

# Health Science and Medical Technology

Adopted 2013

## Knowledge and Performance

### 1 Academics 1.0

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### 2 Communications 2.0

- 1 Recognize the elements of communication using a sender–receiver model. 2.1
- 2 Identify barriers to accurate and appropriate communication. 2.2
- 3 Interpret verbal and nonverbal communications and respond appropriately. 2.3
- 4 Demonstrate elements of written and electronic communication such as accurate spelling, grammar, and format. 2.4
- 5 Communicate information and ideas effectively to multiple audiences using a variety of media and formats. 2.5
- 6 Advocate and practice safe, legal, and responsible use of digital media information and communications technologies. 2.6
- 7 Recognize major word parts of medical terminology including roots, prefixes and suffixes. 2.7
- 8 Understand and use correct medical terminology for common pathologies. 2.8

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### **3 Career Planning and Management** 3.0

- 1 Identify personal interests, aptitudes, information, and skills necessary for informed career decision making. 3.1
- 2 Evaluate personal character traits such as trust, respect, and responsibility and understand the impact they can have on career success. 3.2
- 3 Explore how information and communication technologies are used in career planning and decision making. 3.3
- 4 Research the scope of career opportunities available and the requirements for education, training, certification, and licensure. 3.4
- 5 Integrate changing employment trends, societal needs, and economic conditions into career planning. 3.5
- 6 Recognize the role and function of professional organizations, industry associations, and organized labor in a productive society. 3.6
- 7 Recognize the importance of small business in the California and global economies. 3.7
- 8 Understand how digital media are used by potential employers and postsecondary agencies to evaluate candidates. 3.8
- 9 Develop a career plan that reflects career interests, pathways, and postsecondary options. 3.9

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### **4 Technology** 4.0

- 1 Use electronic reference materials to gather information and produce products and services. 4.1
- 2 Employ Web-based communications responsibly and effectively to explore complex systems and issues. 4.2
- 3 Use information and communication technologies to synthesize, summarize, compare, and contrast information from multiple sources. 4.3
- 4 Discern the quality and value of information collected using digital technologies, and recognize bias and intent of the associated sources. 4.4
- 5 Research past, present, and projected technological advances as they impact a particular pathway. 4.5
- 6 Assess the value of various information and communication technologies to interact with constituent populations as part of a search of the current literature or in relation to the information task. 4.6

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## **5 Problem Solving and Critical Thinking** 5.0

- 1 Identify and ask significant questions that clarify various points of view to solve problems. 5.1
- 2 Solve predictable and unpredictable work-related problems using various types of reasoning (inductive, deductive) as appropriate. 5.2
- 3 Use systems thinking to analyze how various components interact with each other to produce outcomes in a complex work environment. 5.3
- 4 Interpret information and draw conclusions, based on the best analysis, to make informed decisions. 5.4
- 5 Know how to apply mathematical computations related to health care procedures (metric and household, conversions and measurements). 5.5
- 6 Read, interpret, and extract information from documents. 5.6

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## **6 Health and Safety** 6.0

- 1 Locate, and adhere to, Material Safety Data Sheet (MSDS) instructions. 6.1
- 2 Interpret policies, procedures, and regulations for the workplace environment, including employer and employee responsibilities. 6.2
- 3 Use health and safety practices for storing, cleaning, and maintaining tools, equipment, and supplies. 6.3
- 4 Practice personal safety when lifting, bending, or moving equipment and supplies. 6.4
- 5 Demonstrate how to prevent and respond to work-related accidents or injuries; this includes demonstrating an understanding of ergonomics. 6.5
- 6 Maintain a safe and healthful working environment. 6.6
- 7 Identify and follow ecological practices applicable to the health care setting (i.e., recycling, energy efficiency, environmentally preferable chemical use, waste disposal, and water conservation). 6.7
- 8 Be informed of laws/acts pertaining to the Occupational Safety and Health Administration (OSHA). 6.8

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## **7 Responsibility and Flexibility** 7.0

- 1 Recognize how financial management impacts the economy, workforce, and community. 7.1
- 2 Explain the importance of accountability and responsibility in fulfilling personal, community, and workplace roles. 7.2
- 3 Understand the need to adapt to changing and varied roles and responsibilities. 7.3
- 4 Practice time management and efficiency to fulfill responsibilities. 7.4
- 5 Apply high-quality techniques to product or presentation design and development. 7.5
- 6 Demonstrate knowledge and practice of responsible financial management. 7.6
- 7 Demonstrate the qualities and behaviors that constitute a positive and professional work demeanor, including appropriate attire for the profession. 7.7
- 8 Explore issues of global significance and document the impact on the Health Science and Medical Technology sector. 7.8

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## **8 Ethics and Legal Responsibilities** 8.0

- 1 Access, analyze, and implement quality assurance standards of practice. 8.1
- 2 Identify local, district, state, and federal regulatory agencies, entities, laws, and regulations related to the Health Science and Medical Technology industry sector. 8.2
- 3 Demonstrate ethical and legal practices consistent with Health Science and Medical Technology sector workplace standards. 8.3
- 4 Explain the importance of personal integrity, confidentiality, and ethical behavior in the workplace. 8.4
- 5 Analyze organizational culture and practices within the workplace environment. 8.5
- 6 Adhere to copyright and intellectual property laws and regulations, and use and appropriately cite proprietary information. 8.6
- 7 Conform to rules and regulations regarding sharing of confidential information, as determined by Health Science and Medical Technology sector laws and practices. 8.7

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## **9 Leadership and Teamwork** 9.0

- 1 Define leadership and identify the responsibilities, competencies, and behaviors of successful leaders. 9.1
- 2 Identify the characteristics of successful teams, including leadership, cooperation, collaboration, and effective decision-making skills as applied in groups, teams, and career technical student organization activities. 9.2
- 3 Understand the characteristics and benefits of teamwork, leadership, and citizenship in the school, community, and workplace setting. 9.3
- 4 Explain how professional associations and organizations and associated leadership development and competitive career development activities enhance academic preparation, promote career choices, and contribute to employment opportunities. 9.4
- 5 Understand that the modern world is an international community and requires an expanded global view. 9.5
- 6 Respect individual and cultural differences and recognize the importance of diversity in the workplace. 9.6
- 7 Participate in interactive teamwork to solve real Health Science and Medical Technology sector issues and problems. 9.7

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## **10 Technical Knowledge and Skills** 10.0

- 1 Interpret and explain terminology and practices specific to the Health Science and Medical Technology sector. 10.1
- 2 Comply with the rules, regulations, and expectations of all aspects of the Health Science and Medical Technology sector. 10.2
- 3 Construct projects and products specific to the Health Science and Medical Technology sector requirements and expectations. 10.3
- 4 Collaborate with industry experts for specific technical knowledge and skills. 10.4
- 5 Complete certification in emergency care as appropriate (cardiopulmonary resuscitation [CPR], automated external defibrillator [AED], first aid). 10.5

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**11 Demonstration and Application 11.0**

