Health Science Career Cluster

1. Determine academic subject matter, in addition to high school graduation requirements, necessary for pursuing a health science career.

HL 1.1: Utilize knowledge of human structure and function to conduct health care role.
Sample Indicators:
- *Describe the basic structures and functions of cells, tissues, organs and systems as they relate to homeostasis.*
- *Compare relationships among cells, tissues, organs and systems.*
- *Explain body planes, directional terms, quadrants and cavities.*
- *Analyze the interdependence of the body systems as they relate to wellness, disease, disorders, therapies and care rehabilitation.*

HL 1.2: Utilize knowledge of diseases and disorders to conduct health care role.
Sample Indicators:
- *Compare selected diseases/disorders including respective classification(s), causes, diagnoses, therapies and care/rehabilitation to include biotechnological applications.*
- *Analyze methods to control the spread of pathogenic microorganisms.*
- *Contrast various types of immunities.*
- *Analyze body system changes in light of diseases, disorders and wellness.*
- *Compare the aging process among the body systems.*

2. Explain the healthcare worker's role within their department, their organization and the overall healthcare system.

HL 2.1: Explain systems theory as it applies to the health care environment.
Sample Indicators:
- *Describe systems theory and its components.*
- *Construct a general systems model using inputs, throughputs and a feedback loop.*

HL 2.2: Explain the concept of system change as it applies to the health care environment.
Sample Indicators:
- *Analyze the cause and effect on health care system change based on the influence of technology, epidemiology, bio-ethics, socio-economics and various forms of complimentary (non-traditional) medicine.*

HL 2.3: Understand the existing and potential hazards to clients, co-workers and self.
Sample Indicators:
- *Utilize safe work practices and follow health and safety policies and procedures.*

- *Diagram the interdependence of health care professions within a given health care delivery system and pertaining to the delivery of quality health care.*
- *Design a system analysis process that evaluates these outcomes: client satisfaction, productivity, cost effectiveness and efficiency.*
- *Evaluate the impact of enhanced technology on the health care delivery system.*

HL 2.4: Identify and explain key systems of the health care delivery system.
Sample Indicators:
- *Construct a health care delivery system model.*
- *Predict where and how factors such as cost, managed care, technology, an aging population, access to care, alternative therapies and lifestyle/behavior changes may affect various health care delivery system models.*
- *Project outcomes as interconnected components of a modified health care system.*
- *Calculate the cost effectiveness of two separate health care delivery systems using the same client procedure.*

3. **Identify existing and potential hazards to clients, co-workers, visitors and self in the healthcare workplace.**

HL 3.1: Explain infection control practices and procedures.
Sample Indicators:
- *Practice infection control procedures.*
- *Practice appropriate cleaning, disinfecting and sterilizing processes.*
- *Contrast medical and surgical asepsis.*

HL 3.2: Demonstrate personal safety practices.
Sample Indicators:
- *Manage a personal exposure incident in compliance with OSHA regulations.*
- *Apply principles of body mechanics and ergonomics.*
- *Use personal protective equipment (PPE) as appropriate to the environment.*

HL 3.3: Use techniques to insure environmental safety.
Sample Indicators:
- *Modify the environment to create safe working conditions.*
- *Demonstrate methods of fire prevention in the health care setting.*
- *Prevent accidents by using proper safety techniques.*
- *Practice good housekeeping by maintaining a safe work environment.*

HL 3.4: Identify common safety hazards.
Sample Indicators:
- *Use Materials Safety Data Sheets (MSDS).*

- *Recognize and adhere to hazardous labeling requirements.*
- *Comply with safety signs, symbols and labels.*
- *Implement appropriate action when observing a hazardous material problem.*
- *Apply safety principles within given environment.*
- *Recognize hazardous chemicals commonly used in the health care environment and utilize in an appropriate manner.*

