SPRINGFIELD TECHNICAL COMMUNITY COLLEGE

# ACADEMIC AFFAIRS

Course Number: MLT-222 Department: Clinical Lab Science

Course Title: Clinical Laboratory Seminar Semester: Summer Year: 2022

**COURSE OBJECTIVES:** Continuation of MLT-220 and 221. Supervised clinical experience is obtained in an affiliated laboratory under the supervision of a qualified medical technologist and pathologist. The rotation schedule provides experience in the following departments: Immunohematology, Hematology, and Urinalysis. Pre-Requisite: MLT-221.

| Course Objective | | Competencies |
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| **Hematology** | **Cognitive Objective** | Upon conclusion of the each clinical practicum rotation, the student will demonstrate a thorough knowledge of all cognitive objectives according to established laboratory protocols as outlined in procedure manuals, assigned text and materials and/or defined by verbal instruction to the attainment level identified in the CLS Clinical Course Matriculation Policy.<br>• Describe specimen requirements for all tests performed within the department using available referenc materials.<br>• Demonstrate an understanding of the theories and/or principles employed in the major procedures or protocols within the department.<br>• Demonstrate an understanding and knowledge of principles and operational procedures used for instrumentation/automation in the department.<br>• Interpret standard operating procedures for all tests performed within the department. |
| | **Psychomotor Objectives** | Upon conclusion of this clinical practicum, the student will have a thorough knowledge of the department functions and be able to complete the following assigned tasks according to established laboratory protocols as outlined in procedure manuals, assigned text and materials and/or defined by verbal instruction, within the specified time of the rotation, and to the attainment level identified in the CLS Matriculation Clinical Course Policy.<br>• Recognize unacceptable specimens and take appropriate actions.<br>• Process and log in acceptable specimens for hematological/coagulation analysis.<br>• Perform the maintenance on the major instrumentation used within the department<br>• Determine stability and outdates of departmental reagents.<br>• Properly operate the major instrumentation within the department.<br>• Perform and properly interpret all staining procedures used in this department. |

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| | | • Perform and interpret appropriate quality control and quality assurance for all procedures.<br>• Perform testing on unknown specimens using manual procedures/tests within the department and obtain test results at 95% accuracy when compared with results obtained by an experienced technologist.<br>• Identify performance issues and institute troubleshooting procedures on the major instrumentation used within the department.<br>• Recognize normal and abnormal results (reference intervals) according to the standards of the particular laboratory.<br>• Recognize implausible results.<br>• Maintain legible and accurate records. |
| **Urinalysis** | **Cognitive Objective** | Upon conclusion of the each clinical practicum rotation, the student will demonstrate a thorough knowledge of all cognitive objectives according to established laboratory protocols as outlined in procedure manuals, assigned text and materials and/or defined by verbal instruction to the attainment level identified in the CLS Clinical Course Matriculation Policy.<br>• Describe specimen requirements for all tests performed within the department using available reference materials.<br>• Demonstrate an understanding of the theories and/or principles employed in the major procedures or protocols within the department.<br>• Demonstrate an understanding and knowledge of principles and operational procedures used for instrumentation/automation in the department.<br>• Interpret standard operating procedures for all tests performed within the department. |
| | **Psychomotor Objectives** | Upon conclusion of this clinical practicum, the student will have a thorough knowledge of the department functions and be able to complete the following assigned tasks according to established laboratory protocols as outlined in procedure manuals, assigned text and materials and/or defined by verbal instruction, within the specified time of the rotation, and to the attainment level identified in the CLS Matriculation Clinical Course Policy.<br>• Recognize unacceptable specimens and take appropriate actions.<br>• Process and log in acceptable specimens for urinalysis and body fluid analysis.<br>• Perform the maintenance on the major instrumentation used within the department<br>• Determine stability and outdates of departmental reagents.<br>• Properly operate the major instrumentation within the department.<br>• Perform and properly interpret all staining procedures used in this department. |