- 1 Utilize work-based/workplace learning experiences to demonstrate and expand upon knowledge and skills gained during classroom instruction and laboratory practices specific to the Health Science and Medical Technology sector program of study. 11.1
  - 2 Demonstrate proficiency in a career technical pathway that leads to certification, licensure, and/or continued learning at the postsecondary level. 11.2
  - 3 Demonstrate entrepreneurship skills and knowledge of self-employment options and innovative ventures. 11.3
  - 4 Employ entrepreneurial practices and behaviors appropriate to Health Science and Medical Technology sector opportunities. 11.4
  - 5 Create a portfolio, or similar collection of work, that offers evidence through assessment and evaluation of skills and knowledge competency as contained in the anchor standards, pathway standards, and performance indicators. 11.5
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## Pathway Standards

### A. Biotechnology

- 1 Define and assess biotechnology and recognize the diverse applications and impact on society. **A1.0**
  - 1 Use data to explain how biotechnology fields such as pharmaceuticals, agriculture, diagnostics, industrial products, instrumentation, and research and development are impacting human life. **A1.1**
  - 2 Describe the use of model organisms in biotechnology research and manufacturing. **A1.2**
  - 3 Recognize the role of innovation in creation of emerging biotechnology careers, including those in nanotechnology, biofuels, and forensics. **A1.3**
  - 4 Research and identify public misunderstandings related to biotechnology and discern the source of these misunderstandings. **A1.4**
  - 5 Evaluate the impact of biotechnological applications on both developing and industrial societies, including legal and judicial practices. **A1.5**
  - 6 Explore and outline the various science and non-science fields and careers associated with biotechnology. **A1.6**
- 2 Understand the ethical, moral, legal, and cultural issues related to the use of biotechnology research and product development. **A2.0**
  - 1 Know the relationship between morality and ethics in the development of biotechnology health care products. **A2.1**
  - 2 Know the difference between personal, professional, and organizational ethics. **A2.2**
  - 3 Understand the necessity for accurate documentation and record keeping. **A2.3**
  - 4 Understand the critical need for ethical policies and procedures for institutions engaged in biotechnology research and product development. **A2.4**
  - 5 Describe the dilemma of health care costs related to advancements in biotechnology and public access to treatments. **A2.5**
  - 6 Prepare a presentation comparing the benefits and harm that can be the result of biotechnology innovations in both the research and application phases and which course of action will result in the best outcomes. **A2.6**
- 3 Demonstrate competencies in the fundamentals of molecular cell biology, including deoxyribonucleic acid (DNA) and proteins and standard techniques for their purification and manipulation. **A3.0**
  - 1 Define and describe the structure and function of DNA ribonucleic acid (RNA) and proteins, explain the consequences of DNA mutations on proteins. **A3.1**
  - 2 Describe enzyme structure and function, diagram the impact of enzymes and catalysis on reaction rates, and recognize the emerging role of enzymes in replacing industrial chemicals. **A3.2**
  - 3 Employ standard techniques of DNA extraction, purification, restriction digests, bacterial cell culture, and agarose gel electrophoresis and document and evaluate results. **A3.3**

- 4 Employ standard protein techniques, including antibody production, enzyme assays, spectrophotometry, gel electrophoresis, and chromatography and document and evaluate results. [A3.4](#)
- 5 Predict outcomes of DNA and protein separation protocols. [A3.5](#)
- 4 Recognize basic concepts in cell biology and become familiar with the laboratory tools used for their analysis. [A4.0](#)
  - 1 List and describe the structure and function of cellular organelle. [A4.1](#)
  - 2 Describe conditions that promote cell growth under aseptic conditions in the laboratory and workplace. [A4.2](#)
  - 3 Use various methods to monitor the growth of cell cultures. [A4.3](#)
  - 4 Explain the basic concepts of cell growth and reproduction, DNA replication, mitosis, meiosis, and protein synthesis. [A4.4](#)
  - 5 Discuss the structure and function of the macromolecules that compose cells, including carbohydrates, lipids, DNA, RNA, and protein molecules. [A4.5](#)
  - 6 Distinguish between prokaryotic cells, eukaryotic cells, and viruses. [A4.6](#)
  - 7 Conduct indicator tests for the common macromolecules of the cell. [A4.7](#)
- 5 Integrate computer skills into program components. [A5.0](#)
  - 1 Use the Internet and World Wide Web to collect and share scientific information. [A5.1](#)
  - 2 Use a variety of methods, including literature searches in libraries, computer databases, and online for gathering background information, making observations, and collecting and organizing data. [A5.2](#)
  - 3 Compile labs (results, tables, graphs) in a legal scientific notebook and/or an Internet site or Web page. [A5.3](#)
- 6 Implement use of the metric system, orders of magnitude, and the pH scale in preparation of reagents, analysis of data, and graphing. [A6.0](#)
  - 1 Apply knowledge of symbols, algebra, and statistics to graphical data presentation. [A6.1](#)
  - 2 Prepare solutions based on both percent and weight composition to demonstrate proficiency in use of mechanical and digital microbalances. [A6.2](#)
  - 3 Calculate and prepare solutions of various molarity; calculate and prepare buffers of various pH; and prepare serial dilutions. [A6.3](#)
  - 4 Create data tables and graphs using Excel for the purpose of collecting and analyzing data. [A6.4](#)
- 7 Understand the function of regulatory agencies for the biotechnology industry and the lasting impact of routine laboratory and communication practices on product development and manufacturing. [A7.0](#)
  - 1 Identify agencies at the local, state, and federal levels. [A7.1](#)
  - 2 Be aware of the role of agencies in promoting patient safety, quality control, and entrepreneurship. [A7.2](#)

- 3 Describe intellectual property. [A7.3](#)
- 4 Understand a patent and use online resources to search a patent database. [A7.4](#)
- 5 Demonstrate accurate record keeping and follow good laboratory practice (GLP) for lab notebooks. [A7.5](#)
- 6 Articulate issues of ethical concern, including plagiarism, copyrights, trademarks, and patents and use online data resources and searchable databases to investigate a copyright, trademark, or patent. [A7.6](#)
- 8 Follow sustainable and safe practices with high regard for quality control. [A8.0](#)
  - 1 Follow written protocols and oral directions to perform a variety of laboratory and technical tasks. [A8.1](#)
  - 2 Recognize laboratory safety hazards using safe practices to avoid accidents. [A8.2](#)
  - 3 Locate and use Material Safety Data Sheets (MSDS). [A8.3](#)
  - 4 Outline the appropriate responses to a laboratory accident including identification of location and use of emergency equipment. [A8.4](#)
  - 5 Practice laboratory and personal safety including the location and use of emergency equipment (personal protective equipment, no food or drink, no open-toe shoes). [A8.5](#)
  - 6 Properly and safely use and monitor a variety of scientific equipment, including pH meters, microscopes, spectrophotometers, pipets, micropipets, and balances. [A8.6](#)
  - 7 Determine which equipment is appropriate to use for a given task and the units of measurement used. [A8.7](#)
  - 8 Perform specimen collection, label samples, and prepare samples for testing. [A8.8](#)
  - 9 Handle, transport, and store samples safely. [A8.9](#)
- 9 Understand that manufacturing represents inter-connectedness between science and production. [A9.0](#)
  - 1 Describe the major steps of a product's move through a company's product pipeline. [A9.1](#)
  - 2 Identify several products obtained through recombinant DNA technology. [A9.2](#)
  - 3 Outline the steps in production and delivery of a product made through recombinant DNA technology. [A9.3](#)
  - 4 Cite examples of plant parts or extracts used as pharmaceuticals. [A9.4](#)
  - 5 Use the Internet to find information about traditional pharmaceuticals, herbal remedies, and recombinant pharmaceuticals. [A9.5](#)
  - 6 Evaluate the impact of robotics and automation on aseptic processes. [A9.6](#)
  - 7 Design a flow chart describing the steps for creating a new drug from hypothesis to distribution. [A9.7](#)