HL 3.5: Describe healthy behaviors.
Sample Indicators:
- *Apply behaviors that promote health and wellness.*
- *Advocate available preventive health screening and examinations.*
- *Use practices that promote the prevention of disease and injury.*
- *Use appropriate safety practices as related to high-risk behaviors.*
- *Evaluate the validity of alternative health practices.*

HL 3.6: Utilize emergency procedures and protocols.
Sample Indicators:
- *Interpret the evacuation plan for the health care setting.*
- *Construct an emergency plan for a health care setting in response to a natural disaster or other emergency.*
- *Follow the facility procedure when a fire is discovered.*

4. **Evaluate the roles and responsibilities of individual members as part of the healthcare team and explain their role in promoting the delivery of quality health care.**

HL 4.1: Describe team member participation.
Sample Indicators:
- *Communicate verbally and nonverbally with team colleagues to assure a best result for the client.*
- *Collaborate with others to formulate team objectives.*
- *Identify responsible actions of team members to complete assigned tasks in a timely and effective manner.*
- *Recognize the importance of active listening to other team members.*
- *Exercise leadership skills as appropriate.*
- *Respect and value the expertise and contributions of all team members.*
- *Recognize the importance of working collaboratively with persons from diverse backgrounds to accomplish a common goal.*
- *Apply corrective action to an acknowledged conflict situation.*
- *Exhibit a strong sense of team identity and commitment to purpose.*

HL 4.2: Identify and describe health care teams.

Sample Indicators:
- *Apply the team concept in providing quality patient/client care.*
- *Recognize characteristics of effective teams.*
- *Analyze roles of various team participants.*
- *Formulate appropriate response to critical situations as a team member and/or leader.*
- *Recognize the necessity of compromise to ensure the appropriate outcome.*

HL 4.3: Employ communication strategies used in the delivery of quality health care.
Sample Indicators:
- *Identify social media technologies, electronic conferencing, Web pages and e-mail systems to communicate information to team members and colleagues.*
- *Develop and implement security requirements for storage and transmission of electronic health records.*
- *Train personnel on technologies, written communications and security measures for documenting, retrieval, storage and communication of health records.*

5. **Analyze the legal and ethical responsibilities, limitations and implications of actions within the healthcare workplace.**

HL 5.1: Describe legal implications affecting health care workers.
Sample Indicators:
- *Analyze legal responsibilities, limitations and implications of actions.*
- *Use problem-solving techniques when confronted with legal dilemmas or issues.*
- *Compare and contrast behaviors and practices that could result in malpractice, liability, or negligence.*
- *Identify and comply with policies and requirements for documentation and record keeping.*
- *Identify and comply with established risk management criteria and procedures.*
- *Evaluate if an incident is reportable.*
- *Identify and comply with non-discriminatory laws.*
- *Identify and comply with institutional policy and procedures.*

HL 5.2: Describe legal practices employed by health care workers.
Sample Indicators:
- *Perform duties according to regulations, policies, laws and legislated rights of clients.*
- *Manage clients' rights according to the Patients' Bill of Rights.*
- *Manage confidentiality according to Health Information Portability Access Act (HIPAA).*
- *Employ practices that adhere to licensure, certification, registration and legislated scope of practice.*
- *Apply the doctrine of informed consent.*
- *Evaluate technological threats to confidentiality.*
- *Employ mandated standards for workplace safety, i.e., OSHA, CDC, CLIA.*

- *Apply mandated standards for harassment, labor and employment laws.*

6. **Evaluate accepted ethical practices with respect to cultural, social and ethnic differences within the healthcare workplace.**

   HL 6.1: Describe legal and ethical boundaries in health care delivery.
   Sample Indicators:
   - *Differentiate between morality and ethics and the relationship of each to health care outcomes.*
   - *Differentiate between ethical and legal issues impacting health care.*
   - *Employ personal, professional and organizational ethics.*
   - *Analyze legal and ethical aspects of confidentiality.*
   - *Discuss bio-ethical issues related to health care.*
   - *Analyze and evaluate the implications of medical ethics.*