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| | | • Perform and interpret appropriate quality control and quality assurance for all procedures.<br>• Perform testing on unknown specimens using manual procedures/tests within the department and obtain test results at 95% accuracy when compared with results obtained by an experienced technologist.<br>• Identify performance issues and institute troubleshooting procedures on the major instrumentation used within the department.<br>• Recognize normal and abnormal results (reference intervals) according to the standards of the particular laboratory.<br>• Recognize implausible results.<br>• Maintain legible and accurate records. |
| **Immunohematology** | **Cognitive Objective** | Upon conclusion of the each clinical practicum rotation, the student will demonstrate a thorough knowledge of all cognitive objectives according to established laboratory protocols as outlined in procedure manuals, assigned text and materials and/or defined by verbal instruction to the attainment level identified in the CLS Clinical Course Matriculation Policy.<br>• Describe specimen requirements for all tests performed within the department using available reference materials.<br>• Demonstrate an understanding of the theories and/or principles employed in the major procedures or protocols within the department.<br>• Demonstrate an understanding and knowledge of principles and operational procedures used for instrumentation/automation in the department.<br>• Explain the storage requirements, value and appropriate use of various blood components.<br>• Interpret standard operating procedures for all tests performed within the department. |
| | **Psychomotor Objectives** | Upon conclusion of this clinical practicum, the student will have a thorough knowledge of the department functions and be able to complete the following assigned tasks according to established laboratory protocols as outlined in procedure manuals, assigned text and materials and/or defined by verbal instruction, within the specified time of the rotation, and to the attainment level identified in the CLS Matriculation Clinical Course Policy.<br>• Recognize unacceptable specimens and take appropriate actions.<br>• Process and log in acceptable specimens for immumohematology.<br>• Determine correct identification of patient sample (100 % accuracy). |

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| | • Prepare donor for phlebotomy/assist with the phlebotomy procedure with special attention to possible adverse donor reactions during the phlebotomy procedure.<br>• Perform the maintenance on the major instrumentation used within the department<br>• Determine stability and outdates of departmental reagents.<br>• Determine eligibility of possible donor for blood donation. Perform all testing necessary (blood pressure, hematocrit, etc.)<br>• Properly operate the major instrumentation within the department.<br>• Perform and interpret appropriate quality control and quality assurance for all procedures.<br>• Perform testing on unknown specimens using manual procedures/tests within the department and obtain test results at 100% accuracy when compared with results obtained by an experienced technologist.<br>• Perform procedures for checking in donor units and for the maintenance of the blood bank inventory with 100% accuracy.<br>• Demonstrate the proper procedure for the selection of and release to medical personnel of appropriate blood and components for transfusion.<br>• Identify performance issues and institute troubleshooting procedures on the major instrumentation used within the department.<br>• Recognize normal and abnormal results (reference intervals) according to the standards of the particular laboratory.<br>• Recognize implausible results.<br>• Maintain legible and accurate records. |
| **Affective Behaviors** | Throughout the clinical practicum, students will comply with and/or perform all affective behavior objectives as outlined in this document and in the course syllabus. Assessment of compliance and/or performance of affective behaviors will be determined by ongoing, direct observations made by clinical instructors.<br>• Students will demonstrate proper professional appearance by being neatly groomed and adhering to departmental dress codes.<br>• Students will maintain a rigid attendance policy in which there are only excused absences or tardiness.<br>• Students will demonstrate dependability by notifying on campus instructor of tardiness and/or absences tardiness.<br>• Students will demonstrate honesty by always being accountable for their actions and notifying supervisor the event of an error.<br>• Students will demonstrate workload organization by maintaining a clean and orderly work area, properly documenting procedures and following oral and/or written directions.<br>• Students will communicate (verbally and nonverbally) effectively and courteously in the workplace and demonstrate the ability to work in a team. |

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| | • Students accept constructive criticism as a part of the learning process.<br>• Students will show respect for authority and the hierarchy within the laboratory.<br>• Students will demonstrate appropriate professional attitudes and behavior and perform assigned tasks w interest and enthusiasm.<br>• Practices all safety procedures, infection control and confidentiality while working within the laboratory. |