

Foundations of Healthcare Professions



Health Science Curriculum Framework

UPDATED AUGUST 2022

Course Description: Develops professional written and oral communication plans and addresses the foundation standards including health maintenance, employability skills, teamwork, and safety practices to ensure effective patient-centered outcomes between healthcare professionals, patients, and caregivers.

Curricular Activities: HOSA–Future Health Professionals, Service-Learning Projects

NCHSE Resources

- [Health Science Curriculum Enhancements](#)
- [Work-based Learning Guide](#)
- [National Health Science Standards](#)

End of Course Certificate

- [Foundations of Healthcare Professions](#)

Additional End of Course Certificates

- [Essential Healthcare Practices](#)
- [Human Structure, Function, and Disease \(A\)](#)
- [Human Structure, Function, and Disease \(B\)](#)

End of Program Certificate

- [National Health Science Certificate](#)

Certifications

- Cardiopulmonary resuscitation (CPR) and First Aid

1.0 Communication

(Based on National Health Science Standards 2.1.1, 2.1.2, 2.1.4, 2.1.5, 2.1.6, 2.2.1)

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

1.1 Concepts of Effective Communication

1.1.1 Model verbal and nonverbal therapeutic communication.

- Active listening
- Reflecting
- Silence
- Summarizing

1.1.2 Identify common barriers to communication.

1.1.2.1 Physical disabilities

- Aphasia
- Developmental level
- Hearing loss
- Impaired vision

1.1.2.2 Psychological barriers

- Attitudes
- Bias
- Prejudice
- Stereotyping

1.1.2.3 Language barriers

1.1.3 Distinguish between subjective and objective information.

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

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

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

1.2 Medical Terminology

1.2.1 Interpret common medical abbreviations to communicate information specific to course content.

2.0 Teamwork

(Based on National Health Science Standards 8.1.1, 8.1.2, 8.2.1, 8.2.2, 8.2.3, 8.2.4)

Identify roles and responsibilities of individual members as part of the healthcare team.

2.1 Evaluate roles and responsibilities of healthcare team members.

2.2 Identify characteristics of effective teams.

- Collaboration
- Defined roles
- Effective communication
- Effective leadership
- Measurable processes and outcomes

- Mutual respect
- Shared goals
- 2.3 Team Member Participation
 - 2.3.1 Recognize methods for building positive team relationships.
 - 2.3.2 Analyze attributes and attitudes of an effective leader.
 - 2.3.2.1 Characteristics
 - Focused and driven
 - Interpersonal skills
 - Motivates and inspires
 - Organized and balanced
 - 2.3.2.2 Types
 - Autocratic
 - Democratic
 - Laissez faire
 - 2.3.2.3 Roles
 - Communicates vision
 - Leads change
 - Manages accountability
 - 2.3.4 Apply effective techniques for managing team conflict.
 - Communicate assertively
 - Gather the facts
 - Mediate disputes
 - Negotiate resolutions
 - Set clear expectations
 - 2.3.5 Evaluate why teamwork is an important part of healthcare and how it improves patient care.

3.0 Health Maintenance Practices

(Based on National Health Science Standards 9.1.1, 9.1.2, 9.1.3, 9.1.4, 9.2.1)

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

- 3.1 Healthy Behaviors
 - 3.1.1 Promote self-care behaviors of health and wellness.
 - Exercise
 - Nutrition
 - Relationships
 - Sleep habits
 - Stress management
 - Weight control
 - 3.1.2 Examine various aspects of behavioral health.
 - Anxiety
 - Depression

- Substance abuse
- Suicide
- 3.1.3 Describe public health strategies for prevention of disease.
 - Community health education outreach programs
 - Immunizations
 - Medical, dental, and mental health screenings
 - Routine physical exams
 - Self-care behaviors
- 3.1.4 Investigate complementary and alternative health practices as they relate to wellness and disease prevention.
 - Eastern medicine
 - Holistic medicine
 - Homeopathic medicine
 - Manipulative medicine
- 3.2 Healthcare Across the Lifespan
 - 3.2.1 Discuss physical, mental, social and behavioral development and its impact on healthcare.
 - 3.2.2 Identify socioeconomic determinants of health and wellness.

4.0 Safety Practices

(Based on National Health Science Standards 7.1.1, 7.1.2, 7.2.1, 7.2.2, 7.2.3, 7.3.1, 7.4.1, 7.4.2, 7.5.1, 7.5.2)

Identify 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.

