## CLINICAL LABORATORY SCIENCE (CLS)

**CLS 701 Clinical Chemistry and Urinalysis (Units: 4)**
Prerequisites: Restricted to students in the CLS certificate program and possession of California State trainee license.

Overview of clinical biochemistry and renal function. Proper specimen collection, instrumentation, quality assurance, physical and chemical analysis of samples. Case histories and laboratory practice emphasize correlation of laboratory findings and clinical conditions. Classwork, 3 units; laboratory, 1 unit. (Plus-minus letter grade only)

**CLS 702 Clinical Laboratory Science Internship I (Units: 4)**
Prerequisites: Restricted to students in the CLS certificate program and possession of California State trainee license.

Clinical training in a clinical laboratory for licensure in California and ASCP. May be repeated for a total of 8 units. (CR/NC grading only)

**CLS 705 Clinical Laboratory Science Internship II (Units: 3)**
Prerequisites: Restricted to students in the CLS certificate program and possession of California State trainee license.

Clinical training in a clinical laboratory for licensure in California and ASCP. May be repeated for a total of 6 units. (CR/NC grading only)

**CLS 706 Contemporary Clinical Science Issues (Units: 2)**
Prerequisites: Restricted to students in the CLS certificate program and possession of California State trainee license.

Includes modules on: 1) Quality control and statistics in the laboratory; 2) Laboratory administration, management, and legislation; 3) Laboratory instrumentation for manual, automated, and computerized techniques; 4) Research methods; 5) Molecular diagnostics theory and clinical practice.

**CLS 707 CLS Bridge to Clinical Practice (Units: 3)**
Prerequisites: Restricted to students in the CLS certificate program and possession of California State trainee license.

Clinical training in a clinical laboratory for licensure in California and ASCP. (CR/NC grading only)

**CLS 709 Clinical Laboratory Science Internship III (Units: 3)**
Prerequisites: Restricted to students in the CLS certificate program and possession of California State trainee license.

Clinical training in a clinical laboratory for licensure in California and ASCP. (CR/NC grading only)

**CLS 731 Clinical Hematology and Laboratory Application (Units: 4)**
Prerequisites: Restricted to students in the CLS certificate program and possession of California State trainee license.

Identification of blood cells, pathophysiology, hemostasis mechanisms, and disease states of hematological and hemostasis conditions. Theory and application of hematology procedures with emphasis on detection of abnormalities. Interpretation of clinical cases. (Plus-minus letter grade only)

**CLS 733 Clinical Microbiology for the CLS Intern (Units: 4)**
Prerequisites: Restricted to students in the CLS certificate program and possession of California State trainee license.

Principles of diagnostic microbiology that apply to bacteria, fungi, parasites and viruses, including phenotypic and genotypic detection, identification and susceptibility testing using slide and culture evaluation. Case histories and laboratory practice emphasizing correlation of laboratory findings and clinical conditions. Introduction of molecular diagnostic theory and practice. Classwork, 3 units; laboratory, 1 unit.

**CLS 790 Clinical Serology and Immunohematology (Units: 4)**
Prerequisites: Restricted to students in the CLS certificate program and possession of California State trainee license.

Theory and practice of serology and blood banking, including immune system, autoimmune diseases, red blood cell antigens, transfusion reactions, compatibility testing, current serological methodologies such as ELISA and immunofluorescence. Correlation of laboratory findings with pathophysiology. Interpretation of case studies. Classwork, 3 units; laboratory, 1 unit.