Course Description

Includes performing of techniques, procedures, and identification of microorganisms in a clinical laboratory. Clinical 12 hours per week.

General Course Purpose

The purpose of this course is designed to develop skills and confidence in the performance of the techniques necessary for the processing and identification of micro-organisms.

Course Prerequisites/Co-requisites

Students must have completed BIO 205, MDL 251, MDL 252 and be enrolled in the second year of the Medical Laboratory Technology AAS degree program or program approval.

Course Objectives

Upon completing the course, the student will be able to:

- Demonstrate safe operation of microbiology instruments including routine start-up, reagent preparation, and preventive maintenance.
- Perform the laboratory techniques necessary for handling clinical specimens containing pathogenic and nonpathogenic microorganisms including media selection.
- Perform biochemical and biological techniques necessary for the identification of the micro-organisms encountered during his training.
- Utilize flow charts and reference materials for the identification of the micro-organisms requiring this procedure.
- Perform and interpret the results of antibiotic sensitivity testing.
- Use current procedure and terminology for reporting laboratory results to the hospital staff.
- Keep accurate records of all specimens, tests performed and results of these tests.

Major Topics to be Included

- Recording of specimens
- Quality control/assurance of media and biochemical reagents
- Aseptic technique
- Media selection
- Initial routine specimen processing and sub-culturing
- Staining techniques
- Biochemical testing and operation of associated instrumentation
- Susceptibility testing and operation of associated instrumentation
- Final Identification and reporting results
- Preparation of parasitology specimens
- Processing of parasitology specimens
- Reporting of parasitology specimens
- Processing of specimens containing mycobacteria
- Processing of mycology specimens
- Professional conduct