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## B. Patient Care

- 1 Recognize the integrated systems approach to health care delivery services: prevention, diagnosis, pathology, and treatment. **B1.0**
  - 1 Know relationship and use of an integrated health care delivery system. **B1.1**
  - 2 Understand the range between prevention, diagnosis, pathology, and treatment procedures. **B1.2**
  - 3 Understand the significance of nontraditional approaches to health care in relationship to delivery systems. **B1.3**
  - 4 Illustrate the value of preventive and early intervention in relationship to health care practices. **B1.4**
  - 5 Describe the importance of reimbursement systems in relationship to the delivery of patient care. **B1.5**
- 2 Understand the basic structure and function of the human body and relate normal function to common disorders. **B2.0**
  - 1 Know basic human body structure and function in relationship to specific care between prevention, diagnosis, pathology, and treatment. **B2.1**
  - 2 Describe basic stages of growth and development. **B2.2**
  - 3 Recognize common disease and disorders of the human body. **B2.3**
  - 4 Compare normal function of the human body to the diagnosis and treatment of disease and disorders. **B2.4**
- 3 Know how to apply mathematical computations used in health care delivery system. **B3.0**
  - 1 Apply mathematical computations related to health care procedures (metric and household, conversions and measurements). **B3.1**
  - 2 Analyze diagrams, charts, graphs, and tables to interpret health care results. **B3.2**
  - 3 Record time using the 24-hour clock. **B3.3**
- 4 Recognize and practice components of an intake assessment relevant to patient care. **B4.0**
  - 1 Conduct basic interview to acquire new knowledge (e.g., medical and family histories). **B4.1**
  - 2 Identify and summarize major life events as they impact health care practices and patient outcomes. **B4.2**
  - 3 Observe patient actions, interests, and behaviors while documenting responses. **B4.3**
  - 4 Collect and synthesize information or data about the patient's symptoms and vital signs. **B4.4**
  - 5 Evaluate information gathered and connect patient data to appropriate system of care. **B4.5**

- 5 Know the definition, spelling, pronunciation, and use of appropriate terminology in the health care setting. **B5.0**
  - 1 Use medical terminology in patient care appropriate to communicate information and observations. **B5.1**
  - 2 Accurately spell and define occupationally specific terms related to health care. **B5.2**
  - 3 Use roots, prefixes, and suffixes to communicate information. **B5.3**
  - 4 Use medical abbreviations to communicate information. **B5.4**
  - 5 Know the basic structure of medical terms. **B5.5**
  - 6 Demonstrate the correct pronunciation of medical terms. **B5.6**
  - 7 Practice word building medical terminology skills. **B5.7**
- 6 Communicate procedures and goals to patients using various communication strategies to respond to questions and concerns. **B6.0**
  - 1 Observe and document the ability of patients to comprehend and understand procedures and determine how to adjust communication techniques. **B6.1**
  - 2 Use active listening skills (e.g., reflection, restatement, and clarification) and communication techniques to gather information from the patient. **B6.2**
  - 3 Formulate appropriate responses to address the patients concerns and questions in a positive manner. **B6.3**
  - 4 Employ sensitivity and withhold bias when communicating with patients. **B6.4**
  - 5 Report patient's progress and response to treatment goals. **B6.5**
  - 6 Maintain written guidelines of the Health Insurance Portability and Accountability Act (HIPAA) in all communications. **B6.6**
- 7 Apply observation techniques to detect changes in the health status of patients. **B7.0**
  - 1 Demonstrate observation techniques. **B7.1**
  - 2 Differentiate between normal and abnormal patient health status. **B7.2**
  - 3 Document the patient findings and report information appropriately. **B7.3**
  - 4 Plan basic care procedures within the scope of practice to assist with patient comfort. **B7.4**
- 8 Demonstrate the principles of body mechanics as they apply to the positioning, transferring, and transporting of patients. **B8.0**
  - 1 Explain the principles of body mechanics. **B8.1**
  - 2 Determine appropriate equipment for transportation and transfer, including the modification of equipment and techniques to accommodate the health status of the patient. **B8.2**
  - 3 Demonstrate appropriate transport and transfer methods to accommodate the health status of the patient. **B8.3**
  - 4 Evaluate equipment for possible hazards. **B8.4**

- 5 Integrate proper body mechanics, ergonomics, safety equipment, and techniques to prevent personal injury to patients and clients. **B8.5**
- 9 Implement wellness strategies for the prevention of injury and disease. **B9.0**
  - 1 Know and implement practices to prevent injury and protect health for self and others. **B9.1**
  - 2 Determine effective health and wellness routines for health care workers (i.e., stress management, hygiene, diet, rest, and drug use). **B9.2**
  - 3 Identify practices to prevent injuries and protect health, for self and others (i.e., seatbelts, helmets, and body mechanics). **B9.3**
  - 4 Know how to access available wellness services (i.e., screening, exams, and immunizations). **B9.4**
  - 5 Identify alternative/complementary health practices as used for injury and disease prevention. **B9.5**
  - 6 Explore consequences of not utilizing available wellness services and behaviors that prevent injury and illness. **B9.6**
- 10 Comply with protocols and preventative health practices necessary to maintain a safe and healthy environment for patients, health care workers, coworkers, and self within the health care setting. **B10.0**
  - 1 Describe the infection control cycle with consideration of the various types of microorganisms. **B10.1**
  - 2 Demonstrate use of facility policies and procedures of infection control while performing patient care. **B10.2**
  - 3 Evaluate potential causes and methods of transmitting infections and how to apply standard precautionary guidelines. **B10.3**
  - 4 Demonstrate the use of appropriate personal protective equipment (PPE). **B10.4**
  - 5 Practice proper hand hygiene. **B10.5**
  - 6 Use various manual and mechanical decontamination and sterilization techniques and procedures. **B10.6**
  - 7 Document and analyze sanitation and infection control procedures. **B10.7**
- 11 Comply with hazardous waste disposal policies and procedures, including documentation, to ensure that regulated waste is handled, packaged, stored, and disposed of in accordance with federal, state, and local regulations. **B11.0**
  - 1 Describe basic emergency procedures used to respond to a hazardous spill. **B11.1**
  - 2 Explain how waste is handled, packaged, stored, and disposed of in accordance with federal, state, and local regulations including hazardous chemicals, biohazards, and radioactive materials. **B11.2**
  - 3 Adhere to the health care setting's waste management program (e.g., recycling and reduction of regulated medical, solid, hazardous, chemical, and radioactive waste materials). **B11.3**

