

**Browse Quality Core Curriculum Standards by subject****Subject: Healthcare Science Technology****Grade: 9-12****Course: Healthcare Science Technology: Core Skills**

- 1** **Topic:** Basic Skills
Standard: Locate, understand, and interpret written information in a variety of formats, including such documents as manuals, graphs, reports, and schedules.
- 2** **Topic:** Basic Skills
Standard: Communicate thoughts, ideas, information, and messages in writing and technologically create documents such as letters, directions, manuals, reports, graphs, and flowcharts.
- 3** **Topic:** Basic Skills
Standard: Perform and apply numerical concepts and calculations, and solve problems by choosing appropriately from a variety of mathematical techniques using mental, manual, and technological methods.
- 4** **Topic:** Basic Skills
Standard: Receive, interpret, and respond to verbal and nonverbal messages in a manner appropriate to a given situation.
- 5** **Topic:** Basic Skills
Standard: Organize ideas and communicate orally in a clear, concise, and courteous manner.
- 6** **Topic:** Thinking Skills
Standard: Specify goals, objectives, constraints, and supporting factors.
- 7** **Topic:** Thinking Skills
Standard: Identify problems, alternative solutions, and consequences of alternative solutions, and use appropriate techniques to resolve given problems.
- 8** **Topic:** Thinking Skills
Standard: Implement a plan of action making modifications as needed to achieve stated objectives.
- 9** **Topic:** Thinking Skills
Standard: Use effective learning techniques to acquire and apply new knowledge and skills.
- 10** **Topic:** Personal Qualities
Standard: Assess self accurately, set personal goals, monitor progress, and exhibit self-control.
- 11** **Topic:** Personal Qualities
Standard: Choose ethical courses of action.
- 12** **Topic:** Personal Qualities
Standard: Take initiative to accomplish tasks in a timely manner.
- 13** **Topic:** Personal Qualities
Standard: Exert a high level of effort and persevere towards goal attainment.
- 14** **Topic:** Personal Qualities
Standard: Demonstrate adaptability, dependability, and responsibility and such social behaviors as tolerance, honesty, empathy, and courtesy.

- 15** **Topic:** Interpersonal Skills
Standard: Participate and interact as a team member and leader.
- 16** **Topic:** Interpersonal Skills
Standard: Share knowledge and skills with others.
- 17** **Topic:** Interpersonal Skills
Standard: Perform effectively in various environments with people of different ages, genders, cultures, socioeconomic backgrounds, attitudes, and abilities.
- 18** **Topic:** Interpersonal Skills
Standard: Work to satisfy customer/client expectations.
- 19** **Topic:** Interpersonal Skills
Standard: Use strategies appropriate to a given situation to prevent and resolve conflicts.
- 20** **Topic:** Resources
Standard: Select goal-relevant activities, prioritize them, manage time, and prepare and follow schedules.
- 21** **Topic:** Resources
Standard: Use or prepare budgets, make projections, keep records, and make adjustments to meet objectives.
- 22** **Topic:** Resources
Standard: Acquire, store, allocate, and use materials and space efficiently.
- 23** **Topic:** Technology
Standard: Prevent, identify, or solve problems with technical or electronic equipment.
- 24** **Topic:** Technology
Standard: Operate and maintain technical equipment and the work environment safely following applicable industry regulations and guidelines.
- 25** **Topic:** Technology
Standard: Utilize a variety of technologies.
- 26** **Topic:** Business Aspects
Standard: Demonstrate understanding of basic economic concepts and how they are applied in business functions and activities.
- 27** **Topic:** Business Aspects
Standard: Identify forms of business ownership.
- 28** **Topic:** Business Aspects
Standard: Demonstrate understanding of the scope of a business, its place within an industry, and the interrelationship of its parts.
- 29** **Topic:** Business Aspects
Standard: Demonstrate understanding of the individual's role, responsibilities, and relationships in the organizational structure of a business.
- 30** **Topic:** Business Aspects
Standard: Maintain safety, health, and environmental standards, and addresses ergonomic concerns.
- 31** **Topic:** Career Development
Standard: Make potential career decisions based upon interests, abilities, and values and formulate appropriate plans to reach career goals.
- 32** **Topic:** Career Development
Standard: Demonstrate understanding of the relationship between educational achievement and career planning and how career choices impact family patterns and lifestyle.
- 33** **Topic:** Career Development
Standard: Demonstrate effective skills for seeking and securing employment.

- 34** **Topic:** Career Development
Standard: Demonstrate understanding of education and career development as a lifelong learning process that requires preparation for change.

Course: Healthcare Science Technology: 25.52100 Introduction to HSTE

- 35** **Topic:** Industrial Safety Applications in the Healthcare Classroom/Laboratory/Clinics
Standard: Evaluate the need for safety precautions in the classroom, laboratory, and all clinical settings.
- 36** **Topic:** Industrial Safety Applications in the Healthcare Classroom/Laboratory/Clinics
Standard: Apply safety precautions in the HSTE classroom, laboratory, and all clinical facilities that are utilized.
- 37** **Topic:** Industrial Safety Applications in the Healthcare Classroom/Laboratory/Clinics
Standard: Demonstrate disaster preparedness procedures for each emergency situation - fire emergency evacuation plan, inclement weather, sniper attack, student (patient) out-of-control, and bomb threat.
- 38** **Topic:** Industrial Safety Applications in the Healthcare Classroom/Laboratory/Clinics
Standard: Compare and contrast the changes in the healthcare provider's role in emergency situations from one clinical setting to another.
- 39** **Topic:** Industrial Safety Applications in the Healthcare Classroom/Laboratory/Clinics
Standard: Acknowledge the responsibility of the healthcare provider (student) to clarify his/her emergency role in each clinical setting utilized.
- 40** **Topic:** Industrial Safety Applications in the Healthcare Classroom/Laboratory/Clinics
Standard: Identify common emergency codes used in healthcare facilities to notify staff of impending emergency procedures (Code 99, Dr. Twister, etc.) and acknowledges that these codes may vary in each facility utilized.
- 41** **Topic:** Industrial Safety Applications in the Healthcare Classroom/Laboratory/Clinics
Standard: Maintain a safe work environment and prevent accidents by using safety precautions including adherence to hazardous labeling requirements and compliance with safety signs, symbols, and labels.
- 42** **Topic:** Industrial Safety Applications in the Healthcare Classroom/Laboratory/Clinics
Standard: Demonstrate methods of fire prevention including location of extinguishers and alarms.
- 43** **Topic:** Industrial Safety Applications in the Healthcare Classroom/Laboratory/Clinics
Standard: Demonstrate appropriate action when observing a hazardous material problem.
- 44** **Topic:** Industrial Safety Applications in the Healthcare Classroom/Laboratory/Clinics
Standard: Demonstrate proper use of ergonomics and correct body mechanics when transferring patients or objects.
- 45** **Topic:** Healthcare Delivery Systems
Standard: Discuss history of healthcare and current trends such as access to care managed care, ambulatory care, aging population, alternative therapies, and lifestyle/behavior changes and how they may affect various healthcare delivery system models.
- 46** **Topic:** Healthcare Delivery Systems
Standard: Define, compare, and differentiate between services performed in diagnostic, therapeutic, environmental, and informational services within a given healthcare delivery system and pertaining to the delivery of quality healthcare.
- 47** **Topic:** Healthcare Delivery Systems
Standard: Identify and evaluate the services of two healthcare government agencies and two healthcare nonprofit agencies.
- 48** **Topic:** Healthcare Delivery Systems
Standard: Compare health insurance plans' deductibles, premiums, HMOs, and PPOs.
- 49** **Topic:** Healthcare Delivery Systems
Standard: Describe healthcare delivery systems as they relate to careers and services provided for healthcare and maintenance, and diagram the interdependence of healthcare professions within a given healthcare delivery system.

- 50** **Topic:** Healthcare Delivery Systems
Standard: Evaluate the impact of enhanced technology on the healthcare delivery system.
- 51** **Topic:** Healthcare Delivery Systems
Standard: Compare and contrast the educational and credentialing requirements for healthcare careers at the post-secondary level including the three most common collegiate degrees.
- 52** **Topic:** Healthcare Delivery Systems
Standard: Define and differentiate between licensure, registration, and certification as recognized by the healthcare industry.
- 53** **Topic:** Healthcare Delivery Systems
Standard: Design a simulated organizational chart and explain the importance of the chart.
- 54** **Topic:** Healthcare Delivery Systems
Standard: Construct a healthcare delivery system model.
- 55** **Topic:** Healthcare Delivery Systems
Standard: Discuss the impact of religions and cultures on those giving and receiving healthcare with a perspective of past and present events.
- 56** **Topic:** Healthcare Delivery Systems
Standard: Compare and contrast cultural differences including culturally acceptable gestures, terms, and common folk medicine practices indigenous to certain regions.
- 57** **Topic:** Healthcare Delivery Systems
Standard: Demonstrate respect for cultural, social, and ethnic diversity within the classroom and healthcare environment.
- 58** **Topic:** Introduction to Life Changes – The Process of Change - Development and Behavior
Standard: Describe the development of a fetus from conception to birth.
- 59** **Topic:** Introduction to Life Changes – The Process of Change - Development and Behavior
Standard: Evaluate the effects of alcohol, controlled substances, and tobacco on a fetus.
- 60** **Topic:** Introduction to Life Changes – The Process of Change - Development and Behavior
Standard: Discuss the developmental stage of 18 months to 3 years (toddlers) to include nutritional, safety, preventative health screenings, and immunizations.
- 61** **Topic:** Introduction to Life Changes – The Process of Change - Development and Behavior
Standard: Discuss the developmental stage of 4-8 years (preschool and elementary) to include nutritional, safety, and educational needs.
- 62** **Topic:** Introduction to Life Changes – The Process of Change - Development and Behavior
Standard: Discuss the developmental stage of 9-11 years (preadolescence) to include nutritional, safety, and educational needs.
- 63** **Topic:** Introduction to Life Changes – The Process of Change - Development and Behavior
Standard: Discuss preadolescence sexual development, physical changes, and emotional development.
- 64** **Topic:** Introduction to Life Changes – The Process of Change - Age Specific Care
Standard: Identify and compare common changes in the body systems that occur with each life stage.
- 65** **Topic:** Introduction to Life Changes – The Process of Change - Age Specific Care
Standard: Identify and compare common changes in the body systems that occur with aging.
- 66** **Topic:** Introduction to Life Changes – The Process of Change - Age Specific Care
Standard: Define health and wellness and identify behaviors that promote each.
- 67** **Topic:** Introduction to Life Changes – The Process of Change - Age Specific Care
Standard: Discuss Maslow’s Hierarchy of Needs.
- 68** **Topic:** Introduction to Life Changes – The Process of Change - Disabilities and Role Changes
Standard: Compare five debilitating illnesses including respective classification(s), causes, disorders, therapies, and care/rehabilitation to include biotechnological applications.

- 69** **Topic:** Introduction to Life Changes – The Process of Change - Disabilities and Role Changes
Standard: Identify seven common changes that occur following the loss of a bodily function and how they affect the goal of rehabilitation.
- 70** **Topic:** Ethical and Legal Responsibilities of a HealthCare Provider
Standard: Identify at least eight personal/professional traits or attitudes of an effective healthcare provider.
- 71** **Topic:** Ethical and Legal Responsibilities of a HealthCare Provider
Standard: Differentiate between morality and ethics and the relationship of each to healthcare outcomes.
- 72** **Topic:** Ethical and Legal Responsibilities of a HealthCare Provider
Standard: Differentiate between ethical and legal issues impacting healthcare.
- 73** **Topic:** Ethical and Legal Responsibilities of a HealthCare Provider
Standard: Contrast personal, professional, and organizational ethics.
- 74** **Topic:** Ethical and Legal Responsibilities of a HealthCare Provider
Standard: Discuss the American Hospital Associations "Patients Bill of Rights."
- 75** **Topic:** Ethical and Legal Responsibilities of a HealthCare Provider
Standard: Compare the differences between federal and state regulations of healthcare.
- 76** **Topic:** Ethical and Legal Responsibilities of a HealthCare Provider
Standard: Discuss the Omnibus Budget Reconciliation Act (OBRA).
- 77** **Topic:** Ethical and Legal Responsibilities of a HealthCare Provider
Standard: Discuss Professional Standards of Care and Georgia State Laws that regulate healthcare.
- 78** **Topic:** Ethical and Legal Responsibilities of a HealthCare Provider
Standard: Analyze the basic legal responsibilities of healthcare workers in regards to torts, malpractice, negligence, invasion of privacy, privileged communication, and the doctrine of informed consent.
- 79** **Topic:** Ethical and Legal Responsibilities of a HealthCare Provider
Standard: Discuss legal contracts and how they affect healthcare delivery.
- 80** **Topic:** Ethical and Legal Responsibilities of a HealthCare Provider
Standard: Discuss the Patient Self -Determination Act.
- 81** **Topic:** Ethical and Legal Responsibilities of a HealthCare Provider
Standard: Define bioethical issues and discuss advance directives, living wills, durable power of attorney, and other legal directives regarding medical treatment.
- 82** **Topic:** Ethical and Legal Responsibilities of a HealthCare Provider
Standard: Define and differentiate between policies and procedures and comply with the institutional policies and procedures.
- 83** **Topic:** Ethical and Legal Responsibilities of a HealthCare Provider
Standard: Analyze legal and ethical aspects of confidentiality and describe ways to maintain confidentiality of patient information.
- 84** **Topic:** Ethical and Legal Responsibilities of a HealthCare Provider
Standard: Discuss the importance of reporting and recording for the healthcare provider and report relevant information in order of occurrence including both subjective and objective information.
- 85** **Topic:** Ethical and Legal Responsibilities of a HealthCare Provider
Standard: Access patient medical records using the appropriate procedures and evaluate technological threats to confidentiality.
- 86** **Topic:** Ethical and Legal Responsibilities of a HealthCare Provider
Standard: Comply with established risk management criteria and procedures.
- 87** **Topic:** Ethical and Legal Responsibilities of a HealthCare Provider
Standard: Determine when an incident is reportable and complete a variance (incident/accident) report.
- 88** **Topic:** Ethical and Legal Responsibilities of a HealthCare Provider
Standard: Discuss why many healthcare facilities require their employees to adhere to specific personal appearance codes.

- 89** **Topic:** Concepts of Microbiology
Standard: Evaluate the need for asepsis in the health environment and utilize the principles of infection control including the medical aseptic handwash.
- 90** **Topic:** Concepts of Microbiology
Standard: Analyze ways microorganisms are spread, and analyze methods to destroy or control the spread of pathogenic microorganisms.
- 91** **Topic:** Concepts of Microbiology
Standard: Define, demonstrate, and use standard precautions as described in the rules and regulations set forth by the Occupational Safety and Health Administration (OSHA).
- 92** **Topic:** Concepts of Microbiology
Standard: Utilize personal protective equipment as appropriate to the environment including putting on and removing nonsterile procedure gloves.
- 93** **Topic:** Concepts of Microbiology
Standard: Utilize materials safety data sheets (MSDS).
- 94** **Topic:** Concepts of Microbiology
Standard: Define OSHA, CDC, and CLIA and explain each agency's role in healthcare safety.
- 95** **Topic:** Introduction to Medical and Technology Terminology and Abbreviations
Standard: Interpret basic medical abbreviations selected from a standard list.
- 96** **Topic:** Introduction to Medical and Technology Terminology and Abbreviations
Standard: Analyze and define medical terms utilizing common medical prefixes, suffixes, and word roots. Combines medical terms from word elements.
- 97** **Topic:** Introduction to Medical and Technology Terminology and Abbreviations
Standard: Utilize medical terminology within a scope of practice in order to interpret, transcribe, and communicate information, data, and observations.
- 98** **Topic:** Introduction to Anatomy and Physiology
Standard: Define anatomy, physiology, homeostasis, and metabolism.
- 99** **Topic:** Introduction to Anatomy and Physiology
Standard: Describe the basic structures and functions of cells, tissues, organs, and systems as they relate to homeostasis.
- 100** **Topic:** Introduction to Anatomy and Physiology
Standard: Explain relationship between cells, tissues, organs, and systems as they relate to homeostasis.
- 101** **Topic:** Introduction to Anatomy and Physiology
Standard: Identify eleven different body systems by naming organs and outline general functions of each system.
- 102** **Topic:** Introduction to Anatomy and Physiology
Standard: Define body planes, directional terms, quadrants, cavities, and locate.
- 103** **Topic:** Introduction to Anatomy and Physiology
Standard: Describe the anatomy and physiology of the cardiovascular and pulmonary systems.
- 104** **Topic:** Introduction to Anatomy and Physiology
Standard: Compare systemic and pulmonary circulation.
- 105** **Topic:** Introduction to Anatomy and Physiology
Standard: Discuss the etiology of at least three major cardiovascular and respiratory diseases and how to possibly prevent them.
- 106** **Topic:** Introduction to Community Safety – Adult Basic Life Support
Standard: Measure/record the carotid pulse and respiration for an adult victim of a simulated emergency.
- 107** **Topic:** Introduction to Community Safety – Adult Basic Life Support
Standard: Identify risk factors for heart attack and stroke.

- 108** **Topic:** Introduction to Community Safety – Adult Basic Life Support
Standard: Identify signs and symptoms of heart attack and stroke.
- 109** **Topic:** Introduction to Community Safety – Adult Basic Life Support
Standard: Demonstrate the use of personal protective devices and the use of standard precautions for disease prevention during cardiopulmonary resuscitation (CPR).
- 110** **Topic:** Introduction to Community Safety – Adult Basic Life Support
Standard: Discuss ethics and legalities of performing CPR including the “Good Samaritan Law.”
- 111** **Topic:** Introduction to Community Safety – Adult Basic Life Support
Standard: Identify when CPR may be discontinued once it has been initiated.
- 112** **Topic:** Introduction to Community Safety – Adult Basic Life Support
Standard: Perform one-person CPR in a simulation with mannequins.
- 113** **Topic:** Introduction to Community Safety – Adult Basic Life Support
Standard: Demonstrate the recovery position utilized in emergency situations.

Course: Healthcare Science Technology: 25.52200 Applications of HSTE

- 35** **Topic:** Vital Signs
Standard: Evaluate factors that may affect temperature, pulse, respirations, and blood pressure.
- 36** **Topic:** Vital Signs
Standard: Identify conditions requiring modification of temperature routine and identify alternative body sites used to measure body temperature.
- 37** **Topic:** Vital Signs
Standard: Demonstrate the ability to read a mercury thermometer and convert readings from Fahrenheit and centigrade.
- 38** **Topic:** Vital Signs
Standard: Demonstrate the ability to read tympanic thermometers.
- 39** **Topic:** Vital Signs
Standard: Identify pulse points on a patient’s body and when to utilize each.
- 40** **Topic:** Vital Signs
Standard: Analyze pulse deficits and report findings accurately.
- 41** **Topic:** Vital Signs
Standard: Verbalize normal parameters of vital signs for adults, children, and infants and when it is appropriate to notify supervisor regarding abnormalities.
- 42** **Topic:** Vital Signs
Standard: Demonstrate the ability to accurately take a patient’s vital signs using aseptic technique.
- 43** **Topic:** Vital Signs
Standard: Report and record temperature, pulse, respiration, and blood pressure manually on graphic sheets and electronically on mobile charts (when available) accurately and timely.
- 44** **Topic:** Community First Aid
Standard: Utilize standard precautions as designated by OSHA in all first aid simulations.
- 45** **Topic:** Community First Aid
Standard: Demonstrate first aid procedures to stop bleeding.
- 46** **Topic:** Community First Aid
Standard: Apply bandages and dressings using aseptic technique.

- 47 **Topic:** Community First Aid
Standard: Demonstrate first aid procedure for patient in shock.
- 48 **Topic:** Community First Aid
Standard: Demonstrate first aid procedure for patient who has fainted.
- 49 **Topic:** Community First Aid
Standard: Demonstrate first aid procedure for a burn patient.
- 50 **Topic:** Community First Aid
Standard: Demonstrate first aid procedure for bone and joint injuries.
- 51 **Topic:** Community First Aid
Standard: Demonstrate first aid procedure for heat exposure.
- 52 **Topic:** Community First Aid
Standard: Demonstrate first aid procedure for cold exposure.
- 53 **Topic:** Community First Aid
Standard: Demonstrate first aid procedure for poison ingestion.
- 54 **Topic:** Community First Aid
Standard: Demonstrate first aid procedure for sudden illness-convulsions/seizures.
- 55 **Topic:** Infection Control
Standard: Define and differentiate between antisepsis, disinfection, and sterilization.
- 56 **Topic:** Infection Control
Standard: Compare and contrast medically aseptic techniques with isolation techniques.
- 57 **Topic:** Infection Control
Standard: Evaluate the negative impact of nosocomial infections on healthcare delivery.
- 58 **Topic:** Infection Control
Standard: Document compliance with pertinent regulatory guidelines including OSHA's standards.
- 59 **Topic:** Applied Anatomy, Physiology, and Pathophysiology of the Body's Systems - Integumentary System
Standard: Analyze the integumentary system and its interdependence with other body systems as related to wellness, disease, disorders, therapies, and care rehabilitation.
- 60 **Topic:** Applied Anatomy, Physiology, and Pathophysiology of the Body's Systems - Integumentary System
Standard: Discuss the etiology of at least three major integumentary diseases and how to treat and/or prevent them.
- 61 **Topic:** Applied Anatomy, Physiology, and Pathophysiology of the Body's Systems - Digestive System
Standard: Analyze the digestive system and its interdependence with other body systems as related to wellness, disease, disorders, therapies, and care rehabilitation.
- 62 **Topic:** Applied Anatomy, Physiology, and Pathophysiology of the Body's Systems - Digestive System
Standard: Discuss the etiology of at least three major digestive diseases and how to treat and/or prevent them.
- 63 **Topic:** Applied Anatomy, Physiology, and Pathophysiology of the Body's Systems - Renal System
Standard: Analyze the renal system and its interdependence with other body systems as related to wellness, disease, disorders, therapies, and care rehabilitation.
- 64 **Topic:** Applied Anatomy, Physiology, and Pathophysiology of the Body's Systems - Renal System
Standard: Discuss the etiology of at least three major renal diseases and how to treat and/or prevent them.
- 65 **Topic:** Applied Anatomy, Physiology, and Pathophysiology of the Body's Systems - Skeletal and Muscular System
Standard: Analyze the skeletal and muscular systems and their interdependence with other body systems as related to wellness, disease, disorders, therapies, and care rehabilitation.
- 66 **Topic:** Applied Anatomy, Physiology, and Pathophysiology of the Body's Systems - Skeletal and Muscular Systems
Standard: Discuss the etiology of at least three major skeletal and muscular diseases and how to treat and/or prevent them.

- 67** **Topic:** Applied Anatomy, Physiology, and Pathophysiology of the Body's Systems - Nervous System
Standard: Analyze the nervous system and its interdependence with other body systems as related to wellness, disease, disorders, therapies, and care rehabilitation.
- 68** **Topic:** Applied Anatomy, Physiology, and Pathophysiology of the Body's Systems - Nervous System
Standard: Discuss the etiology of at least three major nervous diseases and how to treat and/or prevent them.
- 69** **Topic:** Applied Anatomy, Physiology, and Pathophysiology of the Body's Systems - Endocrine System
Standard: Analyze the endocrine system and its interdependence with other body systems as related to wellness, disease, disorders, therapies, and care rehabilitation.
- 70** **Topic:** Applied Anatomy, Physiology, and Pathophysiology of the Body's Systems - Endocrine System
Standard: Discuss the etiology of at least three major endocrine diseases and how to treat and/or prevent them.
- 71** **Topic:** Applied Anatomy, Physiology, and Pathophysiology of the Body's Systems - Lymphatic System
Standard: Analyze the lymphatic system and its interdependence with other body systems as related to wellness, disease, disorders, therapies, and care rehabilitation.
- 72** **Topic:** Applied Anatomy, Physiology, and Pathophysiology of the Body's Systems - Lymphatic System
Standard: Discuss the etiology of at least three major lymphatic diseases and how to treat and/or prevent them.
- 73** **Topic:** Applied Anatomy, Physiology, and Pathophysiology of the Body's Systems - Cardiovascular System
Standard: Analyze the cardiovascular system and its interdependence with other body systems as related to wellness, disease, disorders, therapies, and care rehabilitation.
- 74** **Topic:** Applied Anatomy, Physiology, and Pathophysiology of the Body's Systems - Cardiovascular System
Standard: Discuss the etiology of at least three major cardiovascular diseases and how to treat and/or prevent them.
- 75** **Topic:** Applied Anatomy, Physiology, and Pathophysiology of the Body's Systems - Respiratory System
Standard: Analyze the respiratory system and its interdependence with other body systems as related to wellness, disease, disorders, therapies, and care rehabilitation.
- 76** **Topic:** Applied Anatomy, Physiology, and Pathophysiology of the Body's Systems - Respiratory System
Standard: Discuss the etiology of at least three major respiratory diseases and how to treat and/or prevent them.
- 77** **Topic:** Applied Anatomy, Physiology, and Pathophysiology of the Body's Systems - Reproductive System
Standard: Analyze the reproductive system and its interdependence with other body systems as related to wellness, disease, disorders, therapies, and care rehabilitation.
- 78** **Topic:** Applied Anatomy, Physiology, and Pathophysiology of the Body's Systems - Reproductive System
Standard: Discuss the etiology of at least three major reproductive diseases and how to treat and/or prevent them.
- 79** **Topic:** Applied Anatomy, Physiology, and Pathophysiology of the Body's Systems - Special Senses
Standard: Identify the special senses and their interdependence with other body systems as related to wellness, disease, disorders, therapies, and care rehabilitation.
- 80** **Topic:** HealthCare Provider Basic Life Support Techniques
Standard: Differentiate between the definition of an infant and the definition of a child as related to emergency care.
- 81** **Topic:** HealthCare Provider Basic Life Support Techniques
Standard: Contrast an infant's risk factors for choking with a child's risk factors for choking.
- 82** **Topic:** HealthCare Provider Basic Life Support Techniques
Standard: Open obstructed airway of an infant unconscious (simulation).
- 83** **Topic:** HealthCare Provider Basic Life Support Techniques
Standard: Open obstructed airway of a child unconscious (simulation).
- 84** **Topic:** HealthCare Provider Basic Life Support Techniques
Standard: Perform one rescuer cardiopulmonary resuscitation on an infant (simulation).
- 85** **Topic:** HealthCare Provider Basic Life Support Techniques
Standard: Perform one rescuer cardiopulmonary resuscitation on a child (simulation).
- 86** **Topic:** HealthCare Provider Basic Life Support Techniques
Standard: Demonstrate rescue breathing for an infant (simulation).

- 87** **Topic:** HealthCare Provider Basic Life Support Techniques
Standard: Demonstrate rescue breathing for a child (simulation).
- 88** **Topic:** HealthCare Provider Basic Life Support Techniques
Standard: Contrast appropriate pulse sites for infants and children as compared to adults.
- 89** **Topic:** HealthCare Provider Basic Life Support Techniques
Standard: Contrast why children and infants suffer from cardiac arrest as compared to why adults suffer from cardiac arrest.
- 90** **Topic:** HealthCare Provider Basic Life Support Techniques
Standard: Demonstrate the recovery position for infants and children utilized in emergency care (simulation).
- 91** **Topic:** HealthCare Provider Basic Life Support Techniques - Automatic External Defibrillator Techniques
Standard: Discuss when automatic external defibrillator techniques are necessary.
- 92** **Topic:** Automatic External Defibrillator Techniques
Standard: Demonstrate the effective use of an automatic external defibrillator trainer.
- 93** **Topic:** Advanced Communication Skills for the HealthCare Provider
Standard: Prepare and record the medical history of a patient.
- 94** **Topic:** Advanced Communication Skills for the HealthCare Provider
Standard: Assist with patient teaching as prescribed.
- 95** **Topic:** Advanced Communication Skills for the HealthCare Provider
Standard: Orient patient to time/place using reality orientation techniques.
- 96** **Topic:** Advanced Communication Skills for the HealthCare Provider
Standard: Demonstrates the ability to accurately locate and interpret written information on patients' charts.
- 97** **Topic:** Advanced Communication Skills for the HealthCare Provider
Standard: Organize client records and files to maintain data as required on the patient's chart.
- 98** **Topic:** Advanced Applied Mathematics Apothecary's System
Standard: Recognize symbols of the apothecaries system and common equivalent values and convert measurements.
- 99** **Topic:** Advanced Applied Mathematics Apothecary's System
Standard: Calculate problems containing fractions within the apothecaries system.
- 100** **Topic:** Advanced Applied Mathematics Apothecary's System
Standard: Calculate dosages using the ratio and proportion method.
- 101** **Topic:** Advanced Applied Mathematics Apothecary's System
Standard: Convert from metric system to apothecary's system and vice versa.