- 4.1 Infection Control
 - 4.1.1 Explain principles of infection transmission.
 - 4.1.1.1 Identify classifications of pathogens
 - Bacteria
 - Fungi
 - Parasites
 - Protozoa
 - Viruses
 - 4.1.1.2 Describe characteristics of microorganisms
 - Aerobic
 - Anaerobic
 - Non-pathogenic
 - a. Pathogenic
 - 4.1.1.3 Recognize chain of infection
 - 4.1.1.4 Describe mode of transmission
 - Common vehicle (air, food, water)
 - Direct
 - Healthcare-associated infections (nosocomial)

- Indirect
 - Opportunistic
 - Vectors
- 4.1.2 Differentiate methods of controlling the spread and growth of pathogens.
- 4.1.2.1 Asepsis
- Antisepsis
 - Disinfection
 - Sanitization
 - Sterile technique
 - Sterilization
- 4.1.1.2 Standard precautions
- Environmental cleaning
 - Handwashing
 - Gloving
 - Personal Protective Equipment (PPE)
- 4.1.2.3 Isolation precautions
- Transmission-based contact
- 4.1.2.4 Bloodborne pathogen precautions
- 4.1.2.5 Vaccinations
- 4.2 Personal Safety
- 4.2.1 Apply personal safety procedures based on Occupational Safety and Health Administration (OSHA) and Centers for Disease Control (CDC) regulations.
- 4.2.2 Demonstrate principles of body mechanics during patient care.
- Ambulating
 - Lifting
 - Positioning
- 4.2.3 Demonstrate and apply the use of personal protective equipment (PPE).
- 4.3 Environmental Safety
- 4.3.1 Apply safety techniques in the work environment.
- Ergonomics
 - Patient/client/employee safety measures
 - Safe operation of equipment
- 4.4 Common Safety Hazards
- 4.4.1 Observe all safety standards related to the occupational exposure to hazardous chemicals standard (safety data sheets [SDS]).
- 4.4.2 Comply with safety signs, symbols, and labels.
- 4.5 Emergency Procedures and Protocols
- 4.5.1 Practice fire safety in a healthcare setting.
- 4.5.2 Apply principles of basic emergency response in natural disasters and other emergencies (safe location, contact emergency personnel, follow facility protocols).

5.0 Technical Skills

(Based on National Health Science Standards 10.1)

Apply technical skills required for all career specialties and demonstrate skills and knowledge as appropriate.

- 5.1 Obtain training or certification in
 - Automated external defibrillator (AED)
 - Cardiopulmonary resuscitation (CPR)
 - First aid
 - Foreign body airway obstruction (FBAO)

6.0 Employability Skills

(Based on National Health Science Standards 4.1.1, 4.1.2, 4.2.1, 4.3.1, 4.3.2)

Utilize employability skills to enhance employment opportunities and job satisfaction.

- 6.1 Personal Traits of the Health Professional
 - 6.1.1 Identify personal traits and attitudes desirable in a career ready member of a health team.
 - Acceptance of criticism
 - Competence
 - Dependability
 - Discretion
 - Empathy
 - Enthusiasm
 - Honesty
 - Initiative
 - Integrity
 - Patience
 - Positive Attitude
 - Responsibility
 - Self-motivation
 - Social and cultural competence
 - Tact
 - Team player
 - Willingness to learn
 - 6.1.2 Summarize professional standards as they apply to hygiene, dress, language, confidentiality and behavior.
- 6.2 Employability Skills
 - 6.2.1 Apply employability skills in healthcare.
 - Chain of command
 - Communication skills
 - Customer service
 - Decision making

- Flexible
 - Organization
 - Problem solving
 - Scope of practice
 - Time management
 - Work ethic
- 6.3 Career Decision-making
- 6.3.1 Research levels of education, credentialing requirements, and employment trends in health professions.
- 6.3.2 Distinguish differences among careers within a health science pathway.
- Biotechnology research and development
 - Diagnostic services
 - Health informatics
 - Support services
 - Therapeutic services
- 6.4 Employability Preparation
- 6.4.1 Develop components of a personal portfolio.
- Community Service / Service Learning
 - Credentials
 - Leadership examples
 - Mock interview
 - Oral report
 - Personal statement
 - Professional/student organization memberships
 - Resume
 - Sample projects
 - Technology skills
 - Work-based learning documentation
 - Writing sample
- 6.4.2 Identify strategies for pursuing employment.
- Employer websites
 - Internships
 - Personal networking
 - Social media

