as a verbal report of information to appropriate staff.
- During structured observations, role-play various resident/patient scenarios in small groups in the classroom and apply those skills under observation in the clinical setting to demonstrate proficiency in sensitivity to client's needs to include: emotional, social mental health, comfort and environmental safety needs. These competencies will be measured and recorded on students' individual competency checklist.
- Practice, with peers, in large and small groups delivering a variety of information to patients (e.g., grief, minor vs. major injury scenarios, status reports, injury information, treatment options).
- Participate in at least one health fair, clinic, or screening in order to practice and gain proficiency in performing related skills.

Leadership Alignment: (Districts to complete for each unit)

Leadership alignment must include a unit specific project/activity that aligns with the 21st Century Leadership Skills.

Example:

- Students demonstrate the ability to communicate clearly through their group project presentation

Industry Standards and/or Competencies:

National Health Science Standards:

Foundation Standard 1: Academic Foundation

Understand human anatomy, physiology, common diseases and disorders, and medical math principles.

1.3 Medical Mathematics

1.3.1 Demonstrate competency using basic math skills and mathematical conversions as they relate to healthcare.

1.3.2 Demonstrate the ability to analyze diagrams, charts, graphs, and tables to interpret healthcare results.

1.3.3 Demonstrate use of the 24-hour clock/military time.

Foundation Standard 10: Technical Skills

Apply and demonstrate technical skills and knowledge common to health career specialties.

10.1 Technical Skills

10.1.1 Demonstrate procedures for measuring and recording vital signs including the normal ranges.

• Blood pressure • Temperature • Oxygen saturation • Pain • Pulse • Respirations

10.1.2 Obtain training or certification in

• Automated external defibrillator (AED) • Cardiopulmonary resuscitation (CPR) • First aid • Foreign body airway obstruction (FBAO)

Aligned Washington State Academic Standards

Science and Engineering Practice	Disciplinary Core Idea	Crosscutting Concept

Unit 10: Specific Skills and Knowledge of Practice: Personal Care Skills	**Total Learning Hours for Unit:** 20

Unit Summary:

In this unit, students:

- Demonstrate how to administer basic personal care skills to a patient.
- Understand the responsibility to notice and report any care that could be deemed abusive or neglectful to the patient.

Performance Assessments: (Districts to complete for each unit)

Example assessments for this unit include:

- Perform a simulated bath and assess the patient's skin for any changes, problems, lesions, etc. Discuss reporting requirements. Have the student write the steps of the nursing process.
- Perform care skills in a compassionate manner with respect for the client and for the client's possessions.
- Create an environment through the student's behavior that promotes trust and comfort.
- Arrive on time and participate in planned activities.
- Demonstrate personal care skills including bathing, oral care, skin care, grooming, and dressing; elimination or toileting assistance; eating and hydration assistance; and proper feeding techniques as outlined in the Washington State Nursing Assistant Certification Handbook and Mosby's Textbook for Nursing Assistants. Teachers will rate on a 1-5 scale:
  - 1 – does not meet standards
  - 2 – occasionally meets standards
  - 3 – frequently meets standards
  - 4 – usually meets standards
  - 5 – consistently meets standards
- Perform a return demonstration of personal care skills using the proper sequence, techniques, and professionalism to the standard of the skills as outlined in the National Nurse Aide Assessment Program. Students will practice personal care skills under observation of the instructor in the skills lab and at various sites. They will pass a skills proficiency evaluation at the end of the 50-hour clinical experience. This evaluation will be included in the students' skills competency checklist.
- Role-play various scenarios in which they demonstrate their ability to listen, adjust to client situations, check for understanding, respond to clients with empathy, and maintain privacy. Students should practice skills within their scope of practice, only after completing units of study in communication, confidentiality, and legal documentation.
- Accurately document relevant information and write a set of instructions to use in a home setting. Students are assessed with a rubric by instructor.
- Model appropriate communication in the skills lab.
- Role-play specific scenarios in small groups to explore, practice, and refine their behavior in response to: client behavior, accommodations for the aging process, client independence and personal choice, and use of family for client emotional support. These skills will then be observed and evaluated in the clinical sites and recorded on the competency checklist.

Leadership Alignment: (Districts to complete for each unit)
Leadership alignment must include a unit specific project/activity that aligns with the 21st Century Leadership Skills.
Example:

- Students interact effectively with others through practicing personal care skills on practice manikins and each other in the skills lab area of the classroom.
- Students conduct themselves in a respectable, professional manner at the clinical site.

Industry Standards and/or Competencies:
Washington Administrative Code 246-841-400:
(2) **Personal care skills.** A nursing assistant demonstrates basic personal care skills. A nursing assistant:
(a) Assists client or resident with bathing, oral care, and skin care.
(b) Assists client or resident with grooming and dressing.
(c) Provides toileting assistance to client or resident.
(d) Assists client or resident with eating and hydration.
(e) Uses proper oral feeding techniques

Aligned Washington State Academic Standards

Science and Engineering Practice	Disciplinary Core Idea	Crosscutting Concept

Unit 11: Mental Health and Social Service Needs	**Total Learning Hours for Unit:** 20

Unit Summary:
In this unit, students:

- Demonstrate the ability to identify psychosocial needs of all clients or residents based upon awareness of the developmental and age-specific processes.

