COURSE DESCRIPTION:

Prerequisites: None
Corequisites: MED 140

This course provides instruction in entry-level lab techniques used by the medical assistant. Topics include lab safety, quality control, collecting and processing specimens, performing selective tests, phlebotomy, screening and follow-up of test results, and OSHA/CLIA regulations. Upon completion, students should be able to perform basic lab tests/skills based on course topics. Course Hours per Week: Class, 3; Lab, 4; Semester Hours Credit, 5.

LEARNING OUTCOMES:

Upon successful completion of this course, the student should be able to demonstrate the following competencies and knowledge by written and/or competency evaluations:

a. Demonstrate lab safety.
b. Define quality assurance and quality control and explain its purpose.
c. Discuss legal and ethical considerations for the laboratory.
d. Discuss and demonstrate specimen collection and transport.
e. Differentiate between microbiology and immunology.
f. Demonstrate specific lab tests.

OUTLINE OF INSTRUCTION:

I. Fundamentals of Laboratory Practice
   A. Safety and infection control
   B. Legal and ethical considerations
   C. Quality assurance and quality control
   D. Instrumentation

II. Specimen Collection
   A. Collecting and transporting
   B. Urine
   C. Blood
   D. Microbial specimens

III. Urinalysis
   A. Procedures
   B. Assessment
C. Chemical analysis
D. Microscopic examination

IV. Hematology and Chemistry
A. Introduction to hematology
B. Hemoglobin
C. Microhematocrit
D. Blood cell counts
E. Blood smears and differentials
F. Erythrocyte sedimentation rate (ESR)
G. Clinical chemistry
H. Blood glucose testing

V. Microbiology and Immunology
A. Bacterial Smear
B. Gram Stain
C. Streptococci testing
D. HCG testing