Course: Healthcare Science Technology: 25.56100 Nursing Assistant

- 35** **Topic:** Health Care Systems
Standard: Describe the five basic functions of community health care facilities.
- 36** **Topic:** Health Care Systems
Standard: Discuss the services provided by long-term care facilities, short-term care facilities, home health care, and hospice; describe how each service is unique and interdependent.
- 37** **Topic:** Role Of The Nursing Assistant: Interpersonal Skills
Standard: Describe the impact of good work ethics, a healthy mental attitude, and the development of productive working relationships among staff members on quality health care delivery.
- 38** **Topic:** Role Of The Nursing Assistant: Interpersonal Skills
Standard: Discuss the Omnibus Budget Reconciliation Act's (OBRA) requirements for nursing assistants and the impact of these regulations on nursing assistant practice.

- 39** **Topic:** Role Of The Nursing Assistant: Interpersonal Skills
Standard: Analyze methods of conflict resolution and demonstrate how to deal with a disruptive individual (simulation).
- 40** **Topic:** Environmental Safety: Emergency Procedures, Disaster Preparedness
Standard: Maintain a safe work environment and prevent accidents by using safety precautions, including adherence to hazardous labeling requirements and compliance with safety signs, symbols, and labels.
- 41** **Topic:** Environmental Safety: Emergency Procedures, Disaster Preparedness
Standard: Locate all medical emergency supplies – backboard, crash cart, etc.
- 42** **Topic:** Environmental Safety: Emergency Procedures, Disaster Preparedness
Standard: Demonstrate cardiopulmonary resuscitation techniques and how to clear a foreign-body airway obstruction (Heimlich Maneuver) on both responsive and unresponsive patients, utilizing personal protective devices and the use of standard precautions for disease prevention. (OBRA)
- 43** **Topic:** Environmental Safety: Emergency Procedures, Disaster Preparedness
Standard: Demonstrate appropriate use and maintenance of an automated external defibrillator trainer.
- 44** **Topic:** Environmental Safety: Emergency Procedures, Disaster Preparedness
Standard: Define variance and demonstrate completion of a variance report.
- 45** **Topic:** Environmental Safety: Emergency Procedures, Disaster Preparedness
Standard: Demonstrate disaster preparedness procedures for each emergency situation: fire emergency, evacuation plan, inclement weather, sniper attack, bomb threat, and psychological/behavioral crisis.
- 46** **Topic:** Safety: Patient/Resident And The Nursing Assistant
Standard: Differentiate between infectious diseases and noninfectious diseases.
- 47** **Topic:** Safety: Patient/Resident And The Nursing Assistant
Standard: Demonstrate the use of standard precautions as described in the rules and regulations set forth by the Occupational Safety and Health Administration. (OBRA)
- 48** **Topic:** Safety: Patient/Resident And The Nursing Assistant
Standard: Demonstrate disposal and bagging of infectious materials, linens, equipment, and the terminal cleaning and disinfecting of a patient’s room, utilizing standard precautions.
- 49** **Topic:** Safety: Patient/Resident And The Nursing Assistant
Standard: Describe and demonstrate isolation technique, to include putting on an isolation gown, mask, gloves, and protective eyewear. (OBRA)
- 50** **Topic:** Safety: Patient/Resident And The Nursing Assistant
Standard: Demonstrate strategies for staying healthy/disability prevention while providing direct patient care, to include medical aseptic hand-wash, vaccinations, body mechanics, and ergonomics. (OBRA)
- 51** **Topic:** Safety: Patient/Resident And The Nursing Assistant
Standard: Identify when the use of restraints is acceptable and demonstrate assistance with the use of jacket, vest, ankle, mitt, wrist, and safety-belt restraints applying all safety measures.
- 52** **Topic:** Safety: Patient/Resident And The Nursing Assistant
Standard: Discuss and demonstrate all safety rules and reporting measures utilized during the application and use of restraints.
- 53** **Topic:** Safety: Patient/Resident And The Nursing Assistant
Standard: Discuss why oxygen is considered a medication and demonstrate safety rules when oxygen is in use and discontinued.
- 54** **Topic:** Safety: Patient/Resident And The Nursing Assistant
Standard: Identify the components of oxygen delivery systems and compare types of oxygen delivery devices including nasal cannula, nasal catheter, facemask, oxygen tent, and portable oxygen tank.

- 55** **Topic:** Communications: Patients, Visitors, And Staff-Observing, Charting, And Reporting
Standard: Demonstrate the ability to communicate with courtesy, empathy, tact, and emotional control with patients, visitors, and other staff members.
- 56** **Topic:** Communications: Patients, Visitors, And Staff-Observing, Charting, And Reporting
Standard: Discuss the different communication skills necessary for communicating with the pediatric patient and with non-English-speaking patients and their families.
- 57** **Topic:** Communications: Patients, Visitors, And Staff-Observing, Charting, And Reporting
Standard: Demonstrate dignified techniques for communicating with a patient who is visually impaired, hearing impaired, unresponsive, aphasic, and/or cognitively impaired.
- 58** **Topic:** Communications: Patients, Visitors, And Staff-Observing, Charting, And Reporting
Standard: Discuss the maintenance of patient records in a health care facility and the role of computers in the recording process.
- 59** **Topic:** Communications: Patients, Visitors, And Staff-Observing, Charting, And Reporting
Standard: Differentiate between subjective and objective information and discuss the guidelines for observing patients, to include respiration, senses, responses, movement, activities of daily living, appetite, pain/discomfort, skin, and elimination.
- 60** **Topic:** Communications: Patients, Visitors, And Staff-Observing, Charting, And Reporting
Standard: Demonstrate charting, utilizing the guidelines for accurate charting.
- 61** **Topic:** Communications: Patients, Visitors, And Staff-Observing, Charting, And Reporting
Standard: Identify and demonstrate appropriate manners when utilizing the call system and the telephone, answering the patient's call signal, and dealing with complaints and grievances. (OBRA)
- 62** **Topic:** Communications: Patients, Visitors, And Staff-Observing, Charting, And Reporting
Standard: Demonstrate how to teach a blind or deaf patient to use the call light.
- 63** **Topic:** Promoting Residents' Independence: Residents' Rights
Standard: Discuss strategies for promoting resident involvement in his/her decision-making process regarding the patient's activities of daily living, to include the special strategies for the passive patient.
- 64** **Topic:** Promoting Residents' Independence: Residents' Rights
Standard: Discuss the Patient's Bill of Rights and describe the impact on health care delivery in long- and short-term care facilities.
- 65** **Topic:** Promoting Residents' Independence: Residents' Rights
Standard: Differentiate between cultural diversity, religious preferences, and individual values and how each affect patients' attitudes toward their choices in health care.
- 66** **Topic:** Promoting Residents' Independence: Residents' Rights
Standard: Analyze the impact of ethical and legal issues in the provision of health care, to include abuse, mistreatment, neglect, exploitation, and confidentiality.
- 67** **Topic:** Body Mechanics: Positioning, Moving, And Transporting A Patient
Standard: Demonstrate safe management of bed position, side rails, wheelchair (locking wheels), stretcher, transfer belt, and other transfer devices. (OBRA)
- 68** **Topic:** Body Mechanics: Positioning, Moving, And Transporting A Patient
Standard: Demonstrate these positions using the correct supportive devices: supine, prone, semi-Fowler's, lateral, trendelenberg, lithotomy, and Sims's position.
- 69** **Topic:** Body Mechanics: Positioning, Moving, And Transporting A Patient
Standard: Demonstrate the transfer of a patient, with and without assistance, to a wheelchair, mechanical lift, stretcher, and backboard. (OBRA)
- 70** **Topic:** Body Mechanics: Positioning, Moving, And Transporting A Patient
Standard: Demonstrate positioning a passive and responsive patient up in the bed with and without a drawsheet; turning or rolling a patient away from you and positioning onto side; turning or rolling a patient toward you and positioning onto side; and logrolling a patient. (OBRA)

- 71** **Topic:** Body Mechanics: Positioning, Moving, And Transporting A Patient
Standard: Define orthostatic hypotension and demonstrate assisting a patient to sit and dangle to lessen the effects of orthostatic hypotension. (OBRA)
- 72** **Topic:** Body Mechanics: Positioning, Moving, And Transporting A Patient
Standard: Identify patients who are at risk for falls and demonstrate how to assist the falling patient.
- 73** **Topic:** Assessment Measurements: Vital Signs And Height/Weight
Standard: Demonstrate the ability to measure and record/document vital signs accurately and identify when to report abnormalities and to whom. (OBRA)
- 74** **Topic:** Assessment Measurements: Vital Signs And Height/Weight
Standard: Describe the guidelines for obtaining accurate height and weight measurements and demonstrate measurements of each for an ambulatory patient, a bedridden patient, and a patient in a wheelchair. (OBRA)
- 75** **Topic:** Admission, Transfer, And Discharge: Assisting With Physical Examination
Standard: Demonstrate ways the nursing assistant can assist in the process of admission, to include the physical examination, transfer, and discharge. (OBRA)
- 76** **Topic:** Admission, Transfer, And Discharge: Assisting With Physical Examination
Standard: Analyze the various patient positions and basic instruments for a physical examination.
- 77** **Topic:** Patient Comfort Measures: Bathing And Personal Hygiene
Standard: Discuss and demonstrate all safety precautions as well as the patient's need for privacy and dignity in providing bathing and comfort measures, to include cleansing the incontinent patient. (OBRA)
- 78** **Topic:** Patient Comfort Measures: Bathing And Personal Hygiene
Standard: List the purposes of oral hygiene, identify patients who require frequent oral hygiene, and demonstrate provision and assistance of a patient's oral hygiene, to include proper handling of dentures, brushing teeth, and flossing for both ambulatory and nonambulatory patients. (OBRA)
- 79** **Topic:** Patient Comfort Measures: Bathing And Personal Hygiene
Standard: Demonstrate giving a full bath, partial bath, whirlpool bath, cleaning male and female perineal areas, shampooing a bedridden resident's hair, cleaning and trimming the fingernails (nondiabetic patients only), giving a back rub, shaving the patient, caring for the resident's eyeglasses, and removing and inserting a hearing aid. (OBRA)
- 80** **Topic:** Patient Comfort Measures: Bathing And Personal Hygiene
Standard: Assist ambulatory residents with a shower/bath and changing the hospital gown or dressing and undressing in personal clothes. (OBRA)
- 81** **Topic:** Patient Comfort Measures: Bathing And Personal Hygiene
Standard: Demonstrate the guidelines for handling clean and contaminated linens and making a postoperative bed, surgical bed, closed bed, and open, fanfolded, empty, and occupied bed. (OBRA)
- 82** **Topic:** Nutrition And Diet Modifications; I&O
Standard: Describe the essential nutrients and what is meant by normal nutrition and alternative nutrition.
- 83** **Topic:** Nutrition And Diet Modifications; I&O
Standard: State the purposes of therapeutic diets and list the foods allowed on the five basic facility diets.
- 84** **Topic:** Nutrition And Diet Modifications; I&O
Standard: Describe the nursing assistant actions when patients are unable to drink fluids independently.
- 85** **Topic:** Nutrition And Diet Modifications; I&O
Standard: Convert ounces to cubic centimeters and demonstrate how the measurements are taken and accurately recorded for a patient on an intake and output sheet. (OBRA)
- 86** **Topic:** Nutrition And Diet Modifications; I&O
Standard: Demonstrate preparing a patient for a meal, serving a meal to a patient in bed, serving a meal to a blind patient, and feeding the patient who cannot feed himself or herself.
- 87** **Topic:** Assisting With Elimination And Specimen Collection: Enemas And Catheter Care
Standard: Describe the "rights" of collecting specimens and discuss the following: collecting a routine urine specimen, collecting a clean-catch urine specimen, collecting a 24-hour urine specimen, collecting a stool specimen, and collecting a sputum specimen. (OBRA Content)

- 88** **Topic:** Assisting With Elimination And Specimen Collection: Enemas And Catheter Care
Standard: Demonstrate assisting a patient with using a bedpan, offering a urinal to a male patient, bladder and bowel training, providing care for a catheter, and emptying a urine drainage bag and measuring urinary output. (OBRA)
- 89** **Topic:** Assisting With Elimination And Specimen Collection: Enemas And Catheter Care
Standard: Identify different types of enemas, state the purpose of each, and when possible demonstrate in simulations: a cleansing enema; a ready-to-use oil retention enema; the Harris Flush (Return-Flow enema); the use of the disposable rectal tube with connected flatus bag; and the care of a patient who has a colostomy or ileostomy. (OBRA Content)
- 90** **Topic:** Therapies: Warm And Cold Applications
Standard: Discuss the physical conditions requiring heat and cold applications and safety concerns/guidelines related to the application of each.
- 91** **Topic:** Therapies: Warm And Cold Applications
Standard: Discuss and simulate the application of a heat lamp, an Aquamatic hydrothermal k-pad, a sitz bath, warm soaks, cold soaks, and a cold pack. (OBRA)
- 92** **Topic:** Care Of The Elderly: Rehabilitation
Standard: Describe the psychological aspects of rehabilitative care.
- 93** **Topic:** Care Of The Elderly: Rehabilitation
Standard: Describe the roles of each member of the rehabilitation team and discuss the goals and principles of holistic rehabilitation.
- 94** **Topic:** Care Of The Elderly: Rehabilitation
Standard: Explain the role of the nursing assistant in rehabilitation care.
- 95** **Topic:** Care Of The Elderly: Rehabilitation
Standard: Demonstrate the principles and rules of range of motion exercises for patients in rehabilitative care. (OBRA)
- 96** **Topic:** Surgical Patient
Standard: Describe the psychological and physical preparation of the patient preoperatively and discuss the items included on the preoperative checklist.
- 97** **Topic:** Surgical Patient
Standard: Demonstrate nursing assistant duties including the pre-op shave and post-op assistance of patients in coughing, deep breathing, and putting on and removing elastic stockings. (OBRA)
- 98** **Topic:** Surgical Patient
Standard: Describe possible complications in the postoperative period, and identify the nursing assistant's responsibilities in caring for the patient and reporting complications.
- 99** **Topic:** Special Care: Maternal Infant Nursing Care
Standard: Discuss the trimesters of pregnancy, tests performed during the prenatal period, and reportable observations of patients in the prenatal period.
- 100** **Topic:** Special Care: Maternal Infant Nursing Care
Standard: Describe the signs of impending labor and identify three methods of pain relief during labor and delivery.
- 101** **Topic:** Special Care: Maternal Infant Nursing Care
Standard: Discuss the dilation stage, expulsion stage, placental stage, and postpartum stage and the role of the nursing assistant in each.
- 102** **Topic:** Special Care: Maternal Infant Nursing Care
Standard: Identify why Cesarean delivery may be performed.
- 103** **Topic:** Special Care: Maternal Infant Nursing Care
Standard: Demonstrate care of the newborn's umbilical cord, circumcision, changing a newborn's diaper, bottlefeeding a newborn, weighing the newborn, and assisting a new mother with breastfeeding her newborn.
- 104** **Topic:** Special Care: Mental Health And Social Services
Standard: Define mental health and explain the interrelatedness of physical and mental health.

- 105** **Topic:** Special Care: Mental Health And Social Services
Standard: Identify the signs and symptoms of maladaptive behavior (delirium, confusion, and disorientation) that should be documented and reported.
- 106** **Topic:** Special Care: Mental Health And Social Services
Standard: Demonstrate nursing assistant actions in providing care for patients with adaptive and maladaptive reactions.
- 107** **Topic:** Special Care: Mental Health And Social Services
Standard: Describe major mental disorders that afflict people on long-term care, to include Alzheimer's disease, and depression.
- 108** **Topic:** Death And Dying: Postmortem Care
Standard: Identify cultural differences related to the process of death and dying.
- 109** **Topic:** Death And Dying: Postmortem Care
Standard: Discuss the five stages of grief and the response of the nursing assistant.
- 110** **Topic:** Death And Dying: Postmortem Care
Standard: Describe the physical signs of impending death.
- 111** **Topic:** Death And Dying: Postmortem Care
Standard: Describe the hospice philosophy and method of care.
- 112** **Topic:** Death And Dying: Postmortem Care
Standard: Demonstrate postmortem care in a simulation. (OBRA)
- 113** **Topic:** Trends In Home Care: Home Health Aides
Standard: Describe the history of home health care and define the role of the home health aide including the home health aide certification process.
- 114** **Topic:** Trends In Home Health Care: Home Health Aides
Standard: Discuss the need for a criminal background check as an employment condition in the home health field and how liability issues impact the provision of home health care, including client confidentiality, professional ethics, legal responsibilities, and patient's rights.
- 115** **Topic:** Trends In Home Health Care: Home Health Aides
Standard: Describe the types of patient and expense information a home health aide must be able to document and demonstrate the completion of expense reimbursement forms including mileage and timesheets.
- 116** **Topic:** Trends In Home Health Care: Home Health Aides
Standard: Demonstrate three time management techniques applicable to home health care.
- 117** **Topic:** Trends In Home Health Care: Home Health Aides
Standard: Differentiate among Medicare, Medicaid, private insurance, and private pay as it applies to home health care.
- 118** **Topic:** Trends In Home Health Care: Home Health Aides
Standard: Discuss problems that may arise when the elderly live with family members including abuse and abandonment of the elderly by the family.
- 119** **Topic:** Trends In Home Health Care: Home Health Aides
Standard: Explain how to handle/report common emergency situations in the home care setting.
- 120** **Topic:** Home Health Aide: Client Care Skills
Standard: Demonstrate infection control in the home care setting and contrast how it differs from that of an inpatient environment.
- 121** **Topic:** Home Health Aide: Client Care Skills
Standard: Discuss how position and transfers in the home care environment differ from those in-hospital care and demonstrate "no assist" transfers of patient.
- 122** **Topic:** Home Health Aide: Client Care Skills
Standard: Describe oxygen use in the home health setting and discuss patient education and safety precautions.

- 123** **Topic:** Home Health Aide: Client Care Skills
Standard: Identify how a home health aide can assist the client in complying with medications, therapeutic treatments, and scheduling health care appointments.
- 124** **Topic:** Home Health Aide: Home Management Skills
Standard: Perform a safety survey of the home environment, identify specific emergencies related to home heating equipment/personal-heating equipment, and demonstrate fire safety procedures.
- 125** **Topic:** Home Health Aide: Home Management Skills
Standard: Demonstrate proper techniques for using electrical appliances.
- 126** **Topic:** Home Health Aide: Home Management Skills
Standard: Assess types of pest control for home use and methods of providing home security.
- 127** **Topic:** Home Health Aide: Home Management Skills
Standard: Discuss policies regarding accidents/injuries that occur in the home as they affect the client and/or the home health aide.
- 128** **Topic:** Home Health Aide: Home Management Skills
Standard: Demonstrate how to purchase food, clothing, and household goods in keeping with a budget.

Course: Healthcare Science Technology: 25.56200 First Responder

- 35** **Topic:** Introduction to Emergency Medical Care
Standard: Evaluate the essential components of an Emergency Medical System.
- 36** **Topic:** Introduction to Emergency Medical Care
Standard: Differentiate the roles and responsibilities of the First Responder from other prehospital/out-of-hospital care providers.
- 37** **Topic:** Introduction to Emergency Medical Care
Standard: Demonstrate the responsibilities of a First Responder in accordance with the standard of an EMS professional.
- 38** **Topic:** Well-Being of the First Responder
Standard: Define, demonstrate, and use standard precautions as described in the rules and regulations set forth by the Occupational Safety and Health Administration (OSHA).
- 39** **Topic:** Well-Being of the First Responder
Standard: Analyze the need to determine scene safety prior to attempting to provide any emergency medical care.
- 40** **Topic:** Well-Being of the First Responder
Standard: Evaluate the utilization of personal protective equipment (PPE) necessary for each of the following situations: hazardous materials; rescue operations; violent scenes; crime scenes; electricity, water and ice; exposure to bloodborne pathogens; and exposure to airborne pathogens.
- 41** **Topic:** Well-Being of the First Responder
Standard: Discuss the emotional aspects of emergency medical care and methods of reducing/alleviating stress.
- 42** **Topic:** Well-Being of the First Responder
Standard: Demonstrate correct handling and disposal of all sharps.
- 43** **Topic:** Medical, Legal, and Ethical Issues
Standard: Discuss the First Responder's scope of care and differentiate between paid First Responder's services and volunteer services.
- 44** **Topic:** Medical, Legal, and Ethical Issues
Standard: Analyze the legal impact of abandonment, negligence, battery, advanced directives, consent, refusals, and confidentiality.

- 45** **Topic:** Medical, Legal, and Ethical Issues
Standard: Verbalize the conditions that require a First Responder to notify local law enforcement officials.
- 46** **Topic:** Anatomy and Physiology
Standard: Summarize the importance of the First Responder's knowledge of the body's anatomy and physiology in relation to providing competent care and accurate communication to other health care providers.
- 47** **Topic:** Anatomy and Physiology
Standard: Demonstrate knowledge of the body's anatomy and physiology to provide competent patient care and accurate communication to other health care providers.
- 48** **Topic:** Lifting and Moving
Standard: Demonstrate proper safety applications with correct body mechanics when transferring or packaging patients or objects, utilizing various emergency medical transfer devices.
- 49** **Topic:** Lifting and Moving
Standard: Differentiate and demonstrate emergency moves and nonemergency moves that may be utilized by the First Responder.
- 50** **Topic:** Lifting and Moving
Standard: Summarize the First Responder's role in packaging and carrying patients as identified by local jurisdiction.
- 51** **Topic:** Airway Management
Standard: Explain the rationale for basic life-support artificial ventilation and airway protective skills taking priority over most other basic life-support skills.
- 52** **Topic:** Airway Management
Standard: Differentiate between the signs of adequate breathing and those of inadequate breathing.
- 53** **Topic:** Airway Management
Standard: Relate the mechanism of injury to opening the airway.
- 54** **Topic:** Airway Management
Standard: Demonstrate opening and maintaining a patent airway for adult, child, and infant victims.
- 55** **Topic:** Scene Size-Up/Initial Assessment
Standard: Analyze the components of scene size-up.
- 56** **Topic:** Scene Size-Up/Initial Assessment
Standard: Describe common hazards found at the scene of a trauma and a scene involving a medical patient.
- 57** **Topic:** Scene Size-Up/Initial Assessment
Standard: Explain the rationale for identifying the need for additional help or assistance.
- 58** **Topic:** Scene Size-Up/Initial Assessment
Standard: Determine priorities of patient care and skills required to continue the assessment and management of the ill or injured patient.
- 59** **Topic:** History Baseline Vital Signs and SAMPLE
Standard: Describe and demonstrate the components of the physical exam, ongoing assessment, and assessment for external bleeding.
- 60** **Topic:** History Baseline Vital Signs and SAMPLE
Standard: Summarize the components of the SAMPLE history and demonstrate questioning a patient to obtain a SAMPLE history.
- 61** **Topic:** History Baseline Vital Signs and SAMPLE
Standard: Describe and demonstrate the First Responder "hand-off" report.
- 62** **Topic:** History Baseline Vital Signs and SAMPLE
Standard: Demonstrate the skills that should be used to obtain information from the patient, family, or bystanders at the scene.

- 63** **Topic:** History Baseline Vital Signs and SAMPLE
Standard: Demonstrate the ability to accurately assess, record, and report vital signs.
- 64** **Topic:** Focused History/Physical Exam-Trauma Patient and Medical Patient
Standard: Discuss the rationale for performing a focused history and a physical exam.
- 65** **Topic:** Focused History/Physical Exam-Trauma Patient and Medical Patient
Standard: Differentiate between the detailed physical exam of the trauma patient and that of the medical patient and demonstrate each.
- 66** **Topic:** Focused History/Physical Exam-Trauma Patient and Medical Patient
Standard: Demonstrate the rapid trauma assessment that should be used to assess a patient, based on mechanism of injury.
- 67** **Topic:** Focused History/Physical Exam-Trauma Patient and Medical Patient
Standard: Differentiate between the assessment that is performed on the unresponsive or altered mental status patient and that of the responsive medical patient and demonstrate each.
- 68** **Topic:** Public Safety Communications
Standard: Demonstrate the appropriate use of public safety communications systems and equipment (fire pagers, two-way radios, scanners, etc.).
- 69** **Topic:** Public Safety Communications
Standard: Discuss confidentiality issues regarding the use of public safety communications equipment.
- 70** **Topic:** Public Safety Communications
Standard: Identify the essential components of the verbal report given to incoming public safety personnel and provide a brief, organized report that would be given to advanced life-support providers arriving at the incident.
- 71** **Topic:** Public Safety Communications
Standard: Provide accurate written documentation in the form of a field report or incident report in an accurate timely manner.
- 72** **Topic:** Cardiovascular Emergencies
Standard: Differentiate between biological death and clinical death.
- 73** **Topic:** Cardiovascular Emergencies
Standard: Demonstrate cardiopulmonary resuscitation on an infant, a child, and an adult, (simulate using manikins) utilizing personal protective devices and the use of standard precautions for disease prevention.
- 74** **Topic:** Cardiovascular Emergencies
Standard: Identify when cardiopulmonary resuscitation may be discontinued once it has been initiated.
- 75** **Topic:** Cardiovascular Emergencies
Standard: State the indications and contraindications for automated external defibrillation.
- 76** **Topic:** Cardiovascular Emergencies
Standard: Demonstrate the application, operation, and maintenance of an automated external defibrillator trainer.
- 77** **Topic:** Medical, Respiratory, Diabetic, Environmental, and Behavioral Emergencies
Standard: Integrate the knowledge and skills necessary to assure the provision of necessary assessment of medical, respiratory, diabetic, environmental, and behavioral emergency patients (included but not limited to): seizures; upper airway obstruction and lower airway diseases; administration of oral glucose and assessment of blood glucose; heat/cold exposure; water-related emergencies; altered mental status; stroke; and psychological crisis.
- 78** **Topic:** Medical, Respiratory, Diabetic, Environmental, and Behavioral Emergencies
Standard: Demonstrate the skills necessary to provide emergency care of the patient suffering from (included but not limited to): seizures; upper airway obstruction and lower airway diseases; hypoglycemia and hyperglycemia; heat/cold exposure; water-related emergencies; altered mental status; stroke; and psychological crisis.
- 79** **Topic:** Medical, Respiratory, Diabetic, Environmental, and Behavioral Emergencies
Standard: Discuss the First Responder's role in the provision of emergency care and relief during weather disasters including tornado relief shelters and hurricane/flood evacuations.

- 80** **Topic:** Bleeding and Soft-Tissue Injuries
Standard: Integrate the knowledge and skills necessary to assure the provision of necessary assessment of internal and external soft-tissue injuries (included but not limited to): arterial, venous, and capillary bleeds; external bleeding; shock; burns; blunt and penetrating trauma; chest wounds; abdominal injuries; and amputations.
- 81** **Topic:** Bleeding and Soft-Tissue Injuries
Standard: Demonstrate the skills applicable to the management of internal and external soft tissue injuries utilizing personal protective equipment and standard precautions (included but not limited to): arterial, venous, and capillary bleeds; external bleeding; shock; burns; blunt and penetrating trauma; chest wounds; abdominal injuries; and amputations.
- 82** **Topic:** Musculoskeletal Injuries
Standard: Integrate the knowledge and skills necessary to assure the provision of necessary assessment of musculoskeletal injuries (included but not limited to): open, closed, painful, swollen, deformed extremity; fractures and dislocations; head and spinal cord injuries.
- 83** **Topic:** Musculoskeletal Injuries
Standard: Demonstrate the skills applicable to the management of internal and musculoskeletal injuries, utilizing personal protective equipment and standard precautions (included but not limited to): open, closed, painful, swollen deformed extremity; fractures and dislocations; head and spinal cord injuries.
- 84** **Topic:** Musculoskeletal Injuries
Standard: Relate the mechanism of injury to potential injuries of the head and spine.
- 85** **Topic:** Obstetrics/Gynecology
Standard: Discuss the multiple services the First Responder must provide in caring for a pregnant patient—provide care for injuries, provide emotional support, provide for patient dignity and protect him or her from embarrassment from onlookers— and explain the implications of caring for two patients in maternal/newborn care.
- 86** **Topic:** Obstetrics/Gynecology
Standard: Demonstrate how to time a contraction correctly.
- 87** **Topic:** Obstetrics/Gynecology
Standard: Recognize and manage imminent delivery utilizing the obstetric kit and demonstrate postdelivery care of the mother and newborn to include neonatal resuscitation procedures (simulation).
- 88** **Topic:** Obstetrics/Gynecology
Standard: Discuss emergency care of the patient with the following gynecological emergencies: vaginal bleeding, breech birth, prolapsed cord, limb presentation, multiple births, premature births, and meconium staining of the amniotic fluid.
- 89** **Topic:** Obstetrics/Gynecology
Standard: Discuss special considerations given to the pregnant victim of sexual assault.
- 90** **Topic:** Infants and Children
Standard: Summarize the developmental considerations affecting the provision of emergency care for each of the following age groups: infants, toddlers, preschool, school age, and adolescent.
- 91** **Topic:** Infants and Children
Standard: Discuss the differences in the response of an ill or injured pediatric patient to that of an ill or injured adult patient.
- 92** **Topic:** Infants and Children
Standard: Demonstrate the assessment and emergency medical care procedures for the pediatric trauma/medical patient(s) to include: respiratory distress/failure, cardiac arrest, shock, and seizures.
- 93** **Topic:** Infants and Children
Standard: Summarize the indicators of child abuse/neglect and describe the First Responder's legal responsibilities in suspected cases of abuse/neglect.
- 94** **Topic:** Infants and Children
Standard: Analyze the provider's own emotional response to caring for infants or children and recognize the need for debriefing following a difficult call involving an infant or child.