- 4 Apply protective practices and procedure for airborne and blood-borne pathogens for equipment and facilities and identify unsafe conditions for corrective action. [B11.4](#)
- 12 Adhere to the roles and responsibilities, within the scope of practice, that contribute to the design and implementation of treatment planning. [B12.0](#)
  - 1 Understand scope of practice and related skills within prevention, diagnosis, pathology, and treatment occupations. [B12.1](#)
  - 2 Describe the various roles and responsibilities of health care workers as team members in an integrated health care delivery system. [B12.2](#)
  - 3 Demonstrate the knowledge and delivery of specific skills and procedures as outlined within the scope of practice appropriate for patient care in prevention, diagnosis, pathology, and treatment. [B12.3](#)
  - 4 Follow appropriate guidelines for implementation of various procedures. [B12.4](#)
- 13 Research factors that define cultural differences between and among different ethnic, racial, and cultural groups and special populations. [B13.0](#)
  - 1 Utilize culturally appropriate community resources. [B13.1](#)
  - 2 Recognize complementary and alternative medicine as practiced within various cultures. [B13.2](#)
  - 3 Develop ethnographic skills, by location and information retrieval, carefully observe social behavior, and manage stress and time. [B13.3](#)
  - 4 Ask questions and explore aspects of global significance. [B13.4](#)
  - 5 Analyze data using relevant concepts. [B13.5](#)
  - 6 Know when and how to incorporate trained interpreters to facilitate communication and improve patient outcomes. [B13.6](#)

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## C. Health Care Administrative Services

- 1 Understand health care systems as the organization of people, institutions, funding, and resources as well as the broad scope of operations in which health care services are delivered to meet the health needs of target populations. **C1.0**
  - 1 Understand the specific roles and responsibilities of health care workers, including the health care administrative role of leadership for individuals and the organization within a variety of health care delivery systems. **C1.1**
  - 2 Recognize the resources necessary for a health system (e.g., financial, health informatics, diagnostic equipment, pharmaceuticals, and other therapeutic resources). **C1.2**
  - 3 Recognize the different general methods of funding health care (e.g., out-of-pocket payments, health insurance, government funding, charities). **C1.3**
  - 4 Recognize major specific payment systems (e.g., Medicare, Medicaid, Workers Compensation). **C1.4**
  - 5 Recognize the varied vital roles that health care administrative workers serve in the health care process. **C1.5**
  - 6 Understand the full process of health care delivery (e.g., from patient illness or injury to recovery). **C1.6**
  - 7 Understand common U.S. models for structuring health care funding (e.g., Health Maintenance Organizations [HMOs], Preferred Provider Organization [PPOs], Managed Care Organization [MCOs], and Independent Physician Association [IPAs]). **C1.7**
  - 8 Diagram a selected health care organization. **C1.8**
- 2 Understand the various health care provider and support roles in patient care as an integrated, comprehensive health care system, to offer the very best options for treatment of patients. **C2.0**
  - 1 Recognize health care identifiers (e.g., National Provider Indicator [NPI], Drug Enforcement Administration [DEA] numbers, and Clinical Laboratory Improvement Amendments [CLIA] numbers). **C2.1**
  - 2 Describe common medical record documentation formats (e.g., Subjective, Objective, Assessment, and Plan [SOAP] notes, admission notes). **C2.2**
  - 3 Understand the major forms of health care interventions (e.g., preventive, curative, palliative). **C2.3**
  - 4 Understand the difference between different patient care provider and support roles (e.g., health care administrator, clinical data specialist, health informatics technician, and billing and coding specialist). **C2.4**
- 3 Understand the overarching concepts of economic and financial management systems, system and information management, and the latest innovations in health care as they affect health care delivery. **C3.0**
  - 1 Understand the basics of business principles, systems thinking, and business management. **C3.1**

- 2 Understand operational planning and management tools for performance and quality improvement. [C3.2](#)
  - 3 Understand development of financial statements, statement generation, reimbursement systems, costing process, measurement, and control. [C3.3](#)
  - 4 Execute financial mathematics, e.g., time value of money calculations, capital budgeting, return on investment, and project risk analyses. [C3.4](#)
  - 5 Perform differential reimbursement calculations by payers (e.g., Medicare/Medicaid, self-pay, managed care) and describe the major principles of health insurance. [C3.5](#)
  - 6 Understand and explain economic evaluation (e.g., cost benefit/cost effectiveness analysis). [C3.6](#)
- 4 Know the role and relationship of public policies and community engagement on the health care delivery system. [C4.0](#)
    - 1 Understand community needs and values and the role of external relations (e.g., demographic/population contexts for development and management of health care services). [C4.1](#)
    - 2 Comprehend and explain the legal and regulatory environment for health services. [C4.2](#)
    - 3 Recognize and explain quantity of health care services. [C4.3](#)
    - 4 Analyze public policy context and choices relating to specific health care delivery systems. [C4.4](#)
  - 5 Understand and maintain standards of excellence, professional, ethical, and moral conduct required in management of personnel and policy within the health care delivery system. [C5.0](#)
    - 1 Understand the alignment of personal and organizational conduct management with ethical and professional standards. [C5.1](#)
    - 2 Know the organizational responsibility to the patient and community and a commitment to lifelong learning and improvement. [C5.2](#)
    - 3 Practice the philosophy of respect for life and the need for a balance of benefit over harm resulting from any intervention. [C5.3](#)
  - 6 Understand the dynamics of human relations, self-management, organizational, and professional leadership skills necessary within the health care administrative system. [C6.0](#)
    - 1 Identify leadership skills and explain their value to an organization. [C6.1](#)
    - 2 Understand image building and public relations techniques. [C6.2](#)
    - 3 Know and assess decision-making skills. [C6.3](#)
    - 4 Demonstrate effective teamwork and critical analysis applying conflict-resolution techniques. [C6.4](#)
    - 5 Examine the value of leadership skills, self-initiation, and confidence through personal reflection. [C6.5](#)
    - 6 Demonstrate parliamentary procedure skills through team activities. [C6.6](#)

