Miami Dade College

Course Description

MLT2811L | Hospital Practicum: Microbiology | 3.00 credits

A supervised laboratory rotation in a clinical microbiology facility. This provides the student an opportunity for the practice of skills previously learned and for the acquisition of new procedural skills. Prerequisites: MLT2403, 2403L; corequisite: MLT2930.

Course Competencies:

Competency 1: The student will demonstrate the ability to apply the guidelines in the clinical microbiology of the laboratory by:

1. Processing specimens for clinical analysis
2. Performing manual and automated clinical microbiology testing
3. Performing and interpreting quality control in the microbiology laboratory
4. Performing and reporting STAT's in a timely manner
5. Calling panic values
6. Performing inventory of media and following departmental guidelines for media disposal
7. Processing blood cultures, screening and recognizing signs of bacterial growth.
8. Operating the automated blood culture system
9. Working -up potentially positive blood cultures to include the preparation, examination and interpretation of the blood smear.
10. Setting up manual and automated methods of identification and antibiotic susceptibility testing on aerobic isolates and interpreting, recording, and reporting results.
11. Setting up manual and automated methods of identification and antibiotic susceptibility testing on anaerobic isolates and interpreting, recording, and report results.
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.
13. Practicing techniques for Collecting and transport of specimens for parasitology examination.
14. Performing wet mount smears using iodine or saline from previously prepared specimens.
15. Correctly identifying parasites on stained blood and fecal smears
16. Observing and/or performing proper processing, concentration and set up of specimens submitted for mycobacteriology in appropriate media
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

Competency 2: The student will demonstrate knowledge, comprehension and application of safety by:

1. Wearing gloves while performing lab testing.
2. Handling biohazard material and samples according to OSHA guidelines
3. Disposing of biohazard waste in the appropriate containers

Competency 3: The student will demonstrate the ability to apply the guidelines in the immunology/ serology laboratory by:

1. Reading the departmental procedure manual to become familiar with policies, procedures, methods, reporting of results and lab information system entry procedures
2. Processing specimens for clinical analysis
3. Performing serological testing in analyzers and manually
4. Performing accurate and precise quality control analysis
5. Performing preventive maintenance of the serology instruments
6. Performing and reporting STAT's in a timely manner

7. Calling panic values

Learning Outcomes:

1. Communication
2. Numbers / Data
3. Critical Thinking