

CLINICAL LABORATORY SCIENCES (CLSC)

CLSC 252 Sero Practices and Procedures (2 Credits)

Lecture: 2

Serology Practices and Procedures (2) Integration of didactic instruction with discussion of serology tests in normal and disease states, principles and significance of procedures, quality control, audiovisual and case studies to provide a comprehensive understanding of serologic practices and procedures in evaluating disorders of the immune system, infectious diseases, autoimmune disease and hypersensitivity states. Two hours of lecture weekly. Prerequisite: Consent of Program Director.

College/School: College Of Pharmacy/Hlth Sci.

Department: Phar Prattice/Clinical Hlth Sci

CLSC 252L Sero Pract & Proc Lab (1 Credits)

Lab: 1

Serology Practices and Procedures Laboratory (1) Course provides students with a simulated clinical laboratory experiences in processing patient specimens, performing selected tests/analysis of specimens, report results and correlate test results with pathologic diseases/conditions. Three hours of laboratory weekly. Co-requisite: concurrent enrollment in HSCL 252 lecture. Prerequisite: Consent of Program Director.

College/School: College Of Pharmacy/Hlth Sci.

Department: Phar Prattice/Clinical Hlth Sci

CLSC 304 CLS Practice Management I (1 Credits)

Lecture: 1

Clinical Laboratory Science Application I (1) The course integrates didactic instruction with case studies and performance of laboratory procedures to provide a comprehensive understanding of clinical laboratory policies and procedures inclusive of an overview of the profession, phlebotomy, laboratory safety, compliance and regulatory agencies. One hour of lecture per week.

College/School: College Of Pharmacy/Hlth Sci.

Department: Phar Prattice/Clinical Hlth Sci

CLSC 305 CLSC Practice Management II (1 Credits)

Lecture: 1

Clinical Laboratory Science Application II (1) The course is designed to provide an orientation to the theory and required skills in education methodology, laboratory information systems, laboratory calculation and quality assurance. One hour of lecture per week.

College/School: College Of Pharmacy/Hlth Sci.

Department: Phar Prattice/Clinical Hlth Sci

CLSC 306 Comp Med Tech (1 Credits)

Lecture: 1

Comprehensive Clinical Laboratory Science (1) This course will provide exposure to laboratory management as well as research skills and techniques. Research class will culminate in a presentation of clinical research. Additionally, there will be reinforcement of theoretical acquisition of core knowledge in CLS to facilitate application to board type questions. The class will be repeated with the first semester of the senior year covering management and the second semester of the senior year covering research. One hour of lecture per week. Prerequisites: HSCR 300 or concurrent enrollment, CLSC 304 and CLSC 305.

College/School: College Of Pharmacy/Hlth Sci.

Department: Phar Prattice/Clinical Hlth Sci

CLSC 307 Comprehensive Clinical Lab II (1 Credits)

Lab: 1

College/School: College Of Pharmacy/Hlth Sci.

Department: Phar Prattice/Clinical Hlth Sci

CLSC 351 Serology Practices and Procedures (2 Credits)

Lecture: 2

College/School: College Of Pharmacy/Hlth Sci.

Department: Phar Prattice/Clinical Hlth Sci

CLSC 351L Serology Pract & Proc Lab (1 Credits)

Lab: 1

College/School: College Of Pharmacy/Hlth Sci.

Department: Phar Prattice/Clinical Hlth Sci

CLSC 352 Hematology I (2 Credits)

Lecture: 2

Hematology I (3) The theory of development of cellular elements of the blood including principles of diagnostic importance to detect disease and recognize normal processes affecting the anemias, leukemias, etc. of the hematopoietic system. Three hours of lecture weekly. Prerequisite: Acceptance into the program and consent of Program Director. Co-requisite: Concurrent enrollment in CLSC 352L.

College/School: College Of Pharmacy/Hlth Sci.

Department: Phar Prattice/Clinical Hlth Sci

CLSC 352L Hematology Lab I (1 Credits)

Lab: 1

Hematology Laboratory I (1) Routine laboratory assay used to assess the hematopoietic system related to the detection, identification, and pathophysiology of anemias, leukemias, and other blood dyscrasias. Four hours of laboratory weekly. Prerequisite: Co-requisite: Concurrent enrollment in CLSC 352

College/School: College Of Pharmacy/Hlth Sci.

