

MEDICAL LABORATORY TECHNICIAN (MLT)

MLT 79 MLT CERTIFICATION/LICENSURE EXAMINATION PREPARATION 2 UNITS

Grade Only
Limitation on Enrollment: Enrollment is limited to MLT students or accredited MLT program graduates.
Lecture 2 hours
Offered: FALL
Provides students with concepts and techniques necessary to pass the national American Society for Clinical Pathologists (ASCP) examination as well as the California state license examination. Focuses on the application of critical thinking and emphasizes theory of laboratory concepts. [ND]

MLT 80 INTRODUCTION TO THE CLINICAL LABORATORY PROFESSION 2 UNITS

Grade Only
Recommended Preparation: RDG 158 or equivalent or through the Southwestern College multiple measures placement processes.
Lecture 1.50 hour, laboratory 2 hours
Offered: FALL
Introduces functions and duties of a Medical Laboratory Technician (MLT). Emphasizes clinical laboratory safety issues, laboratory equipment, basic laboratory techniques, basic laboratory mathematics, regulatory agencies, and professional responsibilities relative to other departments of health care. [D]

MLT 90 CLINICAL URINALYSIS AND BODY FLUIDS 1 UNIT

Grade Only
Recommended Preparation: RDG 158 or equivalent or through the Southwestern College multiple measures placement processes.
Corequisite: MLT 80, MLT 90L, MLT 100, MLT 110, and MLT 132.
Lecture 1 hour
Offered: FALL
Introduces various properties and constituents of urine and body fluids via "on hands" learning. Emphasizes interpretation and handling of urine and body fluid specimens. Includes examination of urine and body fluids physically, chemically and microscopically, and compares these clinical values to health and disease. [D]

MLT 90L CLINICAL URINALYSIS AND BODY FLUIDS LABORATORY 0.5 UNITS

Grade Only
Recommended Preparation: RDG 158 or equivalent or through the Southwestern College multiple measures placement processes.
Corequisite: MLT 90.
Laboratory 2 hours
Offered: FALL
Introduces various techniques and safety procedures in clinical urinalysis. Emphasizes examination of urine and body fluids. [D]

MLT 100 CLINICAL HEMATOLOGY 3 UNITS

Grade Only
Recommended Preparation: RDG 158 or equivalent or through the Southwestern College multiple measures placement processes.
Corequisite: MLT 80, MLT 90, MLT 100L, MLT 110, and MLT 132.
Lecture 3 hours
Offered: FALL
Introduces the origin of the various types of blood cells and homeostatic process. Includes human hematological disorders and classification based on clinical laboratory findings. [D; CSU]

MLT 100L CLINICAL HEMATOLOGY LABORATORY 1 UNIT

Grade Only
Recommended Preparation: RDG 158 or equivalent or through the Southwestern College multiple measures placement processes.
Corequisite: MLT 100.
Laboratory 3 hours
Offered: FALL
Introduces various techniques and safety procedures used in the clinical hematology laboratory. Emphasizes morphology, the identification of common human blood cells, platelet function tests, and intrinsic and extrinsic clotting pathway testing. [D; CSU]

MLT 102 CLINICAL HEMATOLOGY, COAGULATION, URINALYSIS AND BODY FLUIDS PRACTICUM 3 UNITS

Grade Only
Recommended Preparation: RDG 158 or equivalent or through the Southwestern College multiple measures placement processes.
Prerequisite: MLT 90, MLT 90L, MLT 100, MLT 100L, MLT 132, and MLT 132L, or equivalent.
Corequisite: MLT 111 and MLT 120.
Laboratory 9 hours
Offered: SPRING
Introduces entry-level clinical laboratory practice and experience in the department of hematology, urinalysis, coagulation and body fluids. Emphasizes technique, accuracy, and precision. [D; CSU]

MLT 110 CLINICAL CHEMISTRY I 3 UNITS

Grade Only
Recommended Preparation: RDG 158 or equivalent or through the Southwestern College multiple measures placement processes.
Corequisite: MLT 90, MLT 100, MLT 110L, and MLT 132.
Lecture 3 hours
Offered: FALL
Provides theoretical, fundamental, and basic instrumentation methodologies, and includes practical concepts associated with testing procedures used in the clinical chemistry laboratory. Includes important characteristics of proteins, carbohydrates, lipids and NPNs, and the relationships to diseases. [D; CSU]

**MLT 110L
CLINICAL CHEMISTRY I LABORATORY
1 UNIT**

Grade Only
Recommended Preparation: RDG 158 or equivalent or through the Southwestern College multiple measures placement processes.
Corequisite: MLT 110.
Laboratory 3 hours
Offered: FALL
Introduces general laboratory principles and specific basic instrumentation methodologies used in clinical chemistry analysis. Reviews laboratory math and a reintroduction to quality control and quality assurance. Emphasizes variables of the preanalytical phase, characteristics important to quality lab technique, and safety. [D; CSU]

**MLT 111
CLINICAL CHEMISTRY II
3 UNITS**

Grade Only
Recommended Preparation: RDG 158 or equivalent or through the Southwestern College multiple measures placement processes.
Prerequisite: MLT 110 and MLT 110L, or equivalent.
Corequisite: MLT 102, MLT 111L, and MLT 120.
Lecture 3 hours
Offered: SPRING
Emphasizes the relationship between liver, cardiac, endocrine, and pancreatic function with laboratory test results. Introduces important characteristics of electrolytes, acid-base balance, trace metals, therapeutic drug monitoring, and tumor markers. [D; CSU]

**MLT 111L
CLINICAL CHEMISTRY II LABORATORY
1 UNIT**

Grade Only
Recommended Preparation: RDG 158 or equivalent or through the Southwestern College multiple measures placement processes.
Corequisite: MLT 111.
Laboratory 3 hours
Offered: SPRING
Introduces clinical chemistry tests specific to the special chemistry department. Emphasizes sodium and calcium assays as well as lipid and iron panels. [D; CSU]

**MLT 112
CLINICAL CHEMISTRY PRACTICUM
3 UNITS**

Grade Only
Recommended Preparation: RDG 158 or equivalent or through the Southwestern College multiple measures placement processes.
Prerequisite: MLT 111 and MLT 111L, or equivalent.
Corequisite: MLT 130.
Laboratory 9 hours
Offered: SUMMER
Introduces entry-level clinical laboratory practice and experience in the department of general and special chemistry. Emphasizes technique, accuracy, and precision. Includes instrumentation bench and manual methods. [D; CSU]

**MLT 120
CLINICAL MICROBIOLOGY
3 UNITS**

Grade Only
Recommended Preparation: RDG 158 or equivalent or through the Southwestern College multiple measures placement processes.
Prerequisite: MLT 90 and MLT 90L, or equivalent.
Corequisite: MLT 102, MLT 111, and MLT 120L.
Lecture 3 hours
Offered: SPRING
Introduces micro-organisms of medical microbiology with emphasis on the characteristics of clinically significant micro-organisms and their biochemical profile, media for isolation, and identification methods for selected pathogens. Emphasizes identification methods, theories, and techniques used in basic bacteriology, parasitology, virology, and mycology. [D; CSU]

**MLT 120L
CLINICAL MICROBIOLOGY LABORATORY
1 UNIT**

Grade Only
Recommended Preparation: RDG 158 or equivalent or through the Southwestern College multiple measures placement processes.
Corequisite: MLT 120.
Laboratory 3 hours
Offered: SPRING
Introduces various techniques and safety procedures in clinical microbiology. Emphasizes morphology and identification of common pathogenic organisms. [D; CSU]

**MLT 121
CLINICAL MICROBIOLOGY PRACTICUM
3 UNITS**

Grade Only
Recommended Preparation: RDG 158 or equivalent or through the Southwestern College multiple measures placement processes.
Prerequisite: MLT 120 and MLT 120L, or equivalent.
Corequisite: MLT 131.
Laboratory 9 hours
Offered: FALL
Introduces clinical laboratory practice and experience in the department of microbiology. Emphasizes technique, accuracy, and precision. Includes instrumentation as well as bench and manual methods. [D; CSU]

**MLT 130
CLINICAL IMMUNOHEMATOLOGY
3 UNITS**

Grade Only
Recommended Preparation: RDG 158 or equivalent or through the Southwestern College multiple measures placement processes.
Prerequisite: MLT 100, MLT 100L, MLT 132, and MLT 132L, or equivalent.
Corequisite: MLT 112 and MLT 130L.
Lecture 3 hours
Offered: SUMMER
Introduces basic genetics, blood collection and preservation, blood group antigens and routine blood bank procedures. Includes transfusion safety and federal regulatory requirements. Compatibility testing and antibody identification are emphasized. [D; CSU]

**MLT 130L
CLINICAL IMMUNOHEMATOLOGY LAB
1 UNIT**

Grade Only
Recommended Preparation: RDG 158 or equivalent or through the Southwestern College multiple measures placement processes.
Corequisite: MLT 130.
Laboratory 3 hours
Offered: SUMMER
Introduces the various techniques and safety procedures used in clinical blood bank laboratory. Emphasizes immunohematology procedures and techniques to measure analytes qualitatively and quantitatively. [D; CSU]

**MLT 131
CLINICAL IMMUNOLOGY AND IMMUNOHEMATOLOGY PRACTICUM
3 UNITS**

Grade Only
Recommended Preparation: RDG 158 or equivalent or through the Southwestern College multiple measures placement processes.
Prerequisite: MLT 130, MLT 130L, MLT 132, and MLT 132L, or equivalent.
Corequisite: MLT 121.
Laboratory 9 hours
Offered: FALL
Introduces clinical laboratory practice and experience in the department of serology and blood banking. Emphasizes technique, accuracy, and precision. Includes the introduction of different instrumentation as well as bench and manual methods. [D; CSU]

**MLT 132
CLINICAL IMMUNOLOGY
1 UNIT**

Grade Only
Recommended Preparation: RDG 158 or equivalent or through the Southwestern College multiple measures placement processes.
Corequisite: MLT 90, MLT 100, MLT 110, and MLT 132L.
Lecture 1 hour
Offered: FALL
Introduces the science of immunology and serology through the study of theories and processes related to natural body defenses. Includes the immune response and principles of antigen-antibody reactions. [D; CSU]

**MLT 132L
CLINICAL IMMUNOLOGY LABORATORY
0.5 UNITS**

Grade Only
Recommended Preparation: RDG 158 or equivalent or through the Southwestern College multiple measures placement processes.
Corequisite: MLT 132.
Laboratory 2 hours
Offered: FALL
Introduces the various techniques and safety procedures used in the clinical serology laboratory. Emphasizes serological procedures and techniques to measure analytes qualitatively and quantitatively. [D; CSU]

**MLT 299
INDEPENDENT STUDY
1-3 UNITS**

Pass/No Pass or Grade is Allowed
Limitation on Enrollment: Eligibility for independent study.
Lecture 3 hours
Offered: ALL
Individual study or research in some area of medical laboratory technology of particular interest to the student and not included in regular courses of the College. [D; CSU; **UC] (**UC Limitation: credit for variable topics courses is given only after a review of the scope and content of the courses by the enrolling UC campus.)