Essential Healthcare Practices



Health Science Curriculum Framework

UPDATED AUGUST 2022

Course Description: Builds on curriculum introduced in Foundations of Healthcare Professions. Develops enhanced written and oral communication skills and medical math principles. Introduces basic medical terminology roots, prefixes, and suffixes to communicate body systems, diseases, and disorders. Identifies how key systems affect services performed and quality of care. Defines legal responsibilities, limitations, and implications on healthcare worker actions. Investigates accepted ethical practices with respect to cultural, social, and ethnic differences within the healthcare environment. Instructs technical skills for measuring and recording vital signs.

Curricular Activities: HOSA–Future Health Professionals, Service-Learning Projects

NCHSE Resources

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- [Work-based Learning Guide](#)
- [National Health Science Standards](#)

End of Course Certificate

- [Essential Healthcare Practices](#)

Additional End of Course Certificates

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- [Human Structure, Function, and Disease \(A\)](#)
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End of Program Certificate

- [National Health Science Certificate](#)

1.0 Communication

(Based on National Health Science Standards 2.1.3, 2.3.1, 2.3.2, 2.3.3)

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

- 1.1 Concepts of Effective Communication
 - 1.1.1 Distinguish between subjective and objective information.
- 1.2 Written Communication Skills
 - 1.2.1 Use proper elements of written and electronic communication (spelling, grammar, and formatting).
 - 1.2.2 Prepare examples of technical and informative writing.
 - 1.2.3 Demonstrate appropriate use of digital communication in a work environment, such as email, text, and social media.
- 1.3 Medical Terminology
 - 1.3.1 Use common roots, prefixes, and suffixes to communicate information.
 - 1.3.2 Interpret common medical abbreviations to communicate information.

2.0 Human Anatomy and Physiology

(Based on National Health Science Standards 1.1.1 b, c, d)

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

- 2.1 Describe the organization of the human body and directional terms.
 - 2.1.1 Demonstrate anatomical position
 - 2.1.2 Identify body planes
 - Coronal / Frontal
 - Midsagittal
 - Sagittal
 - Transverse / Horizontal
 - 2.1.3 Use directional terms
 - Anterior / Posterior
 - Cephalic/Caudal
 - Medial / Lateral
 - Proximal / Distal
 - Superficial / Deep
 - Superior / Inferior
 - Ventral / Dorsal

3.0 Systems

(Based on National Health Science Standards 3.1.1, 3.1.2, 3.1.3, 3.1.4)

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.
 - 3.1.1.1 Types of practice settings
 - Acute care

- Ambulatory care
 - Behavioral and mental health services
 - Home care
 - Long-term care
 - Medical and dental practices
 - Specialty medical and dental practices
 - Cosmetic surgery
 - Orthodontics
 - Pulmonology
 - Surgical
- 3.1.2 Government agencies
- Centers for Disease Control and Prevention (CDC)
 - Centers for Medicare & Medicaid Services (CMS)
 - National Institutes of Health (NIH)
 - Occupational Safety and Health Administration (OSHA)
 - U.S. Department of Veterans Affairs (VA)
 - U.S. Food and Drug Administration (FDA)
 - U.S. Public Health Service (USPHS)
- 3.1.3 Related organizations
- American Cancer Society (ACS)
 - American Heart Association (AHA)
 - American Red Cross (ARC)
 - March of Dimes
 - World Health Organization (WHO)
- 3.2 Examine the healthcare consumer's rights and responsibilities within the healthcare system.
- Compliance
 - Patient's Bill of Rights
 - Self-advocacy
- 3.3 Analyze the impact of emerging issues on healthcare delivery systems.
- Behavior/Mental health
 - Bioethics
 - Epidemiology
 - Socioeconomics
 - Technology
- 3.4 Analyze healthcare economics and related terms.
- 3.4.1 The history and role of health insurance and employer/employee benefits;
- 3.4.2 Fundamental terms related to health insurance
- Claim
 - Coinsurance
 - Co-payment
 - Explanation of Benefits (EOB)