Department: Phar Prattice/Clinical Hlth Sci

CLSC 353 Clinical Micro & QC (2 Credits)

Lecture: 2

Clinical Microscopy and Quality Control (3) An introduction to urinalysis and body fluid analysis, including anatomy and physiology of the kidney, physical, chemical and microscopic examination of urine, cerebrospinal fluid and other body fluid; inclusive of theory, performance and interpretation of procedures involving the physical, chemical and microscopic properties of urine and body fluids. Three hours of lecture weekly. Prerequisite: Consent of Program Director.

College/School: College Of Pharmacy/Hlth Sci.

Department: Phar Prattice/Clinical Hlth Sci

CLSC 353L CL Micro & QC Laboratory (1 Credits)

Lab: 1

Clinical Microscopy and Quality Control Laboratory (1) Simulated clinical laboratory experiences in which students process patient specimens, perform selected tests, report results, correlate data with various pathologic diseases/conditions; enhance critical thinking and decision making in the correlation of patient data. Four laboratory hours weekly. Prerequisite: Consent of Program Director.

College/School: College Of Pharmacy/Hlth Sci.

Department: Phar Prattice/Clinical Hlth Sci

CLSC 354 Blood Bank I (2 Credits)**Lecture: 2**

Immunohematology I (2) The course is a comprehensive study that focuses on regulatory agencies, quality assurance policies and practices, basic principles of immunology and genetics (inclusive of molecular genetics), antigen and antibody theory, in-vitro practices, anti-globulin testing and compatibility testing relevant to blood banking and safe transfusion practices. Critical thinking and analytical skills will be increased via case studies. Two hours of lecture weekly. Prerequisite: Acceptance into the CLS program and consent of Program Director. Co-requisite: Concurrent enrollment in CLSC 354L.

College/School: College Of Pharmacy/Hlth Sci.

Department: Phar Praticce/Clinical Hlth Sci

CLSC 354L Blood Bank Lab I (1 Credits)**Lab: 1**

Immunohematology I Laboratory (1) Student will apply the acquisition of blood banking knowledge and of analytical and critical thinking skills through the performance of blood blanking testing procedures. Quality assurance and quality control practices and testing procedures will be performed. Safety issues and practices will be emphasized. Three hours of laboratory weekly. Co-requisite: Concurrent enrollment in CLSC 354.

College/School: College Of Pharmacy/Hlth Sci.

Department: Phar Praticce/Clinical Hlth Sci

CLSC 355 Medical Chemistry I (2 Credits)**Lecture: 2**

Medical Chemistry I (2) Course focuses on basic clinical chemistry practices and procedures designed to provide a comprehensive understanding of subject matter and correlate test results with various diseases/conditions. Two hours of lecture weekly. Prerequisite: Acceptance into the CLS Program or consent of Program Director.

Corequisite: Concurrent enrollment in CLSC 355L.

College/School: College Of Pharmacy/Hlth Sci.

Department: Phar Praticce/Clinical Hlth Sci

CLSC 355L Medical Chemistry Lab I (1 Credits)**Lab: 1**

Medical Chemistry Laboratory I (1) Course provides students with the opportunity to process patient specimens perform selected tests, report and correlate test results with various pathologic diseases/conditions and gain experience in quality control, performance improvement, critical thinking, decision making and test correlation. Four hours of laboratory weekly. Co-requisite: Concurrent enrollment in CLSC 355.

College/School: College Of Pharmacy/Hlth Sci.

Department: Phar Praticce/Clinical Hlth Sci

CLSC 356 Hemostatic Processes (1 Credits)**Lecture: 1**

Hemostatic Processes (3) The theory of the coagulation mechanism and its relationship in disease states with emphasis on identification of coagulation deficiencies and abnormalities. Enhancement of critical thinking and decision making skills utilizing case studies and correlation of patient data. Three hours of lecture weekly. Prerequisite: Consent of Program Director. Co-requisite: Concurrent enrollment in CLSC 356L.

College/School: College Of Pharmacy/Hlth Sci.

Department: Phar Praticce/Clinical Hlth Sci

CLSC 356L Hemostatic Processes Lab (1 Credits)**Lab: 1**

Hemostatic Processes Laboratory (1) Routine laboratory assay used to assess the health of the hemostatic system relating to the detection, identification and pathophysiology of blood dyscrasias affecting thrombus formation inclusive of platelet enumeration and evaluation. Four hours of laboratory weekly. Co-requisite: Concurrent enrollment in CLSC 356.

College/School: College Of Pharmacy/Hlth Sci.