- 7 Describe human resource management and its importance to the successful operation of an organization. **C6.7**
- 7 Follow the model of medical safety practices and processes that can help prevent system medication errors and understand the consequences of mistakes. **C7.0**
  - 1 Recognize the major consequences mistakes in health care may cause (e.g., deaths, lawsuits). **C7.1**
  - 2 Recognize the critical nature of accurate and complete documentation (e.g., medical allergies, conflicting prescriptions). **C7.2**
  - 3 Identify patients accurately using appropriate strategies (e.g., continual verification). **C7.3**
  - 4 Delineate the process for assessing information required by patients, staff, and the community to determine the best course of action. **C7.4**
- 8 Understand the resources, routes and flow of information within the health care system and participate in the design and implementation of effective systems or processes. **C8.0**
  - 1 Describe an effective health care information system, including resources, routes, and flow of information. **C8.1**
  - 2 Enter information within the parameters of the information system. (e.g., entering appropriate data types in the appropriate fields). **C8.2**
  - 3 Follow security guidelines to protect patient data. **C8.3**
  - 4 Evaluate the effectiveness of health information systems and determine improvement strategies. **C8.4**
- 9 Use an electronic health care patient information system to optimize the acquisition, storage, retrieval, and use of information in health and biomedicine. **C9.0**
  - 1 File records using various methodologies (e.g., alphabetically, by patient record number). **C9.1**
  - 2 Enter information within the parameters of the information system. (e.g., entering appropriate data types in the appropriate fields). **C9.2**
  - 3 Archive and purge documents following policies and regulatory guidelines. **C9.3**
  - 4 Compose a rationale that compares and contrasts the relative advantages and disadvantages of paper versus electronic records. **C9.4**
  - 5 Distinguish which type of documents must have hard copies retained, and which may be stored only in digital form. **C9.5**
- 10 Understand common file formats for document and medical imaging, digitizing paper records, and storing medical images. **C10.0**
  - 1 Understand basic document and medical imaging concepts (e.g., resolution, color-depth, compression). **C10.1**
  - 2 Understand common file formats for document and medical imaging (e.g., tagged image file format [TIFF], joint photographic experts group [JPEG], 2000). **C10.2**

- 3 Demonstrate how to scan paper records. [C10.3](#)
- 4 Calculate the approximate storage needs for digitized records and images. [C10.4](#)
- 5 Attach digitized records and medical images to patient records. [C10.5](#)
- 11 Know how to schedule and manage appointments for providers. [C11.0](#)
  - 1 Understand prioritizing methods (e.g., first-come, first-served; emergency appointments; types of procedures). [C11.1](#)
  - 2 Recognize the logistical challenges of appointments (e.g., quality of care versus cost of care). [C11.2](#)
  - 3 Manage provider general schedules (e.g., what days and times providers are available). [C11.3](#)
  - 4 Understand how to schedule patient appointments for providers. [C11.4](#)
  - 5 Explain how to communicate the status of an appointment to the provider. [C11.5](#)
- 12 Understand how to use health information effectively. [C12.0](#)
  - 1 Recognize the major uses of health information (e.g., patient care, billing, research). [C12.1](#)
  - 2 Determine which data components are necessary for the successful completion of tasks. [C12.2](#)
  - 3 Formulate and report information clearly and concisely. [C12.3](#)
  - 4 Disseminate information to various audiences. [C12.4](#)
- 13 Understand the need to communicate health/medical information accurately and within legal/regulatory bounds across the organization. [C13.0](#)
  - 1 Determine which communication methods patients have approved (e.g., e-mail, phone, voicemails). [C13.1](#)
  - 2 Determine who has been approved for receiving patient communications beyond the patient (e.g., family members, lawyers). [C13.2](#)
  - 3 Communicate with patients compassionately, accurately, and effectively. [C13.3](#)
  - 4 Use information technology for mass communications (e.g., mail merge, e-mail, auto-dialers). [C13.4](#)
- 14 Understand how to transfer information to third-parties. [C14.0](#)
  - 1 Recognize the types of third parties that may need patient information (e.g., specialists, pharmacies, insurance companies). [C14.1](#)
  - 2 Understand the laws and regulations regarding the transfer of information to a third party (e.g., when a company is a covered entity, when a business agreement is required). [C14.2](#)
  - 3 Use various technologies to transmit information securely (e.g., fax, electronic and postal mail). [C14.3](#)

- 15 Code health information and bill payers using industry standard methods of classification of diseases, current procedural terminology, and common health care procedure coding system. **C15.0**
  - 1 Understand the basic concepts of accrual-based accounting (e.g., accounts payable, accounts receivable, credits, debits). **C15.1**
  - 2 Understand medical record documentation (e.g., chart notes, injections, medications, lab reports). **C15.2**
  - 3 Synthesize required information from a medical record and other medical documents for a variety of purposes upon regulatory or legal request. **C15.3**
  - 4 Translate code services (e.g., diagnostic procedures, surgeries) using industry standard methods (e.g., International Classification of Diseases-ninth Ed. [ICD-9], Current Procedural Terminology-fourth Ed. [CPT-4], Healthcare Common Procedure Coding System [HCPCS]). **C15.4**
  - 5 Demonstrate how to bill third-party payers (e.g., insurance companies, Medicare). **C15.5**
  - 6 Receive and process information from third-party payers (e.g., Explanation of Benefits [EOB], Remittance Advice). **C15.6**
  - 7 Audit and analyze coding done by others to determine proper billing. **C15.7**
- 16 Use a systematic method of continual process improvement. **C16.0**
  - 1 Learn new knowledge and skills regularly (e.g., on-the-job-training [OJT], continuing education). **C16.1**
  - 2 Discover new knowledge through primary research methodologies (e.g., experiments, surveys, data analysis). **C16.2**

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## D. Health Care Operational Support Services

- 1 Describe the process for monitoring clients' expectations by using plans to promote satisfaction and measurement tools to ensure sufficiency of products and delivery of services. **D1.0**
  - 1 Understand the responsibilities of their roles and perform their tasks safely by using appropriate guidelines. **D1.1**
  - 2 Know how to provide support to standardization, consolidation, and re-engineering processes. **D1.2**
  - 3 Explain the importance of coordinating intradepartmental activities, including event planning and logistics, with outside agencies and contractors. **D1.3**
  - 4 Evaluate and determine a process operational systems improvement. **D1.4**
- 2 Assess basic operating procedures of support services. **D2.0**
  - 1 Identify activities that require coordination between various departments. **D2.1**
  - 2 Implement purchasing and procurement techniques. **D2.2**
  - 3 Develop a preventative maintenance program for equipment and services. **D2.3**
  - 4 Explain staffing needs and productivity. **D2.4**
  - 5 Develop reporting mechanisms for measuring productivity. **D2.5**
  - 6 Investigate systems and procedures that minimize customer cost of ordering, and storing and using supplies, services, and equipment. **D2.6**
  - 7 Integrate infection control standards with design and construction activities. **D2.7**
  - 8 Discuss the relationships among organization structures, policies, procedures, and quality assurance. **D2.8**
- 3 Comply with legal regulations and facility standards for design, construction, maintenance, and improvement of health care facilities and environments. **D3.0**
  - 1 Recognize physical, procedural, and electronic barriers. **D3.1**
  - 2 Describe the process for evaluating compliance with corporate, legal, regulatory, and accreditation standards, ethics, and codes. **D3.2**
  - 3 Adhere to the federal, state, and local regulations that apply to accreditation, design, and construction of a health care facility. **D3.3**
  - 4 Use appropriate action to maintain a facility in good repair (e.g., report, make recommendations, or repair). **D3.4**
  - 5 Analyze the therapeutic and functional aspects of color, decor, and furnishings as well as the process for coordinating facility furnishings and finishes in accordance with appropriate safety codes. **D3.5**
  - 6 Evaluate how risk management can apply to support services functions. **D3.6**

