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**PROGRAM CONCENTRATION:** Healthcare Science  
**CAREER PATHWAY:** Therapeutic Services - Medical Services  
**COURSE TITLE:** General Medicine

**PREREQUISITES:** Introduction to Healthcare Science Technology,  
Applications of Therapeutic Services

The course is designed to offer students (preferably upper classmen -juniors or seniors) the opportunity to become effective and efficient multi-skilled healthcare providers as they develop a working knowledge of each of the major departments of the average acute care setting/hospital, including but not limited to: Orthopedics, Cardiology, Diagnostic Imaging, MedSurg, Gastroenterology, Urology, and Customer Care Services. Students focusing on a career path in medicine (Pre-Med) or on a career in one of the ancillary departments noted above will apply classroom/lab knowledge and skills in the clinical setting as they participate in direct client care. The work-based learning strategy appropriate for this course is a minimum 40-hour clinical practicum.

*When taken as the fourth course in the Therapeutic Services -Nursing career pathway, students successfully completing may be eligible to sit for Patient Care Technician Certification.*

## **Academic Foundations**

**HS-TGM-1. Students will demonstrate knowledge and understanding of the academic subject matter required for proficiency within their area. Academic standards are integrated throughout the standard statements within their applicable discipline areas and documented immediately following the standard statement.**

## **PROFESSIONALISM**

**HS-TGM-2. Students will demonstrate professional demeanor at all times, both in the classroom and within the healthcare facilities.**

- a. Understand and demonstrate dependability as it relates to being present, on time, and ready to participate.
- b. Understand and demonstrate compassion as it relates to being sensitive to the needs of patients and co-workers.
- c. Understand and demonstrate flexibility as it relates to their willingness to adapt to changes, accept added responsibility, and be a team player.
- d. Understand and demonstrate honesty as it relates to willingness to admit mistakes, to get help when unsure of a procedure, and to act in the interest of client safety.

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- e. Understand and demonstrate integrity as it relates to client privacy and client confidentiality.
- f. Understand and demonstrate the importance of personal appearance to include appropriate dress code, good personal hygiene, and professional demeanor.
- g. Understand and demonstrate the importance of good organizational skills.
- h. Understand and demonstrate excellent time management skills including completion of assignments.

## **COMMUNICATION AND CUSTOMER SERVICE**

**HS-TGM-3. Students will demonstrate communication and appropriate customer service skills.**

- a. Examine and exhibit proper communication with the consumer.
- b. Examine and exhibit proper communication with team members.
- c. Examine and exhibit proper communication with the employer.
- d. Understand and demonstrate how to communicate in a healthcare setting and convey critical client information to appropriate team members in a timely and professional manner.
- e. Understand and show sensitivity to cultural differences to include the use of appropriate language aids.
- f. Examine and exhibit proper communication in unsafe environmental conditions and unusual occurrences and incidents.

## **ETHICAL AND LEGAL RESPONSIBILITIES**

**HS-TGM- 4. Students will demonstrate an understanding of professional ethics and legal responsibilities.**

- a. Demonstrate techniques for maintaining confidentiality and privacy to include HIPAA regulations.
- b. Explain medicolegal concepts.
- c. Acknowledge a personal code of ethics.
- d. Explain the national professional standards including the American Nurses' Association National Code of Ethics, state ethical standards, the Hippocratic Oath, state standards related to unlicensed assistive personnel, and state standards for licensed personnel.

### **ACADEMIC STANDARDS:**

*SSCG6. The student will demonstrate knowledge of civil liberties and civil rights.*

## **DATA COLLECTION**

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**HS-TGM-5. Students will understand the importance of and demonstrate data collection as it relates to the goals, objectives, and implementation of the treatment plan according to their scope of practice.**

- a. Observe, record, and report client behavior.
- b. Assist treatment team in observing, reporting, and recording client healthcare needs, strengths, and problems.
- c. Follow policies and protocols of the facility.
- d. Understand and demonstrate all necessary interventions of the patient treatment plan as it relates to their scope of practice.
- e. Examine and demonstrate the importance of client collaboration and acceptance in identifying and implementing appropriate interventions in the treatment plan.
- f. Assist in identifying potential educational needs.