- 95** **Topic:** Infants and Children
Standard: Demonstrate a caring attitude and empathy when providing emergency medical care for pediatric patients and in communicating with their parents/guardians.
- 96** **Topic:** Infants and Children
Standard: Place the interests of the infant and child with an illness or injury as the foremost consideration when making any and all patient care decisions.
- 97** **Topic:** EMS Operations-Gaining Access/Extrication
Standard: Discuss the phases of out-of-hospital rescues and evaluate various methods of gaining access to victims, distinguishing between simple and complex access.
- 98** **Topic:** EMS Operations-Gaining Access/Extrication
Standard: Define the fundamental components of extrication and discuss the role of the First Responder.
- 99** **Topic:** EMS Operations-Gaining Access/Extrication
Standard: Identify what equipment is required for personal safety during extrication and analyze the proper use of medical/nonmedical equipment needed to respond to an extrication call.
- 100** **Topic:** EMS Operations-Gaining Access/Extrication
Standard: State the steps that should be taken to protect the patient during extrication.
- 101** **Topic:** EMS Operations-Triage/Mass Casualty Incident/Hazardous Materials
Standard: Discuss the criteria for a multiple casualty situation and the role of the First Responder in assisting with management of the incident.
- 102** **Topic:** EMS Operations-Triage/Mass Casualty Incident/Hazardous Materials
Standard: Summarize the components of basic triage (modified START plan) and demonstrate in a given scenario of mass-casualty incident.
- 103** **Topic:** EMS Operations-Triage/Mass Casualty Incident/Hazardous Materials
Standard: Discuss the circumstances that usually require a helicopter/medevac unit transport and demonstrate how to set up the landing zone for a helicopter/medevac unit.
- 104** **Topic:** EMS Operations-Triage/Mass Casualty Incident/Hazardous Materials
Standard: State the information the First Responder must be prepared to provide the medevac unit.
- 105** **Topic:** EMS Operations-Triage/Mass Casualty Incident/Hazardous Materials
Standard: Demonstrate the steps for approaching and managing a hazardous scene while providing for personal, team, and bystanders' safety (simulation).
- 106** **Topic:** Pharmacology
Standard: Define pharmacology, over-the-counter drugs, prescription drugs, indications, and contraindications.
- 107** **Topic:** Pharmacology
Standard: Summarize the rules for giving or assisting the patient with any medication.
- 108** **Topic:** Pharmacology
Standard: Evaluate the different routes for giving a medication.
- 109** **Topic:** Oxygen Therapy
Standard: Discuss why oxygen is considered a medication and the impact of local protocols and medical oversight governing the administration of oxygen by the First Responder.
- 110** **Topic:** Oxygen Therapy
Standard: Analyze the disadvantages or hazards of oxygen therapy.
- 111** **Topic:** Oxygen Therapy
Standard: Identify the components of oxygen delivery systems and compare types of oxygen cylinders including the regulators, flowmeters, and humidifiers.
- 112** **Topic:** Oxygen Therapy
Standard: Demonstrate the use of all safety guidelines when working with oxygen cylinders.

- 113** **Topic:** Oxygen Therapy
Standard: Calculate the duration of flow for both D and E cylinders individually and discuss the general guidelines for oxygen dosages for patients involved in trauma, childbirth, medical, and environmental emergencies.
- 114** **Topic:** Oxygen Therapy
Standard: Identify oxygen delivery devices for breathing patients including nasal cannula, venturi mask, and non-rebreather masks.
- 115** **Topic:** Oxygen Therapy
Standard: Demonstrate the preparation and correct operation of an oxygen delivery system to provide oxygen to an adult, an infant, and a child (simulations).
- 116** **Topic:** Oxygen Therapy
Standard: Demonstrate the steps in discontinuing oxygen.

Course: Medical Information Technology: Core Skills

- 1** **Topic:** Basic Skills
Standard: Locate, understand, and interpret written information in a variety of formats, including such documents as manuals, graphs, reports, and schedules.
- 2** **Topic:** Basic Skills
Standard: Communicate thoughts, ideas, information, and messages in writing and technologically create documents such as letters, directions, manuals, reports, graphs, and flowcharts.
- 3** **Topic:** Basic Skills
Standard: Perform and apply numerical concepts and calculations, and solve problems by choosing appropriately from a variety of mathematical techniques using mental, manual, and technological methods.
- 4** **Topic:** Basic Skills
Standard: Receive, interpret, and respond to verbal and nonverbal messages in a manner appropriate to a given situation.
- 5** **Topic:** Basic Skills
Standard: Organize ideas and communicate orally in a clear, concise, and courteous manner.
- 6** **Topic:** Thinking Skills
Standard: Specify goals, objectives, constraints, and supporting factors.
- 7** **Topic:** Thinking Skills
Standard: Identify problems, alternative solutions, and consequences of alternative solutions, and use appropriate techniques to resolve given problems.
- 8** **Topic:** Thinking Skills
Standard: Implement a plan of action making modifications as needed to achieve stated objectives.
- 9** **Topic:** Thinking Skills
Standard: Use effective learning techniques to acquire and apply new knowledge and skills.
- 10** **Topic:** Personal Qualities
Standard: Assess self accurately, set personal goals, monitor progress, and exhibit self-control.
- 11** **Topic:** Personal Qualities
Standard: Choose ethical courses of action.
- 12** **Topic:** Personal Qualities
Standard: Take initiative to accomplish tasks in a timely manner.
- 13** **Topic:** Personal Qualities
Standard: Exert a high level of effort and persevere towards goal attainment.

- 14** **Topic:** Personal Qualities
Standard: Demonstrate adaptability, dependability, and responsibility and such social behaviors as tolerance, honesty, empathy, and courtesy.
- 15** **Topic:** Interpersonal Skills
Standard: Participate and interact as a team member and leader.
- 16** **Topic:** Interpersonal Skills
Standard: Share knowledge and skills with others.
- 17** **Topic:** Interpersonal Skills
Standard: Perform effectively in various environments with people of different ages, genders, cultures, socioeconomic backgrounds, attitudes, and abilities.
- 18** **Topic:** Interpersonal Skills
Standard: Work to satisfy customer/client expectations.
- 19** **Topic:** Interpersonal Skills
Standard: Use strategies appropriate to a given situation to prevent and resolve conflicts.
- 20** **Topic:** Resources
Standard: Select goal-relevant activities, prioritize them, manage time, and prepare and follow schedules.
- 21** **Topic:** Resources
Standard: Use or prepare budgets, make projections, keep records, and make adjustments to meet objectives.
- 22** **Topic:** Resources
Standard: Acquire, store, allocate, and use materials and space efficiently.
- 23** **Topic:** Technology
Standard: Prevent, identify, or solve problems with technical or electronic equipment.
- 24** **Topic:** Technology
Standard: Operate and maintain technical equipment and the work environment safely following applicable industry regulations and guidelines.
- 25** **Topic:** Technology
Standard: Utilize a variety of technologies.
- 26** **Topic:** Business Aspects
Standard: Demonstrate understanding of basic economic concepts and how they are applied in business functions and activities.
- 27** **Topic:** Business Aspects
Standard: Identify forms of business ownership.
- 28** **Topic:** Business Aspects
Standard: Demonstrate understanding of the scope of a business, its place within an industry, and the interrelationship of its parts.
- 29** **Topic:** Business Aspects
Standard: Demonstrate understanding of the individual's role, responsibilities, and relationships in the organizational structure of a business.
- 30** **Topic:** Business Aspects
Standard: Maintain safety, health, and environmental standards, and addresses ergonomic concerns.
- 31** **Topic:** Career Development
Standard: Make potential career decisions based upon interests, abilities, and values and formulate appropriate plans to reach career goals.

- 32** **Topic:** Career Development
Standard: Demonstrate understanding of the relationship between educational achievement and career planning and how career choices impact family patterns and lifestyle.
- 33** **Topic:** Career Development
Standard: Demonstrate effective skills for seeking and securing employment.
- 34** **Topic:** Career Development
Standard: Demonstrate understanding of education and career development as a lifelong learning process that requires preparation for change.

Course: Medical Information Technology: 25.59100 Applications of Medical Terminology in Healthcare Systems

- 35** **Topic:** History
Standard: Discuss the historical development of the medical language including Latin and Greek origination of medical terms.
- 36** **Topic:** History
Standard: Correlate origins of medical abbreviations and terms to their perspective non-English languages.
- 38** **Topic:** Medical Abbreviations, Acronyms, and Symbols
Standard: Differentiate between abbreviations, acronyms, and symbols and give examples of each.
- 39** **Topic:** Medical Abbreviations, Acronyms, and Symbols
Standard: Interpret and correctly spell medical abbreviations, acronyms, and symbols including but not limited to: measure and weights systems, laboratory tests, chemical symbols, and medical slang.
- 40** **Topic:** Medical English
Standard: Define medical morphemes, eponyms, antonyms, synonyms, homonyms, and give examples of each.
- 41** **Topic:** Medical English
Standard: Demonstrate the correct pronunciation, spelling, and use of medical morphemes, eponyms, antonyms, synonyms, and homonyms to include noun, possessive, plural, adjective, and verb forms when applicable.
- 42** **Topic:** Medical English
Standard: Pronounce, define, correctly spell, and combine medical morphemes (prefixes, suffixes, adjective, and word roots) to form medical terms.
- 43** **Topic:** Medical English
Standard: Diagram medical terms to demonstrate how medical prefixes, suffixes, and adjective endings change the meaning of the root word and give examples of each.
- 44** **Topic:** Medical English
Standard: Demonstrate utilization of the proper rules and exceptions for combining morphemes and the formation of plural forms in English, Latin, and Greek.
- 45** **Topic:** Medical English
Standard: Demonstrate correct utilization of multimedia resources including medical and dental dictionaries, Internet, and other telecommunications to verify the accuracy of a medical term or statement.
- 46** **Topic:** Medical English
Standard: Contrast the use of medical terms as portrayed in the media to real life and compose a short story using medical terms.
- 47** **Topic:** Medical English
Standard: Translate between medical terms and conversational language and to facilitate communication as needed in both verbal and written forms.
- 48** **Topic:** Anatomy and Physiology
Standard: Identify, articulate, spell, and pronounce medical terminology related to human growth and development.

- 49** **Topic:** Anatomy and Physiology
Standard: Demonstrate the correct articulation, spelling, and written forms of medical terminology related to directional terms, anatomical positions, and body planes.
- 50** **Topic:** Anatomy and Physiology
Standard: Pronounce, define, spell, and combine medical terms describing the integumentary systems normal physiology, variations in anatomy and physiology, pathophysiology, surgical/ diagnostic procedures, and treatments.
- 51** **Topic:** Anatomy and Physiology
Standard: Pronounce, define, spell, and combine medical terms describing the musculoskeletal systems normal physiology, variations in anatomy and physiology, pathophysiology, surgical/ diagnostic procedures, and treatments.
- 52** **Topic:** Anatomy and Physiology
Standard: Pronounce, define, spell, and combine medical terms describing the respiratory systems normal physiology, variations in anatomy and physiology, pathophysiology, surgical/ diagnostic procedures, and treatments.
- 53** **Topic:** Anatomy and Physiology
Standard: Pronounce, define, spell, and combine medical terms describing the cardiovascular systems normal physiology, variations in anatomy and physiology, pathophysiology, surgical/ diagnostic procedures, and treatments.
- 54** **Topic:** Anatomy and Physiology
Standard: Pronounce, define, spell, and combine medical terms describing the gastrointestinal systems normal physiology, variations in anatomy and physiology, pathophysiology, surgical/ diagnostic procedures, and treatments.
- 55** **Topic:** Anatomy and Physiology
Standard: Pronounce, define, spell, and combine medical terms describing the urinary systems normal physiology, variations in anatomy and physiology, pathophysiology, surgical/ diagnostic procedures, and treatments.
- 56** **Topic:** Anatomy and Physiology
Standard: Pronounce, define, spell, and combine medical terms describing the male/female reproductive systems normal physiology, variations in anatomy and physiology, pathophysiology, surgical/ diagnostic procedures, and treatments.
- 57** **Topic:** Anatomy and Physiology
Standard: Pronounce, define, spell, and combine medical terms describing the nervous systems normal physiology, variations in anatomy and physiology, pathophysiology, surgical/ diagnostic procedures, and treatments.
- 58** **Topic:** Anatomy and Physiology
Standard: Pronounce, define, spell, and combine medical terms describing the endocrine systems normal physiology, variations in anatomy and physiology, pathophysiology, surgical/ diagnostic procedures, and treatments.
- 59** **Topic:** Anatomy and Physiology
Standard: Pronounce, define, spell, and combine medical terms describing the lymphatic systems normal physiology, variations in anatomy and physiology, pathophysiology, surgical/ diagnostic procedures, and treatments.
- 60** **Topic:** Anatomy and Physiology
Standard: Pronounce, define, spell, and combine medical terms describing each of the special senses normal physiology, variations in anatomy and physiology, pathophysiology, surgical/ diagnostic procedures, and treatments.
- 61** **Topic:** Occupational Specific Medical Terminology
Standard: Accurately pronounce, spell, define, and record terminology related to clinical medicine including documentation of physical exam/history, symptoms/complaints, diagnosis, and treatments.
- 62** **Topic:** Occupational Specific Medical Terminology
Standard: Accurately pronounce, spell, define, and record terminology related to laboratory medicine including diagnostic indications, techniques, tests, expression of values, and results.
- 63** **Topic:** Occupational Specific Medical Terminology
Standard: Accurately pronounce, spell, define, and record terminology related to pathology including micro/macrosopic, cytology, and bacteriology.
- 64** **Topic:** Occupational Specific Medical Terminology
Standard: Accurately pronounce, spell, define, and record terminology related to pharmacology including pharmacology classification, drug action terminology, and chemical, common, generic, and brand names of drugs.

- 65** **Topic:** Occupational Specific Medical Terminology
Standard: Accurately pronounce, spell, define, and record terminology related to diagnostic imaging including anatomical views/positions, plain/contrast film studies, fluoroscopy, computerized tomography, ultrasounds/sonograms, and magnetic resonance imaging.
- 66** **Topic:** Occupational Specific Medical Terminology
Standard: Accurately pronounce, spell, define, and record terminology related to surgery including diagnoses, types of operations, incisions, positions, instruments/equipment, suture techniques/materials, anesthesia agents/modalities, prostheses, accessories, graft materials, and findings.
- 67** **Topic:** Occupational Specific Medical Terminology
Standard: Utilize medical terminology within a scope of practice in order to interpret, transcribe, and communicate information, data, and observations.
- 68** **Topic:** Interpretation of Medical Documents
Standard: Demonstrate the ability to accurately locate and interpret information on the clients medical records including medical orders and reports.
- 69** **Topic:** Interpretation of Medical Documents
Standard: Discuss the importance of healthcare research and demonstrate the ability to interpret a qualitative healthcare report with statistics.
- 70** **Topic:** Interpretation of Medical Documents
Standard: Differentiate between the types of Medical Record Documents analysis including - qualitative, quantitative, and statistical analysis
- 71** **Topic:** Interpretation of Medical Documents
Standard: Discuss the function of the National Committee on Vital and Health Statistics (NCVHS).
- 72** **Topic:** Interpretation of Medical Documents
Standard: Differentiate between a presentation and a report and prepare each utilizing electronic and imaging technology.
- 73** **Topic:** Technical Writing, Charting, and documentation
Standard: Differentiate between subjective and objective information and discuss the guidelines for observing clients including respiration, senses, responses, movement, activities of daily living, appetite, pain/discomfort, skin, and elimination.
- 74** **Topic:** Technical Writing, Charting, and documentation
Standard: Demonstrate charting, utilizing the guidelines for accurate charting in both written and computerized client records.
- 75** **Topic:** Technical Writing, Charting, and documentation
Standard: Prepare and record the medical history of a client.
- 76** **Topic:** Medical Records and Medical Information Management Systems
Standard: Examine the organization, structure and function of health care data in acute care, long-term care, and ambulatory care healthcare systems, clinics, and offices including personnel structure and specific job responsibilities.
- 77** **Topic:** Medical Records and Medical Information Management Systems
Standard: Identify Federal, State, and private agencies associated with the regulation of medical information management and discuss the impact of each (including, but not limited to the following): Centers for Medicare and Medicaid Services (CMS), American Health Information Management Association (AHIMA), Occupational Safety and Health Administration (OSHA), Joint Commission on Accreditation of Healthcare Organizations (JCAHO), and Accreditation Association for Ambulatory Health Care (AAHC).
- 78** **Topic:** Medical Records and Medical Information Management Systems
Standard: Outline the evolution of a clients medical record include the purpose, ownership, uses, and value of the medical record and its data.
- 79** **Topic:** Medical Records and Medical Information Management Systems
Standard: Differentiate between the classifications of administrative data and clinical data content in the medical record and discuss the development and content of each including their individual subcategories of records

- 80** **Topic:** Medical Records and Medical Information Management Systems
Standard: Define and examine the three format types of medical records: Source-Oriented, Problem-Oriented, and Integrated.
- 81** **Topic:** Technical Filing
Standard: Describe major types of record numbering and filing systems most frequently used by healthcare systems and discuss advantages and disadvantages of each.
- 82** **Topic:** Technical Filing
Standard: Demonstrate use of a master patient index (MPI).
- 83** **Topic:** Technical Filing
Standard: Define interoperability and discuss the importance of compatibility in regards to message format standards.
- 84** **Topic:** Technical Filing
Standard: Demonstrate initiation and maintenance of serial numbering and filing; unit numbering and filing; and serial-unit filing; and how to convert from serial to unit numbering.
- 85** **Topic:** Technical Filing
Standard: Demonstrate straight numeric filing, terminal digit filing, middle digit filing, and how to convert to terminal of middle digit filing.
- 86** **Topic:** Technical Filing
Standard: Discuss the importance of guides and the best placement to expedite filing and locating of files.
- 87** **Topic:** Technical Filing
Standard: Differentiate between the two major methods of filing records centralized and decentralized and discuss the advantages and disadvantages of each.
- 88** **Topic:** Technical Filing
Standard: Discuss the importance of authorized record control policies and procedures to include requisitions, outguides, charge-out system, transportation procedures, record retention, inactive record, record destruction, disk storage, and automated tracking.
- 89** **Topic:** Technical Filing
Standard: Discuss techniques for locating misfiled records.
- 90** **Topic:** Technical Filing
Standard: Identify when cross-referencing is necessary and demonstrate.
- 91** **Topic:** Electronic Applications, Maintenance, and Storage
Standard: Discuss trends in automated office communication systems and medical record maintenance including but not limited to electronic health records, digital signatures, and data capture methods.
- 92** **Topic:** Electronic Applications, Maintenance, and Storage
Standard: Discuss types of computerized patient care, diagnostic, treatment, and monitoring systems and the types of medical information/records each generates including but not limited to: Computer Assisted Tomography (CAT), Magnetic Resonance Imaging (MRI), Ultrasound Imaging, Arrhythmia monitoring, Pulmonary monitoring, Obstetrical/Neonatal monitoring, Fiber optics, and laser treatment.
- 93** **Topic:** Electronic Applications, Maintenance, and Storage
Standard: Discuss the advantages and disadvantages of technologys use in patient care particularly the impact on bioethics or the ethical issues that arise with advancements in technology.
- 94** **Topic:** Electronic Applications, Maintenance, and Storage
Standard: Demonstrate basic computer skills including entering data, correcting mistakes, and retrieving information stored in computer.
- 95** **Topic:** Medicolegal concepts and risk management
Standard: Differentiate between ethical and legal issues affecting the management of medical information.
- 96** **Topic:** Medicolegal concepts and risk management
Standard: Identify the importance of following established medical records security protocol which follows legal guidelines for maintenance, storage, transportation, and release of all client records information.

- 97** **Topic:** Medicolegal concepts and risk management
Standard: Discuss the following medicolegal concepts confidentiality, release of information, correction of records, patients rights, and risk management.
- 98** **Topic:** Medicolegal concepts and risk management
Standard: Discuss the Health Insurance Portability and Accountability Act of 1996 and its impact on healthcare insurance coverage, medical records standards, and the Medical Administrator.
- 99** **Topic:** Medicolegal concepts and risk management
Standard: Access client records while maintaining confidentiality and evaluating threats to confidential information.
- 100** **Topic:** Medicolegal concepts and risk management
Standard: Maintain legal guidelines for documentation and releasing of all client records information.
- 101** **Topic:** Medicolegal concepts and risk management
Standard: Discuss methods healthcare systems implement to provide Risk Management and Quality Assurance.

Course: Medical Information Technology: 25.59200 Health Unit Coordinator

- 35** **Topic:** Basic Interpersonal Health Unit Coordinator Skills
Standard: Demonstrate knowledge of healthcare delivery systems and the role of the Health Unit Coordinator within the system.
- 36** **Topic:** Basic Interpersonal Health Unit Coordinator Skills
Standard: Discuss the professional, legal, and ethical responsibilities of the Health Unit Coordinator.
- 37** **Topic:** Basic Interpersonal Health Unit Coordinator Skills
Standard: Discuss and adhere to the Health Unit Coordinator's Code of conduct.
- 38** **Topic:** Basic Interpersonal Health Unit Coordinator Skills
Standard: Discuss the necessity of Health Unit Coordinator's participating in job-related training and the importance of continuing education in assisting the Health Unit Coordinator with keeping current of job-related changes.
- 39** **Topic:** Basic Interpersonal Health Unit Coordinator Skills
Standard: Demonstrate respect for cultural, social, and ethnic diversity within the healthcare environment.
- 40** **Topic:** Basic Interpersonal Health Unit Coordinator Skills
Standard: Demonstrate the ability to communicate with courtesy, empathy, tact, and emotional control with clients, visitors, and other staff members.
- 41** **Topic:** Basic Interpersonal Health Unit Coordinator Skills
Standard: Demonstrate the ability to give and follow directions.
- 42** **Topic:** Basic Interpersonal Health Unit Coordinator Skills
Standard: Demonstrate communication skills necessary for communicating with non-English-speaking clients and visitors.
- 43** **Topic:** Basic Interpersonal Health Unit Coordinator Skills
Standard: Demonstrate dignified techniques for communicating with the visually impaired, hearing impaired, and/or cognitively impaired.
- 44** **Topic:** Basic Interpersonal Health Unit Coordinator Skills
Standard: Apply basic math skills including, but not limited to: interpret and record data on graphs, charts, and tables; demonstrate conversions between Roman and Arabic numerals; US Standard time (Greenwich Mean Time) and Military time (24 hour clock); and apply conversion constants between metric and avoirdupois systems and within each system
- 45** **Topic:** Safety
Standard: Discuss the importance of the Health Unit Coordinators awareness of his/her role and responsibilities in emergencies and disaster preparedness as specified by each facility/laboratory utilized including the following: fire evacuation, inclement weather, sniper attack, person out-of-control, bomb threat, and hazardous materials problem.

- 46** **Topic:** Safety
Standard: Identify unsafe working conditions, maintain a safe work environment, and prevent accidents by using safety precautions including adherence to hazardous labeling requirements and compliance with safety signs, symbols, and labels as specified in each clinical facility/laboratory utilized.
- 47** **Topic:** Safety
Standard: Demonstrate methods of fire prevention including location of extinguishers and alarms in each clinical facility/laboratory utilized.
- 48** **Topic:** Safety
Standard: Differentiate between infectious diseases and noninfectious diseases and demonstrate the use of standard precautions as describe in the rules and regulations set forth by the Occupational Safety and Health Administration.
- 49** **Topic:** Safety
Standard: Demonstrate strategies for staying healthy/disability prevention to include body ergonomics and the development of a stress control plan.
- 50** **Topic:** Medicolegal Concepts
Standard: Discuss the following medicolegal concepts confidentiality, release of information, correction of records, patients rights, and risk management.
- 51** **Topic:** Medicolegal Concepts
Standard: Access client records while maintaining confidentiality and evaluating threats to confidential information.
- 52** **Topic:** Communication Technology and Equipment
Standard: Demonstrate correct use of the telephone, fax, intercom, pager, and other office equipment.
- 53** **Topic:** Communication Technology and Equipment
Standard: Demonstrate how to manage the effects of a power outage on telephones and other office equipment.
- 54** **Topic:** Communication Technology and Equipment
Standard: Demonstrate appropriate etiquette when utilizing the intercom, telephone, answering the patients call signal, and dealing with complaints or grievances.
- 55** **Topic:** Communication Technology and Equipment
Standard: Demonstrate basic computer terminology and skills including entering data, correcting mistakes, and retrieving information stored in computer.
- 56** **Topic:** Information Management
Standard: Discuss the purpose of individual client forms and charts found within the medical record and the importance of client records maintenance.
- 57** **Topic:** Information Management
Standard: Demonstrate in accordance with the facility's policies and procedures, chart maintenance including methods used to identify (stamp/label) the client's chart, chart assembly, and disassembly of charts.
- 58** **Topic:** Information Management
Standard: Demonstrate the ability to accurately locate and interpret written information on clients charts.
- 59** **Topic:** Information Management
Standard: Organize clients records and files to maintain data as required by the healthcare system.
- 60** **Topic:** Information Management
Standard: Organize, prioritize, and maintain efficient unit information distribution, and retrieval of forms, charts, lists, census, admission/discharge information, and packets.
- 61** **Topic:** Supplies and Services Coordination
Standard: Identify and maintain the policies and procedures for security, maintenance, and repair of medical equipment and supplies for each facility/laboratory utilized.
- 62** **Topic:** Supplies and Services Coordination
Standard: Identify the functions of ancillary departments and demonstrate the procedures to process orders and obtain supplies/services from ancillary departments for unit based and/or patient use during regular operating hours and off-hours as indicated by each facility/laboratory utilized.

- 63** **Topic:** Supplies and Services Coordination
Standard: Identify, inventory, and maintain unit equipment and supplies in a safe, clean, and organized manner.
- 64** **Topic:** Supplies and Services Coordination
Standard: Demonstrate medically aseptic technique in periodic cleaning of workstation and equipment.
- 65** **Topic:** Health Unit Operations
Standard: Identify the purpose of classification of patient acuity; maintenance of census log/board; compiling patient and unit statistics; patient bed assignment; and posting informational materials and demonstrate the Health Unit Coordinator's responsibilities as indicated by policy/procedures for each as specified by the clinical facility/laboratory utilized.
- 66** **Topic:** Health Unit Operations
Standard: Identify methods of indicating services and supplies used by each patient including tracking of services provided by outside agencies and personnel.
- 67** **Topic:** Health Unit Operations
Standard: Identify methods to ensure accuracy of accountability of patient charges.
- 68** **Topic:** Health Unit Operations
Standard: Identify and demonstrate the Health Unit Coordinator's role/responsibilities pertaining to the ordering/renewal of medications, amount of medication stock to be kept on unit, appropriate/safe storage, procedures for ordering replacement stock, and transporting/ deliveries of medications as indicated by the facility or laboratory protocol.
- 69** **Topic:** Health Unit Operations
Standard: Identify the types of common diagnostic tests and the routine times they are performed.
- 70** **Topic:** Health Unit Operations
Standard: Discuss the importance of the Health Unit Coordinator's awareness of medical staff privileges and/or ability to locate accurate information regarding medical staff privileges.
- 71** **Topic:** Critical Thinking and Problem Solving
Standard: Demonstrate methods used to determine pertinent criteria including problem and resource identification in a given situation.
- 72** **Topic:** Critical Thinking and Problem Solving
Standard: Demonstrate problem-solving techniques.
- 73** **Topic:** Critical Thinking and Problem Solving
Standard: Demonstrate prioritization and decision-making skills including identification of medical conditions or situations, which would take priority over others.
- 74** **Topic:** Critical Thinking and Problem Solving
Standard: Identify quality assurance practices and discuss the importance of the Health Unit Coordinator's active participation.
- 75** **Topic:** Critical Thinking and Problem Solving
Standard: Identify normal and abnormal values for common diagnostic tests and which would indicate a need to notify charge nurse, unit manager, or physician.
- 76** **Topic:** Medical Terminology and Documentation
Standard: Differentiate between abbreviations, acronyms, and symbols and give examples of each.
- 77** **Topic:** Medical Terminology and Documentation
Standard: Interpret and correctly spell medical abbreviations, acronyms, and symbols including but not limited to: measure and weights systems, laboratory tests, chemical symbols, and medical slang.
- 78** **Topic:** Medical Terminology and Documentation
Standard: Define medical morphemes, eponyms, antonyms, synonyms, homonyms, and give examples of each.