- 4 Comply with protocols and practices necessary to maintain a clean and healthy work environment. [D4.0](#)
  - 1 Demonstrate the use of appropriate personal protective equipment (PPE). [D4.1](#)
  - 2 Practice proper hand hygiene. [D4.2](#)
  - 3 Use various manual and mechanical decontamination and sterilization techniques and procedures. [D4.3](#)
  - 4 Evaluate potential causes and methods of transmitting infections and how to apply standard precautionary guidelines. [D4.4](#)
  - 5 Document and analyze sanitation and infection control procedures. [D4.5](#)
  - 6 Describe the care needed when handling chemicals. [D4.6](#)
  - 7 Describe basic emergency procedures used to respond to a hazardous spill. [D4.7](#)
  - 8 Explain how waste is handled, packaged, stored, and disposed of in accordance with federal, state, and local regulations, including hazardous chemicals, biohazards, and radioactive materials. [D4.8](#)
  - 9 Comply with hazardous waste disposal policies and procedures, including documentation, to ensure that regulated waste is handled, packaged, stored, and disposed of in accordance with federal, state, and local regulations. [D4.9](#)
  - 10 Implement a waste management program, including the recycling and reduction of regulated medical, solid, hazardous, chemical, and radioactive waste materials. [D4.10](#)
  - 11 Demonstrate protection from blood-borne pathogens and identify unsafe conditions for corrective action. [D4.11](#)
- 5 Use principles and techniques of resource management to make appropriate decisions. [D5.0](#)
  - 1 Identify components of a comprehensive training program for health care employees, including safety, infection control, handling of hazardous materials, and use of equipment. [D5.1](#)
  - 2 Follow procedures and processes for the selection, acquisition, distribution, and maintenance of equipment and understand preventive maintenance for buildings and equipment. [D5.2](#)
  - 3 Demonstrate the process for developing inventory-reduction targets to achieve the financial goals of health care organizations. [D5.3](#)
  - 4 Use distribution strategies and systems to ensure the optimal flow of materials. [D5.4](#)
  - 5 Understand a department's labor distribution reports to ensure the proper allocation of resources for projects and operations. [D5.5](#)
  - 6 Evaluate competitive pricing, terms, and service levels to support product recommendations. [D5.6](#)
- 6 Collect and distribute essential patient information to appropriate team members. [D6.0](#)

- 1 Recognize and report unusual or unsafe environmental conditions. [D6.1](#)
- 2 Recognize ethical conflicts related to assessment practices (e.g., labeling, confidentiality). [D6.2](#)
- 3 Document actions according to the facility's protocol and regulatory guidelines. [D6.3](#)
- 4 Maintain confidentiality according to the facility's protocol as well as the Health Insurance Portability and Accountability Act (HIPAA). [D6.4](#)
- 7 Assess and maintain materials for quality management. [D7.0](#)
  - 1 Describe risk management strategies. [D7.1](#)
  - 2 Describe the use of calibration. [D7.2](#)
  - 3 Use appropriate inventory and control systems to purchase materials, supplies, and capital equipment. [D7.3](#)
  - 4 Perform quality control activities using manuals and following directions appropriately. [D7.4](#)
  - 5 Maintain equipment (e.g., imaging, laboratory). [D7.5](#)
  - 6 Send, receive, and distribute material for services. [D7.6](#)
  - 7 Organize inventory, purchase orders, and products. [D7.7](#)
  - 8 Inspect facilities to ensure compliance with standards, regulations, and codes. [D7.8](#)
  - 9 Assess procedures and processes to select, acquire, and maintain inventory. [D7.9](#)
  - 10 Evaluate cost effectiveness of alternative methods for inventory control. [D7.10](#)
  - 11 Discuss policies and procedures to monitor, distribute, and consume materials. [D7.11](#)
- 8 Demonstrate handling and storage of materials, supplies, and equipment. [D8.0](#)
  - 1 Describe and implement a program to purchase materials, supplies, and capital equipment with allocated resources. [D8.1](#)
  - 2 Use appropriate safety equipment. [D8.2](#)
  - 3 Explain inventory control. [D8.3](#)
  - 4 Demonstrate appropriate inventory control systems (e.g., distribution, consumption, intentional loss of materials or supplies). [D8.4](#)
  - 5 Demonstrate proper care in handling and storage of sterile and non-sterile items. [D8.5](#)
- 9 Analyze the business structure of supply and service management. [D9.0](#)
  - 1 Describe the components of a purchasing agreement. [D9.1](#)
  - 2 Describe the supply chain process. [D9.2](#)
  - 3 Explain bids and quotes for supply and service selection. [D9.3](#)
  - 4 Explain competitive pricing. [D9.4](#)

- 5 Assess integration of resource functions. [D9.5](#)
- 6 Assess purchasing and procurement techniques that improve quality and supply. [D9.6](#)
- 7 Utilize technology and translate how it supports the supply chain process. [D9.7](#)
- 8 Discuss the cost benefits of supply and service selection. [D9.8](#)
- 9 Analyze the impact of timely order placement and supplier performance. [D9.9](#)
- 10 Demonstrate the ability to prepare, assemble, and deliver a nutritious, high-quality meal for the clients they serve. [D10.0](#)
  - 1 Prepare a food tray with the appropriate utensils and food items as prescribed to meet dietary requirements. [D10.1](#)
  - 2 Deliver trays to the specified area of the health care facility. [D10.2](#)
  - 3 Using National Health Occupations Students of America (HOSA) Nursing Assisting guidelines, prepare the patient for a meal. [D10.3](#)
  - 4 Using state and federal standards for examining food temperatures, follow guidelines for inspecting the safety of food. [D10.4](#)
- 11 Demonstrate and use the correct transport equipment. [D11.0](#)
  - 1 Assess the protocol for transporting a patient to surgery versus a patient to radiology. [D11.1](#)
  - 2 Practice proper body mechanics and safety measures while transferring a patient from an emergency room to the assigned room and document results of the transfer. [D11.2](#)
  - 3 Demonstrate and recite procedures about safe patient transport for interdepartmental transfers or upon discharge. [D11.3](#)
- 12 Understand the need for an effective emergency preparedness plan. [D12.0](#)
  - 1 Describe different types of emergency preparedness plans (e.g., homeland security, natural disaster, pandemic, crisis planning). [D12.1](#)
  - 2 Explain emergency procedures for staff, including supplies needed in the event of an internal or external disaster. [D12.2](#)
  - 3 Participate in educational and training programs related to emergency preparedness planning. [D12.3](#)
  - 4 Assess the Emergency Preparedness Plan. [D12.4](#)

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## E. Public and Community Health