   HL 6.2: Describe ethical practice as it applies to health care delivery.
   Sample Indicators:
   - *Demonstrate professionalism when interacting with fellow students, patients/clients, co-workers and the organization.*
   - *Recognize and respect interdisciplinary roles of team members.*
   - *Report activities and behaviors by self and others that adversely affect the health, safety, or welfare of students, patients/clients, or co-workers.*
   - *Demonstrate fairness and equal treatment of all persons.*
   - *Practice responsibly within the ethical framework of the Patients' Bill of Rights.*
   - *Employ clients' independence and determination in their health care.*

   HL 6.3: Explain cultural, social and ethnic diversity as it applies to health care delivery.
   Sample Indicators:
   - *Discuss the impact of religions and cultures on those giving and receiving health care with an understanding of past and present events.*
   - *Demonstrate respect of individual cultural, social and ethnic diversity within the health care environment.*

Biotechnology Research & Development Career Pathway (HL-BRD)

1. **Summarize the goals of biotechnology research and development within legal and ethical protocols.**

   HL-BRD 1.1: Identify biotechnology's contributions to quality of life.
   Sample Indicators:
   - *Propose a biological or industrial enzyme that could be used for treating disease and contribute to the quality of life.*

- *Develop a list of environmental diseases or chronic conditions that have been or could be treated with biotechnology products.*

HL-BRD 1.2: Assess legal and ethical considerations associated with using biotechnology.
Sample Indicators:
- *Assess a current biotechnology-related ethical issue in the news.*
- *Discuss how a current biotechnology-related ethical issue may affect the quality of life.*

2. **Apply the fundamentals of biochemistry, cell biology, genetics, mathematical concepts, microbiology, molecular biology, organic chemistry and statistics to conduct effective biotechnology research and development of products.**

HL-BRD 2.1: Apply mathematical concepts to the field of biotechnology.
Sample Indicators:
- *Illustrate the concepts of percentages and ratios using a biotechnology application.*
- *Contrast weight-to-weight and weight-to-volume calculations for solutions.*
- *Explain scientific notation.*

HL-BRD 2.2: Use statistical data when conducting biotechnology research and development.
Sample Indicators:
- *Compare the standard deviation and the mean of data results from testing effectiveness of two biotechnology products.*
- *Graphically illustrate a set of biotech data such that a layman would understand it.*

HL-BRD 2.3: Apply genetic principles to biotechnology.
Sample Indicators:
- *Describe the basic structure of a chromosome.*
- *Construct a karyotype with human chromosomes.*
- *Differentiate the genetic inheritance of a dominant homozygous trait (e.g. dwarfism) from a heterozygous disease (e.g., sickle cell anemia).*

HL-BRD 2.4: Apply principles of organic chemistry to biotechnology.
Sample Indicators:
- *Construct a molecule of a compound with three or more carbon atoms.*
- *Create an equation of two organic substrates leading to a product.*
- *Describe atomic number, atomic mass and orbitals.*
- *Contrast covalent, ionic and hydrogen bonding.*

HL-BRD 2.5: Apply principles of biochemistry to biotechnology.
Sample Indicators:
- *Diagram six chemical side groups that could be in a biotechnology product.*

- *Categorize all amino acids into essential and non-essential.*
- *Describe the relationship between biochemistry and biotechnology product development.*
- *Compare the underlying reasons why some molecules are hydrophilic and some are hydrophobic.*

HL-BRD 2.6: Apply principles of cell biology to biotechnology.
Sample Indicators:
- *Describe the basic structures and functions of cells and how this knowledge is used in biotechnology.*
- *Select cellular barriers to be overcome for a biotechnology product to work inside a cell.*

HL-BRD 2.7: Apply principles of molecular biology to biotechnology.
Sample Indicators:
- *Diagram the structure of the nucleic acid DNA.*
- *Demonstrate DNA replication graphically and its importance to biotechnology product development.*
- *Describe the central dogma of molecular biology and how understanding this process impacts biotechnology research and development.*

