SPRINGFIELD TECHNICAL COMMUNITY COLLEGE

ACADEMIC AFFAIRS

Course Number: MLT-118 & 118L Class/Lect. Hours: 3 hrs Lab Hours: 3 hrs Credits: 2 crd. Dept.: Clinical Laboratory Science

Course Title: Phlebotomy and Specimen Handling Semester: (1st 7 weeks) 2nd Year: 1st

Course Description, Prerequisite, Corequisite:

An overview and introduction of basic skills as used in specimen handling and phlebotomy. This course is designed to prepare an individual to perform venipuncture and capillary puncture in order to obtain blood specimens for diagnostic procedures. The course will include anatomy and physiology of the circulatory system, safety considerations, confidentiality, communication, quality control, collection, transport and processing of all specimens types received in the clinical laboratory. Two lecture hours for 7 weeks, 1 credits. PREREQUISITE: MLT-112 Medical Laboratory Safety, COREEQUISITE: MLT-118L

OBJECTIVES/COMPETENCIES

Course Objectives	Competencies
Student will define the purpose and skills required and list all safety procedures observed in the practices of phlebotomy.	▪ Define phlebotomy and describe phlebotomy services. ▪ Explain the role and responsibilities of the phlebotomist. ▪ List the professional competencies for phlebotomists. ▪ List the skills necessary for effective communications. ▪ Describe basic principles of quality and give examples of quality assessments for phlebotomy. ▪ Paraphrase the importance of safety in phlebotomy and list all areas of phlebotomy where safety is used. ▪ Apply the OSHA Blood-borne Pathogens standard to use in phlebotomy. ▪ Describe safety equipment and practices used in phlebotomy. ▪ Identify risk associated with phlebotomy and patient testing. ▪ Explain risk management as it applies to phlebotomy procedures.

Course Objectives	Competencies
Student will describe the components Cardiovascular system and blood as it relates to the practice of phlebotomy.	▪ Describe the basic function of the cardiovascular system. ▪ Distinguish the characteristics of arterial, venous and capillary blood and vessels. ▪ Name and locate the veins most commonly used for phlebotomy. ▪ List the components of blood. ▪ Identify the functions of blood cells and platelets. ▪ Explain the difference between serum and plasma.
Student will describe the practice, importance and demonstrate proper performance of phlebotomy specimen documentation, handling and transportation.	▪ Describe the importance of proper patient identification. ▪ List methods of proper patient identification. ▪ Describe the essential elements in completing a requisitions form. ▪ Interpret a specimen requirement as written in standard operating procedure format. ▪ Describe the requirements of specimen collection as it relates to timed and fasting specimens. ▪ List and explain the impact of improper specimen collection. ▪ Describe proper specimen labeling procedures. ▪ Interpret computer generated labels. ▪ List the basic specimen handling guidelines for maintaining specimen integrity. ▪ Describe which blood constituents are photosensitive or thermolabile. ▪ Name three methods commonly used to transport specimens. ▪ List reason for specimen rejection.
Student will identify, describe function and properly use basic blood collection equipment.	▪ Describe the latest phlebotomy safety supplies and equipment and state the use of each. ▪ Identify the various supplies that should be carried on a specimen collection tray when a skin puncture specimen must be collected. ▪ Identify the types of venipuncture tubes and define the purpose and use of the additives/anticoagulants.

Course Objectives	Competencies
Student will describe and properly perform basic venipunture procedures.	▪ Describe the difference between the venipuncture and skin puncture equipment. ▪ Describe the patient identification process. ▪ Describe hand hygiene and gloving procedures before and after venipuncture. ▪ Identify the most appropriate sites for venipuncture. ▪ Describe how to apply a tourniquet and explain its effects on the venipuncture process. ▪ Describe the decontamination process fro a venipuncture and blood culture collection. ▪ Describe the detailed steps of a venipuncture procedure. ▪ Identify the order of draw for venipuncture tubes. ▪ Explain phlebotomy procedure when using a syringe. ▪ Explain the proper procedure for venipuncture when: ▪ Using a winged infusion set ▪ Using a syringe ▪ Collection of blood cultures ▪ Collection of Arterial Blood Gases ▪ Describe the importance of timed, fasting and STAT specimens. ▪ Explain proper patient care during the entire phlebotomy process. ▪ Identify the types of difficult draws and explain proper procedure for these situations.
Student will describe and properly perform capillary blood collection technique.	▪ Define the purpose and proper collection technique of a capillary blood draw. ▪ Identify the proper sites for performing a skin puncture procedure. ▪ Identify equipment and its use for capillary collection. ▪ Explain why controlling the depth of the incision is necessary. ▪ List situations where capillary collection is performed. ▪ Describe the procedure for making a blood smear.

Course Objectives	Competencies
Student will describe and list function of trouble shooting, problem solving skills and continuing education in professional development as it relates to phlebotomy. Student will describe and perform proper specimen collection preparation, processing and transport.	▪ Discuss pre analytical, analytical. and post analytical considerations. ▪ In group format, read and analyze case studies related to phlebotomy and discuss the case study topic and the impact on laboratory testing and/or interpretation. ▪ Read and summarize major points of a current journal article that relates to phlebotomy. ▪ Identify the impact of new developments on this area of the laboratory or on patient care. ▪ Explain the importance of specimen collection, processing, and preparation. ▪ Cite the proper procedure for collection of common types of laboratory specimens including: o QA and patient identification o Collection techniques and equipment o Labeling ▪ Describe precautions used when handling laboratory specimens and the importance of these procedures. ▪ Explain the types of routine specimens that are analyzed in the laboratory and the proper collection techniques and equipment. ▪ Discuss the procedure and use of the COC specimen collection. ▪ Explain the proper conditions for transporting of laboratory specimens.
Student will describe and perform proper specimen collection preparation, processing and transport.	▪ Explain the importance of specimen collection, processing, and preparation. ▪ Cite the proper procedure for collection of common types of laboratory specimens including: o QA and patient identification o Collection techniques and equipment o Labeling ▪ Describe precautions used when handling laboratory specimens and the importance of these procedures.

Course Objectives	Competencies
	▪ Explain the types of routine specimens that are analyzed in the laboratory and the proper collection techniques and equipment. ▪ Discuss the procedure and use of the COC specimen collection. ▪ Explain the proper conditions for transporting of laboratory specimens.