

SPRINGFIELD TECHNICAL COMMUNITY COLLEGE

**ACADEMIC AFFAIRS**

Course Number: MED 107 & 107L Class/Lect. per 150 mins 2 hrs  
Hours: wk Hours: wk Credits: 3 & 1 Dept.: Medical Assisting  
Course Title: MEDICAL ASSISTING TECHNIQUES 2 Semester: Spring Year: 2018

**Course Description, Prerequisite, Corequisite:**

This course is a continuation of advanced theory and skills in medical assisting techniques. Selected laboratory procedures will include minor surgery, cardio-pulmonary resuscitation, emergencies, electrocardiography, injections and the modalities used in physical therapy.

Corequisite(s): MED 107L

## OBJECTIVES/COMPETENCIES

| <b>Course Objectives</b>   | <b>Competencies</b>  |
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| <p><b>Minor Office Surgery</b></p> <ol style="list-style-type: none"> <li>1. Define the following as practiced within within an ambulatory care setting: Surgical Asepsis.</li> <li>2. State the characteristics of a minor surgical procedure.</li> <li>3. Identify procedures that require the use of surgical asepsis.</li> <li>4. Describe the MA’s responsibilities during a minor surgical procedure.</li> <li>5. Define personal protective equipement for all body fluids, secretions, excretions and blood.</li> <li>6. List the guidelines to follow to maintain surgical asepsis’s during a sterile procedure.</li> <li>7. Identify and explain the use and care of instruments commonly used in minor office surgery.</li> <li>8. Dicuss protocols for disposal of biological chemical materials</li> <li>9. Explain the differences between a closed and an open wound, and give examples.</li> <li>10. List and explain the three phases of the healing process.</li> <li>11. List and describe the different types of wound drainage.</li> <li>12. List the functions of a dressing.</li> <li>13. Explain the method used to measure the diameter of suturing material.</li> <li>14. Describe the two types of sutures (absorbable and non-absorbable) and give examples of their uses.</li> <li>15. Categorize suturing needle according to type of point and shape.</li> <li>16. Explain the purpose of and procedure for each of the following minor surgical operations: sebaceous cyst removal, incision and drainage of a localized infection, mole removal, needle biopsy and ingrown toenail removal.</li> <li>17. Explain the principles underlying each step in the minor office</li> </ol> | <p><b>Minor Office Surgery</b></p> <ol style="list-style-type: none"> <li>1. Select appropriate barrier/personal equipment (PPE).</li> <li>2. Apply sterile gloves and remove contaminated gloves.</li> <li>3. Prepare and cover a sterile field without contamination.</li> <li>4. Properly open wrapped and commercially prepared sterile items without contamination.</li> <li>5. Add sterile items to a sterile field.</li> <li>6. Perform within a sterile field.</li> <li>7. Pour a sterile solution.</li> <li>8. Perform wound care.</li> <li>9. Remove sutures.</li> <li>10. Perform dressing change; Remove and Apply a dry sterile dressing.</li> <li>11. Instruct and prepare a patient for a procedure or treatment</li> <li>12. Demonstrate proper disposal of biohazardous material: Sharps and regulated waste.</li> <li>13. Demonstrate proper use of Sharps disposal container</li> <li>14. Coach a patient regarding a treatment plan.</li> <li>15. Show awawrenes of a patient’s concerns related to the procedure being performed.</li> <li>16. Recognize the implications for failure to comply with Center for Disease (CDC) regulations in healthcare.</li> </ol> |