- 1 Understand the context and scope of public health on improving health and quality of life in personal, community, and the global population. **E1.0**
  - 1 Understand written text about the history, philosophy, services, and careers in public health. **E1.1**
  - 2 Describe the environmental, behavioral, biological, and socio-economic factors as well as access, quality, intervention and cost of medical care that are central to communities and the population. **E1.2**
  - 3 Identify the roles and responsibilities of public health in addressing populations, health disparity, and disaster prevention and management. **E1.3**
  - 4 Explain how public health can utilize health information and health communications to improve the health of populations. **E1.4**
  - 5 Explain how public health can utilize social and behavioral interventions to improve the health of populations. **E1.5**
  - 6 Explain how public health can utilize health policy and law to improve the health of populations. **E1.6**
  - 7 Explain how public health assesses the options for intervention to improve the health of a population. **E1.7**
  - 8 Explain the impact of the environment and communicable diseases on the health of populations. **E1.8**
  - 9 Compare the scope of current public health policies with past practices. **E1.9**
  - 10 Defend health decisions, individual rights, and social responsibilities. **E1.10**
- 2 Design, promote, and implement community health programs which result in health-positive behaviors among all individuals, families, groups in a community, and the global environment. **E2.0**
  - 1 Know public policies that have an impact on people's health. **E2.1**
  - 2 Identify and document factors influencing people's health status through a strong grounding in social and behavioral theory. **E2.2**
  - 3 Understand various strategies to improve the health status of individuals and the community. **E2.3**
  - 4 Understand the many health disparities barriers to access among underserved communities. **E2.4**
  - 5 Develop specific competencies for work in underserved and/or linguistically isolated communities. **E2.5**
  - 6 Demonstrate competency in working with diverse cultures and communities. **E2.6**
  - 7 Demonstrate ways in which enhancing and maintaining personal health and well-being are established. **E2.7**
  - 8 Explain fiscal and organizational resources to ensure optimal health programs and service delivery in communities. **E2.8**

- 9 Expand health knowledge to provide information and referrals and advocacy on a range of health topics more effectively. [E2.9](#)
  - 10 Conduct outreach and health education at community sites with various cultural groups. [E2.10](#)
  - 11 Evaluate the process and outcome of community-based health education programs. [E2.11](#)
  - 12 Research the social, cultural, and behavioral factors influencing health outcomes. [E2.12](#)
- 3 Examine gerontology and its social implications using a life-span perspective that focuses on older adults' needs/concerns along life's continuum in various environments. [E3.0](#)
    - 1 Understand how the demographics of the older population affect various aspects of our society. [E3.1](#)
    - 2 Recognize the contributions that aging persons make to their communities. [E3.2](#)
    - 3 Define the life course perspective and describe how age, gender, race, and ethnicity influence the life course. [E3.3](#)
    - 4 Identify a range of available services for elders in most communities. [E3.4](#)
    - 5 Understand health disparities among older adults and their impact on society. [E3.5](#)
    - 6 Understand the role of service providers and the use of community recreation and health services in their involvement with older persons. [E3.6](#)
    - 7 Understand common threats to loss of independence: falls, medication management, and lifestyle. [E3.7](#)
    - 8 Advocate for technology to enhance older adults' function, independence, and safety. [E3.8](#)
    - 9 Assess how policies, regulations, and programs differentially impact older adults and their caregivers, particularly among historically disadvantaged populations. [E3.9](#)
    - 10 Differentiate between normal changes in functioning due to aging and pathological changes leading to disease. [E3.10](#)
    - 11 Analyze the impact of an aging society on the nation's health care system. [E3.11](#)
  - 4 Promote the protection, sustainability, and enhancement of the overall environmental quality of life. [E4.0](#)
    - 1 Identify the various environmental factors that affect a community's health and safety such as water quality, air quality, food supply, industrial hygiene, and solid and hazardous waste disposal. [E4.1](#)
    - 2 Identify human health hazards that may cause sickness or impaired health/well-being. [E4.2](#)

- 3 Identify the carriers or vectors that promote the transfer of these agents from the environment to the human. [E4.3](#)
  - 4 Interpret the principles of environmental health practices. [E4.4](#)
  - 5 Summarize health conditions that are caused or aggravated by environmental conditions. [E4.5](#)
  - 6 Discuss emerging global environmental health problems. [E4.6](#)
  - 7 Analyze current legislation and regulation regarding environmental issues. [E4.7](#)
  - 8 Explore approaches to control major environmental health problems. [E4.8](#)
- 5 Predict and evaluate rates, risk factors, and health status indicators of morbidity and mortality, disease determinants, and causation. [E5.0](#)
    - 1 Describe the historical roots of epidemiological thinking and its contribution to the evolution of the scientific method. [E5.1](#)
    - 2 Describe the basic epidemiological concepts of rates, causation, and public health surveillance. [E5.2](#)
    - 3 Generate hypotheses of patterns of disease and injuries regarding person, place, and time. [E5.3](#)
    - 4 Research data regarding disease or injuries, including rates, risk factors, disease determinants, and causation of morbidity and mortality. [E5.4](#)
    - 5 Explore the effects of disease, injury, and violence on longevity and quality of life. [E5.5](#)
    - 6 Evaluate methods to prevent, detect, cure, and minimize disease, injury, and violence in the population. [E5.6](#)
- 6 Integrate knowledge and skills necessary as a member of a Community Emergency Response Team (CERT) to demonstrate the response required to meet your community's immediate needs in emergencies or disasters. [E6.0](#)
    - 1 Describe the roles and responsibilities of a member of a Community Emergency Response Team (CERT) in immediate response. [E6.1](#)
    - 2 Describe potential hazards and their effect on the community. [E6.2](#)
    - 3 Describe prevention strategies in homes, workplaces, and communities. [E6.3](#)
    - 4 Identify planning and size-up requirements for potential search and rescue situations. [E6.4](#)
    - 5 Explain how the community has a role in disaster preparedness and response. [E6.5](#)
    - 6 Demonstrate preparation strategies to improve the quality of life for a person or community. [E6.6](#)
    - 7 Employ basic assessment, triage, and treatment as defined by CERT protocols under simulated disaster conditions. [E6.7](#)
    - 8 Demonstrate working as a team, applying safe techniques for debris removal, and victim extrication. [E6.8](#)

9 Describe the post-disaster emotional environment and the steps that rescuers can take to relieve their own stressors and trauma and those of disaster survivors. E6.9

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## F. Mental and Behavioral Health