- 79** **Topic:** Medical Terminology and Documentation
Standard: Demonstrate how medical prefixes and suffixes change the meaning of the root word.
- 80** **Topic:** Medical Terminology and Documentation
Standard: Demonstrate the correct pronunciation, spelling, and use of medical morphemes, eponyms, antonyms, synonyms, and homonyms to include noun, possessive, plural, adjective, and verb forms when applicable.
- 81** **Topic:** Medical Terminology and Documentation
Standard: Demonstrate combining morphemes and the formation of plural forms in English, Latin, and Greek utilizing proper rules and exceptions.
- 82** **Topic:** Medical Terminology and Documentation
Standard: Identify and utilize multimedia resources including medical and dental dictionaries, Internet, and other telecommunications as appropriate to a given situation
- 83** **Topic:** Medical Terminology and Documentation
Standard: Translate between medical terms and conversational language and vice versa to facilitate communication as needed in both verbal and written forms.
- 84** **Topic:** Medical Terminology and Documentation
Standard: Accurately pronounce, spell, define, and record terminology to communicate physicians requests for clinical laboratory, radiology, diagnostic, and surgical tests including expression of values and results.
- 85** **Topic:** Medical Terminology and Documentation
Standard: Demonstrate Health Unit Coordinator documentation as designate by the facility's policies and procedures regarding documentation.
- 86** **Topic:** Transcribing Physician's Orders
Standard: Identify healthcare professionals permitted to prescribe and/or administer medications.
- 87** **Topic:** Transcribing Physician's Orders
Standard: Identify and discuss all elements necessary for a complete physicians order, a medication order, and a parental fluid order.
- 88** **Topic:** Transcribing Physician's Orders
Standard: Discuss methods for indicating there are orders to communicate/transcribe and identify the method used in each facility, unit, individual physicians office, or laboratory utilized.
- 89** **Topic:** Transcribing Physician's Orders
Standard: Discuss the rationale supporting frequently checking charts for new orders and prioritize orders for transcription.
- 90** **Topic:** Transcribing Physician's Orders
Standard: Differentiate between routine orders and stat orders and demonstrate the role of the Health Unit Coordinator as designated by the facility/laboratory utilized in the processing and handling of each within the proper timeframe.
- 91** **Topic:** Transcribing Physician's Orders
Standard: Identify resources such as the Physicians Desk Reference to locate pharmacology information regarding the classification of medications and generic/trade names for common medications.
- 92** **Topic:** Transcribing Physician's Orders
Standard: Identify the components of medication administration records and demonstrate the Health Unit Coordinator's role in compiling records as indicated by the facility's policies and procedures or in a laboratory simulation.
- 93** **Topic:** Transcribing Physician's Orders
Standard: Demonstrate the ability to verify information regarding dosages of frequently given medications and basic equivalencies between apothecary and metric dosages.
- 94** **Topic:** Orientation of New Personnel
Standard: Discuss the Health Unit Coordinator's role in orienting new personnel/students and demonstrate as indicated by the facility's policies and procedures or in a laboratory simulation.

- 95** **Topic:** Orientation of New Personnel
Standard: Identify the methods used to evaluate new personnel/student orientations and demonstrate the Health Unit Coordinator's responsibilities in the evaluation process.
- 96** **Topic:** Pre- and Post-operative, Blood and Blood Products, Cardiac Monitoring
Standard: Discuss the importance of locating and following protocol/procedures for obtaining blood and blood products.
- 97** **Topic:** Pre- and Post-operative, Blood and Blood Products, Cardiac Monitoring
Standard: Discuss why some facilities may require the Health Unit Coordinator to participate in obtaining blood and blood products.
- 98** **Topic:** Pre- and Post-operative, Blood and Blood Products, Cardiac Monitoring
Standard: Demonstrate the Health Unit Coordinator's role and responsibilities as designated by a laboratory protocol in a simulation.
- 99** **Topic:** Pre- and Post-operative, Blood and Blood Products, Cardiac Monitoring
Standard: Identify the components, demonstrate process, and transcribe physicians orders for transfusion of blood and blood products and total parenteral nutrition/ hyperalimentation.
- 100** **Topic:** Pre- and Post-operative, Blood and Blood Products, Cardiac Monitoring
Standard: Discuss the importance of discontinuing all preoperative orders postoperatively and demonstrate the Health Unit Coordinator's responsibilities in discontinuance as per the facility's policies and procedures.
- 101** **Topic:** Pre- and Post-operative, Blood and Blood Products, Cardiac Monitoring
Standard: Discuss the Health Unit Coordinator's role in cardiac monitoring as indicated by the facility's policies and procedures and demonstrate.

Course: Medical Information Technology: 25.59300 Medical Coder

- 35** **Topic:** Introduction to Medical Coding
Standard: Discuss the history and evolution of medical coding.
- 36** **Topic:** Introduction to Medical Coding
Standard: Describe the role of the Medical Coder within a large healthcare system and compare to the role of the Medical Coder in a private physician's practice.
- 37** **Topic:** Introduction to Medical Coding
Standard: Define participating provider and discuss the advantages and disadvantages for both the physician and the insurance provider.
- 38** **Topic:** Introduction to Medical Coding
Standard: Compare and contrast the educational and credentialing requirements associated with Medical Coder.
- 39** **Topic:** Introduction to Medical Coding
Standard: Differentiate between national, state and private associations or postsecondary institutes providing Medical Coder programs of study, exams, granting diplomas/degrees, registration, and/or certification.
- 40** **Topic:** Introduction to Medical Coding
Standard: Examine the accreditation, recommended length of program completion, pre-requisites requirements, and fees associated with national, state, and private Medical Coder programs of study.
- 41** **Topic:** Introduction to Medical Coding
Standard: Discuss Medical Coding specialization areas such as Tumor Registry, Trauma Registry, and Physician-Based Coding and outline a program of study for the Medical Coder to include an area of advanced specialization.
- 42** **Topic:** Introduction to Medical Coding
Standard: Discuss the necessity of Medical Coders participating in job-related training and the importance of continuing education in assisting the Medical Coder with keeping current with job-related changes.

- 43** **Topic:** Introduction to Medical Coding
Standard: Discuss the importance of career and technical associations to initiate, develop, and enhance networking opportunities, leadership abilities, and professional skills.
- 44** **Topic:** Introduction to Medical Coding
Standard: Identify Medical Coder/Medical Information professional organizations/associations and outline a plan to participate in Medical Coder career associations initiating plan with Health Occupations Students of America.
- 45** **Topic:** Introduction to Medical Coding
Standard: Participate in Health Occupations Students of Americas leadership and professional skills activities.
- 46** **Topic:** Introduction to Medical Coding
Standard: Discuss the importance of the Medical Coder demonstrating respect for cultural, social, and ethnic diversity within any professional environment to include a major healthcare systems Medical Records Department, a private physician clinic, and private coding practice.
- 47** **Topic:** Introduction to Medical Coding
Standard: Demonstrate the ability to communicate with courtesy, empathy, tact, and emotional control with clients, visitors, and other staff members while demonstrating respect for cultural, social, and ethnic diversity.
- 48** **Topic:** Introduction to Medical Coding
Standard: Identify math skills pertinent to Medical Coding.
- 49** **Topic:** Introduction to Medical Coding
Standard: Apply basic math skills including, but not limited to: interpret and record data on graphs, charts, and tables; demonstrate conversions between Roman and Arabic numerals; US Standard time (Greenwich Mean Time) and Military time (24 hour clock); and apply conversion constants between metric and avoirdupois systems and within each system.
- 50** **Topic:** Safety and Security Procedures
Standard: Identify unsafe working conditions, maintain a safe work environment, and prevent accidents by using safety precautions including adherence to hazardous labeling requirements and compliance with safety signs, symbols, and labels.
- 51** **Topic:** Safety and Security Procedures
Standard: Demonstrate methods of fire prevention including location of extinguishers and alarms.
- 52** **Topic:** Safety and Security Procedures
Standard: Demonstrate appropriate action when observing a hazardous materials problem.
- 53** **Topic:** Safety and Security Procedures
Standard: Differentiate between infectious diseases and noninfectious diseases and demonstrate the use of standard precautions as describe in the rules and regulations set forth by the Occupational Safety and Health Administration.
- 54** **Topic:** Safety and Security Procedures
Standard: Demonstrate strategies for staying healthy/disability prevention to include body ergonomics and the development of a stress control plan.
- 55** **Topic:** Safety and Security Procedures
Standard: Identify and maintain security procedures as designated by each healthcare clinic, facility, office, and/or system utilized.
- 56** **Topic:** Medicolegal Concepts
Standard: Differentiate between ethical and legal issues and discuss liability issues specific to the Medical Coders scope of practice.
- 57** **Topic:** Medicolegal Concepts
Standard: Discuss and adhere to the Medical Coders Code of conduct.
- 58** **Topic:** Medicolegal Concepts
Standard: Differentiate between Local Medical Review Policies, State guidelines, and Federal regulations.
- 59** **Topic:** Medicolegal Concepts
Standard: Discuss the following medicolegal concepts confidentiality, release of information, correction of records, patients rights, and risk management.

- 60** **Topic:** Medicolegal Concepts
Standard: Identify Federal, State, and private agencies associated with the regulation of Medical Coding practice including but not limited to the following: Centers for Medicare and Medicaid Services (CMS), American Health Information Management Association (AHIMA), Occupational Safety and Health Administration (OSHA), and Joint Commission on Accreditation of Healthcare Organizations (JCAHO).
- 61** **Topic:** Medicolegal Concepts
Standard: Discuss the Health Insurance Portability and Accountability Act of 1996 and its impact on healthcare insurance coverage, medical records standards, and the medical coding.
- 62** **Topic:** Medicolegal Concepts
Standard: Access client records while maintaining confidentiality and evaluating threats to confidential information in each facility utilized or laboratory simulation.
- 63** **Topic:** Medicolegal Concepts
Standard: Maintain legal guidelines for releasing of all client records information.
- 64** **Topic:** Medicolegal Concepts
Standard: Discuss Medicare fraud/abuse and subsequent penalties.
- 65** **Topic:** Technology and Information Management
Standard: Demonstrate correct use of the telephone, fax, intercom, pager, and other office equipment while maintaining confidentiality.
- 66** **Topic:** Technology and Information Management
Standard: Demonstrate appropriate etiquette when receiving telephone calls, e-mails, faxes, memos, and/or dealing with complaints.
- 67** **Topic:** Technology and Information Management
Standard: Demonstrate basic computer skills including entering data, correcting mistakes, and retrieving information stored in computer.
- 68** **Topic:** Technology and Information Management
Standard: Demonstrate access and operation of medical coding word processing and software applications included but not limited to: basic coding encoder/grouper/optimizer operations.
- 69** **Topic:** Technology and Information Management
Standard: Maintain computerized and/or manual physician, diagnoses, and procedural coding indices.
- 70** **Topic:** Technology and Information Management
Standard: Demonstrate the ability to accurately locate and interpret written information on clients charts.
- 71** **Topic:** Technology and Information Management
Standard: Demonstrate hardware/software maintenance including but not limited to backups, updates, disaster recovery plan, and quality assurance checks.
- 72** **Topic:** Technology and Information Management
Standard: Discuss major filing systems most frequently used by healthcare delivery systems and demonstrate use of a master patient index (MPI).
- 73** **Topic:** Medical Terminology
Standard: Differentiate between abbreviations, acronyms, and symbols and give examples of each.
- 74** **Topic:** Medical Terminology
Standard: Interpret and correctly spell medical abbreviations, acronyms, and symbols including but not limited to measure and weights systems, laboratory tests, chemical symbols, and medical slang.
- 75** **Topic:** Medical Terminology
Standard: Define medical morphemes, eponyms, antonyms, synonyms, homonyms, and give examples of each.
- 76** **Topic:** Medical Terminology
Standard: Demonstrate how medical prefixes, suffixes, and adjective endings change the meaning of the root word.

- 77** **Topic:** Medical Terminology
Standard: Demonstrate the correct pronunciation, spelling, and use of medical morphemes, eponyms, antonyms, synonyms, and homonyms to include noun, possessive, plural, adjective, and verb forms when applicable.
- 78** **Topic:** Medical Terminology
Standard: Demonstrate combining morphemes and the formation of plural forms in English, Latin, and Greek utilizing proper rules and exceptions.
- 79** **Topic:** Medical Terminology
Standard: Identify and utilize medical coding references including medical/dental dictionaries, Physicians Desk Reference, Internet, and other telecommunications as appropriate to verify the accuracy of a medical term or abbreviation.
- 80** **Topic:** Medical Terminology
Standard: Translate between medical terms and conversational language to facilitate communication as needed in both verbal and written forms.
- 81** **Topic:** Medical Terminology
Standard: Accurately spell, define, and record terminology in relation to clinical pathology/laboratory, radiology, diagnostic, and surgical tests including expression of values and results.
- 82** **Topic:** Coding Conventions and Classifications
Standard: Discuss the development of nomenclatures and uniform classifications systems and analyze their importance to coding accuracy.
- 83** **Topic:** Coding Conventions and Classifications
Standard: Differentiate between coding conventions and classifications.
- 84** **Topic:** Coding Conventions and Classifications
Standard: Recognize and use medical record coding terms, classifications, abstractions, and UB-92 data elements.
- 85** **Topic:** Coding Conventions and Classifications
Standard: Collect data to analyze, code, and classify client symptoms, diagnoses, and treatments.
- 86** **Topic:** Coding
Standard: Discuss the importance of the Medical Coder acquiring and maintaining a strong foundational knowledge of human anatomy, physiology, and pathophysiology to produce accurate medical coding.
- 87** **Topic:** Coding
Standard: Discuss major pathophysiology concepts and their relevance to accurate medical coding
- 88** **Topic:** Coding
Standard: Define principle and primary diagnosis.
- 89** **Topic:** Coding
Standard: Differentiate between comprehensive and component codes.
- 90** **Topic:** Coding
Standard: Discuss the effect of modifiers on reimbursements and common mistakes/omissions made by the Medical Coder, which creates delays in claims processing and reimbursement.
- 91** **Topic:** Coding
Standard: Differentiate between International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM) diagnostic codes and Current Procedural Terminology (CPT) procedural codes.
- 92** **Topic:** Coding
Standard: Discuss the unique needs Outpatient Services coding (ICD-10-CM and ICD-10-PCS) and Dental Coding (CDT-2).
- 93** **Topic:** Coding
Standard: Identify the purpose of the V & E Codes and explain when and how to use these adjunct codes.

- 94** **Topic:** Coding
Standard: Demonstrate how to locate resources for coding updates, state specific guidelines, local medical review policies, and compliance issues utilizing the Internet and/or other coding resources.
- 95** **Topic:** Coding
Standard: Discuss coding guidelines implemented by the Centers for Medicare and Medicaid Services (CMS), National Uniform Billing Committee (NUBC), National Uniform Claim Committee (NUCC), and the American Dental Association (ADA).
- 96** **Topic:** Coding
Standard: Demonstrate application of basic coding guidelines to inpatient and outpatient services.
- 97** **Topic:** Coding
Standard: Abstract records for medical records department indices/databases utilizing UB-92 (Uniform Billing 1992 version) data elements.
- 98** **Topic:** Diagnostic Coding ICD-9-CM Format and General Guidelines
Standard: Identify the purpose of the International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM) and discuss the general format and guidelines.
- 99** **Topic:** Diagnostic Coding ICD-9-CM Format and General Guidelines
Standard: Demonstrate the ability to interpret and utilize the alphabetic and tabular structures of volumes 1 and 2 of the ICD-9 book.
- 100** **Topic:** Diagnostic Coding ICD-9-CM Format and General Guidelines
Standard: Assign ICD-9-CM codes and properly sequence while utilizing proper coding conventions for each: Infectious and Parasitic diseases Neoplasms Endocrine, Nutritional, and Metabolic Diseases and Immunity Disorders Diseases of Blood and Blood Forming Organs Mental Disorders Diseases of Nervous System and Sense Organs Diseases of Circulatory System Diseases of Respiratory System Diseases of Digestive System Diseases of the Genitourinary System Complications of Pregnancy, Childbirth, and the Puerperium Diseases Skin and Subcutaneous Tissue Diseases of Musculoskeletal and Connective Tissue Congenital Anomalies Certain Conditions Originating in the Newborn (Perinatal) Period Signs, Symptoms and Ill-Defined Conditions Injury and Poisoning Supplemental Classifications of Factors Influencing Health Status and Contact with Health Service Supplemental Classification of External Causes of Injury and Poisoning (including Child and Adult Abuse)
- 101** **Topic:** Procedural Coding CPT Format and General Guidelines
Standard: Identify the purpose of the Current Procedural Terminology (CPT) codes and discuss the general format and guidelines.
- 102** **Topic:** Procedural Coding CPT Format and General Guidelines
Standard: Recognize and interpret the symbols used in the CPT Manual.
- 103** **Topic:** Procedural Coding CPT Format and General Guidelines
Standard: Discuss the format and interpret each section and subsection of the CPT as follows: Anesthesia and Surgery Coding; Radiology and Pathology/Lab Coding; Medicine and Level II National Codes.
- 104** **Topic:** Procedural Coding CPT Format and General Guidelines
Standard: Locate terms, assign modifiers, and procedure codes from all sections of CPT Manual.
- 105** **Topic:** Procedural Coding CPT Format and General Guidelines
Standard: Discuss the three levels of HCPCS coding Level I-CPT, Level II-National Codes and Level III-Local codes.
- 106** **Topic:** Procedural Coding CPT Format and General Guidelines
Standard: Differentiate between national and local HCPCS codes and modifiers.
- 107** **Topic:** Procedural Coding CPT Format and General Guidelines
Standard: Differentiate between each of the categories in Evaluation and Management section of CPT coding manual and identify three factors affecting Evaluation and Management code assignment
- 108** **Topic:** Procedural Coding CPT Format and General Guidelines
Standard: Demonstrate the ten steps in CPT coding for each of the following: Anesthesia and Surgery Coding; Radiology and Pathology/Lab Coding; Medicine and Level II National Codes.

- 109** **Topic:** Procedural Coding CPT Format and General Guidelines
Standard: Assign and sequence codes to client records using appropriate manual and computer coding systems as applicable to each of the following: acute care in-patient, out-patient, emergency care, ambulatory surgery, industrial medicine, physician/chiropractic clinics, home health, pharmaceutical, dental, and mental health and wellness.

Course: Medical Information Technology: 25.594000 Medical Information Technology Internship

- 35** **Topic:** Safety and Security
Standard: Identify unsafe working conditions, maintain a safe work environment, and prevent accidents by using safety precautions including adherence to hazardous labeling requirements and compliance with safety signs, symbols, and labels.
- 36** **Topic:** Safety and Security
Standard: Demonstrate methods of fire prevention including location of extinguishers and alarms.
- 37** **Topic:** Safety and Security
Standard: Demonstrate appropriate action when observing a hazardous materials problem.
- 38** **Topic:** Safety and Security
Standard: Differentiate between infectious diseases and noninfectious diseases and demonstrate the use of standard precautions as describe in the rules and regulations set forth by the Occupational Safety and Health Administration.
- 39** **Topic:** Safety and Security
Standard: Demonstrate strategies for staying healthy/disability prevention to include body ergonomics and the development of a stress control plan.
- 40** **Topic:** Safety and Security
Standard: Identify and maintain security procedures as designated by each healthcare clinic, facility, office, and/or system utilized.
- 41** **Topic:** Interpersonal
Standard: Demonstrate the ability to communicate with courtesy, empathy, tact, and emotional control with clients, visitors, and other staff members while demonstrating respect for cultural, social, and ethnic diversity in all professional environments utilized for internship.
- 42** **Topic:** Interpersonal
Standard: Demonstrate correct use of the telephone, fax, intercom, pager, and other office equipment while maintaining confidentiality.
- 43** **Topic:** Interpersonal
Standard: Demonstrate appropriate etiquette when receiving telephone calls, emails, fax, memos, and/or dealing with complaints.
- 44** **Topic:** Interpersonal
Standard: Demonstrate basic math skills including but not limited to: interpret and record data on graphs, charts, and tables; demonstrate conversions between Roman and Arabic numerals; US Standard time (Greenwich Mean Time) and Military time (24 hour clock); and apply conversion constants between metric and avoirdupois systems and within each system.
- 45** **Topic:** Interpersonal
Standard: Demonstrate methods used to determine pertinent criteria including problem and resource identification in a given situation.
- 46** **Topic:** Interpersonal
Standard: Demonstrate problem-solving techniques.
- 47** **Topic:** Interpersonal
Standard: Demonstrate prioritization and decision-making skills including identification of medical conditions or situations, which would take priority over others.
- 48** **Topic:** Occupational Specific (Including but not limited to the following:)
Standard: Demonstrate basic computer skills including entering data, correcting mistakes, and retrieving information stored in computer.

- 49** **Topic:** Occupational Specific (Including but not limited to the following:)
Standard: Demonstrate the ability to accurately locate and interpret information on the clients medical records including medical orders and reports.
- 50** **Topic:** Occupational Specific (Including but not limited to the following:)
Standard: Maintain legal guidelines for documentation and releasing of all client records information while complying to all policies and procedures designated by each facility, clinic, or office utilized for internship.
- 51** **Topic:** Occupational Specific (Including but not limited to the following:)
Standard: Organize clients records and files to maintain data as required by the healthcare system.
- 52** **Topic:** Occupational Specific (Including but not limited to the following:)
Standard: Demonstrate charting, utilizing the guidelines for accurate charting in both written and computerized client records and adhering to all policies and procedures designated by each facility, clinic, or office utilized for internship.
- 53** **Topic:** Occupational Specific (Including but not limited to the following:)
Standard: Demonstrate use of a master patient index (MPI).
- 54** **Topic:** Occupational Specific (Including but not limited to the following:)
Standard: Demonstrate straight numeric filing, terminal digit filing, middle digit filing, and how to convert to terminal of middle digit filing.

Course: Medical Laboratory Technology: Core Skills

- 1** **Topic:** Basic Skills
Standard: Locate, understand, and interpret written information in a variety of formats, including such documents as manuals, graphs, reports, and schedules.
- 2** **Topic:** Basic Skills
Standard: Communicate thoughts, ideas, information, and messages in writing and technologically create documents such as letters, directions, manuals, reports, graphs, and flowcharts.
- 3** **Topic:** Basic Skills
Standard: Perform and apply numerical concepts and calculations, and solve problems by choosing appropriately from a variety of mathematical techniques using mental, manual, and technological methods.
- 4** **Topic:** Basic Skills
Standard: Receive, interpret, and respond to verbal and nonverbal messages in a manner appropriate to a given situation.
- 5** **Topic:** Basic Skills
Standard: Organize ideas and communicate orally in a clear, concise, and courteous manner.
- 6** **Topic:** Thinking Skills
Standard: Specify goals, objectives, constraints, and supporting factors.
- 7** **Topic:** Thinking Skills
Standard: Identify problems, alternative solutions, and consequences of alternative solutions, and use appropriate techniques to resolve given problems.
- 8** **Topic:** Thinking Skills
Standard: Implement a plan of action making modifications as needed to achieve stated objectives.
- 9** **Topic:** Thinking Skills
Standard: Use effective learning techniques to acquire and apply new knowledge and skills.
- 10** **Topic:** Personal Qualities
Standard: Assess self accurately, set personal goals, monitor progress, and exhibit self-control.
- 11** **Topic:** Personal Qualities
Standard: Choose ethical courses of action.

- 12** **Topic:** Personal Qualities
Standard: Take initiative to accomplish tasks in a timely manner.
- 13** **Topic:** Personal Qualities
Standard: Exert a high level of effort and persevere towards goal attainment.
- 14** **Topic:** Personal Qualities
Standard: Demonstrate adaptability, dependability, and responsibility and such social behaviors as tolerance, honesty, empathy, and courtesy.
- 15** **Topic:** Interpersonal Skills
Standard: Participate and interact as a team member and leader.
- 16** **Topic:** Interpersonal Skills
Standard: Share knowledge and skills with others.
- 17** **Topic:** Interpersonal Skills
Standard: Perform effectively in various environments with people of different ages, genders, cultures, socioeconomic backgrounds, attitudes, and abilities.
- 18** **Topic:** Interpersonal Skills
Standard: Work to satisfy customer/client expectations.
- 19** **Topic:** Interpersonal Skills
Standard: Use strategies appropriate to a given situation to prevent and resolve conflicts.
- 20** **Topic:** Resources
Standard: Select goal-relevant activities, prioritize them, manage time, and prepare and follow schedules.
- 21** **Topic:** Resources
Standard: Use or prepare budgets, make projections, keep records, and make adjustments to meet objectives.
- 22** **Topic:** Resources
Standard: Acquire, store, allocate, and use materials and space efficiently.
- 23** **Topic:** Technology
Standard: Prevent, identify, or solve problems with technical or electronic equipment.
- 24** **Topic:** Technology
Standard: Operate and maintain technical equipment and the work environment safely following applicable industry regulations and guidelines.
- 25** **Topic:** Technology
Standard: Utilize a variety of technologies.
- 26** **Topic:** Business Aspects
Standard: Demonstrate understanding of basic economic concepts and how they are applied in business functions and activities.
- 27** **Topic:** Business Aspects
Standard: Identify forms of business ownership.
- 28** **Topic:** Business Aspects
Standard: Demonstrate understanding of the scope of a business, its place within an industry, and the interrelationship of its parts.
- 29** **Topic:** Business Aspects
Standard: Demonstrate understanding of the individual's role, responsibilities, and relationships in the organizational structure of a business.
- 30** **Topic:** Business Aspects
Standard: Maintain safety, health, and environmental standards, and addresses ergonomic concerns.

- 31** **Topic:** Career Development
Standard: Make potential career decisions based upon interests, abilities, and values and formulate appropriate plans to reach career goals.
- 32** **Topic:** Career Development
Standard: Demonstrate understanding of the relationship between educational achievement and career planning and how career choices impact family patterns and lifestyle.
- 33** **Topic:** Career Development
Standard: Demonstrate effective skills for seeking and securing employment.
- 34** **Topic:** Career Development
Standard: Demonstrate understanding of education and career development as a lifelong learning process that requires preparation for change.

Course: Medical Laboratory Technology: 25.56500 Introduction to Medical Laboratory Technology

- 35** **Topic:** Career Planning
Standard: Identify and define the various classifications of clinical laboratory personnel and career opportunities (phlebotomy, clinical laboratory assistant, medical laboratory technician, medical technologist, histotechnologist, cytotechnology, pathologist) and education requirements for each area.
- 36** **Topic:** Career Planning
Standard: List, classify, and discuss various departments and services within the health care setting in which the medical laboratory assistant must interact to obtain laboratory specimens from patients.
- 37** **Topic:** Career Planning
Standard: Identify the major departments/sections with the clinical laboratory, the major types of procedures run in each department/section, and their specimen requirements.
- 38** **Topic:** Career Planning
Standard: Explain the historical aspects of medical laboratory technologies.
- 39** **Topic:** Professional Ethics and Regulatory Agencies
Standard: Demonstrate professional and ethical behavior associated with the medical field.
- 40** **Topic:** Professional Ethics and Regulatory Agencies
Standard: Explain certification, accreditation, and licensure (state and federal) as it applies to the field of medical laboratory technologies.
- 41** **Topic:** Professional Ethics and Regulatory Agencies
Standard: Differentiate between ethical and legal issues that impact medical laboratory technologies.
- 42** **Topic:** Professional Ethics and Regulatory Agencies
Standard: Explain the Clinical Laboratory Improvement Act and the levels of testing (I, II, and III).
- 43** **Topic:** Professional Ethics and Regulatory Agencies
Standard: Identify medical laboratory/phlebotomy procedures that may change from facility to facility.
- 44** **Topic:** Professional Ethics and Regulatory Agencies
Standard: Demonstrate understanding of patient rights and responsibilities.
- 45** **Topic:** Professional Ethics and Regulatory Agencies
Standard: Explain the patient confidentiality changes imposed by the Health Insurance Portability and Accountability Act of 1996 (HIPAA) and Office of Health and Human Services.
- 46** **Topic:** Professional Ethics and Regulatory Agencies
Standard: Describe appropriate and legal use of the patient's medical records.