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| <p>surgery procedures.</p> <p>18. State the function of a bandage and list the guidelines for applying a bandage.</p> <p>19. Identify the common types of bandages used in the medical office.</p> <p><b>Cardiopulmonary Procedures</b></p> <ol style="list-style-type: none"> <li>1. State the purpose of electrocardiography.</li> <li>2. Identify each of the following components of the ECG cycle, P wave, QRS complex T wave, PR segment, PR interval, QT interval, baseline following the T wave.</li> <li>3. State the purpose of the standardization mark.</li> <li>4. State the functions of the electrodes, amplifier, and galvanometer.</li> <li>5. List the 12 leads that are included in an ECG.</li> <li>6. Describe the function served by each of the following: Three channel recording, Interpretive electrocardiography, Electronic Medical Record connectivity, Tele transmission.</li> <li>7. Identify each of the following types of artifact, and state its cause: Muscle (Somatic Tremor), Wandering baseline, 60 cycle Interference, Interrupted baseline.</li> <li>8. List the reasons for applying a Holter monitor.</li> <li>9. List the three categories of cardiac dysrhythmias.</li> <li>10. State examples of cardiac dysrhythmias.</li> <li>11. List the different pulmonary function tests.</li> <li>12. List indications for performing spirometry testing.</li> <li>13. Describe patient preparation for spirometry.</li> <li>14. Explain the purpose of post bronchodilator spirometry.</li> <li>15. Identify the symptoms of an asthma attack.</li> <li>16. List examples of asthma drugs.</li> <li>17. Explain the difference between long-term control and quick-relief asthma medications.</li> <li>18. Describe the purpose of a peak flow meter.</li> <li>19. Explain why oxygen is needed by the body.</li> <li>20. Describe what occurs when the body cannot maintain an adequate blood oxygen level.</li> </ol> | <p><b>Cardiopulmonary Procedures</b></p> <ol style="list-style-type: none"> <li>1. Perform Electrocardiography.</li> <li>2. Perform Pulmonary Function Testing.</li> <li>3. Instruct and prepare patient for a procedure and treatment.</li> </ol> |

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| <p>21. Identify the conditions that may require home oxygen delivery systems.</p> <p>22. List and describe the three common types of oxygen delivery systems.</p> <p>23. List and describe the two types of devices used to administer home oxygen therapy.</p> <p>24. Describe oxygen administration safety guidelines.</p> <p><b>Emergency Medical Procedures and First Aid</b></p> <ol style="list-style-type: none"> <li>1. State the purpose of first aid</li> <li>2. Explain the purpose of the emergency medical services EMS (system).</li> <li>3. List the OSHA standard for administering first aid.</li> <li>4. List the Guidelines that should be followed when providing emergency care.</li> <li>5. List and describe conditions that cause respiratory distress.</li> <li>6. List the symptoms of a heart attack and a stroke.</li> <li>7. Explain the causes of each of the following types of shock: cardiogenic, neurogenic, anaphylactic, and psychogenic.</li> <li>8. Identify and describe the three classifications of external bleeding.</li> <li>9. Explain the difference between an open wound and a closed wound.</li> <li>10. Describe the characteristics of each of the following fractures: impacted, greenstick, transverse, oblique, comminuted and spiral.</li> <li>11. Identify the characteristics of each of the following burns: superficial, partial-thickness, and full-thickness.</li> <li>12. Explain the difference between a partial seizure and a generalized seizure.</li> <li>13. List examples of each of the following types of poisoning: ingested, inhaled, absorbed, and injected.</li> <li>14. Identify factors that place an individual at higher risk for developing heat-related and cold-related injuries.</li> <li>15. Describe the differences between type 1 and type 2 diabetes</li> </ol> | <p><b>Emergency Medical Procedures and First Aid</b></p> <ol style="list-style-type: none"> <li>1. Take and pass Provider/professional level CPR and provide up to date documentation.</li> <li>2. Perform first aid procedures for; bleeding, diabetic coma or insulin shock, fractures, seizures, shock, and syncope.</li> <li>3. Demonstrate bandaging.</li> </ol> |

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| <p>mellitus.</p> <p>16. Explain the causes of insulin shock and diabetic coma.</p> <p>17. Identify the symptoms and describe emergency care for each of the following conditions: respiratory distress, heart attack, stroke, shock, syncope, bleeding, wounds, musculoskeletal injuries, burns, seizures, poisoning, heat and cold exposure, and diabetic emergencies.</p> <p>18. List the principles and steps of professional/provider CPR.</p> <p>19. Describe basic principles of first aid as they pertain to the ambulatory healthcare setting.</p> <p><b>Physical Agents to Promote Tissue Healing</b></p> <ol style="list-style-type: none"> <li>1. State examples of moist and dry applications of heat and cold.</li> <li>2. State the factors to consider when applying heat and cold.</li> <li>3. List the effects of local application of heat, and state reasons for applying heat.</li> <li>4. List the effects of local application of cold, and state reasons for applying cold.</li> <li>5. List factors that are taken into consideration when ambulatory aids are prescribed.</li> <li>6. Explain the difference between an axillary crutch and a forearm crutch.</li> <li>7. State conditions that may result when axillary crutches are not fitted properly.</li> <li>8. List the guidelines that should be followed by the patient to ensure safe use of crutches.</li> <li>9. State the use of each of the following crutch gaits: four-point gait, two-point gait, three-point gait, swing-to gait, and swing through gait.</li> <li>10. List and describe the three types of canes.</li> <li>11. Identify the patient conditions that warrant the use of a cane or walker.</li> </ol> | <p><b>Physical Agents to Promote Tissue Healing</b></p> <ol style="list-style-type: none"> <li>1. Demonstrate types of crutch gaits: four-point gait, two-point gait, three-point gait, swing-to gait, and swing through gait.</li> </ol> |

