CLINICAL LABORATORY SCIENCE (CLS)

CLS 701 Clinical Chemistry and Urinalysis (Units: 4)
Prerequisites: Restricted to Clinical Laboratory Science certificate program students with a California State trainee license.

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

CLS 702 Clinical Laboratory Science Internship I (Units: 4)
Prerequisites: Restricted to Clinical Laboratory Science certificate program students with a California State trainee license.

Clinical training in a clinical laboratory for licensure in California and the American Society for Clinical Pathology (ASCP). May be repeated for a total of 8 units. (CR/NC grading only)
Course Attributes:

- Internship Component Req./Opt.

CLS 705 Clinical Laboratory Science Internship II (Units: 3)
Prerequisites: Restricted to Clinical Laboratory Science certificate program students with a California State trainee license.

Clinical training in a clinical laboratory for licensure in California and the American Society for Clinical Pathology (ASCP). May be repeated for a total of 6 units. (CR/NC grading only)
Course Attributes:

- Internship Component Req./Opt.

CLS 706 Contemporary Clinical Science Issues (Units: 2)
Prerequisites: Restricted to Clinical Laboratory Science certificate program students with a California State trainee license.

Includes modules on quality control and statistics in the laboratory; laboratory administration, management, and legislation; laboratory instrumentation for manual, automated, and computerized techniques; research methods; and molecular diagnostics theory and clinical practice.

CLS 707 CLS Bridge to Clinical Practice (Units: 3)
Prerequisites: Restricted to Clinical Laboratory Science certificate program students with a California State trainee license.

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

CLS 709 Clinical Laboratory Science Internship III (Units: 3)
Prerequisites: Restricted to Clinical Laboratory Science certificate program students with a California State trainee license.

Clinical training in a clinical laboratory for licensure in California and American Society for Clinical Pathology (ASCP). (CR/NC grading only)
Course Attributes:

- Internship Component Req./Opt.

CLS 731 Clinical Hematology and Laboratory Application (Units: 4)
Prerequisites: Restricted to Clinical Laboratory Science certificate program students with a 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 an emphasis on the detection of abnormalities. Interpretation of clinical cases. Seminar, 3 units; laboratory, 1 unit. (Plus-minus letter grade only)

CLS 753 Clinical Microbiology for the Clinical Laboratory Science Intern (Units: 4)
Prerequisites: Restricted to Clinical Laboratory Science certificate program students with a 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 the correlation of laboratory findings and clinical conditions. Introduction of molecular diagnostic theory and practice. Seminar, 3 units; laboratory, 1 unit.

CLS 790 Clinical Serology and Immunohematology (Units: 4)
Prerequisites: Restricted to Clinical Laboratory Science certificate program students with a 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, and current serological methodologies such as ELISA and immunofluorescence. Correlation of laboratory findings with pathophysiology. Interpretation of case studies. Seminar, 3 units; laboratory, 1 unit.