

# Course Competency

## MLT 2811L HOSPITAL PRACTICUM: MICROBIOLOGY

### Course Description

A supervised laboratory rotation in a clinical microbiology facility. This provides the student with an opportunity for the practice of skills previously learned and for the acquisition of new procedural skills.

Course Competency	Learning Outcomes
<p><b>Competency 1:</b> The student will demonstrate the ability to apply the guidelines in the clinical microbiology of the laboratory by:</p>	<ol style="list-style-type: none"> <li>1. Communication</li> <li>2. Numbers / Data</li> <li>3. Critical thinking</li> </ol>
<ol style="list-style-type: none"> <li>1. Processing specimens for clinical analysis</li> <li>2. Performing manual and automated clinical microbiology testing</li> <li>3. Performing and interpreting quality control in the microbiology laboratory</li> <li>4. Performing and reporting STAT's in a timely manner</li> <li>5. Calling panic values</li> <li>6. Performing inventory of media and following departmental guidelines for media disposal</li> <li>7. Processing blood cultures, screening and recognizing signs of bacterial growth.</li> <li>8. Operating the automated blood culture system</li> <li>9. Working -up potentially positive blood cultures to include the preparation, examination and interpretation of the blood smear.</li> <li>10. Setting up manual and automated methods of identification and antibiotic susceptibility testing on aerobic isolates and interpreting, recording, and reporting results.</li> <li>11. Setting up manual and automated methods of identification and antibiotic susceptibility testing on anaerobic isolates</li> </ol>	

<p>and interpreting, recording, and report results.</p> <ol style="list-style-type: none"> <li>12. Preparing, examining and interpreting lactophenol wet preps for fungi (dermatophytes, dermatophytes opportunistic fungi, systemic and dimorphic fungi) as well as differentiating and recognizing common contaminants.</li> <li>13. Practicing techniques for Collecting and transport of specimens for parasitology examination.</li> <li>14. Performing wet mount smears using iodine or saline from previously prepared specimens.</li> <li>15. Correctly identifying parasites on stained blood and fecal smears</li> <li>16. Observing and/or performing proper processing, concentration and set up of specimens submitted for mycobacteriology in appropriate media</li> <li>17. Observing and/or practicing the use and application of gene probes and biochemical for the identification of mycobacteria and other species if applicable at the facility</li> </ol>	
<p><b>Competency 2:</b>The student will demonstrate knowledge, comprehension and application of safety by:</p>	
<ol style="list-style-type: none"> <li>1. Wearing gloves while performing lab testing.</li> <li>2. Handling biohazard material and samples according to OSHA guidelines</li> <li>3. Disposing of biohazard waste in the appropriate containers</li> </ol>	
<p><b>Competency 3:</b>The student will demonstrate the ability to apply the guidelines in the immunology/serology laboratory by:</p>	
<ol style="list-style-type: none"> <li>1. Reading the departmental procedure manual to become familiar with policies, procedures, methods, reporting of results and lab information system entry procedures</li> </ol>	

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| <ol style="list-style-type: none"><li>2. Processing specimens for clinical analysis</li><li>3. Performing serological testing in analyzers and manually</li><li>4. Performing accurate and precise quality control analysis</li><li>5. Performing preventive maintenance of the serology instruments</li><li>6. Performing and reporting STAT's in a timely manner</li><li>7. Calling panic values</li></ol> |  |
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Updated: FALL TERM 2022