- Fraud
 - Health Insurance Portability and Accountability Act (HIPPA)
 - Medical Coding
 - Premium
- 3.4.3 Types of insurance plans
- Private health insurance plans
 - Managed Care
 - Health Maintenance Organization (HMO)
 - Independent Practice Association (IPA)
 - Preferred Provider Organization (PPO)
 - Government programs
 - Affordable Care Act (ACA)
 - Medicaid
 - Medicare
 - Tricare
 - Workers' Compensation

4.0 Legal Responsibilities

(Based on National Health Science Standards 5.1.1, 5.2.1, 5.2.2, 5.2.3, 5.2.4, 5.2.5, 5.2.6, 5.2.7)

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

- 4.1 Legal Responsibilities and Implications
- 4.1.1 Analyze legal responsibilities and implications of criminal and civil law.
- Abuse
 - Assault
 - Battery
 - Harassment
 - Invasion of privacy
 - Libel
 - Malpractice
 - Negligence
 - Slander
 - Tort
- 4.2 Legal Practices
- 4.2.1 Apply standards for the safety, privacy, and confidentiality of health information.
- HIPAA
 - Privileged communication
- 4.2.2 Describe advance directives.
- 4.2.3 Summarize the essential characteristics of a patient's basic rights within a healthcare setting.
- 4.2.4 Differentiate informed and implied consent.
- 4.2.5 Describe the concept of scope of practice.

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

5.0 Ethics

(Based on National Health Science Standards 6.1.1, 6.1.2, 6.2.1, 6.2.2)

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

- 5.1 Ethical Practice
- 5.1.1 Differentiate between ethical and legal issues impacting healthcare.
- 5.1.2 Identify ethical issues and their implications related to healthcare.
- Ethics committee
 - Euthanasia
 - Gene editing
 - Immunizations
 - In vitro fertilization
 - Organ donation/transplantation
 - Scope of practice
- 5.2 Cultural, Social, and Ethnic Diversity
- 5.2.1 Discuss religious and cultural values as they impact healthcare.
- Ageism
 - Ethnicity
 - Gender
 - Race
 - Religion
- 5.2.2 Demonstrate respectful and empathetic treatment of ALL patients/clients.
- Civility
 - Customer service
 - Patient satisfaction

6.0 Medical Mathematics

(Based on National Health Science Standards 1.3.1, 1.3.2, 1.3.3)

Understand math principles integral to medical applications.

- 6.1. Demonstrate competency using basic math skills and mathematical conversions as they relate to healthcare.
- 6.1.1 Metric system
- Centi-
 - Deci-
 - Kilo-
 - Milli-
 - Micro-
- 6.1.2 Mathematical Operations

- Addition / Subtraction
 - Average
 - Fractions
 - Multiplication / Division
 - Percentages
 - Ratios
- 6.1.3 Conversions
- Height (inches/meters)
 - Household measurements (tbsp/tsp/cup/oz)
 - Length (inches/meters)
 - Temperature (F/C)
 - Volume (ml/cc)
 - Weight/mass (pounds/grams)
- 6.2 Demonstrate the ability to analyze diagrams, charts, graphs, and tables to interpret healthcare results.
- 6.3 Demonstrate use of the 24-hour clock/military time.

7.0 Technical Skills*

(Based on National Health Science Standards 10.1.1, 10.1.2)

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

- 7.1 Demonstrate procedures for measuring and recording vital signs in both normal and abnormal ranges – including but not limited to:
- Blood pressure
 - Height and weight
 - Oxygen saturation
 - Pain
 - Pulse
 - Respirations
 - Temperature

**Additional technical skills may be included in a program of study based on career specialties.*

Human Structure, Function, and Disease (A)



Health Science Curriculum Framework

UPDATED AUGUST 2022

Course Description: Introduces human anatomy, physiology, common diseases, and disorders. Focuses on Skeletal, Muscular, Respiratory, Integumentary, Cardiovascular and Lymphatic Systems. Integrates advanced medical terminology.

Curricular Activities: HOSA–Future Health Professionals, Work-based Learning Internships and Apprenticeships

NCHSE Resources

- [Health Science Curriculum Enhancements](#)
- [Work-based Learning Guide](#)
- [National Health Science Standards](#)

End of Course Certificate

- [Human Structure, Function, and Disease \(A\)](#)

Additional End of Course Certificates

- [Foundations of Healthcare Professions](#)
- [Essential Healthcare Practices](#)
- [Human Structure, Function, and Disease \(B\)](#)

End of Program Certificate

- [National Health Science Certificate](#)

1.0 Medical Terminology

(Based on National Health Science Standards 2.2.1, 2.2.2)

Demonstrate methods of delivering and obtaining information, while communicating effectively

- 1.1.1 Use common roots, prefixes, and suffixes to communicate information regarding body systems, diseases, and disorders.
- 1.1.2 Interpret common medical abbreviations.

