

## MEDICAL LABORATORY TECH

### MLT 005 CRSE SPCFC STDY SK-MLT 105

1 Lecture 0 Lab 1 Credit Hours(s)

A study skills course designed specifically for MLT 105 students. Course will present systematic study strategies with guided practice to enable students to master study skills techniques.

Co-requisite: MLT105

### MLT 101 CLINICAL MICROBIOLOGY

3 Lecture 3 Lab 4 Credit Hours(s)

A study of the principles of pathogenic microbes, their isolation and identification, and antibiotic sensitivity testing. Emphasis will be placed on procedures and techniques currently in use in medical laboratories. A study of serological procedures and interpretations will be included. Emphasis will be on performance of procedures and interpretation of results as they relate to disease conditions. Note: Course may be repeated one time.

Prerequisite: MLT 105 with a grade of C or better.

### MLT 105 CLINICAL HEMATOLOGY

3 Lecture 3 Lab 4 Credit Hours(s)

A study of standard tests and techniques presently performed in the clinical laboratory. Course will include emphasis on blood counts, coagulation procedures, hemoglobin, hematocrit, differential smear evaluations, sedimentation rates, indices, platelet and reticulocyte counts. Methods of blood collection, including phlebotomy and capillary puncture techniques, will be taught. Also included is the study of the origin and development of blood, human blood in normal and disease states, blood hemostasis and coagulation deficiencies.

Note: Course may be repeated one time.

Prerequisite: Math Placement Level 2 (see DCC Math Placement Table) and ENG 092 with a grade of C or better or eligibility to enroll in ENG 101 as determined by placement testing results. Grade of C or better required to continue to MLT 101 and MLT 106.

### MLT 106 IMMUNOHEMATOLOGY/SEROLOGY

2 Lecture 3 Lab 3 Credit Hours(s)

A study of the immunological makeup of the human body. Emphasis will be on the immune process, blood banking, blood components, preparation and administration of blood components, the genetics of blood group inheritance and serological testing.

Note: Course may be repeated one time.

Prerequisite: MLT 105 with a grade of C or better and concurrent enrollment in MLT 202.

### MLT 202 PARASITOLOGY/BODY FLUIDS

2 Lecture 3 Lab 3 Credit Hours(s)

Protozoans and helminthes that infect or infest humans will be studied, including the organism's life cycle, morphology and transmission. Host response and pathology will also be covered. Practical classes on recognition of parasites in stool samples, blood, tissues and free living states are required. Special emphasis is placed upon those aspects of the life cycle that are useful for clinical diagnosis. Body fluids including amniotic, synovial, cerebrospinal and semen will also be studied.

Note: Course may be repeated one time.

Prerequisite: MLT 101 with a grade of C or better and concurrent enrollment in MLT 106.

### MLT 203 CLINICAL CHEMISTRY I

3 Lecture 3 Lab 4 Credit Hours(s)

A study of the basic concepts fundamental to the study of the chemical constituents of the human body. Emphasis will be placed on analytical procedures, interpretation of results, normal values, instrumentation, laboratory mathematics, and theory and application of clinical chemistry procedures. Analysis of urine carbohydrates, lipids, proteins and liver function tests will be covered.

Note: Course may be repeated one time.

Prerequisite: CHE 121 with a grade of C or better and MAT 118.

### MLT 204 CLINICAL CHEMISTRY II

2 Lecture 3 Lab 3 Credit Hours(s)

A continuation of Clinical Chemistry I with emphasis on the more involved and intricate biochemical testing procedures. The study of lipids, acid-base balance, electrolytes, hormones, therapeutic drugs, toxicology, cerebrospinal fluid, and special chemistry will be covered.

Prerequisite: MLT203 with a grade C or better.

### MLT 207 EXTERNSHIP I

0 Lecture 16 Lab 4 Credit Hours(s)

Resident internship in an approved laboratory where didactics and actual job performance are integrated in a clinical work-study setting. Students will rotate through each department.

Note: Course may be repeated one time.

Prerequisites: MLT 106 and MLT 202 with a grade of C or better and concurrent enrollment in MLT 204.

### MLT 208 EXTERNSHIP II

0 Lecture 16 Lab 4 Credit Hours(s)

A continuation of MLT 207 with continuing rotation through various departments in the clinical laboratory.

Note: Course may be repeated one time.

Prerequisite: MLT 106 and 202 with a grade of C or better, and concurrent enrollment in MLT 204.

### MLT 271 SPECIAL STUDY PROJECT I

1 Lecture 0 Lab 1 Credit Hours(s)

A special learning experience designed by one or more students with the cooperation and approval of a faculty member. Proposed study plans require departmental approval. Projects may be based on reading, research, community service, work experience, or other activities that advance the student's knowledge and competence in the field of medical laboratory technology or related areas. The student's time commitment to the project will be approximately 35-50 hours.

#### MLT 272 SPECIAL STUDY PROJECT II

2 Lecture 0 Lab 2 Credit Hours(s)

Similar to MLT 271 except that the student's time commitment to the project will be approximately 70-90 hours.

#### MLT 273 SPECIAL STUDY PROJECT III

3 Lecture 0 Lab 3 Credit Hours(s)

Similar to MLT 271 except that the student's time commitment to the project will be approximately 105-135 hours.