- 1 Recognize and interpret principles of community engagement. **F1.0**
  - 1 Identify and describe prevention and early intervention barriers to mental health care. **F1.1**
  - 2 Define the psycho-education approach and describe how it is used as a tool to help consumers and their families learn more about managing their mental illness. **F1.2**
  - 3 Define the principles of community engagement and how they apply to community-based participatory research. **F1.3**
  - 4 Use and apply community-based participatory research methods to increase community participation and resources. **F1.4**
  - 5 Develop and explore basic outreach approaches that can be successful in increasing awareness about mental health services. **F1.5**
  - 6 Research and organize community resources that promote community wellness. **F1.6**
  - 7 Advocate community inclusion and social roles such as; supported housing, employment, education, parenting, citizenship, and anti-stigma. **F1.7**
- 2 Demonstrate the ability to build relationships by communicating empathy. **F2.0**
  - 1 Describe the elements of active listening. **F2.1**
  - 2 Demonstrate active listening by connecting new knowledge or experiences with prior knowledge and problem solving. **F2.2**
  - 3 Differentiate between giving advice and active listening by constructing real-life examples. **F2.3**
  - 4 Build strong verbal knowledge to frame language in ways that increase engagement. **F2.4**
  - 5 Recognize complex language semantics and make appropriate adaptations for the community being served. **F2.5**
  - 6 Build on communication by using motivational interviewing as an engagement tool. **F2.6**
- 3 Develop and employ collaboration skills that engage others and build trust. **F3.0**
  - 1 Define collaboration in a mental health context and build on prior knowledge by recalling collaborative experiences. **F3.1**
  - 2 Employ aspects of collaborative leadership that enhances decision making and consensus building. **F3.2**
  - 3 Explore and practice collaborative methods for working with special populations to increase their community capacity. **F3.3**
  - 4 Design innovative strategies to monitor and evaluate engagement. **F3.4**
- 4 Recognize and differentiate between the stages of mental health recovery. **F4.0**

- 1 Define four stages of mental health recovery (hope, empowerment, self-responsibility, and meaningful role in life) and demonstrate impact on complex mental health problems. F4.1
  - 2 Demonstrate the ability to formulate goals related to each of the four stages of recovery using a multiple-step process of goal setting. F4.2
  - 3 Compare and contrast a psychosocial rehabilitation and recovery model that supports each individual's potential for recovery versus a medical model that views abnormal behavior as the result of physical problems and should be treated medically. F4.3
  - 4 Integrate and apply four stages of recovery by designing a recovery plan based on goals that require real-world scenarios. F4.4
  - 5 Assess the implementation of the recovery plan and formulate alternative approaches to reach desired outcomes. F4.5
  - 6 Advocate for hope and respect, and believe that all individuals have the capacity for learning and growth. F4.6
  - 7 Examine ways in which one's recovery from mental illness can be measured. F4.7
- 5 Communicate and practice leadership and accountability behaviors. F5.0
    - 1 Identify strategies to work under pressure and cope with stress. F5.1
    - 2 Develop a basic understanding of various leadership styles that promote positive change in mental health services. F5.2
    - 3 Compare and contrast different leadership styles and accountability in mental health. F5.3
    - 4 Construct multiple steps to solve complex problems using real-world scenarios in mental health services. F5.4
- 6 Analyze and interpret elements of positive psychology (e.g., hope, resilience, strengths, creativity, community building, and supportive spirituality). F6.0
    - 1 Recall the recovery model and communicate how positive psychology impacts a mental health consumer's recovery. F6.1
    - 2 Interpret key terms from the positive psychology perspective in relationship to holistic wellness. F6.2
    - 3 Assess the impact of positive psychology's elements on risk reduction and integrated primary care. F6.3
    - 4 Build on the discovered strengths and capabilities of individuals. F6.4
- 7 Formulate and implement quality care and treatment plans. F7.0
    - 1 Define and describe practices that help individuals improve the quality of all aspects of their lives, including social, occupational, educational, spiritual, and financial. F7.1
    - 2 Identify and provide evidence for an effective collaborative approach in mental health recovery that is inclusive of the individual in need. F7.2

- 3 Practice promoting health and wellness, encouraging individuals to develop and use individualized wellness plans. F7.3
- 4 Design a treatment plan that addresses the unique needs of individuals, consistent with their values, hopes and aspirations. F7.4
- 5 Adhere to consistent documentation of implemented interventions and progress. F7.5
- 8 Synthesize, understand, and predict the impact of mental health disparities across consumer populations. F8.0
  - 1 Define mental health disparities. F8.1
  - 2 Organize and summarize knowledge on the impact of mental health disparities among different populations. F8.2
  - 3 Analyze causes for mental health disparities using current research methods and literature. F8.3
  - 4 Synthesize research articles related to mental health disparities and produce a statement problem on what causes such disparities. F8.4
- 9 Design a practice model of a personal support network by utilizing prior knowledge of recovery concepts and using natural supports within communities. F9.0
  - 1 Identify community-based self-help/peer support groups. F9.1
  - 2 Communicate with self-help/peer support groups in the community and generate information about their specific functions and responsibilities to the community they serve. F9.2
  - 3 Compare and contrast self-help/peer support groups to determine strengths and gaps in service delivery. F9.3
  - 4 Design a practice self-help/peer support group model that fills in the identified gaps and builds on the identified strengths. F9.4
  - 5 Examine the role that natural supports such as spiritual organizations, community centers, and other community-related resources play in an individual's mental health recovery. F9.5
- 10 Formulate an argument and predict how electronic health records can transform quality of care and promote a green economy. F10.0
  - 1 Access and become familiar with basic electronic health records functions. F10.1
  - 2 Analyze the effect of electronic health records on the quality of care and a green economy. F10.2
  - 3 List and describe at least five ways that electronic health records will advance a green economy. F10.3
  - 4 Distinguish between interoperability at the local primary care level and interoperability with statewide mental health systems in using electronic health records. F10.4
- 11 Recognize and respect the various cultures of a community and other factors that indicate its diversity in all aspects of communicating, designing, and implementing

patient care. **F11.0**

- 1 Identify and understand the patterns of communication including the use of languages. **F11.1**
  - 2 Communicate and listen effectively across cultures and all levels of care. **F11.2**
  - 3 Demonstrate appropriate judgment on when and how to use trained interpreters. **F11.3**
  - 4 Research factors that define cultural differences between and among different ethnic, racial, and special populations. **F11.4**
  - 5 Illustrate how to incorporate culturally appropriate community resources. **F11.5**
  - 6 Design and execute an ethnographic approach focusing on information retrieval, observing social behavior, managing stress and time, ask questions, explore aspects of global significance, and analyze data using relevant concepts. **F11.6**
- 12** Evaluate the purpose and components of a treatment plan related to the consumer's health status. **F12.0**
- 1 Understand the roles of a patient advocate to ensure treatment quality and resources. **F12.1**
  - 2 Explain the components of a treatment plan. **F12.2**
  - 3 Select appropriate equipment and instruments in accord with the treatment plan. **F12.3**
  - 4 Adhere to the roles and responsibilities, within scope of practice, that contribute to the design and implementation of a treatment plan. **F12.4**
  - 5 Prioritize and organize work in accordance with the patients' treatment plans. **F12.5**
  - 6 Determine the resources available for the effective implementation of treatment plans for patients. **F12.6**
- 13** Identify and apply leadership styles in personal growth and development. **F13.0**
- 1 Develop goal setting that leads to professional and career growth. **F13.1**
  - 2 Participate in student leadership and skill development activities such as California Health Occupations Students of America (Cal-HOSA). **F13.2**
  - 3 Employ self-regulation strategies that include self-monitoring and self-evaluation in approaching new and challenging tasks. **F13.3**
  - 4 Build and employ self-confidence to empower self and others. **F13.4**
  - 5 Refine and upgrade technical and clinical skills. **F13.5**
  - 6 Create and design a working portfolio that will be used for interviews for both postsecondary and employment acceptance. **F13.6**