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| <p><b>Wheel Chair Transfer</b></p> <ol style="list-style-type: none"> <li>1. Explain the purpose of a wheelchair.</li> <li>2. Explain the safety precautions when using a wheelchair.</li> <li>3. Describe the purpose of a transfer belt.</li> </ol> <p><b>Administration of Parenteral Medication and Intravenous Therapy</b></p> <ol style="list-style-type: none"> <li>1. Explain the difference among administering, prescribing and dispensing medications.</li> <li>2. State the common routes for administering medications.</li> <li>3. Explain the purpose of a medication record.</li> <li>4. Describe the factors that affect the action of drugs in the body.</li> <li>5. List the guidelines for preparing and administering medication</li> <li>6. State the advantages and disadvantages of the parenteral route of administration.</li> <li>7. Identify the parts of a needle and syringe and explain their functions.</li> <li>8. State the ranges of gauge and length of needles for each of the following injections: intradermal, subcutaneous, and intramuscular.</li> <li>9. State the purpose of safety-engineered syringes.</li> <li>10. Describe the dispensing units available for injectable medications.</li> <li>11. State which tissue layers of the body are used for intradermal, subcutaneous, and intramuscular injections.</li> <li>12. List the medications commonly administered through each of the following routes: intradermal, subcutaneous, and intramuscular.</li> <li>13. Explain the reason for administering medication with the Z-track method.</li> <li>14. Explain the difference between active and latent tuberculosis.</li> <li>15. Explain the purpose of tuberculin skin testing.</li> <li>16. Identify the categories of individuals who should have a</li> </ol> | <p><b>Wheel Chair Transfer</b></p> <ol style="list-style-type: none"> <li>1. Assisting a Patient to stand with and without a gait belt.</li> <li>2. Properly and safely transfer patient from wheelchair to table and from table to wheelchair.</li> <li>3. Demonstrate wheelchair safety.</li> <li>4. Use of proper body mechanics.</li> </ol> <p><b>Administration of Parenteral Medication and Intravenous Therapy</b></p> <ol style="list-style-type: none"> <li>1. Verify the rules of medication administration:             <ol style="list-style-type: none"> <li>a. right patient</li> <li>b. right medication</li> <li>c. right dose</li> <li>d. right route</li> <li>e. right time</li> <li>f. right documentation</li> </ol> </li> <li>2. Prepare parenteral medication</li> <li>3. Select proper sites for administering parenteral medications.</li> <li>4. Administer a parenteral medication (IM).</li> <li>5. Administer an intradermal injection.</li> <li>6. Administer a subcutaneous injection.</li> </ol> |

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| <p>tuberculin test.</p> <ol style="list-style-type: none"> <li>17. Explain the significance of a positive reaction to a tuberculin test.</li> <li>18. List the diagnostic procedures that might be performed following a positive tuberculin test.</li> <li>19. State the guidelines that should be followed when administering and reading a Mantoux tuberculin skin test.</li> <li>20. State the advantages of the tuberculosis blood test.</li> <li>21. Define an allergy, and name common allergens.</li> <li>22. Explain what occurs during an allergic reaction.</li> <li>23. List the guidelines for direct skin allergy testing.</li> <li>24. State the purpose of each of the following types of allergy tests: patch testing, skin-prick testing, intradermal skin testing, and in vitro blood testing.</li> <li>25. Explain the advantages of outpatient intravenous (IV) therapy.</li> <li>26. Identify the role of the entry-level medical assistant in IV therapy.</li> <li>27. State the indications for outpatient IV therapy.</li> </ol> |              |