Department: Dpt of Pharmaceu Sc& Env HS

CLSC 357 Pract I (3 Credits)**Lecture: 3**

Practicum I (3) Performance of serological and urinalysis techniques and methods in an affiliated clinical facility. Includes quality assurance practices and procedures and equipment maintenance. Fifteen hours of laboratory per week. Prerequisite: Consent of the Program Director and fourth year standing.

College/School: College Of Pharmacy/Hlth Sci.

Department: Phar Praticce/Clinical Hlth Sci

CLSC 358 Clin Immuno (3 Credits)**Lecture: 3**

Clinical Immunology (2) Clinical rotation in an affiliated clinical facility with emphasis on technical skills and applications. Ten hours of laboratory per week. Prerequisite: Consent of the Program Director.

College/School: College Of Pharmacy/Hlth Sci.

Department: Phar Praticce/Clinical Hlth Sci

CLSC 359 Micro Human Disorders I (2 Credits)**Lecture: 2**

Microbial Human Disorders I (3) Skills development and performance in the detection, isolation, and identification of microbes of medical importance to human pathologic conditions. One hour of lecture and four hours of laboratory per week. Prerequisites: CLSC 252 and CLSC 252L.

College/School: College Of Pharmacy/Hlth Sci.

Department: Phar Praticce/Clinical Hlth Sci

CLSC 359L Micro Human Disorders Lab I (1 Credits)**Lab: 4**

Laboratory course in the detection, isolation, and identification of microbes of clinical importance. Three hours of lab per week.

College/School: College Of Pharmacy/Hlth Sci.

Department: Phar Praticce/Clinical Hlth Sci

CLSC 362 Hematology II (2 Credits)**Lecture: 2**

Hematology II (2) Advance theory in hematology focusing on routine and specialized processes required to perform, interpret, classify and evaluate cellular abnormalities and recognize those conditions that are considered normal. Case studies are utilized to enhance the development of critical thinking and decision making skills. Two hour lecture weekly. Prerequisites: CLSC 352 and CLSC 352L. Co-requisite: Concurrent enrollment in CLSC 362L.

Prerequisite(s): (CLSC 352 and CLSC 352L)

College/School: College Of Pharmacy/Hlth Sci.

Department: Phar Praticce/Clinical Hlth Sci

CLSC 362L Hematology Lab II (1 Credits)**Lab: 1**

Hematology II Laboratory (1) Routine and specialized testing are used to define, diagnose, monitor, evaluate, classify, and validate patient data in the assessment of blood cell abnormalities of the hematopoietic system. Four laboratories weekly. Prerequisites: CLSC 352 and CLSC 352L. Co-requisite: Concurrent enrollment in CLSC 362.

Prerequisite(s): (CLSC 352 and CLSC 352L)

College/School: College Of Pharmacy/Hlth Sci.

Department: Phar Praticce/Clinical Hlth Sci

CLSC 364 Blood Bank II (2 Credits)**Lecture: 2**

Immunohematology II (2) A continuation of knowledge and skills acquired in blood bank, blood donor collection, testing, utilization and storage of blood and blood components. Transfusion therapy practices, adverse complications of transfusion therapy, Hemolytic Disease of the fetus and newborn, and hemolytic anemias will be explored. Case studies will be utilized to enhance critical thinking and analytical skills. Two lecture hours weekly. Prerequisite: CLSC 354 and CLSC 354L. Co-requisite: Concurrent enrollment in CLSC 364L.

Prerequisite(s): (CLSC 354 and CLSC 354L)

College/School: College Of Pharmacy/Hlth Sci.

Department: Phar Praticce/Clinical Hlth Sci

CLSC 364L Blood Bank Lab II (1 Credits)**Lab: 1**

Immunohematology II Laboratory (1) An advanced level of testing procedures will be performed in this course. Students will demonstrate the acquisition of blood banking knowledge, analytical and critical thinking skills through the performance of blood banking testing procedures. Quality assurance practices, including quality control testing will be performed. Safety issues and practices are emphasized. Four laboratory hours weekly. Prerequisite: CLSC 354 and CLSC 354L. Co-requisite: Concurrent enrollment in CLSC 364.

Prerequisite(s): (CLSC 354 and CLSC 354L)

College/School: College Of Pharmacy/Hlth Sci.

Department: Phar Praticce/Clinical Hlth Sci

CLSC 365 Medical Chemistry II (2 Credits)**Lecture: 2**

Medical Chemistry II (2) Advanced, specialized clinical chemistry to provide the opportunity to process patient specimens, perform selected tests, report and correlate test data with various pathologic disease/conditions and gain experience in quality control, performance improvement, critical thinking, decision making and test correlation. Two hours of lecture weekly. Prerequisites: CLSC 355 and CLSC 355L. Co-requisite: Concurrent enrollment in CLSC 365L.