2.0 Anatomy and Physiology

(Based on National Health Science Standards 1.1.1, 1.1.2 a, b, c, d, e, f)

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

- 2.1 Identify basic levels of organization of the human body.
 - Cellular
 - Chemical
 - Organ
 - Organism
 - Systems
 - Tissue
- 2.2 Identify body planes, directional terms, cavities, and quadrants.
 - Body planes (sagittal, mid-sagittal, coronal/frontal, transverse/horizontal)
 - Directional terms (superior, inferior, anterior/ventral, posterior/dorsal, medial, lateral, proximal, distal, superficial, and deep)
 - Cavities (dorsal, cranial, orbital, nasal, oral, spinal, thoracic, abdominal, and pelvic)
 - Quadrants (upper right, lower right, upper left, and lower left)
- 2.3 Investigate the process of homeostasis.
- 2.4 Skeletal System
 - 2.4.1 Structures of the skeletal system
 - Distinguish between axial and appendicular skeletons
 - Describe long bone anatomy
 - Identify joint types and movement
 - Name and classify all bones (206)
 - 2.4.2 Functions of the skeletal system
 - Structure and support
 - Muscle attachment and movement
 - Mineral storage
 - Hematopoiesis
 - Ossification
- 2.5 Muscular System
 - 2.5.1 Structures of the muscular system
 - Identify types of muscle tissue
 - Identify major muscle groups of neck, shoulder, chest, abdomen, back, arms and legs

- 2.5.2 Functions of the muscular system
 - Body movement
 - Posture
 - Protection
- 2.6 Integumentary System
 - 2.6.1 Structures of the integumentary system
 - Identify integumentary components
 - Label the layers of skin
 - 2.6.2 Functions of the integumentary system
 - Infection protection
 - Sensory organ
 - Temperature regulation
 - UV light protection
 - Vitamin D production
- 2.7 Cardiovascular System
 - 2.7.1 Structures of the cardiovascular system
 - Distinguish blood components
 - Identify cardiovascular organs
 - Label the parts of the heart
 - 2.7.2 Functions of the cardiovascular system
 - Blood flow through the heart and body
 - Cardiac conduction system
 - Transportation of nutrients, waste, antibodies, hormones, and gases
- 2.8 Lymphatic/Immune System
 - 2.8.1 Structures of the lymphatic system
 - Identify lymphatic organs
 - 2.8.2 Functions of the lymphatic system
 - Movement of lymph fluid
 - Provides protection against disease
- 2.9 Respiratory System
 - 2.9.1 Structures of the respiratory system
 - Identify respiratory organs
 - 2.9.2 Functions of the respiratory system
 - Gas exchange

3.0 Diseases and Disorders (Skeletal, Muscular, Integumentary, Cardiovascular, Lymphatic, Respiratory)

(Based on National Health Science Standards 1.2.1, 1.2.2)

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

- Asthma
 - Cancer
 - Cystic fibrosis
 - Melanoma
 - Muscular dystrophy
 - Myocardial infraction
 - Stroke/Cerebrovascular Accident (CVA)
 - Tuberculosis
- 3.2 Discuss research related to emerging diseases and disorders (such as: autism, VRSA, PTSD, Listeria, seasonal flu).
- 3.3 Describe biomedical therapies as they relate to prevention, pathology, and treatment of disease.
- Gene editing
 - Gene testing
 - Gene therapy
 - Immunizations
 - Immunotherapy
 - Stem cell research

4.0 Medical Mathematics

(Based on National Health Science Standards 1.3.1, 1.3.2, 1.3.3)

- 4.1 Demonstrate competency using basic math skills and mathematical conversions as they relate to healthcare.
- 4.2 Demonstrate the ability to analyze diagrams, charts, graphs, and tables to interpret healthcare results.

*Review National Health Science Standard 4: Employability Skills and 7: Safety, before entering work-based learning opportunities, if appropriate for your program.