- 47** **Topic:** Laboratory Safety
Standard: Define, demonstrate, and use standard precautions as described in the rules and regulations established by the Occupational Safety and Health Administration (OSHA).
- 48** **Topic:** Laboratory Safety
Standard: Describe the role of the Center for Disease Control (CDC) and Clinical Laboratory Improvement Act (CLIA) in healthcare safety.
- 49** **Topic:** Laboratory Safety
Standard: Demonstrate accepted practices for infection control, isolation techniques, aseptic techniques, and methods for disease prevention.
- 50** **Topic:** Laboratory Safety
Standard: Identify modes of transmission of infection.
- 51** **Topic:** Laboratory Safety
Standard: Define "nosocomial infection."
- 52** **Topic:** Laboratory Safety
Standard: Demonstrate compliance with federal, state, and local regulations regarding safety practices.
- 53** **Topic:** Laboratory Safety
Standard: Practice laboratory safety in accordance with established procedures for common laboratory hazards (fire, chemical, mechanical, and electrical).
- 54** **Topic:** Laboratory Safety
Standard: Utilize materials safety data sheets.
- 55** **Topic:** Laboratory Safety
Standard: Demonstrate the proper method for labeling, handling, and disposing of all materials and biological hazards.
- 56** **Topic:** Laboratory Safety
Standard: Demonstrate safety techniques in storage and use of chemicals.
- 57** **Topic:** Laboratory Safety
Standard: Demonstrate documentations skills as related to safety reports (incident reports and or safety infractions).
- 58** **Topic:** Laboratory Equipment
Standard: Select and use basic equipment to perform selected laboratory skills that includes centrifuge, microscope, spectrophotometer, pH meters, refractometer, and balances.
- 59** **Topic:** Laboratory Equipment
Standard: Demonstrate use of measurement equipment such as volumetric flasks, graduated cylinders, and burettes.
- 60** **Topic:** Laboratory Equipment
Standard: Demonstrate use of pipetting equipment (automatic and manual pipette).
- 61** **Topic:** Laboratory Equipment
Standard: Identify and discuss proper use of appropriate types of equipment needed to collect various clinical laboratory blood specimens by venipuncture/capillary.
- 62** **Topic:** Laboratory Equipment
Standard: Identify the equipment needed to collect specimens.
- 63** **Topic:** Laboratory Equipment
Standard: Identify and describe proper use of equipment and supplies used during specimen collection.
- 64** **Topic:** Laboratory Equipment
Standard: Measure time, temperature, distance, capacity, and mass/weight.
- 65** **Topic:** Laboratory Equipment
Standard: Make and use measurements in both traditional and metric units.

- 66** **Topic:** Applied Anatomy and Physiology
Standard: Demonstrate basic knowledge of the circulatory, urinary, lymphatic, and endocrine systems necessary to perform specimen collection tasks common in the field of medical laboratory technology.
- 67** **Topic:** Applied Anatomy and Physiology
Standard: Describe the main superficial veins used in performing venipunctures.
- 68** **Topic:** Applied Anatomy and Physiology
Standard: Identify proper and improper sites for capillary/venipuncture.
- 69** **Topic:** Applied Anatomy and Physiology
Standard: Describe the structure and function of the following blood components: erythrocytes, thrombocytes, and leukocytes.
- 70** **Topic:** Applied Anatomy and Physiology
Standard: Identify the major blood types.
- 71** **Topic:** Applied Anatomy and Physiology
Standard: Describe the differences between whole blood, serum, and plasma.
- 72** **Topic:** Specimen Collection
Standard: Recognize a properly completed requisition and apply established protocol for patient and specimen identification.
- 73** **Topic:** Specimen Collection
Standard: Describe the types of patient's specimens that are analyzed in the clinical laboratory and the phlebotomist's role in collecting and/or transporting these specimens to the laboratory.
- 74** **Topic:** Specimen Collection
Standard: Assist in explaining tests and procedures to patients.
- 75** **Topic:** Specimen Collection
Standard: Assemble materials for blood collection.
- 76** **Topic:** Specimen Collection
Standard: Describe/perform appropriate methods for preparing a site for capillary punctures.
- 77** **Topic:** Specimen Collection
Standard: Describe/perform appropriate methods for preparing a site for venipunctures.
- 78** **Topic:** Specimen Collection
Standard: Identify special precautions necessary during blood collections by capillary and venipunctures.
- 79** **Topic:** Specimen Collection
Standard: Describe/perform methods for facilitating capillary collection by using aseptic techniques and following standard precautions.
- 80** **Topic:** Specimen Collection
Standard: Describe/perform methods for facilitating venipunctures by using aseptic techniques and following standard precautions.
- 81** **Topic:** Specimen Collection
Standard: Explain common problems related to venipuncture and solutions for these problems.
- 82** **Topic:** Specimen Collection
Standard: List and apply the criteria that would lead to rejection or recollection of a patient sample.
- 83** **Topic:** Specimen Collection
Standard: Identify and discuss the proper use of the various types of anticoagulants, preservatives and gels used in blood collection and the vacuum tube color-codes for these additives.
- 84** **Topic:** Specimen Collection
Standard: Describe/perform procedures for disposing of used or contaminated capillary/venipuncture supplies.

- 85** **Topic:** Specimen Collection
Standard: Describe/perform appropriate techniques for making a peripheral blood smear for hematological evaluation.
- 86** **Topic:** Specimen Collection
Standard: Describe protocols for blood withdrawal from patients that differ from the general population (patient with mastectomy, dialysis, heparin locks, Hickman catheter, and port-a-cath).
- 87** **Topic:** Specimen Collection
Standard: Identify special collection techniques: B12, cryoglobins, blood gases, bleeding times, unopettes, malarial smears, cold agglutinins, GTT, 2 hour post prandial, peak/trough drug monitoring, blood alcohols, glucometer systems.
- 88** **Topic:** Transporting and Processing Specimens
Standard: Identify and demonstrate standard operating procedures for labeling, transport, and processing of specimens.
- 89** **Topic:** Transporting and Processing Specimens
Standard: Demonstrate proper use of a practice management system or computer applications for specimen collection, labeling, orders and processing documentation.
- 90** **Topic:** Transporting and Processing Specimens
Standard: Describe special procedures for transporting and processing specimens.
- 91** **Topic:** Transporting and Processing Specimens
Standard: Describe the significance of time constraints for specimen collection and delivery.
- 92** **Topic:** Transporting and Processing Specimens
Standard: Prepare/reconstitute reagents, standards, and controls according to standard operating procedure.
- 93** **Topic:** Transporting and Processing Specimens
Standard: Identify and report contamination and/or deterioration in reagents, standards, and controls.
- 94** **Topic:** Transporting and Processing Specimens
Standard: Identify proper laboratory protocols for storage and suitability of reagents, standards, and controls.
- 95** **Topic:** Transporting and Processing Specimens
Standard: Describe and follow the criteria for specimens and test results that will be used as legal evidence.
- 96** **Topic:** Transporting and Processing Specimens
Standard: Demonstrate documentation skills for reporting results of clinical laboratory tests.
- 97** **Topic:** Quality Assurance
Standard: Describe the components of a Quality Assurance Program.
- 98** **Topic:** Quality Assurance
Standard: Define and calculate statistical terms.
- 99** **Topic:** Quality Assurance
Standard: Describe role of the clinical laboratory personnel in providing quality assurance in a medical laboratory.
- 100** **Topic:** Quality Assurance
Standard: Perform quality control procedures for testing, reporting, calibrating, and maintaining equipment.
- 101** **Topic:** Quality Assurance
Standard: Read, interpret, and report results from graphs, charts, and tables.
- 102** **Topic:** Quality Assurance
Standard: Identify and report problems encountered in daily quality control procedures according to standard operating procedures.

- 103** **Topic:** Quality Assurance
Standard: Demonstrate documentation skill related to reporting quality control procedures and results.
- 104** **Topic:** Laboratory Testing
Standard: Describe routine laboratory tests in the area of microbiology, clinical chemistry, urinalysis, hematology, immunohematology, and serological immunology.
- 105** **Topic:** Laboratory Testing
Standard: Discuss the results of commonly performed testing in microbiology, clinical chemistry, UA, hematology, immunohematology, and serological immunology and determine clinical significance of such tests.

Course: Medical Laboratory Technology: 25.56600 Applications of Medical Laboratory Testing

- 35** **Topic:** Specimen Collection
Standard: Demonstrate knowledge of established protocol for patient and specimen identification.
- 36** **Topic:** Specimen Collection
Standard: Demonstrate proper handling of blood specimens for analysis.
- 37** **Topic:** Specimen Collection
Standard: Perform appropriate methods for preparing a site for capillary or venipuncture using standard precautions.
- 38** **Topic:** Specimen Collection
Standard: Perform capillary and venipunctures punctures using aseptic techniques and following standard precautions.
- 39** **Topic:** Specimen Collection
Standard: Perform procedures for disposing of used or contaminated capillary/venipuncture supplies.
- 40** **Topic:** Urinalysis (ua)
Standard: Describe renal function tests.
- 41** **Topic:** Urinalysis (ua)
Standard: Describe the formation and composition of urine.
- 42** **Topic:** Urinalysis (ua)
Standard: Identify and describe the structure and function of the renal/urinary system.
- 43** **Topic:** Urinalysis (ua)
Standard: Use medical terminology related to urinalysis.
- 44** **Topic:** Urinalysis (ua)
Standard: Identify the chemical and physical components of urine.
- 45** **Topic:** Urinalysis (ua)
Standard: Identify microscopic structures of urine.
- 46** **Topic:** Urinalysis (ua)
Standard: Explain the principles of urine tests.
- 47** **Topic:** Urinalysis (ua)
Standard: Demonstrate laboratory procedures in urinalysis.
- 48** **Topic:** Urinalysis (ua)
Standard: Describe methods and applications of urine collection.
- 49** **Topic:** Urinalysis (ua)
Standard: Perform specimen collection and handling of urine that includes patient instructions, labeling of specimen, use of containers, and preservation.

- 50** **Topic:** Urinalysis (ua)
Standard: Identify and perform special tests.
- 51** **Topic:** Urinalysis (ua)
Standard: Explain the clinical significance of special tests.
- 52** **Topic:** Urinalysis (ua)
Standard: Perform quality control procedures for testing, reporting, calibrating, and maintaining equipment specific for urinalysis.
- 53** **Topic:** Urinalysis (ua)
Standard: Identify potential sources of error in UA testing (physical, chemical, and microscopic).
- 54** **Topic:** Urinalysis (ua)
Standard: Demonstrate documentation skills related to reporting quality control procedures and results for UA.
- 55** **Topic:** ua-Chemical Analysis
Standard: Perform chemical dipstick and tablet UA analyses.
- 56** **Topic:** ua-Chemical Analysis
Standard: Perform routine chemical analysis including pH, protein, glucose, ketones, bilirubin, blood, urobilinogen, leukocyte esterase, and nitrite.
- 57** **Topic:** ua-Chemical Analysis
Standard: Explain the clinical significance of routine chemical testing.
- 58** **Topic:** ua-Chemical Analysis
Standard: Discuss principles of routine chemical testing of urine.
- 59** **Topic:** ua-Chemical Analysis
Standard: Identify normal and abnormal values for chemical analysis of urine and correlate the findings to disease states.
- 60** **Topic:** ua-Physical Analysis
Standard: Perform physical examination of urine including the color, clarity, and specific gravity.
- 61** **Topic:** ua-Physical Analysis
Standard: Explain the clinical significance of the physical analysis of urine.
- 62** **Topic:** ua-Physical Analysis
Standard: Explain the principles of physical analysis of urine.
- 63** **Topic:** ua-Physical Analysis
Standard: Identify normal and abnormal test values for physical analysis of urine and correlate the findings to disease states.
- 64** **Topic:** ua-Microscopic Analysis
Standard: Perform routine microscopic exam of urine including the identification of cells, casts, crystals, and foreign matter found in urine.
- 65** **Topic:** ua-Microscopic Analysis
Standard: Explain the clinical significance of the microscopic examination of urine.
- 66** **Topic:** ua-Microscopic Analysis
Standard: Explain the principles of principles of microscopic examination of urine.
- 67** **Topic:** ua-Microscopic Analysis
Standard: Identify normal and abnormal findings in microscopic analysis of urine and correlate the findings to disease states.
- 68** **Topic:** Confirmatory Tests
Standard: Discuss the principles of confirmatory tests.

- 69** **Topic:** Confirmatory Tests
Standard: Perform confirmatory test for any abnormal constituents found in urine.
- 70** **Topic:** Confirmatory Tests
Standard: Explain the clinical significance of confirmatory tests.
- 71** **Topic:** Body Fluid Analysis
Standard: Demonstrate proper handling of body fluid specimens for analysis.
- 72** **Topic:** Body Fluid Analysis
Standard: Perform routine analysis on body fluids.
- 73** **Topic:** Body Fluid Analysis
Standard: Explain the clinical significance of body fluid analyses.
- 74** **Topic:** Clinical Chemistry
Standard: Prepare solutions.
- 75** **Topic:** Clinical Chemistry
Standard: Describe principles and perform commonly ordered tests related to carbohydrate, protein, and lipid metabolism.
- 76** **Topic:** Clinical Chemistry
Standard: Explain blood gas tests.
- 77** **Topic:** Clinical Chemistry
Standard: Identify enzyme analyses related to pancreatic, liver, bone, muscle, and heart function.
- 78** **Topic:** Clinical Chemistry
Standard: Describe methods of enzyme analysis.
- 79** **Topic:** Clinical Chemistry
Standard: Identify tests used to determine endocrine function.
- 80** **Topic:** Clinical Chemistry
Standard: Describe the role of the laboratory in therapeutic drug monitoring and toxicology.
- 81** **Topic:** Clinical Chemistry
Standard: Perform CLIA waived tests in the area of clinical chemistry.
- 82** **Topic:** Clinical Chemistry
Standard: Explain normal and abnormal findings and correlate clinical significance of test value.
- 83** **Topic:** Hematology
Standard: Demonstrate knowledge of erythrocytes, granulocytes, lymphocytes, thrombocytes, and monocytes.
- 84** **Topic:** Hematology
Standard: Perform CLIA waived tests in the area of hematology.
- 85** **Topic:** Hematology
Standard: Perform manual and automated tests of complete blood counts.
- 86** **Topic:** Hematology
Standard: Perform blood smear stains.
- 87** **Topic:** Hematology
Standard: Perform examination of blood films.
- 88** **Topic:** Hematology
Standard: Perform hematocrit tests.

- 89** **Topic:** Hematology
Standard: Describe techniques of hematology related to bleeding and clotting times.
- 90** **Topic:** Hematology
Standard: Describe/perform coagulation and hemostasis tests.
- 91** **Topic:** Hematology
Standard: Discuss results and correlate findings with normal and abnormal physiological states.
- 92** **Topic:** Microbiology
Standard: Perform techniques of microbiology related to disinfection, isolation, and sterilization techniques.
- 93** **Topic:** Microbiology
Standard: Identify bacteria.
- 94** **Topic:** Microbiology
Standard: Demonstrate laboratory procedures in microbiology (preparation, proper specimen handling, identification of organisms, and clinical significance of results).
- 95** **Topic:** Microbiology
Standard: Perform CLIA waived tests in the area of microbiology.
- 96** **Topic:** Microbiology
Standard: Perform techniques of microbiology related to preparation, staining, and microscopic examination of gram stains.
- 97** **Topic:** Microbiology
Standard: Describe specimen collection, handling, and culturing techniques for urine, stool, wound, throat, body fluids, blood, and exudates.
- 98** **Topic:** Microbiology
Standard: Identify classification, composition, and use of culture media.
- 99** **Topic:** Microbiology
Standard: Culture given specimens on appropriate media.
- 100** **Topic:** Microbiology
Standard: Perform differentiating tests.
- 101** **Topic:** Microbiology
Standard: Discuss results and correlate findings with normal and abnormal physiological states.
- 102** **Topic:** Parasitology
Standard: Describe/perform examinations for parasites.
- 103** **Topic:** Parasitology
Standard: Describe laboratory procedures in parasitology (preparation, proper specimen handling, identification of organisms, and clinical significance of results).
- 104** **Topic:** Parasitology
Standard: Perform techniques related to slide preparation as related to parasitology testing.
- 105** **Topic:** Immunohematology
Standard: Demonstrate laboratory procedures in immunohematology (specimen preparation, specimen handling, identification of results, and clinical significance of results).
- 106** **Topic:** Immunohematology
Standard: Define antigens and antibodies and explain their significance in immunohematology.
- 107** **Topic:** Immunohematology
Standard: Describe ABO, Rh, and other blood group systems.

- 108** **Topic:** Immunoematology
Standard: Identify enzyme tests used in immunoematology.
- 109** **Topic:** Immunoematology
Standard: Describe immune hemolytic diseases commonly investigated through immunoematological procedures.
- 110** **Topic:** Serological Immunology
Standard: Describe the immune system and the normal immune response.
- 111** **Topic:** Serological Immunology
Standard: Describe agglutination tests.
- 112** **Topic:** Serological Immunology
Standard: Describe flocculation and precipitation procedures in serology.
- 113** **Topic:** Serological Immunology
Standard: Describe/perform CLIA waived tests in the area of immunology and serology.
- 114** **Topic:** Serological Immunology
Standard: Discuss the interpretation of serological immunological tests and determine clinical significance of commonly performed serological immunology tests.

Course: Medical Laboratory Technology: 25.56700 Medical Laboratory Technology Internship

- 35** **Topic:** Applied Anatomy and Physiology
Standard: Demonstrate basic knowledge of the circulatory, urinary, lymphatic, and endocrine systems necessary to perform specimen collection tasks common in the field of medical laboratory technology.
- 36** **Topic:** Applied Anatomy and Physiology
Standard: Describe the main superficial veins used in performing venipunctures.
- 37** **Topic:** Applied Anatomy and Physiology
Standard: Identify proper and improper sites for capillary/venipuncture.
- 38** **Topic:** Applied Anatomy and Physiology
Standard: Describe the structure and function of the following blood components: erythrocytes, thrombocytes, and leukocytes.
- 39** **Topic:** Applied Anatomy and Physiology
Standard: Identify the major blood types.
- 40** **Topic:** Applied Anatomy and Pysiology
Standard: Describe the differences between whole blood, serum, and plasma.
- 41** **Topic:** Documetation
Standard: Follow protocol for receiving orders.
- 42** **Topic:** Documetation
Standard: Follow established protocols or patient and specimen identification.
- 43** **Topic:** Documetation
Standard: Demonstrate proficiency in technical documentation.
- 44** **Topic:** Risk Management/Infection Control
Standard: Demonstrate accepted practices for infection control, isolation techniques, aseptic techniques, and methods for disease prevention.
- 45** **Topic:** Risk Management/Infection Control
Standard: Demonstrate compliance with federal, state, and local regulations regarding safety practices.

- 46** **Topic:** Risk Management/Infection Control
Standard: Practice laboratory safety in accordance with established procedures for common laboratory hazards (fire, chemical, mechanical, and electrical).
- 47** **Topic:** Risk Management/Infection Control
Standard: Utilize materials safety data sheets.
- 48** **Topic:** Risk Management/Infection Control
Standard: Demonstrate the proper method for labeling, handling, and disposing of all materials and biological hazards.
- 49** **Topic:** Risk Management/Infection Control
Standard: Demonstrate safety techniques in storage and use of chemicals.
- 50** **Topic:** Risk Management/Infection Control
Standard: Demonstrate documentation skills as related to safety reports (incident reports and or safety infractions).
- 51** **Topic:** Risk Management/Infection Control
Standard: Demonstrate proper handling of blood and body fluid specimens for analysis.
- 52** **Topic:** Transporting and Processing Specimens
Standard: Demonstrate standard operating procedures for labeling, transport, and processing of specimens.
- 53** **Topic:** Transporting and Processing Specimens
Standard: Demonstrate proper use of a practice management system or computer applications for specimen collection, labeling, orders and processing documentation.
- 54** **Topic:** Specimen Collection
Standard: Assist in explaining tests and procedures to patients.
- 55** **Topic:** Specimen Collection
Standard: Assemble materials for blood collection.
- 56** **Topic:** Specimen Collection
Standard: Demonstrate knowledge of established protocol for patient and specimen identification.
- 57** **Topic:** Specimen Collection
Standard: Demonstrate proper handling of blood specimens for analysis.
- 58** **Topic:** Specimen Collection
Standard: Perform appropriate methods for preparing a site for capillary punctures.
- 59** **Topic:** Specimen Collection
Standard: Perform appropriate methods for preparing a site for venipunctures.
- 60** **Topic:** Specimen Collection
Standard: Perform methods for facilitating capillary collection by using aseptic techniques and following standard precautions.
- 61** **Topic:** Specimen Collection
Standard: Perform methods for facilitating venipunctures by using aseptic techniques and following standard precautions.
- 62** **Topic:** Specimen Collection
Standard: Demonstrate proper use of the various types of anticoagulants, preservatives and gels used in blood collection and the vacuum tube color-codes for these additives.
- 63** **Topic:** Specimen Collection
Standard: Perform procedures for disposing of used or contaminated capillary/venipuncture supplies.
- 64** **Topic:** Specimen Collection
Standard: Perform blood withdrawal from patients that differ from general population: patient with mastectomy, dialysis, heparin locks, Hickman catheter, and port-a-cath.

Course: Pre-Pharmacy Technology: Core Skills

- 1** **Topic:** Basic Skills
Standard: Locate, understand, and interpret written information in a variety of formats, including such documents as manuals, graphs, reports, and schedules.
- 2** **Topic:** Basic Skills
Standard: Communicate thoughts, ideas, information, and messages in writing and technologically create documents such as letters, directions, manuals, reports, graphs, and flowcharts.
- 3** **Topic:** Basic Skills
Standard: Perform and apply numerical concepts and calculations, and solve problems by choosing appropriately from a variety of mathematical techniques using mental, manual, and technological methods.
- 4** **Topic:** Basic Skills
Standard: Receive, interpret, and respond to verbal and nonverbal messages in a manner appropriate to a given situation.
- 5** **Topic:** Basic Skills
Standard: Organize ideas and communicate orally in a clear, concise, and courteous manner.
- 6** **Topic:** Thinking Skills
Standard: Specify goals, objectives, constraints, and supporting factors.
- 7** **Topic:** Thinking Skills
Standard: Identify problems, alternative solutions, and consequences of alternative solutions, and use appropriate techniques to resolve given problems.
- 8** **Topic:** Thinking Skills
Standard: Implement a plan of action making modifications as needed to achieve stated objectives.
- 9** **Topic:** Thinking Skills
Standard: Use effective learning techniques to acquire and apply new knowledge and skills.
- 10** **Topic:** Personal Qualities
Standard: Assess self accurately, set personal goals, monitor progress, and exhibit self-control.
- 11** **Topic:** Personal Qualities
Standard: Choose ethical courses of action.
- 12** **Topic:** Personal Qualities
Standard: Take initiative to accomplish tasks in a timely manner.
- 13** **Topic:** Personal Qualities
Standard: Exert a high level of effort and persevere towards goal attainment.
- 14** **Topic:** Personal Qualities
Standard: Demonstrate adaptability, dependability, and responsibility and such social behaviors as tolerance, honesty, empathy, and courtesy.
- 15** **Topic:** Interpersonal Skills
Standard: Participate and interact as a team member and leader.
- 16** **Topic:** Interpersonal Skills
Standard: Share knowledge and skills with others.
- 17** **Topic:** Interpersonal Skills
Standard: Perform effectively in various environments with people of different ages, genders, cultures, socioeconomic backgrounds, attitudes, and abilities.

- 18** **Topic:** Interpersonal Skills
Standard: Work to satisfy customer/client expectations.
- 19** **Topic:** Interpersonal Skills
Standard: Use strategies appropriate to a given situation to prevent and resolve conflicts.
- 20** **Topic:** Resources
Standard: Select goal-relevant activities, prioritize them, manage time, and prepare and follow schedules.
- 21** **Topic:** Resources
Standard: Use or prepare budgets, make projections, keep records, and make adjustments to meet objectives.
- 22** **Topic:** Resources
Standard: Acquire, store, allocate, and use materials and space efficiently.
- 23** **Topic:** Technology
Standard: Prevent, identify, or solve problems with technical or electronic equipment.
- 24** **Topic:** Technology
Standard: Operate and maintain technical equipment and the work environment safely following applicable industry regulations and guidelines.
- 25** **Topic:** Technology
Standard: Utilize a variety of technologies.
- 26** **Topic:** Business Aspects
Standard: Demonstrate understanding of basic economic concepts and how they are applied in business functions and activities.
- 27** **Topic:** Business Aspects
Standard: Identify forms of business ownership.
- 28** **Topic:** Business Aspects
Standard: Demonstrate understanding of the scope of a business, its place within an industry, and the interrelationship of its parts.
- 29** **Topic:** Business Aspects
Standard: Demonstrate understanding of the individual's role, responsibilities, and relationships in the organizational structure of a business.
- 30** **Topic:** Business Aspects
Standard: Maintain safety, health, and environmental standards, and addresses ergonomic concerns.
- 31** **Topic:** Career Development
Standard: Make potential career decisions based upon interests, abilities, and values and formulate appropriate plans to reach career goals.
- 32** **Topic:** Career Development
Standard: Demonstrate understanding of the relationship between educational achievement and career planning and how career choices impact family patterns and lifestyle.
- 33** **Topic:** Career Development
Standard: Demonstrate effective skills for seeking and securing employment.
- 34** **Topic:** Career Development
Standard: Demonstrate understanding of education and career development as a lifelong learning process that requires preparation for change.

Course: Pre-Pharmacy Technology: 25.57100 Pharmacy Operations Fundamentals

- 35** **Topic:** Orientation to the Pharmaceutical Industry
Standard: Identify types of pharmacy practices found in community settings and hospital/institutional settings including retail, home health care, ambulatory care, long term care, clinic, hospital, and regional healthcare systems.
- 36** **Topic:** Orientation to the Pharmaceutical Industry
Standard: Identify current employment options in the pharmacy profession, pre-employment educational requirements necessary, and develop a career path for one option.
- 37** **Topic:** Orientation to the Pharmaceutical Industry
Standard: Identify the members of the pharmacy team; differentiate between roles and responsibilities of team members, and place all members in appropriate positions on the organizational chart.
- 38** **Topic:** Orientation to the Pharmaceutical Industry
Standard: Define pharmacology and differentiate between its five major subdivisions.
- 39** **Topic:** Orientation to the Pharmaceutical Industry
Standard: Identify natural sources of drugs and discuss how drugs are chemically produced/altered in laboratories.
- 40** **Topic:** Orientation to the Pharmaceutical Industry
Standard: Differentiate between the proper use of the following terms: pharmacokinetics and pharmacodynamics; drug and medication; customer and patient; efficacy and safety.
- 41** **Topic:** Orientation to the Pharmaceutical Industry
Standard: Demonstrate the appropriate use of pharmacology nomenclature to include terminology related to drug effects.
- 42** **Topic:** Orientation to the Pharmaceutical Industry
Standard: Identify pharmacy reference sources for: translating a brand name to a generic name; available drug packaging; dosage forms; correct spelling or definition of a medical term/drug; drug costs; locating the National Drug Code (NDC) number for a drug; correct schedule and/or drug classification.
- 43** **Topic:** Safety and Security Operations
Standard: Identify secured areas within the pharmacy and the personnel permitted in those areas.
- 44** **Topic:** Safety and Security Operations
Standard: Demonstrate appropriate infection control techniques including the proper use of personal protective equipment as describe in the rules and regulations set forth by the Occupational Safety and Health administration (OSHA) when performing sanitation management of pharmacy equipment, handling hazardous wastes, and disposing of all sharps.
- 45** **Topic:** Safety and Security Operations
Standard: Maintain a safe work environment and prevent accidents by adherence to all policies and procedures.
- 46** **Topic:** Safety and Security Operations
Standard: Demonstrate the role of the Pharmacy Assistant during emergency situations such as robbery, forgery, cardiac arrest, choking victim, or an out-of-control patient/customer.
- 47** **Topic:** Safety and Security Operations
Standard: Demonstrate Basic Life Support techniques for conscious and unconscious infants, children, and adults to include skills in each of the following: opening obstructed airways; cardiopulmonary resuscitation; rescue breathing, recovery positions; and the effective use of automatic external defibrillators (simulation).
- 48** **Topic:** Safety and Security Operations
Standard: Identify variances in product inventory and/or document that may indicate drug diversion and/or theft.
- 49** **Topic:** Safety and Security Operations
Standard: Discuss standard operational procedures and documentation for maintaining and dispensing controlled substances and Schedule V over-the-counter drugs.