Performance Assessments: (Districts to complete for each unit)
Example assessments for this unit include:

- Role-play specific scenarios in small groups to explore, practice, and refine their behavior in response to client behavior, accommodation for the aging process, client independence and personal choice, and use of family for client emotional support. The instructor will observe and evaluate these skills in the clinical sites and record notes on the competency checklist.
- Research and write a paper based on interviews of three elderly individuals in different settings. Students present the findings from their geriatric interview paper to their class or community group.

Leadership Alignment: (Districts to complete for each unit)
Leadership alignment must include a unit specific project/activity that aligns with the 21st Century Leadership Skills.
Example:

- During clinical practice, students have the opportunity to assist residents with end-of-life care.
- Students participate in a field trip to a hospice and write a reflection on their experiences.

Industry Standards and/or Competencies:
Washington Administrative Code 246-841-400:
(3) **Mental health and social service needs.** A nursing assistant demonstrates the ability to identify psychosocial needs of all clients or residents based upon awareness of the developmental and age specific processes. A nursing assistant:

(a) Addresses individual behavioral needs of the client or resident.
(b) Knows the developmental tasks associated with the developmental and age specific processes.
(c) Allows the client or resident to make personal choices but provides and reinforces behaviors consistent with the client's or resident's dignity.
(d) Is sensitive and supportive and responds to the emotional needs of the clients or residents and their sources of emotional support.

Aligned Washington State Academic Standards

Science and Engineering Practice	Disciplinary Core Idea	Crosscutting Concept

Unit 12: Specific Skills and Knowledge of Practice: Care of Cognitively Impaired	**Total Learning Hours for Unit:** 10

Unit Summary:
In this unit, students:

- Demonstrate basic care of cognitively impaired clients or residents.

Performance Assessments: (Districts to complete for each unit)
Example assessments for this unit include:

- Research and lead a discussion on possible communication adjustments that will be necessary when working with cognitively impaired clients.
- Model appropriate communication in the clinical setting.

Leadership Alignment: (Districts to complete for each unit)
Leadership alignment must include a unit specific project/activity that aligns with the 21st Century Leadership Skills.
Example:

- Students communicate clearly as they interview family members of residents/patients with cognitive impairments and share findings with the class using National HOSA Prepared Speaking Guidelines.

Industry Standards and/or Competencies:
Washington Administrative Code 246-841-400:
(4) Care of cognitively impaired residents. A nursing assistant demonstrates basic care of cognitively impaired clients or residents. A nursing assistant:

(a) Uses techniques for addressing the unique needs and behaviors of individuals with cognitive impairment including Alzheimer's, dementia, delirium, developmental disabilities, mental illnesses and other conditions.
(b) Communicates with cognitively impaired clients or residents in a manner appropriate to their needs.
(c) Demonstrates sensitivity to the behavior of cognitively impaired clients or residents.
(d) Appropriately responds to the behavior of cognitively impaired clients or residents.

Aligned Washington State Academic Standards

Science and Engineering Practice	Disciplinary Core Idea	Crosscutting Concept

Unit 13: Specific Skills and Knowledge of Practice: Basic Restoration Services	**Total Learning Hours for Unit:** 20

Unit Summary:

In this unit, students:

- Incorporate principles and skills in providing restorative services.

Performance Assessments: (Districts to complete for each unit)

Example assessments for this unit include:

- Perform accurate return demonstration of range of motion, turning, positioning, transferring, and elimination needs skills using the proper sequence, technique, and professionalism to the standard of the skills as outlined in the National Nurse Aide Assessment program. Students will be observed by the instructor in clinical sites to provide ongoing evaluation or basic restorative care, with a final skills proficiency evaluation at the end of the 50-hour clinical experience.
- Perform accurate return demonstration in the use of assistive devices for ambulation, eating, and dressing.
- Demonstrate the care and use of prosthetic devices. These skills will be included on the students' competence checklists.
- Tour a local hospital occupational therapy department to see a full range of assistive devices used in clinical and home settings, and practice use with a partner.
- Tour a local prosthetic device lab to explore the use of technology and ask questions about care of devices.
- Practice range of motion skills with a partner in the classroom setting.
- Rotate through the physical and occupational therapy departments during their clinical experience

Leadership Alignment: (Districts to complete for each unit)

Leadership alignment must include a unit specific project/activity that aligns with the 21st Century Leadership Skills.

Example:

- Students will demonstrate the ability to communicate clearly through their group project presentation.