HL-BRD 2.8: Apply principles of microbiology to biotechnology.
Sample Indicators:
- *Analyze how microorganisms are used in mass producing recombinant proteins.*
- *Compare and contrast bacterial, fungal and animal cells and how these similarities and differences affect biotechnology product development and production decisions.*
- *Compare and contrast the use of plasmids in bacterial transformation and the process of plasmid DNA isolation.*

3. **Demonstrate basic knowledge of recombinant DNA, genetic engineering, bioprocessing, monoclonal antibody production, nanotechnology, bioinformatics, genomics, proteomics and transcriptomics to conduct biotechnology research and development.**

HL-BRD 3.1: Identify techniques used in biotechnology.
Sample Indicators:
- *Describe the following techniques: recombinant DNA, genetic engineering, monoclonal antibody production, separation and purification of biotechnology products and bioprocessing.*
- *Identify uses of the following techniques: recombinant DNA, genetic engineering, monoclonal antibody production, separation and purification of biotechnology products and bioprocessing.*

HL-BRD 3.2: Identify trends in the field of biotechnology.
Sample Indicators:

- *Predict how nanotechnology, bioinformatics, proteomics, genomics and transcriptomics will create new career opportunities.*
- *Identify how the above career opportunities will impact health care environments.*

4. **Demonstrate the principles of solution preparation, sterile techniques, contamination control and measurement and calibration of instruments used in biotechnology research.**

HL-BRD 4.1: Use laboratory procedures to prepare solutions, sterilize, control contamination, use measurement instruments and calibrate instruments.
Sample Indicators:
- *Describe how molarity relates to solution preparation.*
- *Calculate the molarity of a given solution and measure the pH of this solution.*

HL-BRD 4.2: Apply biosafety protocols in the laboratory environment.
Sample Indicators:
- *Maintain a safe laboratory environment using biosafety protocols.*
- *Describe the criticality of the requirements of sterile techniques.*
- *Respond to a hypothetical laboratory accident appropriately as a member of a laboratory team.*

5. **Determine processes for product design and production and how that work contributes to an understanding of the biotechnology product development process.**

HL-BRD 5.1: Explain biotechnology product development processes.
Sample Indicators:
- *Diagram the process involved in making one biotech product in an industrial setting.*
- *Analyze the role of pre-clinical and clinical trials in biotechnology product development.*

HL-BRD 5.2: Explain regulations affecting the processes for biotechnology product development.
Sample Indicators:
- *Examine the role of a Quality Assurance person in this process.*
- *Define Current Good Manufacturing Practices (CGMP) and why it is important in biotech production.*

6. **Summarize and explain the larger ethical, moral and legal issues related to biotechnology research, product development and use in society.**

HL-BRD 6.1: Explain biotechnological implications on society.
Sample Indicators:
- *Differentiate between morality and ethics and the relationship of each to biotechnology health care product development.*
- *Discuss bioethical issues related to biogenetic products.*

- *Contrast personal, professional and organizational ethics.*

HL-BRD 6.1: Apply institutional protocols to biotech research and product development.
Sample Indicators:
- *Identify and comply with policies and requirements for documentation and record keeping.*
- *Identify and comply with institutional ethical policies and procedures.*

Diagnostics Career Pathway (HL-DIA)

1. **Communicate information within a healthcare environment and convey Communicate key diagnostic information to healthcare workers and patients in an accurate and timely manner.**

   HL-DIA 1.1: Employ effective oral communication techniques when communicating diagnostic information with departments and professionals.
   Sample Indicators:
   - *Assess the appropriate communication techniques based on the other's ability to understand.*
   - *Apply active listening skills using reflection, restatement and clarification.*
   - *Demonstrate courtesy to others, including self introduction.*
   - *Interpret verbal and nonverbal behaviors to augment communication within scope of practice.*
   - *Demonstrate interviewing skills.*