- 50** **Topic:** Safety and Security Operations
Standard: Cite and follow regulations governing the sales of needles/syringes.
- 51** **Topic:** Safety and Security Operations
Standard: Discuss drug abuse, addiction (physical/psychological), and treatment modalities.
- 52** **Topic:** Safety and Security Operations
Standard: Demonstrate the Pharmacy Assistant's role in contamination control.
- 53** **Topic:** Pharmacy Law
Standard: Identify Federal Regulatory Agencies and Acts affecting pharmacy practice to include Food, Drug, and Cosmetic Act, Controlled Substances Act (CSA), Poison Prevention Packaging Act of 1974 (PPPA), Occupational Safety and Health Administration (OSHA), Joint Commission on Accreditation of Healthcare Organizations (JCAHO), Material Safety Data Sheet (MSDS), Drug Enforcement Administration (DEA), Omnibus Budget Reconciliation Act (OBRA) and discuss the impact of each on Pharmacy Practice.
- 54** **Topic:** Pharmacy Law
Standard: Maintain confidentiality of all client/patient information.
- 55** **Topic:** Pharmacy Law
Standard: Identify pharmacy regulatory agencies within the state of Georgia and discuss their impact on the provision of pharmacy care.
- 56** **Topic:** Pharmacy Law
Standard: Discuss the duties of the Georgia State Board of Pharmacy.
- 57** **Topic:** Pharmacy Law
Standard: Identify components of the Georgia Pharmacy Practice Act that apply to assisting the pharmacist and how those laws regarding responsibilities may differ in the Community setting from those in the Hospital/Institutional setting.
- 58** **Topic:** Pharmacy Law
Standard: Discuss components of the Georgia Pharmacy Practice Act that apply to regulate dispensing of drugs.
- 59** **Topic:** Pharmacy Law
Standard: Compare the five schedules of controlled substances.
- 60** **Topic:** Maintaining the Pharmacy
Standard: Demonstrate and document routine cleaning, maintenance, and calibration of pharmacy equipment.
- 61** **Topic:** Maintaining the Pharmacy
Standard: List factors affecting drug stability and the appropriate corrective procedures for each.
- 62** **Topic:** Maintaining the Pharmacy
Standard: Monitor proper drug storage conditions in regards to heat/light/moisture.
- 63** **Topic:** Maintaining the Pharmacy
Standard: Receive medication/product shipments and verify against specifications on original purchase orders.
- 64** **Topic:** Maintaining the Pharmacy
Standard: Demonstrate inventory check, disposal, and disposal documentation for expired, recalled, and returned: drugs, medications, nutrients, and/or other pharmaceutical products/devices.
- 65** **Topic:** Maintaining the Pharmacy
Standard: Maintain record-keeping systems for repackaging, bulk compounding, recalls, and returns of drugs, medications, nutrients, and other pharmaceutical products.
- 66** **Topic:** Maintaining the Pharmacy
Standard: Discuss the Pharmacy Assistant's role in marketing techniques utilized in retail pharmacy including the importance of maintaining a positive image for the pharmacy, factors that impact product placement, impact of cleanliness, and display set up.

- 67** **Topic:** Advanced Storage and Inventory Control Procedures
Standard: Assist with the ordering and purchasing of pharmaceuticals, durable medical, durable equipment, and bulk supplies.
- 68** **Topic:** Advanced Storage and Inventory Control Procedures
Standard: Discuss when a pharmacist or pharmacy technician may need to apply sterile techniques.
- 69** **Topic:** Advanced Storage and Inventory Control Procedures
Standard: Identify the properties of sterile technique as it applies to a sterile room or clothing.
- 70** **Topic:** Advanced Storage and Inventory Control Procedures
Standard: Discuss receiving sterile delivery and storage.
- 71** **Topic:** Prescription Processing, Packaging, Labeling, and Dispensing
Standard: Differentiate between Over-the-Counter (OTC) and Prescription Drugs.
- 72** **Topic:** Prescription Processing, Packaging, Labeling, and Dispensing
Standard: Categorize common drugs by their therapeutic classification.
- 73** **Topic:** Prescription Processing, Packaging, Labeling, and Dispensing
Standard: Sketch the relationship between major therapeutic classifications of drugs.
- 74** **Topic:** Prescription Processing, Packaging, Labeling, and Dispensing
Standard: Identify chemical, generic, and trade names for common medications.
- 75** **Topic:** Prescription Processing, Packaging, Labeling, and Dispensing
Standard: Identify and discuss all elements necessary for a complete and legal prescription or medication order.
- 76** **Topic:** Prescription Processing, Packaging, Labeling, and Dispensing
Standard: Assess prescriptions and medication orders for authenticity and completeness.
- 77** **Topic:** Prescription Processing, Packaging, Labeling, and Dispensing
Standard: Interpret and transcribe medication orders and prescriptions.
- 78** **Topic:** Prescription Processing, Packaging, Labeling, and Dispensing
Standard: Identify the rights for processing a prescribed medication order or a prescription order.
- 79** **Topic:** Prescription Processing, Packaging, Labeling, and Dispensing
Standard: Assist in obtaining from the patient/customer information such as use of other medications, vitamins/nutrients; identification of any known allergies or adverse reactions; medical history and disabilities/chronic conditions; reimbursement procedures; address, telephone number, date of birth, and other relevant patient/customer information.
- 80** **Topic:** Prescription Processing, Packaging, Labeling, and Dispensing
Standard: Assist in obtaining patient information from medical record, physicians office, prescriber, or other healthcare professionals regarding the patients diagnosis or desired therapeutic outcome, physical disability, medication use, allergies, adverse reactions, medical history, and other relevant patient information.
- 81** **Topic:** Prescription Processing, Packaging, Labeling, and Dispensing
Standard: Implement or update patient/customer medical record/profile as necessary to reflect changes in medical history such as medication duplication, increase or decrease in drug dosage, and drug interactions including drug-drug, drug-laboratory, drug-nutrient, drug-herb, and drug-food interactions.
- 82** **Topic:** Prescription Processing, Packaging, Labeling, and Dispensing
Standard: Enter prescription or medication order information into patient/customer profile.
- 83** **Topic:** Prescription Processing, Packaging, Labeling, and Dispensing
Standard: Obtain medications or devices from inventory and measure, count, or calculate finished dosage forms for dispensing demonstrating correct conversions between metric system, apothecary, and the avoirdupois (common household) measurement systems.
- 84** **Topic:** Prescription Processing, Packaging, Labeling, and Dispensing
Standard: Demonstrate different types of drug packaging (single dose, multiple dose, aerosols/sprays, tubes, etc) and placement in dispensing systems (automated and unit dose).

- 85** **Topic:** Prescription Processing, Packaging, Labeling, and Dispensing
Standard: Identify the required elements of a prescription label and choose the correct auxiliary label for a medication.
- 86** **Topic:** Prescription Processing, Packaging, Labeling, and Dispensing
Standard: Demonstrate appropriate verification procedures of the completed measurements, preparation, and/or packaging of medications as per the facility's policies and procedures.
- 87** **Topic:** Prescription Processing, Packaging, Labeling, and Dispensing
Standard: Demonstrate delivery of medication to patient-care unit, nursing station stock, crash carts, and document distribution of prescription medication, controlled substances, and investigational drugs in each.
- 88** **Topic:** Prescription Processing, Packaging, Labeling, and Dispensing
Standard: Discuss the specific Georgia Pharmacy Laws regarding receiving or placing calls to a physician authorizing prescriptions and/or prescription refills in the Community setting and the Hospital/Institutional setting and what role, if any, the Pharmacy Assistant may fulfill.
- 89** **Topic:** Advanced Dispensing and Distribution Systems
Standard: Discuss the impact of technology specifically the roles of automation and bar coding utilization.
- 90** **Topic:** Advanced Dispensing and Distribution Systems
Standard: Discuss Georgia Pharmacy Law regarding Pharmacy Assistants role in the preparation of Blister-Pack Medications Hospital/Institutional and the Community setting.
- 91** **Topic:** Advanced Dispensing and Distribution Systems
Standard: Demonstrate proper Blister-Packaging of medications.
- 92** **Topic:** Advanced Dispensing and Distribution Systems
Standard: Differentiate between solute, solvent, solution, and suspensions.
- 93** **Topic:** Advanced Dispensing and Distribution Systems
Standard: Perform calculations for creating solutions of various strengths.
- 94** **Topic:** Advanced Dispensing and Distribution Systems
Standard: Discuss when the pharmacist may need to compound medications.
- 95** **Topic:** Advanced Dispensing and Distribution Systems
Standard: Discuss proper compounding techniques utilized by the pharmacist and precautions taken to prevent contamination.
- 96** **Topic:** Advanced Dispensing and Distribution Systems
Standard: Stock manufacturer package (including drug name, lot number, expiration date, NDC number, price/invoice code).
- 97** **Topic:** Health and Wellness
Standard: Discuss society's focus on health and wellness vs. treatment of disease signs and symptoms and its impact on the provision of pharmacy care.
- 98** **Topic:** Health and Wellness
Standard: Distinguish between vitamins, minerals, herbs, and nutrients and the possible benefits of each.
- 99** **Topic:** Health and Wellness
Standard: Discuss different adverse interactions that may occur when patients/customers are combining vitamins, minerals, herbs, nutrients, OTC drugs, and prescription medications.
- 100** **Topic:** Health and Wellness
Standard: Discuss why patients/customers may not communicate to their pharmacists additional prescriptions (received from a different pharmacy) or non-prescription (vitamins, herbs, non-traditional therapies) they are taking and the possible ramifications of their lack of communication.
- 101** **Topic:** Health and Wellness
Standard: Educate the client/patient regarding potential abuse of certain therapeutic classes of medication specifying type of potential addiction (physical or psychological) most common with that class and discuss elements that contribute to the addictive potential of any therapeutic class of medication.

- 102** **Topic:** Business Operations
Standard: Demonstrate the use of both manual and computer-based information systems to perform job-related activities including generate prescription labels, update prices/supply codes, and produce reports.
- 103** **Topic:** Business Operations
Standard: Identify technological threats to client/patient confidentiality and demonstrate maintenance of confidentiality when accessing all client/patient medical records.
- 104** **Topic:** Business Operations
Standard: Coordinate written, electronic, and oral communications throughout the pharmacy practice setting.
- 105** **Topic:** Business Operations
Standard: Discuss types of prescription program sponsors including Medicaid, Medicare, HMOs, and PPOs.
- 106** **Topic:** Business Operations
Standard: Communicate with third-party payers to verify coverage and obtain prior authorizations.
- 107** **Topic:** Business Operations
Standard: Process third-party prescription transactions including: co-pay, deductibles, paper claims, electronic claims, rejected claims, reconciliations, and third-party paid claims.
- 108** **Topic:** Business Operations
Standard: Process the following sales transactions: cash, credit card, in store credit.
- 109** **Topic:** Business Operations
Standard: Assist with the collection of productivity information (the number of prescriptions filled, fill times, rejected claim status) as directed by the pharmacist.
- 110** **Topic:** Business Operations
Standard: Demonstrate basic office skills including filing chronologically, maintaining accurate logs, and composing letters and memos.
- 111** **Topic:** Business Operations
Standard: Discuss employee behaviors that may require disciplinary actions and the possible disciplinary actions that may be utilized by employers.
- 112** **Topic:** Quality Control
Standard: Participate in quality control procedures and quality improvement activities.
- 113** **Topic:** Quality Control
Standard: Provide supplemental drug/nutrient/product education information to patient/customer when and as directed by the pharmacist.
- 114** **Topic:** Quality Control
Standard: Identify when it is necessary to refer the patient/customer to the pharmacist for counseling.

Course: Pre-Pharmacy Technology: 25.57200 Medical Calculations and Drug Administration
(Recommended)

- 35** **Topic:** Basic Healthcare Mathematical Procedures
Standard: Identify when math skills may be needed by healthcare professionals in diagnostic, therapeutic, informational, environmental, and preventative healthcare clusters.
- 36** **Topic:** Basic Healthcare Mathematical Procedures
Standard: Discuss when a healthcare providers lack of math skills could endanger the life of a patient/client.
- 37** **Topic:** Basic Healthcare Mathematical Procedures
Standard: Demonstrate calculations, conversions, and proper articulation of fractions/decimals in healthcare applications.

- 38** **Topic:** Basic Healthcare Mathematical Procedures
Standard: Demonstrate conversions between Roman and Arabic numerals; US Standard time (Greenwich Mean Time) and Military time (24 hour clock); Celsius and Fahrenheit.
- 39** **Topic:** Systems of Measurement
Standard: Identify three systems of measurement commonly used in healthcare delivery systems.
- 40** **Topic:** Systems of Measurement
Standard: Discuss when a healthcare provider may use each of the following systems of measurement: metric system, apothecary, and the avoirdupois (common American household measurements).
- 41** **Topic:** Systems of Measurement
Standard: Recognize, interpret, and articulate metric measurements, apothecary measurements, and avoirdupois measurements.
- 42** **Topic:** Systems of Measurement
Standard: Discuss relationship between milligrams and grains, and grams and grains.
- 43** **Topic:** Systems of Measurement
Standard: Discuss relationship between milliliters and teaspoon, tablespoon, and ounce.
- 44** **Topic:** Systems of Measurement
Standard: Apply conversion constants between metric, apothecary, and avoirdupois systems and within each system.
- 45** **Topic:** Systems of Measurement
Standard: Convert milligrams to grains; grams to grains; teaspoon/tablespoon/ounce to milliliters.
- 46** **Topic:** Systems of Measurement
Standard: Discuss the common drug dose measurements expressed in units/milliequivalents.
- 47** **Topic:** Systems of Measurement
Standard: Convert a doctors order containing units/milliequivalents.
- 48** **Topic:** Medication Calculations-Percent, Ratio, and Proportions
Standard: Recognize, interpret, and articulate solution strength as a percent and as a ratio.
- 49** **Topic:** Medication Calculations-Percent, Ratio, and Proportions
Standard: Convert fractions and decimals to equivalent percents.
- 50** **Topic:** Medication Calculations-Percent, Ratio, and Proportions
Standard: Compare quantities using ratios.
- 51** **Topic:** Medication Calculations-Percent, Ratio, and Proportions
Standard: Identify ratios that express: a drugs therapeutic index, a solutions strength, and a solutions rate.
- 52** **Topic:** Medication Calculations-Percent, Ratio, and Proportions
Standard: Perform calculations for creating solutions of various strengths.
- 53** **Topic:** Medication Calculations-Percent, Ratio, and Proportions
Standard: Compute correct dosages from doctor orders.
- 54** **Topic:** Medication Calculations-Percent, Ratio, and Proportions
Standard: Determine an unknown term in a ratio with an implied component.
- 55** **Topic:** Medication Calculations-Percent, Ratio, and Proportions
Standard: Prove the equality of a proportion using the means and extremes or cross multiplication.
- 56** **Topic:** Medication Calculations-Percent, Ratio, and Proportions
Standard: Demonstrate computations with proportions including solving for an unknown term in a proportion and converting measurements units using proportions.

- 57** **Topic:** Medication Dispensing
Standard: Identify the meniscus and discuss its relevance in obtaining an accurate measurement of liquid medication.
- 58** **Topic:** Medication Dispensing
Standard: Describe basic solution theory of chemicals including differentiating between solute, solvent, solution, and suspensions.
- 59** **Topic:** Medication Dispensing
Standard: Reconstitute prescriptions into dosage form suitable for administration using aseptic technique.
- 60** **Topic:** Medication Dispensing
Standard: Reconstitute oral liquids for dispensing into bottles (bulk).
- 61** **Topic:** Medication Dispensing
Standard: Dilute fluids to proper strength using pure drug or stronger solution to weaker solution.
- 62** **Topic:** Medication Dispensing
Standard: Demonstrate proper technique for using a syringe and needle for aseptic withdrawal of the contents of rubber-capped vial and a glass ampoule.
- 63** **Topic:** Dosage Calculations
Standard: Identify equipment and systems used in the preparation and administration of oral, percutaneous, topical, inhalation, and parenteral (needles, syringes, administration sets, fluid containers, filters, and pumps) medications.
- 64** **Topic:** Dosage Calculations
Standard: Demonstrate reading a given volume in a calibrated dropper, medicine cup, and a syringe.
- 65** **Topic:** Dosage Calculations
Standard: Discuss how to choose the correct syringe by total volume, use, and calibration.
- 66** **Topic:** Dosage Calculations
Standard: Identify chemical, generic, and trade names for common medications.
- 67** **Topic:** Dosage Calculations
Standard: Differentiate between a prescription order and a physician order.
- 68** **Topic:** Dosage Calculations
Standard: Interpret and transcribe medication orders and prescriptions.
- 69** **Topic:** Dosage Calculations
Standard: Determine the number of tablets or capsules necessary to deliver a prescribed dose.
- 70** **Topic:** Dosage Calculations
Standard: Determine the volume of liquid necessary to deliver a prescribed dose in solution form.
- 71** **Topic:** Dosage Calculations
Standard: Calculate parental drug dosages when given a supply dosage and a drug order using proportion.
- 72** **Topic:** Administering Medications in an Simulated Clinical Environment
Standard: Discuss legal aspects of administering medications and the associated Federal and State Regulatory Agencies and Acts monitoring included but not limited to: Controlled Substances Act (CSA), Occupational Safety and Health Administration (OSHA), Joint Commission on Accreditation of Healthcare Organizations (JCAHO), and the Drug Enforcement Administration (DEA), Omnibus Budget Reconciliation Act (OBRA), and the Patients Bill of Rights.
- 73** **Topic:** Administering Medications in an Simulated Clinical Environment
Standard: Identify healthcare professionals permitted to prescribe and/or administer medications.
- 74** **Topic:** Administering Medications in an Simulated Clinical Environment
Standard: Discuss the patient/clients right to refuse medications/treatments.
- 75** **Topic:** Administering Medications in an Simulated Clinical Environment
Standard: Identify and discuss all elements necessary for a complete and legal prescription or medication order.

- 76** **Topic:** Administering Medications in an Simulated Clinical Environment
Standard: Identify pharmacy reference sources for locating each of the following: drug origins; schedule or classification of a drug; translation of a brand name to a generic name; dosage forms and routes; side effects and adverse reactions; contraindications and precautions; and demonstrate the ability to utilize each resource correctly.
- 77** **Topic:** Administering Medications in an Simulated Clinical Environment
Standard: Differentiate between drug nomenclature to include chemical, trade, and generic names for drugs.
- 78** **Topic:** Administering Medications in an Simulated Clinical Environment
Standard: Identify and define abbreviations/symbols associated with drug administration.
- 79** **Topic:** Administering Medications in an Simulated Clinical Environment
Standard: Discuss the basic concepts of pharmacology to include: site of action, mechanism of action, receptor site, agonists and antagonists, dose-response curve, time-response curve.
- 80** **Topic:** Administering Medications in an Simulated Clinical Environment
Standard: List factors affecting drug stability and monitor proper drug storage conditions in regards to heat/light/moisture.
- 81** **Topic:** Administering Medications in an Simulated Clinical Environment
Standard: Differentiate between therapeutic effects, side effects, an allergic response, and toxic effects and discuss why the healthcare provider should identify each before administering any medication.
- 82** **Topic:** Administering Medications in an Simulated Clinical Environment
Standard: Compare and contrast over-the-counter, prescription drugs, vitamins, minerals, herbs, and other nutrients regarding potential therapeutic effects, harmful interactions, and/or toxicity.
- 83** **Topic:** Administering Medications in an Simulated Clinical Environment
Standard: Discuss the therapeutic index used in animal studies.
- 84** **Topic:** Administering Medications in an Simulated Clinical Environment
Standard: Discuss the major therapeutic classifications of drugs including main action, use, major adverse reactions, interactions, and provider implications.
- 85** **Topic:** Administering Medications in an Simulated Clinical Environment
Standard: Define monitoring parameters and discuss their significance in patient care.
- 86** **Topic:** Administering Medications in an Simulated Clinical Environment
Standard: Compare the three broad categories of routes of medication (enteral, parenteral, topical).
- 87** **Topic:** Administering Medications in an Simulated Clinical Environment
Standard: Locate the thirteen specific routes of administration (on manikin when necessary) and discuss the advantages and disadvantages of each.
- 88** **Topic:** Administering Medications in an Simulated Clinical Environment
Standard: Differentiate between systemic and local drug absorption.
- 89** **Topic:** Administering Medications in an Simulated Clinical Environment
Standard: Discuss dosage forms- solids, liquids, and creams/ointments.
- 90** **Topic:** Administering Medications in an Simulated Clinical Environment
Standard: Demonstrate techniques for preparing oral, parenteral, percutaneous, topical, and inhalation medication admixtures, including the proper preparation of the label, completion of the control records, and documentation of the preparation of medication in various dosage forms.
- 91** **Topic:** Administering Medications in an Simulated Clinical Environment
Standard: Define auxiliary labels and give examples of the information they may provide.
- 92** **Topic:** Administering Medications in an Simulated Clinical Environment
Standard: Demonstrate correct administration of oral, parenteral, percutaneous, topical, and other routes such as inhalation of medications utilizing the 6 Rights of medication administration - Right patients, Right drug, Right dosage, Right time, Right route, and Right documentation.

- 93** **Topic:** Administering Medications in an Simulated Clinical Environment
Standard: Demonstrate correct documentation of the administration of medication to a patient according to the facility's policy and legal guidelines (charting on patient's chart and/or placing in patient data base).
- 94** **Topic:** Administering Medications in an Simulated Clinical Environment
Standard: Demonstrate appropriate procedures when handling all sharps and other hazardous materials.
- 95** **Topic:** Administering Medications in an Simulated Clinical Environment
Standard: Follow institution protocol for reporting a variance including proper protocol for accidental sharp punctures or hazardous materials exposure.
- 96** **Topic:** Age Specific Care
Standard: Identify and discuss biological factors affecting the action of drugs.
- 97** **Topic:** Age Specific Care
Standard: Discuss basic principles for administering medications Geriatric/Elderly.
- 98** **Topic:** Age Specific Care
Standard: Discuss the effects of nutrition and age-related diseases on therapeutic drug response.
- 99** **Topic:** Age Specific Care
Standard: Identify why the elderly may have problems with drug compliance and polypharmacy (multiple drug prescriptions) and discuss possible solutions.
- 100** **Topic:** Age Specific Care
Standard: Discuss special drug considerations involved in administering medications to pediatric patients including: the fetal period during pregnancy, drug exposure during nursing, and drug interactions/toxicity.
- 101** **Topic:** Age Specific Care
Standard: Calculate the correct pediatric dosage based on weight recommendation and using proportion.
- 102** **Topic:** Age Specific Care
Standard: Calculate the correct pediatric dosage using Body Surface Area (BSA) method from the nomogram.
- 103** **Topic:** Controlled Substances
Standard: Discuss the classification levels of controlled substances.
- 104** **Topic:** Controlled Substances
Standard: Discuss standard operational procedures for maintaining controlled substances and Schedule V over-the-counter drugs.
- 105** **Topic:** Controlled Substances
Standard: Demonstrate proper document and verbal report of administration of a controlled substance to a patient in simulation.
- 106** **Topic:** Principles of Intravenous Therapy Techniques
Standard: Discuss basic principles of intravenous therapy.
- 107** **Topic:** Principles of Intravenous Therapy Techniques
Standard: Demonstrate in simulation the correct protocol for administration of I.V. fluids and medications.
- 108** **Topic:** Principles of Intravenous Therapy Techniques
Standard: Identify the major types of I.V. sets by drops delivered.
- 109** **Topic:** Principles of Intravenous Therapy Techniques
Standard: Express the flow rate of I.V. fluids in milliliters per hour based on the physician's order verbally.
- 110** **Topic:** Principles of Intravenous Therapy Techniques
Standard: Convert milliliter per hour to a flow rate expressed in drops per minute using a formula.
- 111** **Topic:** Principles of Intravenous Therapy Techniques
Standard: Calculate I.V. fluid rates, total infusion amounts, and IV fluid intake for 24 hours.

- 112** **Topic:** Principles of Intravenous Therapy Techniques
Standard: Demonstrate the correct set up an I.V. pump including programming.
- 113** **Topic:** Principles of Intravenous Therapy Techniques
Standard: Demonstrate appropriate technique for regulating and I.V. fluid rate manually and per pump programming.
- 114** **Topic:** Principles of Intravenous Therapy Techniques
Standard: Demonstrate proper technique for flushing a heparin lock and demonstrate in simulation.
- 115** **Topic:** Patient Education
Standard: Identify patient education topics related to the use of nonprescription, prescription drugs, vitamins, minerals, herbs, and other nutrients.
- 116** **Topic:** Patient Education
Standard: Identify why a patient/client may be non-compliant with his/her medication regime and discuss potential patient/client education opportunities.
- 117** **Topic:** Patient Education
Standard: Discuss why patients may not communicate to their healthcare provider non-traditional therapies they are participating in and the possible ramifications of their lack of communication.
- 118** **Topic:** Patient Education
Standard: Provide supplemental drug/nutrient/product education information to patient, patient advocate, and/or the patients family.
- 119** **Topic:** Patient Education
Standard: Educate the client/patient regarding potential abuse of certain therapeutic classes of medication specifying type of potential addiction (physical or psychological) most common with that class and discuss elements that contribute to the addictive potential of any therapeutic class of medication.

Course: Pre-Pharmacy Technology: 25.57300 Pre-Pharmacy Technology Internship

- 35** **Topic:** Safety and Security Operations
Standard: Maintain a safe work environment and prevent accidents by adherence to all safety and security policies and procedures.
- 36** **Topic:** Safety and Security Operations
Standard: Demonstrate appropriate infection control techniques including the proper use of personal protective equipment as describe in the rules and regulations set forth by the Occupational Safety and Health administration (OSHA) when performing sanitation management of pharmacy equipment, handling hazardous wastes, and disposing of all sharps.
- 37** **Topic:** Safety and Security Operations
Standard: Discuss with the Pharmacist the role of the Pharmacy Assistant during emergency situations such as robbery, forgery, cardiac arrest, choking victim, or an out-of-control patient/customer.
- 38** **Topic:** Safety and Security Operations
Standard: Adhere to all security procedures and operations including the identification of secured pharmacy areas and the personnel permitted in those areas.
- 39** **Topic:** Safety and Security Operations
Standard: Complete variance reports.
- 40** **Topic:** Safety and Security Operations
Standard: Demonstrate standard operational procedures for maintaining controlled substances and Schedule V over-the-counter drugs and document the management of each according to the facility's policy and legal guidelines.
- 41** **Topic:** Safety and Security Operations
Standard: Locate OSHA poster (guide) and MSDS in all clinical areas utilized.

- 42** **Topic:** Safety and Security Operations
Standard: Follow the facilities chain of command.
- 43** **Topic:** Pharmacy Law
Standard: Demonstrate compliance with all Federal and State Regulatory Agencies and Acts affecting the provision of pharmacy care including but not limited to: DEA, FDA, OSHA, and JCAHO.
- 44** **Topic:** Pharmacy Law
Standard: Maintain patient/client confidentiality.
- 45** **Topic:** Maintaining the Pharmacy
Standard: Demonstrate and document routine cleaning, maintenance, and calibration of pharmacy equipment.
- 46** **Topic:** Maintaining the Pharmacy
Standard: Monitor and document proper drug storage conditions in regards to heat/light/moisture.
- 47** **Topic:** Maintaining the Pharmacy
Standard: Demonstrate proper procedures for receiving and verifying medication/product shipments.
- 48** **Topic:** Maintaining the Pharmacy
Standard: Demonstrate inventory check and record-keeping for expired, recalled, and returned: drugs, medications, nutrients, and/or other pharmaceutical products/devices with the appropriate procedures for disposal and documentation of disposal of each.
- 49** **Topic:** Maintaining the Pharmacy
Standard: Maintain record-keeping systems for repackaging, bulk compounding, recalls, and returns of drugs/medications/nutrients/ and other pharmaceutical products.
- 50** **Topic:** Maintaining the Pharmacy
Standard: Demonstrate application of marketing techniques utilized in retail pharmacy including maintaining a positive image for the pharmacy, display set up, and product placement as directed by the pharmacist.
- 51** **Topic:** Advanced Storage and Inventory Control Procedures
Standard: Assist with the ordering and purchasing of pharmaceuticals, durable medical, equipment, and bulk supplies.
- 52** **Topic:** Advanced Storage and Inventory Control Procedures
Standard: Properly maintain and document controlled substance inventory if indicated as a responsibility by the facility or pharmacist.
- 53** **Topic:** Prescription Processing, Packaging, Labeling, and Dispensing
Standard: Assess prescriptions and medication orders for authenticity and completeness.
- 54** **Topic:** Prescription Processing, Packaging, Labeling, and Dispensing
Standard: Process information for new prescription.
- 55** **Topic:** Prescription Processing, Packaging, Labeling, and Dispensing
Standard: Demonstrate the 6 Rights for processing a prescribed medication order or a prescription order.
- 56** **Topic:** Prescription Processing, Packaging, Labeling, and Dispensing
Standard: Demonstrate obtaining relevant patient/customer information such as use of other medications, vitamins, and nutrients; identification of any known allergies or adverse reactions; medical history and disabilities; reimbursement procedures; address, date of birth, and telephone number.
- 57** **Topic:** Prescription Processing, Packaging, Labeling, and Dispensing
Standard: Demonstrate obtaining patient information from medical record, physicians office, prescriber, or other healthcare professionals regarding the patients diagnosis or desired therapeutic outcome, physical disability, medication use, allergies, adverse reactions, medical history, and other relevant patient information as directed by the pharmacist.
- 58** **Topic:** Prescription Processing, Packaging, Labeling, and Dispensing
Standard: Implement or update patient/customer medical record/profile as necessary to reflect changes in medical history such as medication duplication, and/or drug-disease, drug-drug, drug-laboratory, drug-nutrient, drug-herb, and drug-food interactions.