**ACADEMIC STANDARDS:**

*SCSh3. Students will identify and investigate problems scientifically.*

*SCHSh4. Students use tools and instruments for observing, measuring and manipulating scientific equipment and materials*

*SCSh5. Students will demonstrate the computation and estimation skills necessary for analyzing data and developing reasonable scientific explanations*

**INFECTION CONTROL**

**HS-GM-6. Students will understand and apply infection control guidelines including techniques for maintaining isolation.**

- a. Demonstrate understanding of and practice standard precautions.
- b. Demonstrate understanding of isolation techniques.
- c. Describe risk and prevention of cross contamination.
- d. Demonstrate sanitizing, disinfecting, and sterilizing techniques.

**SAFETY AND THE ECONOMY OF HEALTHCARE**

**HS-GM-7. Students will examine the trends, financing, and principles of healthcare economics including the importance of safety practices.**

- a. Understand and explain the cause and effect of risk management.
- b. Apply the principles of body mechanics in moving, lifting, and transferring clients to reduce risks of injury to clients or themselves.
- c. Explain how safety processes and procedures impact healthcare costs according to chosen career pathway.

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- d. Examine and show understanding of the health and financial risks involved with patient safety.
- e. Understand, assess and report on incidents that can occur in healthcare facilities.
- f. Demonstrate understanding of the impact their choices and the choices of others as consumers have not only on their health, but on the economy especially as it relates to personal consumption and increased healthcare dollars.

**ACADEMIC STANDARDS:**

*SSEPF2. The student will give examples of how rational decision making entails comparing the marginal benefits and the marginal costs of an action*  
*SSEV 4. Students will understand and describe availability, allocation, and conservation of energy and other resources.*

*SSEV 5. Students will recognize that human beings are part of the global ecosystem and will evaluate the effects of human activities and technology on ecosystems.*

**MEDICAL TERMINOLOGY**

**HS-TGM-8. Students will understand and utilize terminology related to the human anatomy.**

- a. Utilize diagnostic, surgical, and procedural terms and abbreviations related to the integumentary system.
- b. Utilize diagnostic, surgical, and procedural terms and abbreviations related to the respiratory system.
- c. Utilize diagnostic, surgical, and procedural terms and abbreviations related to the cardiovascular system.
- d. Utilize diagnostic, surgical, and procedural terms and abbreviations related to the musculoskeletal system.
- e. Utilize diagnostic, surgical, and procedural terms and abbreviations related to the endocrine system.
- f. Utilize diagnostic, surgical, and procedural terms and abbreviations related to the nervous system.
- g. Utilize diagnostic, surgical, and procedural terms and abbreviations related to the lymphatic system/immune system.
- h. Utilize diagnostic, surgical, and procedural terms and abbreviations related to the gastrointestinal system.
- i. Utilize diagnostic, surgical, and procedural terms and abbreviations related to the urinary tract.
- j. Utilize diagnostic, surgical, and procedural terms and abbreviations related to the reproductive system.

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**ACADEMIC STANDARDS:**

*ELA9RL. The student understands and acquires new vocabulary and uses it correctly in reading and writing.*

**HS-TGM-9. Students will acquire skills according to career interest and apply those skills in a clinical setting for a minimum of 40 hours.**

- a. Demonstrate understanding of knowledge and skills for career focus.
- b. Perform objectives and complete assigned tasks in assigned clinical area according to facility standards according to their scope of practice.

**ADVANCED TECHNICAL SKILLS**

*Students who have successfully completed Nursing Essentials may be eligible to receive Patient Care Technician Certification by completing the following standards.*

**HS-TGM-10. Students will demonstrate understanding of and perform advanced technical skills in musculoskeletal system care – Physical Therapy and Orthopedics.**

- a. Describe management of clients with immobilization devices.
- b. Set up clients correctly in special devices for promoting mobility and circulation.
- c. Demonstrate techniques for applying anti-embolic hose to extremities.
- d. Demonstrate the care and use of prosthetic and orthotic devices.

**ACADEMIC STANDARDS:**

*SAP2. Students will analyze the interdependence of the integumentary, skeletal and muscular systems as these relate to the protection, support and movement of the human body*

**MONITORING CLIENT STATUS**

**HS-TGM-11. Students will understand and demonstrate the process for monitoring client health status according to professional standards and report results accurately – MedSurg (Medical and Surgical).**

- a. Measure and report vital signs including pain assessment.
- b. Make observations related to circulation and report findings.
- c. Monitor and report intake and output.
- d. Assist with admitting, transferring, and discharge.
- e. Report results of point of care testing.

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- f. Observe and report cognitive function.
- g. Assess overall patient appearance and report.

**ACADEMIC STANDARDS:**

*SCSh3: Students will identify and investigate problems scientifically.*

*SCHSh4: Students use tools and instruments for observing, measuring and manipulating scientific equipment and materials*

**HS-TGM-12. Students will demonstrate understanding of advanced technical skills in respiratory care – Respiratory Therapy.**

- a. Identify normal and abnormal respiratory effort.
- b. Demonstrate correct placement of cannula and mask for oxygen therapy.
- c. Describe croup tent usage and maintenance.
- d. Correctly apply pulse oximeter for measurement of oxygen saturation and recognize the difference between normal and abnormal readings.
- e. Assist clients with respiratory management devices.
- f. Demonstrate techniques for suctioning based on facility protocol.
- g. Describe and demonstrate care for a tracheostomy based on facility guidelines within their scope of practice.

**ACADEMIC STANDARDS:**

*SAP1. Students will analyze anatomical structures in relationship to their physiological functions.*

**HS-TGM-13. Students will demonstrate understanding of advanced technical skills in wound care within their scope of practice – MedSurg (Medical and Surgical).**

- a. Describe variations in wounds and methods for reporting.
- b. Describe pain associated with wounds and techniques for assessing, reporting, and managing pain.
- c. Demonstrate techniques in caring for wound drains.
- d. Demonstrate techniques for wound care including reporting observations.
- e. Demonstrate techniques for wound irrigation including documentation.
- f. Demonstrate techniques for application of sterile dressings, bandages, and binders including documentation.
- g. Demonstrate techniques for applying hot and cold treatments including documentation.
- h. Utilize sterile technique in performing surgical dressing changes.

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*SAP2. Students will analyze the interdependence of the integumentary, skeletal, and muscular system as these relate to the protection, support, and movement of the human body.*

**HS-GM-14. Students will demonstrate understanding of advanced technical skills in nutrition and fluid intake, elimination, and ostomy care – Medical Laboratory, Gastroenterology, and Urology.**

- a. Demonstrate measurement of fluid intake and output including documentation.
- b. Assist in management of patients receiving tube feedings according to facility protocol and scope of practice.
- c. Obtain blood glucose samples correctly and record and report findings to the nurse.
- d. Observe IV site for signs/symptoms of infiltration and report findings to the nurse.
- e. Demonstrate techniques for peripheral IV removal.
- f. Demonstrate techniques for urinary catheterization including documentation.
- g. Demonstrate techniques for catheter removal.
- h. Demonstrate techniques for enema administration including documentation.
- i. Demonstrate techniques for collecting urine and stool specimens including documentation.
- j. Demonstrate techniques for bladder and catheter irrigation and catheter care including documentation.
- k. Demonstrate ostomy care procedures.