   HL-DIA 1.2: Employ effective written communication techniques when communicating diagnostic information with departments and professionals.
   Sample Indicators:
   - *Identify correct syntax and grammar appropriate to patient/client.*
   - *Report relevant information in a timely manner.*
   - *Distinguish between subjective and objective information when reporting.*
   - *Analyze communication for appropriate response and provide feedback.*
   - *Organize, write and compile technical information and summaries.*
   - *Use medical terminology in order to interpret, transcribe and communicate information, data and observations.*

2. **Assess and report patient's/client's health status in order to monitor and document patient progress.**

   HL-DIA 2.1: Assess patient's/client's health status using accepted processes.
   Sample Indicators:
   - *Analyze available information to assess patient/client viability.*
   - *Complete procedures for attaining information necessary that is not readily available.*
   - *Evaluate and appraise appropriateness of information.*

- *Evaluate patient and other client response to treatment and/or procedure.*
- *Document results accurately and appropriately.*

3. **Demonstrate the principles of body mechanics for positioning, transferring and transporting of patients/clients and perform them without injury to the patient/client or self.**

HL-DIA 3.1: Apply techniques for patient/client safety when positioning, transferring and transporting patients/clients.
Sample Indicators:
- *Assess the patient/client status.*
- *Evaluate potential hazards to patient/client.*
- *Identify and employ appropriate transport methods.*
- *Identify and employ appropriate transfer methods.*
- *Assess correct positioning to accommodate patient/client status.*
- *Identify and employ effective and appropriate infection control procedures.*

HL-DIA 3.2: Use equipment for positioning, transferring and transporting patients/clients safely.
Sample Indicators:
- *Evaluate equipment for possible hazards.*
- *Employ appropriate equipment for transportation.*
- *Employ appropriate equipment for transfer.*
- *Assess and adjust equipment and modify techniques to accommodate patient/client status.*
- *Practice preventive measures for disease transmission during equipment use.*

4. **Explain procedures and goals to the patient/client accurately and effectively, using strategies to respond to questions and concerns.**

HL-DIA 4.1: Explain procedures and goals to the patient/client accurately and effectively.
Sample Indicators:
- *Assess ability of patient/client to comprehend.*
- *Interpret assessment and modify.*
- *Assess patient/client understanding.*
- *Employ strategies for interacting with and responding to patient/client questions and concerns.*
- *Apply strategies for interacting with and responding to patient/client questions and concerns.*

5. **Select, demonstrate and interpret diagnostic procedures.**

HL-DIA 5.1: Perform specific procedures to create diagnostic results.
Sample Indicators:
- *Recognize scope of practice to be employed.*
- *Perform procedure competently within scope of practice.*

- *Perform procedure according to protocol.*
- *Assess and modify procedure, as required, within constraints of patient/client and personal safety.*

HL-DIA 5.2: Document diagnostic results.
Sample Indicators:
- *Summarize diagnostic results.*
- *Communicate diagnostic results to health care team.*

Health Informatics Career Pathway (HL-HI)

1. **Communicate health information accurately and within legal and regulatory guidelines, upholding the strictest standards of confidentiality.**

    HL-HI 1.1: Employ techniques for effectively communicating health/medical information within legal/regulatory guidelines.
    Sample Indicators:
    - *Manage the accuracy, effectiveness and timeliness of the transfer of information.*
    - *Evaluate how legal and regulatory requirements apply to the transfer of information.*
    - *Distinguish who in the organization needs information and when they need it.*

    HL-HI 1.2: Employ techniques for confidentially communicating health/medical information in compliance with legal/regulatory guidelines.
    Sample Indicators:
    - *Manage recorded information and other documents within protocols that ensure confidentiality and privacy.*
    - *Communicate information ensuring confidentiality of content is maintained.*
    - *Communicate information on a need-to-know basis for optimum patient/client outcomes.*

2. **Describe the content and diverse uses of health information.**

    HL-HI 2.1: Employ techniques for abstracting and coding information from medical records and documents.
    Sample Indicators:
    - *Interpret and extract information from medical records and documents.*
    - *Assemble appropriate, accurate information including proper codes to record charges for reimbursement.*
    - *Identify and apply accurate medical terminology.*
    - *Analyze and determine the need for requesting further clarification when transcribing/transferring information that may be unclear.*
    - *Assess and apply information for regulatory and legal purposes.*

HL-HI 2.2: Apply principles for the development of functional information systems to design and implement effective processes.
Sample Indicators:
- *Synthesize the information systems utilized by the organization.*
- *Assess how systems interact to facilitate the timely and accurate flow.*
- *Organize information within the parameters of the information systems.*
- *Integrate information for timely, accurate dissemination.*
- *Evaluate effectiveness of systems.*
- *Assess and recommend systems for improvement.*

HL-HI 2.3: Employ techniques for effectively documenting, communicating and maintaining health information within legal and regulatory guidelines.
Sample Indicators:
- *Assemble and accurately document required information.*
- *Interpret information that has been collected.*
- *Differentiate the purposes and audiences for whom the information is collected.*
- *Prepare accurate documentation for various audiences within legal and regulatory requirements, as requested.*
- *Disseminate information to various audiences using systems and guidelines within the facility.*
- *Establish and maintain a records storage system within legal requirements and protocols.*
- *Assess and recommend procedures for improvement as necessary.*

3. **Demonstrate the use of systems used to capture, retrieve and maintain confidential health information from internal and external sources.**

HL-HI 3.1: Employ techniques for effectively documenting, communicating and maintaining health information within legal and regulatory guidelines.
Sample Indicators:
- *Assemble and accurately document required information.*
- *Interpret information that has been collected.*
- *Differentiate the purposes and audiences for whom the information is collected.*
- *Prepare accurate documentation for various audiences within legal and regulatory requirements, as requested.*
- *Disseminate information to various audiences using systems and guidelines within the facility.*
- *Establish and maintain a records storage system within legal requirements and protocols.*
- *Assess and recommend procedures for improvement as necessary.*

HL-HI 3.2: Employ strategies for effectively and accurately operating a system used to capture, retrieve and maintain information from internal and external sources.
Sample Indicators:

- *Analyze the internal and external sources of information and resources available.*
- *Project outcomes as interconnected components of a modified health care system.*
- *Select the systems and sources of information necessary for the successful completion of the task.*
- *Participate in the design of operational systems and processes.*
- *Evaluate operational systems and processes for improvement.*

Support Services Career Pathway (HL-SUP)

1. Describe, differentiate and safely perform the responsibilities of healthcare support services roles.

HL-SUP 1.1: Perform administrative tasks following established internal and external guidelines.
Sample Indicators:
- *Develop and implement departmental mission statement, goals, objectives and strategic plan.*
- *Develop and implement departmental policies, procedures and processes. Modify as required.*
- *Coordinate departmental activities with other departments, outside agencies and contractors, including event planning and logistics.*
- *Implement new and existing services specific to the working environment and responsibilities.*
- *Implement an employee recognition program.*

HL-SUP 1.2: Apply strategies to measure safety and improve quality of support services provided.
Sample Indicators:
- *Monitor patient/client and organizational expectations through satisfaction survey and measurement tools to assure adequacy of products, services and performance improvement as necessary.*
- *Provide support of standardization, consolidation and/or re-engineering processes.*
- *Evaluate cost effectiveness of alternative methodologies.*
- *Perform quality management activities.*

HL-SUP 1.3: Perform support service tasks following established guidelines.
Sample Indicators:
- *Adhere to a code of ethics to ensure corporate compliance.*
- *Ensure compliance with legal, regulatory and accreditation standards or codes.*
- *Coordinate with environmental health agency to administer the hazardous materials management program.*
- *Coordinate with physicians, departmental directors/managers and outside agencies in the development of Emergency Preparedness Plans.*
- *Inspect buildings, facilities and grounds to ensure compliance with standards, regulations and codes.*
- *Evaluate work of staff to ensure compliance with applicable safety and building regulations.*

2. Demonstrate work practices that maintain a clean and healthy healthcare facility to reduce or eliminate pathogenic organisms.