Prerequisite(s): (CLSC 355 and CLSC 355L)

College/School: College Of Pharmacy/Hlth Sci.

Department: Phar Praticce/Clinical Hlth Sci

CLSC 365L Medical Chemistry Lab II (1 Credits)**Lab: 1**

Medical Chemistry II Laboratory (1) Course will focus on opportunities to process patient samples, perform required tests, report and correlate patient test data with various diseases/conditions inclusive of quality control, performance improvement, critical thinking and decision making. Four hours of laboratory weekly. Prerequisites: CLSC 355 and CLSC 355L. Co-requisite: Concurrent enrollment in CLSC 355.

Prerequisite(s): (CLSC 355 and CLSC 355L)

College/School: College Of Pharmacy/Hlth Sci.

Department: Phar Praticce/Clinical Hlth Sci

CLSC 369 Parasitology and Mycology (1 Credits)**Lecture: 1**

Microbial Human Disorders II (2) Recognition of parameters to detect, isolate, and identify the characteristics of medically important microbiologic, mycologic, and parasitic organisms of man. One hour of lecture and four hours of laboratory per week. Prerequisite: CLSC 359.

Prerequisite(s): (CLSC 359)

College/School: College Of Pharmacy/Hlth Sci.

Department: Phar Praticce/Clinical Hlth Sci

CLSC 369L Parasitology and Mycology Lab (1 Credits)**Lecture: 0, Lab: 1**

Didactic course in CLS management and ethics. 2 hours lecture per week.

College/School: College Of Pharmacy/Hlth Sci.

Department: Phar Praticce/Clinical Hlth Sci

CLSC 406 Practice Management Ethics III (2 Credits)**Lecture: 2**

Didactic in CLS management and ethics. 2 hours of lecture per week.

College/School: College Of Pharmacy/Hlth Sci.

Department: Phar Praticce/Clinical Hlth Sci

CLSC 407 Capstone Review (2 Credits)**Lecture: 2**

A review for the student to demonstrate they have achieved all of the learning outcomes for the CLS degree through seminars, presentations, exams and reviews. 2 hours per week.

College/School: College Of Pharmacy/Hlth Sci.

Department: Phar Praticce/Clinical Hlth Sci

CLSC 457 Clinical Pract Preceptorship (3 Credits)**Lecture: 3**

Clinical Preceptorship and designated Laboratory Site. 3 hours per week.

College/School: College Of Pharmacy/Hlth Sci.

Department: Phar Praticce/Clinical Hlth Sci

CLSC 458 Clinical Immunology Preceptorship (2 Credits)**Lecture: 2**

Clinical Preceptorship at designated Clinical Immunology Laboratory Site.

College/School: College Of Pharmacy/Hlth Sci.

Department: Phar Praticce/Clinical Hlth Sci

CLSC 466 Clin Hema (4 Credits)**Lecture: 4**

Clinical Hematology (4) Clinical practicum in an affiliated clinical facility with emphasis on practical/technical skills and applications. Two hours of lecture and eighteen hours of laboratory per week. Prerequisite: Fourth year standing and consent of the Program Director.

College/School: College Of Pharmacy/Hlth Sci.

Department: Phar Praticce/Clinical Hlth Sci

CLSC 467 Blood Bank (4 Credits)**Lecture: 4**

Blood Bank (4) Clinical practicum focusing on the performance of antibody assessments, compatibility phlebotomy, component preparation, donor processing of donated blood, and quality assurance. Two hours of lecture and eighteen hours of laboratory per week.

Prerequisite: Fourth year standing and consent of the Program Director.

College/School: College Of Pharmacy/Hlth Sci.

Department: Phar Praticce/Clinical Hlth Sci

CLSC 468 Clinical Micro Preceptorship (4 Credits)

Lecture: 4

Clinical Microbiology (4) Clinical rotation at an affiliated clinical site to emphasize practical/technical skills and applications. Two hours of lecture and eighteen hours of laboratory per week. Prerequisite: Fourth year standing and consent of the Program Director.

College/School: College Of Pharmacy/Hlth Sci.

Department: Phar Prattice/Clinical Hlth Sci

CLSC 469 Clinical Biochemistry Precept. (4 Credits)

Lecture: 4

Clinical Biochemistry (4) