

SPRINGFIELD TECHNICAL COMMUNITY COLLEGE

ACADEMIC AFFAIRS

			100		150				
			mins		min				
		Class/Lect.	per	Lab	per				
Course Number:	<u>MED 133 & 133L</u>	Hours:	<u>wk</u>	Hours:	<u>wk</u>	Credits:	<u>2 & 1</u>	Dept.:	<u>Medical Assisting</u>
Course Title:	<u>Health Scient II</u>			Semester:	<u>Fall</u>	Year:	<u>2018</u>		

Course Description, Prerequisite, Corequisite:

Presents combined classroom theory and planned student activity in a laboratory setting to prepare the allied health student to perform the following: medical asepsis including isolation techniques, vital signs, body mechanics, and care of the patient during emergency situations including CPR.

Corequisite(s): MED 133L

OBJECTIVES/COMPETENCIES

Course Objectives	Competencies
<p>Infection Control</p> <ol style="list-style-type: none"> 1. Define the basic terminology used in the practice of infection control. 2. List and describe the four known microorganisms that may cause infections. 3. List and define the factors that contribute to the process of infection. 4. Describe and demonstrate the methods of controlling infections in health care settings. 5. Discuss the modes of transmission of HIV, hepatitis, and tuberculosis and the methods of preventing their spread in health care settings. 6. Define the two tiers of isolation precautions as outline by the Centers for Disease Control and Prevention (CDC), and describe the precautions required in each tier. 7. Explain the actions you should take if you are exposed to blood or body substances or have a needle-stick injury in the course of your work. 8. Define and explain Standard Precautions the proper usage in a health care setting. <p>Patient Assessment and Communication. Patient Care and Safety, Transfer and Positioning</p> <ol style="list-style-type: none"> 1. Explain the basic physical and emotional needs of the person seeking health care and the effect of stress on health. 2. Define and explain critical thinking and describe it's place in healthcare 3. Define affective, cognitive and psychomotor domain as it applies to learning 4. List the expectations a patient may have of the imager 	<p>Infection Control</p> <ol style="list-style-type: none"> 1. Demonstrate and perform proper handwashing technique. 2. Demonstrate and perform proper use of alcohol based hand rubs. 3. Demonstrate and perform proper removal of used gloves 4. Demonstrate and perform Donning and removing gowns, gloves, eye protection and masks. <p>Patient Assessment and Communication. Patient Care and Safety, Transfer and Positioning</p> <ol style="list-style-type: none"> 1. Demonstrate and perform body base of support and body alignment. 2. Demonstrate and perform turning a patient from back to the side. 3. Demonstrate and perform positioning a patient in bed. 4. Demonstrate and perform moving a patient into a dangle position. 5. Demonstrate and perform assisting a patient for a wheelchair transfer

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<p>assigned to his/her care.</p> <ol style="list-style-type: none"> 5. Define therapeutic communication and demonstrate it's techniques. 6. Identify the body positions and give examples of use. 7. Demonstrate the correct method of moving and positioning a patient to prevent injury to yourself or the patient. 8. List the safety measures that must be taken when transferring a patient from a hospital room to the imaging department. 9. Describe steps that you must take to protect the patient's integumentary system from injury. 10. Explain the criteria to be used when immobilization of a patient is necessary. 11. Explain your responsibilities concerning safety. 12. List the departmental safety measures that you must take to prevent and control fires, patient falls, poisoning or injury from hazardous materials, and burns, as well as the measures to evacuate patients in case of a disaster. <p>Vital Signs, Oxygen Administration and ECGs</p> <ol style="list-style-type: none"> 1. Define vital signs and explain when you are responsible for their assessment. 2. List the rates of temperature, pulse, respiration, and blood pressure that are considered to be within normal limits for a child and for an adult, male and female. 3. Identify sites and methods available for measuring body temperature and correctly read a clinical thermometer. 4. Accurately monitor pulse rate. 5. Accurately monitor respirations. 6. Accurately monitor blood pressure. 7. Accurately monitor peripheral oxygen saturation rate and know the normal values. 8. Identify the most common types of oxygen administration equipment and values. 9. List the precautions that must be taken when oxygen is being 	<ol style="list-style-type: none"> 6. Demonstrate and perform a standing pivot wheelchair transfer. 7. Demonstrate and perform moving a patient onto a stretcher without a moving device. 8. Demonstrate and perform moving a patient onto a stretcher with a moving device. 9. Demonstrate and perform the correct manner of assisting a patient with a bedpan or urinal. 10. Demonstrate knowelge of caring for a patient with a urinary catheter <p>Vital Signs, Oxygen Administration and ECGs</p> <ol style="list-style-type: none"> 1. Accurately measure and record an oral temperature. 2. Accurately measure and record an aural temperature. 3. Accurately measure and record a radial pulse. 4. Accurately measure and record a respiration rate. 5. Accurately measure and record O2 saturation. 6. Accurately measure and record a blood pressure.

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<p>administered</p> <ol style="list-style-type: none"> 10. Identify the parts of an ECG wave 11. Indentify Normal Sinus Rhythms 12. Understand what ECG rhythms are potentially lethal. <p>Surgical Asepsis and Skin preparation</p> <ol style="list-style-type: none"> 1. Define surgical asepsis and differentiate between medical asepsis and surgical asepsis. 2. Explain your responsibility for maintaining surgical aseptic techniques when it is a required part of patient care. 3. Differentiate between disinfection and sterilization. 4. Explain the methods you must use to determine the sterility of an item or pack to be opened and used for an invasive procedure. 5. List the principles of surgical asepsis 6. Demonstrate the correct method of opening a sterile pack and of placing a sterile object on a sterile field. 7. Understand the rationale and importance of the skin preparation for a sterile procedure. 8. Explain the responsibilities for the safety of the surgical team, the patient, and the imager in the operating room. <p>Medications and Administration; Venipuncture</p> <ol style="list-style-type: none"> 1. List the precautions and restrictions all health care professionals must take when administering drugs. 2. Explain the legal accountability of health care professionals who administer drugs. 3. Discuss drug standards and methods of controlling drugs with a potential for abuse. 4. Explain how drugs are named and the sources of drugs. 5. Define “over-the-counter” drugs and explain alternative medications. 6. Define pharmacokenetics and pharmacodynamics. 7. Differentiate between side effects and adverse drug reactions. 	<p>Surgical Asepsis and Skin preparation</p> <ol style="list-style-type: none"> 1. Demonstrate and perform a sugcial scrub. 2. Properly don sterile gloves using the open method. 3. Properly glove another using sterile technique. 4. Properly remove contaminated sterile gloves. 5. Demonstrate setting up and covering a sterile field. 6. Demonstrate opening a sterile package on a flat surface. 7. Demonstrate opening a sterile package while holding it. 8. Demonstrate opening a sterile peel apart package. 9. Demonstrate a skin preparation for an invasive procedure. <p>Medications and Administration; Venipuncture</p> <ol style="list-style-type: none"> 1. Demonstrate and perform drawing up medication from a vial. 2. Demonstrate and perform drawing up medication from and ampule into a syringe. 3. Demonstrate and perform injection of medication via an intravenous port. 4. Demonstrate and perform discontinuing an intravenous port. 5. Demonstrate and perform venipuncture.

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<ol style="list-style-type: none"> 8. Describe the processes involved in drug absorption, distribution, metabolism, and excretion. 9. Define and discuss the routes of drug administration. 10. Explain the manner in which drugs exert their action on the body. 11. Differentiate between drug action and drug effect, between drug agonist and drug antagonist. 12. Identify common drugs in each category that you may work with in diagnostic imaging, and identify the body systems affected by these drugs 13. List the universal precautions to be taken during drug administration. 14. Identify common medical abbreviations used in medication administration. 15. Describe the equipment necessary for parenteral medication administration. 16. Identify the sites for administering drugs, intramuscularly and intravenously. 17. Describe the best site selection and preparation for venipuncture. 18. Define the role of the imager with venipuncture and intravenous therapy. 19. Discuss the care of patients with intravenous access and to discontinue intravenous accesses. 20. Follow standard operating procedures for venipuncture and IVs. 21. Recognize proper needle insertion and withdrawal techniques, including direction, angle and depth. 22. List the steps necessary to perform a venipuncture. 23. Demonstrate a successful venipuncture following standard operating procedures. 	
<p>Dealing with Acute Situations/Medical Emergencies</p> <ol style="list-style-type: none"> 1. Assess the basic levels of neurologic and cognitive functioning. 2. List the three classifications of shock, and describe the shock continuum. 3. Explain your role in recognizing and responding to the patient's 	<p>Dealing with Acute Situations/Medical Emergencies</p> <ol style="list-style-type: none"> 1. Demonstrate knowledge of various skills needed for assisting patients during emergency procedures.

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<p>immediate medical needs and the various categories of shock.</p> <ol style="list-style-type: none"> 4. List the clinical manifestations of a cerebral vascular accident and your role if these symptoms appear in a patient who is in your care. 5. Describe the action that you must take if a patient faints or has a seizure while in your care. 6. Explain your role in responding to a patient’s complaint of pain or sudden alteration in his or her condition. 7. List the precautions you should take when a patient has a head injury. 8. List the precautions you should take when the patient has facial injuries. 9. List the precautions you should take if the patient may have a spinal cord injury. 10. List the precautions you should take if the patient may have a fracture. 11. List the precautions you should take when the patient has abdominal trauma or is in acute abdominal distress. <p>Cardiopulmonary Resuscitation</p> <ol style="list-style-type: none"> 1. Discuss what CPR & BLS is and how it works. 2. Describe the importance of high-quality CPR and its impact on survival. 3. Describe the steps of the Chain of Survival. 4. Apply BLS concepts to the Chain of Survival. 5. Recognize the signs of someone needing CPR. 6. Perform high-quality CPR for an adult. 7. Describe the importance of early use of an automated external defibrillator (AED). 8. Demonstrate the appropriate use of an AED. 9. Provide effective ventilation by using a barrier device. 10. Perform high quality CPR for an adult, child and infant. 11. Describe the importance of teams in multi-rescuer resuscitation. 	<p>Cardiopulmonary Resuscitation</p> <ol style="list-style-type: none"> 1. Demonstrate the principals of CPR. 2. Demonstrate the technique of relief of a foreign body airway obstruction for an adult, child and infant. 3. Obtain professional rescuer CPR certification.

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<p>12. Perform as an effective team member during the multi-rescuer CPR.</p> <p>13. Describe the technique for relief of foreign-body airway obstruction for an adult or child.</p> <p>14. Describe the technique for relief of foreign-body airway obstruction for an infant.</p> <p>Special Conditions and Environments: Caring for Patients Needing Alternative Medical Treatments</p> <ol style="list-style-type: none"> 1. Explain the reasons for nasogastric and nasoenteric intubation and your responsibilities when these tubes are in place. 2. Describe the precautions you will need to take in caring for a patient who has a gastrostomy tube in place. 3. Describe the patient care considerations when you are working with a patient who requires parenteral nutrition or has a central venous catheter. 4. Describe the symptoms of a patient who needs suctioning, and explain the action you must take if this situation occurs. 5. Explain the precautions you must take when working with a patient who has a tracheostomy. 6. List the precautions you must take when working with a patient requiring mechanical ventilation. 7. List the patient care precaution you must take for the patient who has a chest tube in place with water-sealed drainage. 	<p>Special Conditions and Environments: Caring for Patients Needing Alternative Medical Treatments</p> <ol style="list-style-type: none"> 1. Demonstrate a basic knowledge of Nasogastric, Intravenous, tracheostomy, chest tubes and mechanical ventilation tubing. 2. Demonstrate knowledge of the imager's responsibility.