- 59** **Topic:** Prescription Processing, Packaging, Labeling, and Dispensing
Standard: Enter prescription or medication order information into patient/customer profile.
- 60** **Topic:** Prescription Processing, Packaging, Labeling, and Dispensing
Standard: Obtain medications or devices from inventory and measure, count, or calculate finished dosage forms for dispensing.
- 61** **Topic:** Prescription Processing, Packaging, Labeling, and Dispensing
Standard: Reconstitute oral liquids for dispensing into bottles (bulk) using aseptic technique.
- 62** **Topic:** Prescription Processing, Packaging, Labeling, and Dispensing
Standard: Identify equipment and systems used in the preparation and administration of oral, percutaneous, topical, inhalation, and parenteral (needles, syringes, administration sets, fluid containers, filters, and pumps) medications.
- 63** **Topic:** Prescription Processing, Packaging, Labeling, and Dispensing
Standard: Demonstrate techniques for preparing oral, parenteral, percutaneous, topical, and inhalation medication admixtures, including the proper preparation of the label and completion of the control records.
- 64** **Topic:** Prescription Processing, Packaging, Labeling, and Dispensing
Standard: Demonstrate different types of drug packaging (single dose, multiple dose, aerosols/sprays, tubes, etc.) and placement in dispensing systems (automated and unit dose).
- 65** **Topic:** Prescription Processing, Packaging, Labeling, and Dispensing
Standard: Demonstrate the correct choice of auxiliary labels for prescription and generate.
- 66** **Topic:** Prescription Processing, Packaging, Labeling, and Dispensing
Standard: Demonstrate appropriate verification procedures of the completed measurements, preparation, and/or packaging of medications as per the facility's policies and procedures.
- 67** **Topic:** Prescription Processing, Packaging, Labeling, and Dispensing
Standard: Demonstrate delivery of medication to patient-care unit, nursing station stock, crash carts, and document distribution of prescription medication, controlled substances, and investigational drugs when available and not in conflict with clinical policies and procedures.
- 68** **Topic:** Advanced Dispensing and Distribution Systems
Standard: Demonstrate proper Blister-Packaging of medications.
- 69** **Topic:** Advanced Dispensing and Distribution Systems
Standard: Perform calculations for creating solutions of various strengths.
- 70** **Topic:** Advanced Dispensing and Distribution Systems
Standard: Stock manufacturer package (including drug name, lot#, expiration date; NDC#, price/invoice code).
- 71** **Topic:** Business Operations
Standard: Demonstrate the use of both manual and computer-based information systems to perform job-related activities including generate prescription labels, update prices/supply codes, and input patient/client information.
- 72** **Topic:** Business Operations
Standard: Access client/patient medical records maintaining confidentiality at all times.
- 73** **Topic:** Business Operations
Standard: Communicate effectively with coworkers through written, electronic, and oral communications in the pharmacy practice setting.
- 74** **Topic:** Business Operations
Standard: Demonstrate the use of proper etiquette when answering the telephone and greeting clients/patients in person.
- 75** **Topic:** Business Operations
Standard: Communicate with third-party payers to verify coverage and obtain prior authorizations.
- 76** **Topic:** Business Operations
Standard: Process third-party prescription transactions including: co-pay, deductibles, paper claims, electronic claims, rejected claims, reconciliations, and third-party paid claims.

- 77** **Topic:** Business Operations
Standard: Process the following sales transactions: cash, credit card, in-store credit.
- 78** **Topic:** Business Operations
Standard: Collect productivity information the number of prescriptions filled, fill times, rejected claim status as directed by the pharmacist.
- 79** **Topic:** Business Operations
Standard: Demonstrate basic office skills including file chronologically, maintaining accurate logs, and composing letters and memos.
- 80** **Topic:** Quality Control
Standard: Participate in quality control procedures and quality improvement activities (gathering information from patient/customer satisfaction surveys, medication error, and delivery process audits) as directed by the pharmacist.
- 81** **Topic:** Quality Control
Standard: Refer the patient/customer to the pharmacist for counseling as necessary.

Course: Therapeutic Medical Technology: Core Skills

- 1** **Topic:** Basic Skills
Standard: Locate, understand, and interpret written information in a variety of formats, including such documents as manuals, graphs, reports, and schedules.
- 2** **Topic:** Basic Skills
Standard: Communicate thoughts, ideas, information, and messages in writing and technologically create documents such as letters, directions, manuals, reports, graphs, and flowcharts.
- 3** **Topic:** Basic Skills
Standard: Perform and apply numerical concepts and calculations, and solve problems by choosing appropriately from a variety of mathematical techniques using mental, manual, and technological methods.
- 4** **Topic:** Basic Skills
Standard: Receive, interpret, and respond to verbal and nonverbal messages in a manner appropriate to a given situation.
- 5** **Topic:** Basic Skills
Standard: Organize ideas and communicate orally in a clear, concise, and courteous manner.
- 6** **Topic:** Thinking Skills
Standard: Specify goals, objectives, constraints, and supporting factors.
- 7** **Topic:** Thinking Skills
Standard: Identify problems, alternative solutions, and consequences of alternative solutions, and use appropriate techniques to resolve given problems.
- 8** **Topic:** Thinking Skills
Standard: Implement a plan of action making modifications as needed to achieve stated objectives.
- 9** **Topic:** Thinking Skills
Standard: Use effective learning techniques to acquire and apply new knowledge and skills.
- 10** **Topic:** Personal Qualities
Standard: Assess self accurately, set personal goals, monitor progress, and exhibit self-control.
- 11** **Topic:** Personal Qualities
Standard: Choose ethical courses of action.
- 12** **Topic:** Personal Qualities
Standard: Take initiative to accomplish tasks in a timely manner.

- 13** **Topic:** Personal Qualities
Standard: Exert a high level of effort and persevere towards goal attainment.
- 14** **Topic:** Personal Qualities
Standard: Demonstrate adaptability, dependability, and responsibility and such social behaviors as tolerance, honesty, empathy, and courtesy.
- 15** **Topic:** Interpersonal Skills
Standard: Participate and interact as a team member and leader.
- 16** **Topic:** Interpersonal Skills
Standard: Share knowledge and skills with others.
- 17** **Topic:** Interpersonal Skills
Standard: Perform effectively in various environments with people of different ages, genders, cultures, socioeconomic backgrounds, attitudes, and abilities.
- 18** **Topic:** Interpersonal Skills
Standard: Work to satisfy customer/client expectations.
- 19** **Topic:** Interpersonal Skills
Standard: Use strategies appropriate to a given situation to prevent and resolve conflicts.
- 20** **Topic:** Resources
Standard: Select goal-relevant activities, prioritize them, manage time, and prepare and follow schedules.
- 21** **Topic:** Resources
Standard: Use or prepare budgets, make projections, keep records, and make adjustments to meet objectives.
- 22** **Topic:** Resources
Standard: Acquire, store, allocate, and use materials and space efficiently.
- 23** **Topic:** Technology
Standard: Prevent, identify, or solve problems with technical or electronic equipment.
- 24** **Topic:** Technology
Standard: Operate and maintain technical equipment and the work environment safely following applicable industry regulations and guidelines.
- 25** **Topic:** Technology
Standard: Utilize a variety of technologies.
- 26** **Topic:** Business Aspects
Standard: Demonstrate understanding of basic economic concepts and how they are applied in business functions and activities.
- 27** **Topic:** Business Aspects
Standard: Identify forms of business ownership.
- 28** **Topic:** Business Aspects
Standard: Demonstrate understanding of the scope of a business, its place within an industry, and the interrelationship of its parts.
- 29** **Topic:** Business Aspects
Standard: Demonstrate understanding of the individual's role, responsibilities, and relationships in the organizational structure of a business.
- 30** **Topic:** Business Aspects
Standard: Maintain safety, health, and environmental standards, and addresses ergonomic concerns.
- 31** **Topic:** Career Development
Standard: Make potential career decisions based upon interests, abilities, and values and formulate appropriate plans to reach career goals.

- 32** **Topic:** Career Development
Standard: Demonstrate understanding of the relationship between educational achievement and career planning and how career choices impact family patterns and lifestyle.
- 33** **Topic:** Career Development
Standard: Demonstrate effective skills for seeking and securing employment.
- 34** **Topic:** Career Development
Standard: Demonstrate understanding of education and career development as a lifelong learning process that requires preparation for change.

Course: Therapeutic Medical Technology: 25.57600 Introduction to Therapeutic Medicine

- 35** **Topic:** Career Planning
Standard: Identify a variety of careers in therapeutic medicine (including athletic trainer, biomechanist, exercise physiologist, massage therapist, personal trainer, physical therapist/assistant, occupational therapist, orthopedic surgeon/physician, strength and conditioning coach, sports chiropractor, sports psychologist, and sports nutritionist) and explain the educational requirements for each area.
- 36** **Topic:** Career Planning
Standard: Identify the various employment settings within therapeutic medicine.
- 37** **Topic:** Career Planning
Standard: Identify the personal characteristics for a career in therapeutic medicine.
- 38** **Topic:** Career Planning
Standard: Explain the history, purpose, and philosophy of disciplines within the area of therapeutic medicine such as athletic training, kinesiology, exercise physiology, massage therapy, physical therapy, occupational therapy, medicine, strength and conditioning, sports chiropractic, sports psychology, and sports nutrition.
- 39** **Topic:** Career Planning
Standard: Explain certification, accreditation, registration, and licensure (state and federal) as it applies to the disciplines such as athletic training, kinesiology, exercise physiology, massage therapy, personal training, physical therapy/assistant, occupational therapy, medicine, strength and conditioning, sports chiropractic, sports psychology, and sports nutrition.
- 40** **Topic:** Career Planning
Standard: Define, compare, and differentiate between services performed in diagnostic, therapeutic, environmental, informational, and preventive services.
- 41** **Topic:** Career Planning
Standard: Identify the primary and secondary members of the sports medicine team.
- 42** **Topic:** Career Planning
Standard: Describe and differentiate the roles, functions, and responsibilities of each member of the sports medicine team.
- 43** **Topic:** Career Planning
Standard: Identify and discuss the professional organizations and associations related to therapeutic medicine (examples: American College of Sports Medicine, American Physical Therapy Association, National Athletic Trainers Association, etc.) with respect to roles, functions, structure, and historical aspects of these organizations.
- 44** **Topic:** Career Planning
Standard: Identify professional organizations and associations specific for students that are related to healthcare (HOSA and VICA).
- 45** **Topic:** Career Planning
Standard: Explain why membership in a professional organization is important for professional growth.
- 46** **Topic:** Legal and Professional Ethics
Standard: Differentiate between ethical and legal issues that impact healthcare as they relate to the field of therapeutic medicine.

- 47** **Topic:** Legal and Professional Ethics
Standard: Define and relate the following terms to the field of therapeutic medicine: negligence, malpractice, tort law, reasonable care, Good Samaritan Act, confidentiality, informed consent, Patient Bill of Rights, Code of Ethics, and Guide for Conduct.
- 48** **Topic:** Legal and Professional Ethics
Standard: Explain the Professional Standards of Care and Georgia laws governing the practice of fields in the area therapeutic medicine (as outlined previously).
- 49** **Topic:** Legal and Professional Ethics
Standard: Describe appropriate methods and procedures to maintain patient confidentiality and identify threats to patient confidentiality.
- 50** **Topic:** Legal and Professional Ethics
Standard: Explain legal and ethical ramifications of breaching patient confidentiality.
- 51** **Topic:** Legal and Professional Ethics
Standard: Discuss legal concerns and the roles of licensed and non-licensed therapeutic medicine professionals.
- 52** **Topic:** Legal and Professional Ethics
Standard: Identify preventative measures to reduce potential risks of litigation.
- 53** **Topic:** Introduction to Medical Terminology
Standard: Interpret common medical abbreviations, symbols, and acronyms.
- 54** **Topic:** Introduction to Medical Terminology
Standard: Define, spell, and pronounce basic word roots, prefixes, and suffixes.
- 55** **Topic:** Introduction to Medical Terminology
Standard: Combine roots, suffixes, and prefixes in order to form medical terms.
- 56** **Topic:** Introduction to Medical Terminology
Standard: Define and utilize diagnostic, surgical and procedural terms, and abbreviations related to integumentary, musculoskeletal, nervous, respiratory, cardiovascular, lymphatic, digestive, endocrine, urinary, and reproductive systems.
- 57** **Topic:** Introduction to Medical Terminology
Standard: Utilize medical terminology in order to interpret and communicate information, medical orders, tests, results, assessment, and care plans.
- 58** **Topic:** Documentation
Standard: Explain the importance of reporting and recording in the healthcare profession (patient files and incident reports).
- 59** **Topic:** Documentation
Standard: Describe the subjective, objective, assessment, and plan (SOAP) reporting that is standard note writing in patient documentation.
- 60** **Topic:** Documentation
Standard: Demonstrate use of standardized record keeping methods while maintaining patient confidentiality.
- 61** **Topic:** Human Relations and Communications
Standard: Identify and demonstrate therapeutic and non-therapeutic communication techniques.
- 62** **Topic:** Human Relations and Communications
Standard: Establish rapport with patients/clients and other healthcare professionals.
- 63** **Topic:** Human Relations and Communications
Standard: Explain human growth and development.
- 64** **Topic:** Human Relations and Communications
Standard: Identify concerns of the elderly.

- 65** **Topic:** Human Relations and Communications
Standard: Identify and discuss elements and concerns of death and dying.
- 66** **Topic:** Human Relations and Communications
Standard: Identify and demonstrate stress management techniques.
- 67** **Topic:** Medical Asepsis and Infection Control
Standard: Define blood and air borne pathogens.
- 68** **Topic:** Medical Asepsis and Infection Control
Standard: Explain methods of transmission of microorganisms and identify means for controlling the spread of pathogenic microorganisms.
- 69** **Topic:** Medical Asepsis and Infection Control
Standard: Describe methods for destroying microorganisms.
- 70** **Topic:** Medical Asepsis and Infection Control
Standard: Describe forms of immunity.
- 71** **Topic:** Medical Asepsis and Infection Control
Standard: Describe the characteristics of the infection chain.
- 72** **Topic:** Medical Asepsis and Infection Control
Standard: Identify causes, signs and symptoms, occurrence, mode of transmission, incubation period, time frame for communicability, and prevention for the following: Human Immunodeficiency Virus, Hepatitis (A, B, C, D, E, and G), Tuberculosis, Meningitis, Mumps, Measles, Chickenpox, and Herpes.
- 73** **Topic:** Medical Asepsis and Infection Control
Standard: Explain and demonstrate standard precautions as established by the Centers for Disease Control (CDC).
- 74** **Topic:** Medical Asepsis and Infection Control
Standard: Differentiate the roles, standards, and guidelines for the following agencies: Occupational Safety and Health Administration regulations (OSHA), CDC, Environmental Protection Agency (EPA), Clinical Laboratory Improvement Amendments (CLIA), Federal Drug Administration (FDA), Department of Technical and Adult Education (DTAE).
- 75** **Topic:** Medical Asepsis and Infection Control
Standard: Explain the need for medical asepsis in the therapeutic medicine environment.
- 76** **Topic:** Medical Asepsis and Infection Control
Standard: Define and demonstrate aseptic and sterilizing principles.
- 77** **Topic:** Medical Asepsis and Infection Control
Standard: Demonstrate proper hand washing techniques.
- 78** **Topic:** Medical Asepsis and Infection Control
Standard: Comply with environmental safety standards, accident prevention methods, and disaster plans.
- 79** **Topic:** Medical Asepsis and Infection Control
Standard: Demonstrate proper use of personal protective equipment (masks, gloves, gowns, etc.).
- 80** **Topic:** Medical Asepsis and Infection Control
Standard: Identify potential safety hazards and exposure risks related to health occupations.
- 81** **Topic:** Medical Asepsis and Infection Control
Standard: Dispose of waste materials in compliance with government regulations.
- 82** **Topic:** Medical Asepsis and Infection Control
Standard: Utilize materials safety data sheets (MSDS).
- 83** **Topic:** Medical Asepsis and Infection Control
Standard: Disinfect materials in laboratory area.

- 84** **Topic:** Vital Signs
Standard: Record pulse from various sites and identify criteria for selecting pulse site (femoral, apical, and radial).
- 85** **Topic:** Vital Signs
Standard: Discuss the factors that affect heart rate.
- 86** **Topic:** Vital Signs
Standard: Identify normal respiratory rates and factors that affect respiration.
- 87** **Topic:** Vital Signs
Standard: Measure rate, depth, and rhythm of respiration (normal and abnormal).
- 88** **Topic:** Vital Signs
Standard: Classify values for blood pressures as optimal, normal, high normal, and hypertension (stage 1, 2, and 3).
- 89** **Topic:** Vital Signs
Standard: Explain the factors that affect blood pressure and the consequences of untreated blood pressure.
- 90** **Topic:** Vital Signs
Standard: Demonstrate proper procedures for assessment of blood pressure.
- 91** **Topic:** Vital Signs
Standard: Identify normal range of body temperature recorded orally, axillary, and tympanic.
- 92** **Topic:** Vital Signs
Standard: Explain the factors that affect body temperature and methods for controlling body temperature.
- 93** **Topic:** Vital Signs
Standard: Demonstrate use of different types of thermometers.
- 94** **Topic:** Vital Signs
Standard: Describe the methods to assess the skin's color, temperature, and condition.
- 95** **Topic:** Vital Signs
Standard: Identify normal and abnormal skin colors and temperatures.
- 96** **Topic:** Vital Signs
Standard: Describe the methods used to assess the pupils.
- 97** **Topic:** Vital Signs
Standard: Record height and weight.
- 98** **Topic:** Vital Signs
Standard: Measure visual status (eye chart).
- 99** **Topic:** Vital Signs
Standard: Demonstrate skills in obtaining vital signs of a client/athlete (pulse, respirations, blood pressure, and temperature).
- 100** **Topic:** Cardiopulmonary Resuscitation
Standard: Demonstrate use of personal protective devices and the use of standard precautions for disease prevention when performing cardiopulmonary resuscitation (CPR).
- 102** **Topic:** Cardiopulmonary Resuscitation
Standard: Demonstrate proper use of an automatic external defibrillator (simulator).

- 103** **Topic:** Cardiopulmonary Resuscitation
Standard: Perform CPR in accordance to certification requirements for Healthcare Providers through the American Heart Association (infant, child, and adult).
- 104** **Topic:** First Aid
Standard: Describe signs, symptoms, and management of potentially life-threatening and non-life threatening injuries.
- 105** **Topic:** First Aid
Standard: Demonstrate first aid procedures to control bleeding.
- 106** **Topic:** First Aid
Standard: Demonstrate first aid procedures for patient in shock.
- 107** **Topic:** First Aid
Standard: Demonstrate first aid procedures for poison victims.
- 108** **Topic:** First Aid
Standard: Demonstrate first aid procedures for burn victims.
- 109** **Topic:** First Aid
Standard: Demonstrate first aid procedures for choking.
- 110** **Topic:** First Aid
Standard: Demonstrate first aid procedures for seizures and syncope.
- 111** **Topic:** First Aid
Standard: Demonstrate first aid procedures for wounds and fractures.
- 112** **Topic:** First Aid
Standard: Demonstrate first aid procedures for heat related injuries.
- 113** **Topic:** First Aid
Standard: Demonstrate first aid procedures for hypothermia.
- 114** **Topic:** First Aid
Standard: Perform first aid skill in accordance with certification requirements through the appropriate certifying agency.
- 115** **Topic:** First Aid
Standard: Demonstrate application of bandages and splints.
- 116** **Topic:** First Aid
Standard: Identify reasons for taping, wrapping, and bracing.
- 117** **Topic:** First Aid
Standard: Demonstrate methods of taping and bracing.
- 118** **Topic:** First Aid
Standard: Demonstrate proper use and fitting of crutches, canes, walkers, and wheelchairs to the patient/client and how to navigate with respect to architectural barriers.

Course: Therapeutic Medical Technology: 25.57700 Kinesiology & Exercise Physiology in Therapeutic Medicine

- 35** **Topic:** Kinesiology
Standard: Utilize anatomical positions, directional terms, movements, and postures.
- 36** **Topic:** Kinesiology
Standard: Define kinematics and kinetics.

- 37** **Topic:** Kinesiology
Standard: Explain Newton's laws of motion.
- 38** **Topic:** Kinesiology
Standard: Demonstrate the anatomical position and movements along each of the three anatomical planes and around each of the three axes of the body.
- 39** **Topic:** Kinesiology
Standard: Explain the classes and components of levers.
- 40** **Topic:** Kinesiology
Standard: Relate levers to the human body.
- 41** **Topic:** Anatomy and Physiology: Skeletal System
Standard: Identify anthropometric characteristics of the body.
- 42** **Topic:** Anatomy and Physiology: Skeletal System
Standard: Describe the types and functions of bones.
- 43** **Topic:** Anatomy and Physiology: Skeletal System
Standard: Identify and locate parts of the skeletal system.
- 44** **Topic:** Anatomy and Physiology: Skeletal System
Standard: Classify bones according to their location within the appendicular or axial skeleton.
- 45** **Topic:** Anatomy and Physiology: Skeletal System
Standard: Describe bone physiology (structure, formation, and growth).
- 46** **Topic:** Anatomy and Physiology: Skeletal System
Standard: Describe common bone/joint disorders affecting participants of physical activity.
- 47** **Topic:** Anatomy and Physiology: Skeletal System
Standard: Define arthrology and osteology.
- 48** **Topic:** Anatomy and Physiology: Skeletal System
Standard: Describe and locate joints and related structures.
- 49** **Topic:** Anatomy and Physiology: Skeletal System
Standard: Identify types of motion.
- 50** **Topic:** Anatomy and Physiology: Skeletal System
Standard: Classify joints according to the amount of motion present within the joint.
- 51** **Topic:** Anatomy and Physiology: Skeletal System
Standard: List the types joints and identify degrees of freedom, axis, planes, and motions.
- 52** **Topic:** Anatomy and Physiology: Skeletal System
Standard: Explain the structure and function of the skeletal system and relate to athletic injury.
- 53** **Topic:** Anatomy and Physiology: Muscular System
Standard: Define mycology.
- 54** **Topic:** Anatomy and Physiology: Muscular System
Standard: Describe the types and functions of muscles.
- 55** **Topic:** Anatomy and Physiology: Muscular System
Standard: Identify characteristics of muscles.
- 56** **Topic:** Anatomy and Physiology: Muscular System
Standard: Discuss the design of skeletal muscle and include the attachment and fiber arrangements.

- 57** **Topic:** Anatomy and Physiology: Muscular System
Standard: Explain the factors that affect the muscle's ability to generate tension and force.
- 58** **Topic:** Anatomy and Physiology: Muscular System
Standard: Differentiate between the following terms: agonist, antagonist, and synergist.
- 59** **Topic:** Anatomy and Physiology: Muscular System
Standard: Describe and differentiate between the types of muscle contractions: isometric, isokinetic, isotonic, eccentric, and concentric.
- 60** **Topic:** Anatomy and Physiology: Muscular System
Standard: Identify origins and insertions of muscles in the head, neck, trunk, shoulder, elbow, forearm, wrist, hand, pelvic, hip, and lower extremities areas.
- 61** **Topic:** Anatomy and Physiology: Muscular System
Standard: Discuss how sports training impacts skeletal muscles and identify current hypotheses regarding muscle hypertrophy.
- 62** **Topic:** Anatomy and Physiology: Muscular System
Standard: Identify common muscle disorders related to sports medicine.
- 63** **Topic:** Anatomy and Physiology: Muscular System
Standard: Explain the normal muscle functions/actions of the head, neck, trunk, shoulder girdle, elbow and forearm areas, pelvic and hip region, and lower extremities.
- 64** **Topic:** Anatomy and Physiology: Muscular System
Standard: List innervations of head, neck, trunk, hand and wrist, pelvic and hip, and lower extremities muscles.
- 65** **Topic:** Anatomy and Physiology: Muscular System
Standard: Palpate major muscle groups in the head, neck, trunk, shoulder girdle, elbow, forearm, hand and wrist, pelvis and hip, and lower extremities muscles.
- 66** **Topic:** Anatomy and Physiology: Muscular System
Standard: Perform goniometry measurements on upper and lower extremity muscles.
- 67** **Topic:** Anatomy and Physiology: Muscular System
Standard: Explain the structure and function of the muscular system and relate to athletic injury.
- 68** **Topic:** Anatomy and Physiology: Nervous System
Standard: Describe and identify the components of the nervous system.
- 69** **Topic:** Anatomy and Physiology: Nervous System
Standard: Describe and identify the components a motor unit in relation to action potentials and contraction.
- 70** **Topic:** Anatomy and Physiology: Nervous System
Standard: Explain the structure and function of efferent and afferent motor neurons.
- 71** **Topic:** Anatomy and Physiology: Nervous System
Standard: Discuss the classes of receptors within the nervous system.
- 72** **Topic:** Anatomy and Physiology: Nervous System
Standard: Explain the role of sympathetic and parasympathetic nervous system.
- 73** **Topic:** Anatomy and Physiology: Nervous System
Standard: Discuss the structure and function of muscle spindles and Golgi tendon organs.
- 74** **Topic:** Anatomy and Physiology: Nervous System
Standard: Explain the anatomic basis of reflexes.
- 75** **Topic:** Anatomy and Physiology
Standard: Explain the structure and function of the nervous system and relate to athletic injury.

- 76** **Topic:** Anatomy and Pysiology: Cardiorespiratory System
Standard: Describe and identify the components of the cardiorespiratory system.
- 77** **Topic:** Anatomy and Pysiology: Cardiorespiratory System
Standard: Explain the role of the cardiorespiratory system during exercise.
- 78** **Topic:** Anatomy and Pysiology: Cardiorespiratory System
Standard: Explain the training adaptations that occur as a result of exercise training.
- 79** **Topic:** Anatomy and Pysiology: Cardiorespiratory System
Standard: Explain the structure and function of the cardiorespiratory system and relate to athletic injury.
- 80** **Topic:** Exercise Physiology
Standard: Explain the benefits and risks associated with exercise.
- 81** **Topic:** Exercise Physiology
Standard: Identify the components of fitness.
- 82** **Topic:** Exercise Physiology
Standard: Identify the three energy systems and relate them to types of exercise.
- 83** **Topic:** Exercise Physiology
Standard: Explain how the body uses and produces energy.
- 84** **Topic:** Exercise Physiology
Standard: Define the following terms: exercise physiology, body composition, strength, power, anaerobic, aerobic, flexibility, cardiovascular fitness, and muscular endurance.
- 85** **Topic:** Exercise Physiology
Standard: Describe the importance of flexibility, strength, and cardiovascular endurance for athletic performance and injury prevention.
- 86** **Topic:** Exercise Physiology
Standard: Define the following terms: mass, force, work, velocity and speed, power, energy, MET, temperature, relative humidity.
- 87** **Topic:** Exercise Physiology
Standard: List activities that can be classified as power, speed, and endurance activities.
- 88** **Topic:** Exercise Physiology
Standard: Discuss the principles of training.
- 89** **Topic:** Exercise Physiology
Standard: Explain the overload principle and specific adaptation to imposed demands (SAID).
- 90** **Topic:** Exercise Physiology
Standard: Discuss the activity pyramid.
- 91** **Topic:** Exercise Physiology
Standard: Identify the components of a training session.
- 92** **Topic:** Exercise Physiology
Standard: Discuss the ACSM (American College of Sports Medicine) recommendations for exercise prescriptions in terms of intensity, duration, frequency, and mode of activity.
- 93** **Topic:** Exercise Physiology
Standard: Define the concept of periodization and identify the major conditioning seasons and types of exercises that are performed in each session.
- 94** **Topic:** Exercise Testing
Standard: Conduct a health screening, risk stratification, and medical history.