Industry Standards and/or Competencies:

Washington Administrative Code 246-841-400:

(5) **Basic restorative services.** The nursing assistant incorporates principles and skills in providing restorative care. A nursing assistant:

(a) Demonstrates knowledge and skill in using assistive devices in ambulation, transferring, eating, and dressing.
(b) Demonstrates knowledge and skill in the maintenance of range of motion.
(c) Demonstrates proper techniques for turning and positioning a client or resident in a bed and chair.
(d) Demonstrates proper techniques for transferring and ambulating client or resident.
(e) Demonstrates knowledge about methods for meeting the elimination needs of clients or residents.
(f) Demonstrates knowledge and skill for the use and care of prosthetic devices by client or resident.
(g) Uses basic restorative services by training the client or resident in self-care according to the client's or resident's capabilities.

Aligned Washington State Academic Standards

Science and Engineering Practice	Disciplinary Core Idea	Crosscutting Concept

Unit 14: Clinical Practice	**Total Learning Hours for Unit:** 65

Unit Summary:
Must include training oriented to the healthcare facility and facility policies and procedures prior to clinical site.
Must include at a minimum fifty hours of clinical training of which at least forty are in the practice setting.

In this unit, students:

- Participate in a Clinical (i.e., supervised Work-site Learning Experience). Students will be assessed on a daily basis by the work supervisor and by their teacher supervisor. The successful students will be eligible for the CNA Exam. The program criteria are dictated by the DSHS for a standard CNA program.
- The Clinical experience will require a background check and tuberculosis screening.

Performance Assessments: (Districts to complete for each unit)
Example assessments for this unit include:

- After successfully demonstrating competence in a classroom laboratory setting, participate in practicum experiences where they will analyze and synthesize information to solve problems, make decisions, and record information in the form of charts, graphs, and reports.
- Be evaluated in the lab/clinical setting to industry standards in the observation of client, equipment, and surroundings. Students will collect and document information according to facility policy.
- During their clinical experience or job shadowing, assess the client's health status including treatment options. They will compare to their supervisor's notes.
- During clinical rotations, record accurate observations on the appropriate forms and charts as well as a verbal report of information to appropriate staff.
- At clinical sites, demonstrate competent use of standard precautions and use appropriate cleaning agents to destroy microorganisms. Evaluation of these skills will be included on the students' competency checklist.
- Demonstrate correct use of body mechanics in the lab and during clinical site rotations.
- Follow facility protocol for serving food, maintaining the basic principles of infection control.
- Locate and read MSDS (Material Safety Data Sheet) manuals and follow facility protocol regarding use and storage of cleaning agents and other hazardous materials. Evaluation of these skills will be included in the students' competency checklist.
- Attend mandatory orientation training in the areas of safety, including fire and disaster, infection control, use of restraints, and workplace violence.

The student's final project is about their clinical and classroom experiences. This summative assessment has three components. The project itself, which is the clinical experience, the presentation with a PowerPoint, and a reflection paper written about the entire year's activities and experiences. During their presentation, the students also present a personal portfolio, which is described below. The entire project is assessed by the teacher, students, and community partners with a rubric.

- Résumé
- Application
- Application letter
- Prepare a career plan in the healthcare field
- Employability skills rubric described in *Performance Assessment*
- Program competency checklist
- Clinical experience
- Reflection
- Personalized pathway plan
- Log of outside work including community service

Leadership Alignment: (Districts to complete for each unit)

Leadership alignment must include a unit specific project/activity that aligns with the 21st Century Leadership Skills.

Example:

- Students communicate effectively with residents, patients, and clients; healthcare team members; and family or visitors of residents, patients, and clients, using appropriate customer skills.
- Using National HOSA Nursing Assistant guidelines and/or National Nurse Aide Assistant Program guidelines, students will be given a scenario and demonstrate knowledge and skills in nursing assisting.
- Students participate appropriately in the intra-team communication systems at the clinical sites.
- Students collect and document information according to clinical facility policy and be evaluated according to facility policy.
- Students, following their evaluation, produce an action plan to correct any deficiencies and/or generate ideas on items to improve on prior to the next evaluation period.
- During clinical rotations, students demonstrate appropriate and professional behavior concerning privacy, confidentiality, and client personal choices and concerns as observed by instructor.
- Students participate in a scavenger hunt activity in a clinical facility to locate policies, procedures, equipment, and protocols related to safety and emergencies.
- Students demonstrate leadership, employability, teamwork, interpersonal skills, and academic knowledge throughout the clinical experience. Students are assessed on a rubric.

Industry Standards and/or Competencies:

National Health Science Standards:

Foundation Standard 4: Employability Skills

Use employability skills to enhance employment opportunities and job satisfaction.

4.2 Employability Skills

4.2.1 Apply employability skills in healthcare.

Foundation Standard 5: Legal Responsibilities

Describe legal responsibilities, limitations, and implications on healthcare worker actions.

5.2 Legal Practices

5.2.1 Apply standards for the safety, privacy and confidentiality of health information • HIPAA • Privileged communication 5.2.6 Describe the concept of scope of practice.

Aligned Washington State Academic Standards		
Science and Engineering Practice	**Disciplinary Core Idea**	**Crosscutting Concept**