**ACADEMIC STANDARDS:**

*SCSh3. Students will identify and investigate problems scientifically.*

*SCHSh4. Students use tools and instruments for observing, measuring, and manipulating scientific equipment and materials.*

*MM4P3. Students will communicate mathematically.*

*MM4P4. Students will make connections among mathematical ideas and to other disciplines.*

*MM4P5. Students will represent mathematics in multiple ways.*

*SAP4. Students will analyze the physical, chemical and biological properties of process systems as they relate to transportation, absorption and excretion including the cardiovascular, respiratory, digestive, excretory systems*

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**HS-GM-15. Students will demonstrate understanding of and perform advanced technical skills in cardiovascular care – Medical Laboratory and Cardiology .**

- a. Describe the difference between a normal and abnormal EKG.
- b. Set up client and apply leads for EKG or cardiac monitoring correctly.
- c. Demonstrate proper procedure for capillary blood tests.
- d. Identify and demonstrate techniques for venipuncture procedures based on school and facility protocol.

**ACADEMIC STANDARDS:**

*SAP4. Students will analyze the physical, chemical and biological properties of process systems as they relate to transportation, absorption and excretion including the cardiovascular, system.*

**HS-TGM-16. Students will demonstrate understanding of the services provided in diagnostic imaging –Diagnostic Imaging Services (Radiology).**

- a. Differentiate between the types of diagnostic imaging techniques, including but not limited to: diagnostic, treatment, and monitoring systems and the types of medical information/records each generates including Computer Assisted Tomography (CAT), Magnetic Resonance Imaging (MRI), Positron Emissions Tomography (PET), Ultrasound Imaging, X-Rays, arrhythmia monitoring, pulmonary monitoring, and Obstetrical/Neonatal monitoring.
- b. Examine the types of medical information/records each generates including but not limited to: Computer Assisted Tomography (CAT), Magnetic Resonance Imaging (MRI), Positron Emissions Tomography (PET), Ultrasound Imaging, X-Rays, arrhythmia monitoring, pulmonary monitoring, and Obstetrical/Neonatal monitoring.
- c. Discuss the impact of technology on diagnostic imaging techniques and treatments such as fiber optics and laser therapy.

**CTAE Foundation Skills**

The Foundation Skills for Career, Technical and Agricultural Education (CTAE) are critical competencies that students pursuing any career pathway should exhibit to be successful. As core standards for all career pathways in all program concentrations, these skills link career, technical and agricultural education to the state's academic performance standards.

The CTAE Foundation Skills are aligned to the foundation of the U. S. Department of Education's 16 Career Clusters. Endorsed by the National Career Technical Education Foundation (NCTEF) and the National Association of State

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Directors of Career Technical Education Consortium (NASDCTEc), the foundation skills were developed from an analysis of all pathways in the sixteen occupational areas. These standards were identified and validated by a national advisory group of employers, secondary and postsecondary educators, labor associations, and other stakeholders. The Knowledge and Skills provide learners a broad foundation for managing lifelong learning and career transitions in a rapidly changing economy.

**CTAE-FS-1 Technical Skills:** Learners achieve technical content skills necessary to pursue the full range of careers for all pathways in the program concentration.

**CTAE-FS-2 Academic Foundations:** Learners achieve state academic standards at or above grade level.

**CTAE-FS-3 Communications:** Learners use various communication skills in expressing and interpreting information.

**CTAE-FS-4 Problem Solving and Critical Thinking:** Learners define and solve problems, and use problem-solving and improvement methods and tools.

**CTAE-FS-5 Information Technology Applications:** Learners use multiple information technology devices to access, organize, process, transmit, and communicate information.

**CTAE-FS-6 Systems:** Learners understand a variety of organizational structures and functions.

**CTAE-FS-7 Safety, Health and Environment:** Learners employ safety, health and environmental management systems in corporations and comprehend their importance to organizational performance and regulatory compliance.

**CTAE-FS-8 Leadership and Teamwork:** Learners apply leadership and teamwork skills in collaborating with others to accomplish organizational goals and objectives.

**CTAE-FS-9 Ethics and Legal Responsibilities:** Learners commit to work ethics, behavior, and legal responsibilities in the workplace.

**CTAE-FS-10 Career Development:** Learners plan and manage academic-career plans and employment relations.

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**CTAE-FS-11 Entrepreneurship:** Learners demonstrate understanding of concepts, processes, and behaviors associated with successful entrepreneurial performance.