HL-SUP 2.1: Perform cleaning and decontamination tasks using best practices for eliminating pathogenic organisms.
Sample Indicators:
- *Demonstrate various decontamination techniques and procedures.*
- *Demonstrate knowledge of standard precaution guidelines.*
- *Select procedures and precautions to be followed when using chemicals.*
- *Demonstrate techniques for mechanical and manual cleaning procedures.*
- *Evaluate potential causes and methods of transmitting infection.*
- *Integrate infection control standards with relevant activities and procedures.*

HL-SUP 2.2: Employ best safety practices for handling hazardous materials and managing waste.
Sample Indicators:
- *Develop, implement and monitor hazardous waste disposal and recycling policies and procedures in accordance with regulatory requirements.*
- *Assess and monitor the operations of a waste management program, including recycling and reduction of regulated medical, solid, hazardous chemical and radioactive and biological waste materials.*
- *Develop systems and procedures that minimize customer cost of ordering, storing and using supplies, services and equipment.*
- *Develop and implement a plan to safely handle, package, store and dispose of waste in accordance with federal, state and local regulations.*

HL-SUP 2.3: Employ best safety practices for handling and storing a variety of materials common to the health services environment.
Sample Indicators:
- *Demonstrate process and environmental requirements for proper handling and storage of sterile and non-sterile items.*
- *Demonstrate appropriate inventory control and distribution systems.*
- *Describe and implement a program to purchase materials, supplies and capital equipment within allocated resources.*
- *Evaluate the effectiveness of optimal material flow and layout.*
- *Recommend policies and procedures to monitor distribution, consumption and pilferage of materials.*
- *Provide adequate space to meet standards of storage.*

3. Follow established internal and external guidelines in order to provide high-quality, effective support services in the healthcare facility.

HL-SUP 3.1:
Sample Indicators:
- None available at this time

4. **Maximize available resources for proper care and use of healthcare equipment and materials.**

HL-SUP 4.1: Utilize financial information and data to make appropriate decisions regarding purchase and maintenance of equipment and materials.
Sample Indicators:
- *Implement and evaluate purchasing processes and agreements.*
- *Evaluate audit activities, including the review of discrepancies, purchase orders and invoices.*
- *Assess cost benefits that support best product recommendations.*
- *Explain competitive pricing, terms and service levels.*
- *Identify opportunities for reduction in resource consumption.*
- *Identify inventory reduction targets and implement to achieve targets.*

HL-SUP 4.2: Employ organizational protocols when making decisions about the use and maintenance of equipment.
Sample Indicators:
- *Review capital purchasing processes.*
- *Assess procedures and processes for the selection, acquisition, distribution and maintenance of equipment.*
- *Implement written instructions for the equipment manufacturer's operations manual and departmental policies and procedures.*
- *Design a preventive maintenance (PM) process for buildings, equipment, parts, supplies and utilities as appropriate.*
- *Develop and implement equipment systems training programs for maintenance staff and user groups.*

HL-SUP 4.3: Implement principles and organizational protocols when acquiring and distributing equipment and materials.
Sample Indicators:
- *Assess and implement purchasing and procurement techniques that improve the overall supply chain.*
- *Analyze timely order placement and supplier performance and continuously review for effectiveness.*
- *Assess a supplier's performance standards program.*
- *Organize catalogs, price lists, inventory records, purchase order files and product/supplier files, ensuring that they are updated and current.*

- *Assess and offer recommendations to departments requiring assistance in resource allocation.*
- *Assess the integration of resource functions.*
- *Evaluate distribution strategies and systems to ensure optimal materials flow.*
- *Maintain adequate quantities of supplies, equipment, instruments and medical devices.*

5. Implement healthcare facility standards in order to maintain high-quality healthcare facilities.

HL-SUP 5.1: Employ strategies to establish, maintain and improve the presentation of the facility's physical environment.
Sample Indicators:
- *Implement and participate in a comprehensive training and education program on safety, infection control, hazardous materials and new equipment use.*
- *Analyze labor distribution for projects and operations.*
- *Review and evaluate reporting mechanisms for departmental functions.*
- *Communicate with other departments on selection of facility finishes and furnishings following appropriate safety codes.*
- *Review and participate in the development of design and construction plans.*
- *Analyze the therapeutic and functional aspects of color décor and furnishing.*
- *Maintain facility accessibility as a clutter-free environment.*
- *Evaluate repair status of facility and report recommendations as appropriate.*
- *Organize, deliver and present products and services in a quality manner.*

Therapeutic Services Career Pathway (HL-THR)

1. Utilize communication strategies to answer patient/client questions and concerns on planned procedures and goals.

HL-THR 1.1: Employ effective oral communication techniques when responding to patient questions and concerns.
Sample Indicators:
- *Assess patients/clients' understanding of the information provided.*
- *Demonstrate empathy for patients/clients.*
- *Construct communication appropriate to the needs of the patient/client and the situation.*

HL-THR 1.2: Employ effective written communication techniques when responding to patient questions and concerns.
Sample Indicators:
- *Develop clearly written patient/client information and instructions.*
- *Keep written records as appropriate within facility policies and protocols.*

2. Communicate patient/client information among healthcare team members to facilitate a team approach to patient care.

HL-THR 2.1: Utilize facility protocol and regulatory guidelines for collecting patient/client health care needs, strengths and problems.
Sample Indicators:
- *Monitor and identify patient/client health care needs, strengths and problems.*
- *Select appropriate tools for information to be collected.*
- *Format and develop collected information.*
- *Maintain confidentiality according to facility protocol.*

HL-THR 2.2: Analyze team interactions that identify effective patterns of communication among team members.
Sample Indicators:
- *Distinguish appropriate role and responsibilities of each team member.*
- *Respect and value the expertise and contributions of all team members.*
- *Evaluate relevancy of information to be conveyed.*
- *Formulate and report information in a way that is clear and concise.*

3. Utilize processes for assessing, monitoring and reporting patient's/clients' health status to the treatment team within protocol and scope of practice.

HL-THR 3.1: Monitor patient/client using protocols for assessing, monitoring and reporting health status.
Sample Indicators:
- *Analyze and assess patient/client response.*
- *Assess need for follow-up and alternative care to treatment plan.*
- *Respond to patient/client health changes as prescribed by facility protocol.*
- *Evaluate patient/client response to administered treatments and procedures.*

HL-THR 3.2: Utilize strategies that support patient/client goals when developing treatment plans.
Sample Indicators:
- *Create a treatment plan using a problem-solving model, incorporating patient/client input.*
- *Select appropriate resources to implement treatment plan.*
- *Evaluate the plan for appropriate outcomes and intervention opportunities.*

HL-THR 3.3: Implement treatment plans that adhere to facility protocols, regulatory guidelines and scope of practice.
Sample Indicators:
- *Evaluate priorities in order to organize work.*

- *Use equipment and instruments according to the manufacturer's guidelines and accepted safety practice.*
- *Document actions according to facility protocol and regulatory guidelines.*

4. Evaluate patient/client needs, strengths and problems in order to determine if treatment goals are being met.

HL-THR 4.1: Employ accepted protocols for evaluating patient/client needs, strengths and problems during treatment.
Sample Indicators:
- *Identify appropriate evaluation tools to assess patient/client response to treatment plan.*
- *Analyze information gathered.*
- *Revise or create modifications to treatment plan based on patient/client response.*