Human Structure, Function, and Disease (B)



Health Science Curriculum Framework

UPDATED AUGUST 2022

Course Description: Builds on the knowledge and skills of Human Structure, Function, and Disease (A) concentrating on the remaining systems, Nervous, Endocrine, Urinary, Reproductive and Digestive. Explores information technology in healthcare. Medical terminology and medical math are integrated throughout.

Curricular Activities: HOSA–Future Health Professionals, HOSA - Future Health Professionals, Work-based Learning Internships and Apprenticeships

NCHSE Resources

- [Health Science Curriculum Enhancements](#)
- [Work-based Learning Guide](#)
- [National Health Science Standards](#)

End of Course Certificate

- [Human Structure, Function, and Disease \(B\)](#)

Additional End of Course Certificates

- [Foundations of Healthcare Professions](#)
- [Essential Healthcare Practices](#)
- [Human Structure, Function, and Disease \(A\)](#)

End of Program Certificate

- [National Health Science Certificate](#)

1.0 Medical Terminology

(Based on National Health Science Standards 2.2.1, 2.2.2)

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

- 1.1.1 Use common roots, prefixes, and suffixes to communicate information regarding body systems, diseases, and disorders.
- 1.1.2 Interpret common medical abbreviations to communicate information.

2.0 Anatomy and Physiology

(Based on National Health Science Standards 1.1.2 g, h, i, j, k)

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

- 2.1 Nervous System
 - 2.1.1 Structures of the nervous system
 - Identify organs of the nervous system
 - Identify structures of the special sense organs
 - Differentiate CNS and PNS
 - Differentiate sympathetic and parasympathetic
 - 2.1.2 Functions of the nervous system
 - Sensation
 - Movement
 - Processing
- 2.2 Endocrine System
 - 2.2.1 Structures of the endocrine system
 - Identify endocrine glands
 - 2.2.2 Functions of the endocrine system
 - Production of hormones
 - Regulation of body processes
 - Controls metabolism
 - Regulates growth, development, and maturation
- 2.3 Digestive System
 - 2.3.1 Structures of the digestive system
 - Identify digestive organs in sequence
 - Differentiate between alimentary and accessory organs
 - 2.3.2 Functions of the digestive system
 - Chemical and mechanical digestion
 - Absorption of nutrients
 - Excretion of waste
- 2.4 Urinary System
 - 2.4.1 Structures of the urinary system
 - Identify urinary organs
 - Identify gross and microscopic anatomy of the kidney
 - 2.4.2 Functions of the urinary system

- Process of urine formation
 - Urine composition
 - Homeostatic balance
- 2.5 Reproductive System
- 2.5.1 Structures of the reproductive system
- Identify female reproductive organs
 - Identify male reproductive organs
- 2.5.2 Functions of the reproductive system
- Formation of gametes
 - Production of hormones

3.0 Diseases and Disorders (Nervous, Endocrine, Digestive, Urinary, Reproductive)

(Based on National Health Science Standards 1.2, 1.2.1, 1.2.2)

- 3.1 Describe etiology, pathology, diagnosis, treatment, and prevention of common diseases and disorders, including, but not limited to the following:
- Bipolar disorder
 - Cancer
 - Cataracts
 - Concussion / Traumatic Brain Injury (TBI)
 - Diabetes
 - Dementia
 - Gastric ulcer
 - Hepatitis
 - Sexually Transmitted Infection (STI)
 - Urinary Tract Infection (UTI)

4.0 Information Technology in Healthcare

(Based on National Health Science Standards 11.1.1, 11.1.2, 11.1.3, 11.1.4)

Apply information technology practices common across health professions.

- 4.1 Key Principles, components, and practices of Health Information Systems
- 4.1.1 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
- 4.1.2 Explore different types of health data collection tools.

- Medical wearable devices
 - Patient monitoring equipment
 - Phone application
 - Telemedicine/telehealth
- 4.1.3 Create electronic documentation that reflects timeliness, completeness, and accuracy.
- 4.1.4 Adhere to information systems policies, procedures, and regulations as required by national, state, and local entities.

5.0 Medical Mathematics

(Based on National Health Science Standards 1.3.1, 1.3.2, 1.3.3)

- 5.1 Demonstrate competency using basic math skills and mathematical conversions as they relate to healthcare.
- 5.2 Demonstrate the ability to analyze diagrams, charts, graphs, and tables to interpret healthcare results.

*Review National Health Science Standards 4: Employability Skills and 7: Safety, before entering work-based learning opportunities, if appropriate for your program.