- 95** **Topic:** Exercise Testing
Standard: Discuss the purpose of physical fitness testing and differentiate between the types of testing (field and laboratory testing).
- 96** **Topic:** Exercise Testing
Standard: Collect basic data on client/subjects (age, height, weight, body mass index) and compare data to normative data.
- 97** **Topic:** Exercise Testing
Standard: Perform physical fitness testing on the following parameters: strength (static, dynamic, and isokinetic), anaerobic power (vertical jump, stepping, sprinting and cycling tests), aerobic capacity (1.5 mile run, walking test, step tests, cycle ergometry), muscular fitness, and flexibility.
- 98** **Topic:** Exercise Testing
Standard: Discuss the results of physical fitness testing as compared to normative data.
- 99** **Topic:** Exercise Testing
Standard: Explain the role of exercise testing in the clinical setting.
- 100** **Topic:** Exercise Testing
Standard: Perform resting and exercise measurements on the following variables: heart rate, blood pressure, and ratings of perceived exertion.
- 101** **Topic:** Exercise Testing
Standard: Demonstrate proper lifting and spotting techniques when conducting strength testing.
- 102** **Topic:** Exercise Testing
Standard: Discuss the safety precautions that should be conducted while performing physical fitness testing.
- 103** **Topic:** Exercise Testing
Standard: Perform assessment of cardiovascular fitness using submaximal protocols.
- 104** **Topic:** Exercise Testing
Standard: Identify and perform body composition assessment tests (waist to hip ratio, body mass index, girth, skin folds, bioelectrical impedance, etc.).
- 105** **Topic:** Sports Nutrition
Standard: Identify basic nutrients, sources, and functions.
- 106** **Topic:** Sports Nutrition
Standard: Explain the food pyramid.
- 107** **Topic:** Sports Nutrition
Standard: Discuss the importance of good nutrition in enhancing performance and preventing injuries.
- 108** **Topic:** Sports Nutrition
Standard: Define carbohydrates, fats, and proteins and explain the recommended intake values for various populations [young, elderly, athletes (endurance vs. strength)].
- 109** **Topic:** Sports Nutrition
Standard: Explain the types of fats and explain why one should limit the intake of saturated fat.
- 110** **Topic:** Sports Nutrition
Standard: Explain the role of vitamins and minerals.
- 111** **Topic:** Sports Nutrition
Standard: Describe the signs and symptoms of various eating disorders.
- 112** **Topic:** Sports Nutrition
Standard: Describe and demonstrate weight loss methods that are safe, effective, and appropriate/sport specific.
- 113** **Topic:** Sports Nutrition
Standard: Perform a personal nutritional assessment.

- 114 **Topic:** Sports Nutrition
Standard: Discuss the use of legal versus illegal dietary supplements.

Course: Therapeutic Medical Technology: 25.57800 Evaluation in Therapeutic Medicine

- 35 **Topic:** Organization and Administration in Therapeutic Medicine
Standard: Design a facility that is utilized in an area of therapeutic medicine (athletic training, physical therapy, rehabilitation areas, etc.).
- 36 **Topic:** Organization and Administration in Therapeutic Medicine
Standard: Explain the importance of documentation and record keeping.
- 37 **Topic:** Organization and Administration in Therapeutic Medicine
Standard: Identify equipment and supplies that are commonly used in the disciplines of therapeutic medicine.
- 38 **Topic:** Organization and Administration in Therapeutic Medicine
Standard: Discuss the importance of maintenance of equipment and supplies.
- 39 **Topic:** Organization and Administration in Therapeutic Medicine
Standard: Identify various insurance payment systems within healthcare (Medicare, Medicaid, worker's compensation, HMO, PPO, self-pay, uninsured clients, etc.) and explain the insurance requirements for billing client services in therapeutic medicine.
- 40 **Topic:** Taping and Bracing
Standard: Discuss reasons for taping and wrapping.
- 41 **Topic:** Taping and Bracing
Standard: Describe the various taping and wrapping supplies and products and their uses.
- 42 **Topic:** Taping and Bracing
Standard: Demonstrate the application of the basic principles of taping and bracing.
- 43 **Topic:** Taping and Bracing
Standard: Identify and use proper equipment for taping and bracing.
- 44 **Topic:** Taping and Bracing
Standard: Demonstrates proper techniques for taping an ankle by following the proper sequence of taping, anchors, stirrups, fill-ins, and heel locks and applying tape uniformly to prevent blisters/cuts.
- 45 **Topic:** Taping and Bracing
Standard: Demonstrates proper techniques for taping an elbow (hyperextension) by following the proper sequence, anchors, cover strips, and by applying tape uniformly.
- 46 **Topic:** Taping and Bracing
Standard: Demonstrate proper techniques for taping a thumb using the standard prophylactic taping method.
- 47 **Topic:** Injury Evaluation
Standard: Differentiate between evaluate and diagnose.
- 48 **Topic:** Injury Evaluation
Standard: Identify normal structures comprising soft-tissue and the mechanical forces that cause skin, internal soft tissue, joint, and bone injuries.
- 49 **Topic:** Injury Evaluation
Standard: Recognize sports injuries.
- 50 **Topic:** Injury Evaluation
Standard: Demonstrate the steps of an injury evaluation.

- 51** **Topic:** Injury Evaluation
Standard: Classify and explain the various degrees of tissue injury.
- 52** **Topic:** Injury Evaluation
Standard: Analyze the causes of pain and its side effects.
- 53** **Topic:** Injury Evaluation
Standard: Identify injuries and problems common for the female athlete (triad).
- 54** **Topic:** Injury Evaluation
Standard: Identify chronic sports injuries.
- 55** **Topic:** Injury Evaluation
Standard: Identify acute sports injuries.
- 56** **Topic:** Injury Evaluation
Standard: Collect and document client history, observation, palpation, and special tests (HOPS).
- 57** **Topic:** Injury Evaluation
Standard: Describe anatomical basis and evaluation procedures for the foot, ankle, and lower leg.
- 58** **Topic:** Injury Evaluation
Standard: Describe anatomical basis and evaluation procedures for the knee, hip, and thigh.
- 59** **Topic:** Injury Evaluation
Standard: Describe anatomical basis and evaluation procedures for the shoulder and upper arm.
- 60** **Topic:** Injury Evaluation
Standard: Describe anatomical basis and evaluation procedures for the elbow, wrist, and hand.
- 61** **Topic:** Injury Evaluation
Standard: Describe anatomical basis and evaluation procedures for the head, cervical region, and spine.
- 62** **Topic:** Injury Evaluation
Standard: Describe anatomical basis and evaluation procedures for internal injuries.
- 63** **Topic:** Injury Evaluation
Standard: Participate in mock examinations and practical simulations.
- 64** **Topic:** Emergency Procedures On the Field
Standard: Identify and explain the components of an emergency plan.
- 65** **Topic:** Emergency Procedures On the Field
Standard: Identify basic emergency equipment.
- 66** **Topic:** Emergency Procedures On the Field
Standard: Describe the standard emergency procedures as related to internal injuries.
- 67** **Topic:** Emergency Procedures On the Field
Standard: Describe the principles of on-the-field injury assessment.
- 68** **Topic:** Emergency Procedures On the Field
Standard: Perform a primary and secondary survey.
- 69** **Topic:** Emergency Procedures On the Field
Standard: Collect vital signs for an injured person and discuss the findings.
- 70** **Topic:** Emergency Procedures On the Field
Standard: Demonstrate stabilization of sports injury.

- 71** **Topic:** Emergency Procedures On the Field
Standard: Demonstrate universal precautions.
- 72** **Topic:** Emergency Procedures On the Field
Standard: Demonstrate taping and wrapping of injury.
- 73** **Topic:** Emergency Procedures On the Field
Standard: Identify transportation techniques for the injured athlete.
- 74** **Topic:** Emergency Procedures Off the Field
Standard: Describe and perform range of motion testing used during injury assessment (ankle, knee, hip, elbow, wrist, and shoulder).
- 75** **Topic:** Emergency Procedures Off the Field
Standard: Differentiate between sprains, strains, fractures, and dislocations.
- 76** **Topic:** Emergency Procedures Off the Field
Standard: Identify the immediate effects of an injury and course of treatment for common athletic injuries.
- 77** **Topic:** Environmental Stress
Standard: Define terms: heat stress, heat exhaustion, heat stroke, hypothermia, frostbite, and shock.
- 78** **Topic:** Environmental Stress
Standard: Identify signs of dehydration.
- 79** **Topic:** Environmental Stress
Standard: Discuss the recommended guidelines for fluid replacement.
- 80** **Topic:** Environmental Stress
Standard: Describe the proper care for environmentally caused conditions.
- 81** **Topic:** Environmental Stress
Standard: Identify the stresses of exercise in the heat and cold conditions in both the trained and untrained state.
- 82** **Topic:** Environmental Stress
Standard: Identify the adaptations that occur as a result of acclimatization to heat and cold conditions.
- 83** **Topic:** Athletic Injuries: Treatment and Prevention
Standard: Identify the components of the pre-participation physical examination.
- 84** **Topic:** Athletic Injuries: Treatment and Prevention
Standard: Identify the general management practices with soft-tissue and bone injuries.
- 85** **Topic:** Athletic Injuries: Treatment and Prevention
Standard: Describe the major events in the healing of soft tissue and bone injuries (acute and chronic injuries).
- 86** **Topic:** Athletic Injuries: Treatment and Prevention
Standard: Describe the mechanisms in the healing of soft-tissue and bone injuries.
- 87** **Topic:** Athletic Injuries: Treatment and Prevention
Standard: Identify the components of a general care plan associated with soft-tissue and bone injuries.
- 88** **Topic:** Athletic Injuries: Treatment and Prevention
Standard: Discuss the additional diagnostic techniques available to the therapeutic medicine professionals.
- 89** **Topic:** Athletic Injuries: Treatment and Prevention
Standard: Describe and demonstrate basic treatment procedures for sports injuries (RICES).
- 90** **Topic:** Athletic Injuries: Treatment and Prevention
Standard: Recognize the importance of proper fitting of sports equipment as related to injuries and injury prevention.

- 91** **Topic:** Athletic Injuries: Treatment and Prevention
Standard: Identify criteria for an athlete's return to participation following an injury.
- 92** **Topic:** Athletic Injuries: Treatment and Prevention
Standard: Describe the basic principles of injury prevention.
- 93** **Topic:** Athletic Injuries: Treatment and Prevention
Standard: Recognize possible dangers in athletic settings and identify precautions against these hazards.
- 94** **Topic:** Athletic Injuries: Treatment and Prevention
Standard: Discuss various diseases relative to sports including necessary precautions.
- 95** **Topic:** Athletic Injuries: Treatment and Prevention
Standard: Identify diseases that can affect sports participation.
- 96** **Topic:** Athletic Injuries: Treatment and Prevention
Standard: Outline the preventive exercises and treatment techniques for the foot, ankle, and lower leg.
- 97** **Topic:** Athletic Injuries: Treatment and Prevention
Standard: Outline the preventive exercises and treatment techniques for the knee, hip, and thigh.
- 98** **Topic:** Athletic Injuries: Treatment and Prevention
Standard: Outline the preventive exercises and treatment techniques for the shoulder and upper arm.
- 99** **Topic:** Athletic Injuries: Treatment and Prevention
Standard: Outline the preventive exercises and treatment techniques for the elbow, wrist, and hand.
- 100** **Topic:** Athletic Injuries: Treatment and Prevention
Standard: Outline the preventive exercises and treatment techniques for the head, cervical, and spine.
- 101** **Topic:** Athletic Injuries: Treatment and Prevention
Standard: Outline the preventive exercises and treatment techniques for internal injuries.
- 102** **Topic:** Sports Psychology
Standard: Identify the immediate psychological responses of athletes to injury.
- 103** **Topic:** Sports Psychology
Standard: Classify the cycle of loss that the athlete will experience.
- 104** **Topic:** Sports Psychology
Standard: Identify psychological intervention methods.
- 105** **Topic:** Sports Psychology
Standard: Identify signs of over-training.
- 106** **Topic:** Sports Psychology
Standard: Identify physiological responses to stress.

Course: Therapeutic Medical Technology: 25.57900 Rehabilitation in Therapeutic Medicine

- 35** **Topic:** Medical Asepsis
Standard: Explain the importance of medical asepsis.
- 36** **Topic:** Medical Asepsis
Standard: Explain the methods by which germs enter and exit the body.
- 37** **Topic:** Medical Asepsis
Standard: Demonstrate proper techniques for hand washing and use universal precautions at all times.

- 38** **Topic:** Medical Asepsis
Standard: Identify indications of use and demonstrate proper use, removal, and disposal of personal protective equipment such as masks, gloves, and gowns (sterile and non-sterile).
- 39** **Topic:** Basic Principles of Rehabilitation
Standard: Identify different modalities utilized in therapeutic medicine.
- 40** **Topic:** Basic Principles of Rehabilitation
Standard: Describe general principles and progression of rehabilitation.
- 41** **Topic:** Basic Principles of Rehabilitation
Standard: Compare and contrast therapeutic exercises and conditioning exercises.
- 42** **Topic:** Basic Principles of Rehabilitation
Standard: Identify and demonstrate use of adaptive devices/equipment.
- 43** **Topic:** Basic Principles of Rehabilitation
Standard: Identify and demonstrate use of exercise equipment.
- 44** **Topic:** Basic Principles of Rehabilitation
Standard: Identify and demonstrate application of equipment commonly used in rehabilitation.
- 45** **Topic:** Rehabilitation/Therapeutic Exercise
Standard: List and describe goals and objectives of various types of rehabilitation programs and how to evaluate a client's progress in a program.
- 46** **Topic:** Rehabilitation/Therapeutic Exercise
Standard: Classify the guidelines, components, and phases of a rehabilitation program.
- 47** **Topic:** Rehabilitation/Therapeutic Exercise
Standard: Describe and demonstrate various types of exercises and their functions in a rehabilitation program.
- 48** **Topic:** Rehabilitation/Therapeutic Exercise
Standard: Describe and demonstrate the use of range of motion, strengthening, and proprioceptive exercises in a rehabilitation program for all major areas of the body.
- 49** **Topic:** Rehabilitation/Therapeutic Exercise
Standard: Describe and demonstrate special rehabilitation techniques such as proprioceptive neuromuscular facilitation and joint mobilization.
- 50** **Topic:** Rehabilitation/Therapeutic Exercise
Standard: Demonstrate proper techniques for static stretching for all major muscle groups.
- 51** **Topic:** Rehabilitation/Therapeutic Exercise
Standard: Demonstrate therapeutic and rehabilitation techniques.
- 52** **Topic:** Rehabilitation/Therapeutic Exercise
Standard: Demonstrate the preventive exercises and treatment techniques for the foot, ankle, and lower leg.
- 53** **Topic:** Rehabilitation/Therapeutic Exercise
Standard: Demonstrate the preventive exercises and treatment techniques for the knee, hip, and thigh.
- 54** **Topic:** Rehabilitation/Therapeutic Exercise
Standard: Demonstrate the preventive exercises and treatment techniques for the shoulder and upper arm.
- 55** **Topic:** Rehabilitation/Therapeutic Exercise
Standard: Demonstrate the preventive exercises and treatment techniques for the elbow, wrist, and hand.
- 56** **Topic:** Rehabilitation/Therapeutic Exercise
Standard: Demonstrate the preventive exercises and treatment techniques for the head, cervical, and spine.

- 57** **Topic:** Rehabilitation/Therapeutic Exercise
Standard: Demonstrate the preventive exercises and treatment techniques for internal injuries.
- 58** **Topic:** Taping and Bracing
Standard: Identify supplies needed for taping, bracing, and bandaging (sterile and non-sterile).
- 59** **Topic:** Taping and Bracing
Standard: Differentiate between bandage, dressing, taping, and bracing.
- 60** **Topic:** Taping and Bracing
Standard: Identify reasons for bandaging.
- 61** **Topic:** Taping and Bracing
Standard: Demonstrate the correct technique for applying and removing bandages, tape, and braces.
- 62** **Topic:** Taping and Bracing
Standard: Demonstrate application bandages using the spiral and figure-eight techniques.
- 63** **Topic:** Taping and Bracing
Standard: Demonstrates proper techniques for a knee joint wrap.
- 64** **Topic:** Taping and Bracing
Standard: Demonstrate proper techniques for a hamstring wrap.
- 65** **Topic:** Taping and Bracing
Standard: Demonstrate proper techniques for a quadriceps wrap.
- 66** **Topic:** Taping and Bracing
Standard: Demonstrate proper techniques for a hip flexor wrap.
- 67** **Topic:** Taping and Bracing
Standard: Demonstrate proper techniques for a hip adductor wrap.
- 68** **Topic:** Taping and Bracing
Standard: Demonstrate proper techniques for a glenohumeral joint wrap.
- 69** **Topic:** Taping and Bracing
Standard: Demonstrate proper techniques for a compression wrap for the ankle, knee, elbow, and wrist/hand.
- 70** **Topic:** Taping and Bracing
Standard: Demonstrate proper techniques for taping of turf toe.
- 71** **Topic:** Taping and Bracing
Standard: Demonstrate proper techniques for taping arch sprain/plantar fasciitis.
- 72** **Topic:** Taping and Bracing
Standard: Demonstrate proper techniques for taping Achilles tendon strain.
- 73** **Topic:** Taping and Bracing
Standard: Demonstrate proper techniques for taping of an ACL injury.
- 74** **Topic:** Taping and Bracing
Standard: Demonstrate proper techniques for taping of hyperextension.
- 75** **Topic:** Taping and Bracing
Standard: Demonstrate proper techniques for taping of collateral instability.
- 76** **Topic:** Taping and Bracing
Standard: Demonstrate proper techniques for taping of the patellar tendon.

- 77** **Topic:** Taping and Bracing
Standard: Demonstrate proper techniques for taping of the glenohumeral joint.
- 78** **Topic:** Taping and Bracing
Standard: Demonstrate proper techniques for taping elbow hyperextension.
- 79** **Topic:** Taping and Bracing
Standard: Demonstrate proper techniques for taping elbow epicondylitis.
- 80** **Topic:** Taping and Bracing
Standard: Demonstrate proper techniques for application of a forearm splint.
- 81** **Topic:** Taping and Bracing
Standard: Demonstrate proper techniques for buddy taping.
- 82** **Topic:** Taping and Bracing
Standard: Demonstrate proper techniques for prevention of wrist hyperextension.
- 83** **Topic:** Taping and Bracing
Standard: Demonstrate proper techniques for application of a thumb spica.
- 84** **Topic:** Modalities
Standard: Identify the physiological effects, indications, and contraindications for the following: ice, heat, hydrotherapy, electrical stimulation, paraffin, ultrasound, massage, stretching, and miscellaneous modalities.
- 85** **Topic:** Modalities
Standard: List the electromagnetic spectrum as it relates to infrared energy.
- 86** **Topic:** Modalities
Standard: Discuss hydrotherapy as a therapeutic agent.
- 87** **Topic:** Modalities
Standard: Explain five methods of heat transfer.
- 88** **Topic:** Modalities
Standard: Record temperatures and convert from Fahrenheit to Celsius and vice versa.
- 89** **Topic:** Modalities
Standard: Identify the factors that impact an individual's reaction to hydrotherapy.
- 90** **Topic:** Modalities
Standard: Identify proper hydro-collator unit temperature for hot packs.
- 91** **Topic:** Modalities
Standard: Demonstrate/describe proper application techniques for hot packs.
- 92** **Topic:** Modalities
Standard: Demonstrate proper procedures for cleaning and replacement of hot packs.
- 93** **Topic:** Modalities
Standard: Define cryotherapy.
- 94** **Topic:** Modalities
Standard: Describe and demonstrate proper protocols for application of ice.
- 95** **Topic:** Modalities
Standard: Identify the appropriate temperature ranges for the following modalities: paraffin, hydrotherapy, and therapeutic pools according to patient populations.
- 96** **Topic:** Modalities
Standard: Explain and demonstrate safe and appropriate techniques for utilization of paraffin.

- 97** **Topic:** Modalities
Standard: Demonstrate proper techniques for cleaning paraffin unit and replacement of paraffin mixture.
- 98** **Topic:** Modalities
Standard: Describe and demonstrate safe, appropriate techniques using hydrotherapy.
- 99** **Topic:** Modalities
Standard: Demonstrate proper cleaning and sterilization of hydrotherapy units.
- 100** **Topic:** Modalities
Standard: Outline the possible sources of contamination when using hydrotherapy on clients.
- 101** **Topic:** Modalities
Standard: Describe the steps necessary to prepare a sterile field and equipment.
- 102** **Topic:** Modalities
Standard: Describe and demonstrate standard operating procedures for the hoist lift with the use of modality tanks.
- 103** **Topic:** Modalities
Standard: Explain the advantages of using a therapeutic pool.
- 104** **Topic:** Modalities
Standard: Describe the appropriate techniques for patient use in therapeutic pools.
- 105** **Topic:** Modalities
Standard: Identify and explain the different types of strokes utilized during massage (effleurage, petrissage, friction, and tapotement).
- 106** **Topic:** Modalities
Standard: Discuss the basic principles of massage therapy.
- 107** **Topic:** Modalities
Standard: Demonstrate proper draping and positioning of patient in order to conduct a massage.
- 108** **Topic:** Modalities
Standard: Demonstrate proper massage techniques.
- 109** **Topic:** Modalities
Standard: Demonstrate the use of equipment and modalities according to the principles of rehabilitation.
- 110** **Topic:** Pharmacology
Standard: Define and differentiate between drugs and supplements.
- 111** **Topic:** Pharmacology
Standard: Identify the physiological and psychological effects of performance enhancing drugs and or practices.
- 112** **Topic:** Pharmacology
Standard: List and describe the benefits and side effects of commonly used ergogenic aids.
- 113** **Topic:** Pharmacology
Standard: Describe drug testing procedures.
- 114** **Topic:** Pharmacology
Standard: Explain the legal concerns in administering vs. dispensing drugs.
- 115** **Topic:** Pharmacology
Standard: Identify types and functions of prescription and over-the-counter medications used in sports medicine and common allergies or side effects from such agents.
- 116** **Topic:** Pharmacology
Standard: Identify protocols for using over-the-counter drugs.

Course: Therapeutic Medical Technology: 25.58100 Therapeutic Medicine Internship

- 35** **Topic:** Applied Anatomy and Physiology
 Standard: Explain the structure and function of the skeletal system and relate to athletic injury.
- 36** **Topic:** Applied Anatomy and Physiology
 Standard: Explain the structure and function of the muscular system and relate to athletic injury.
- 37** **Topic:** Applied Anatomy and Physiology
 Standard: Explain the structure and function of the nervous system and relate to athletic injury.
- 38** **Topic:** Applied Anatomy and Physiology
 Standard: Explain the structure and function of the cardiorespiratory system and relate to athletic injury.
- 39** **Topic:** First Aid and Cardiopulmonary Resuscitation
 Standard: Perform first aid skill in accordance to certification requirements through the appropriate certifying agency.
- 40** **Topic:** First Aid and Cardiopulmonary Resuscitation
 Standard: Perform CPR in accordance to certification requirements through the American Heart Association.
- 41** **Topic:** Injury Assessment
 Standard: Observe and identify signs, symptoms, and management of potentially life-threatening and non-life threatening injuries.
- 42** **Topic:** Injury Assessment
 Standard: Observe and identify the clinical signs and symptoms associated with common injuries, illnesses, and predisposing conditions. Conduct a medical history and complete documentation (SOAP, HOPS).
- 43** **Topic:** Injury Assessment
 Standard: Demonstrate skills in obtaining vital signs of a client/athlete (pulse, respirations, blood pressure, and temperature).
- 44** **Topic:** Injury Assessment
 Standard: Perform primary and secondary surveys.
- 45** **Topic:** Injury Assessment
 Standard: Observe the administering of active and passive range of motion tests using standard goniometric techniques.
- 46** **Topic:** Injury Assessment
 Standard: Observe and use of manual muscle testing techniques.
- 47** **Topic:** Injury Assessment
 Standard: Observe the administering of sensory, neurological, and circulatory tests.
- 48** **Topic:** Injury Assessment
 Standard: Observe the administering of functional tests and activity specific tests.
- 49** **Topic:** Injury Assessment
 Standard: Identify, palpate, and interpret the integrity of anatomical landmarks and soft tissue.
- 50** **Topic:** Injury Assessment
 Standard: Observe the administration of special tests in order to make a differential assessment.
- 51** **Topic:** Risk Management/Infection Control
 Standard: Demonstrate aseptic and sterilizing principles.
- 52** **Topic:** Risk Management/Infection Control
 Standard: Demonstrate proper hand washing techniques.

- 53** **Topic:** Risk Management/Infection Control
Standard: Demonstrate proper use of protective equipment (masks, gloves, gowns, etc).
- 54** **Topic:** Risk Management/Infection Control
Standard: Dispose of waste materials in compliance with government regulations.
- 55** **Topic:** Risk Management/Infection Control
Standard: Maintain safety in all clinical areas and activities.
- 56** **Topic:** Taping and Bracing
Standard: Demonstrates proper techniques for a knee joint wrap.
- 57** **Topic:** Taping and Bracing
Standard: Demonstrate proper techniques for a hamstring wrap.
- 58** **Topic:** Taping and Bracing
Standard: Demonstrate proper techniques for a quadriceps wrap.
- 59** **Topic:** Taping and Bracing
Standard: Demonstrate proper techniques for a hip flexor wrap.
- 60** **Topic:** Taping and Bracing
Standard: Demonstrate proper techniques for a hip adductor wrap.
- 61** **Topic:** Taping and Bracing
Standard: Demonstrate proper techniques for a glenohumeral joint wrap.
- 62** **Topic:** Taping and Bracing
Standard: Demonstrate proper techniques for a compression wrap for the ankle, knee, elbow, and wrist/hand.
- 63** **Topic:** Taping and Bracing
Standard: Demonstrate proper techniques for taping of turf toe.
- 64** **Topic:** Taping and Bracing
Standard: Demonstrate proper techniques for taping arch sprain/plantar fasciitis.
- 65** **Topic:** Taping and Bracing
Standard: Demonstrate proper techniques for taping Achilles tendon strain.
- 66** **Topic:** Taping and Bracing
Standard: Demonstrate proper techniques for taping of an ACL injury.
- 67** **Topic:** Taping and Bracing
Standard: Demonstrate proper techniques for taping of hyperextension.
- 68** **Topic:** Taping and Bracing
Standard: Demonstrate proper techniques for taping of collateral instability.
- 69** **Topic:** Taping and Bracing
Standard: Demonstrate proper techniques for taping of the patellar tendon.
- 70** **Topic:** Taping and Bracing
Standard: Demonstrate proper techniques for taping of the glenohumeral joint.
- 71** **Topic:** Taping and Bracing
Standard: Demonstrate proper techniques for taping elbow hyperextension.
- 72** **Topic:** Taping and Bracing
Standard: Demonstrate proper techniques for taping elbow epicondylitis.

- 73** **Topic:** Taping and Bracing
Standard: Demonstrate proper techniques for application of a forearm splint.
- 74** **Topic:** Taping and Bracing
Standard: Demonstrate proper techniques for buddy taping.
- 75** **Topic:** Taping and Bracing
Standard: Demonstrate proper techniques for prevention of wrist hyperextension.
- 76** **Topic:** Taping and Bracing
Standard: Demonstrate proper techniques for application of a thumb spica.
- 77** **Topic:** Therapeutic Exercise
Standard: Demonstrate proper exercise techniques.
- 78** **Topic:** Therapeutic Exercise
Standard: Demonstrate proper progression of exercises.
- 79** **Topic:** Therapeutic Exercise
Standard: Assist patient with relaxation exercises.
- 80** **Topic:** Therapeutic Exercise
Standard: Assist patient with strengthening exercises.
- 81** **Topic:** Therapeutic Exercise
Standard: Observe and assist patient with range of motion exercises.
- 82** **Topic:** Therapeutic Exercise
Standard: Assist patient with endurance exercises.
- 83** **Topic:** Therapeutic Exercise
Standard: Assist patient with balance exercises.
- 84** **Topic:** Therapeutic Exercise
Standard: Demonstrate joint assessment and select appropriate joint mobilization techniques for appendicular and axial skeleton.
- 85** **Topic:** Modalities
Standard: Identify the physiological effects, indications, and contraindications for the following: ice, heat, hydrotherapy, electrical stimulation, paraffin, ultrasound, massage, stretching, and miscellaneous modalities.
- 86** **Topic:** Modalities
Standard: Demonstrate proper use of equipment for the following modalities: ice, heat, hydrotherapy, electrical stimulation, paraffin, ultrasound, and massage.
- 87** **Topic:** Modalities
Standard: Assist with the use of modalities.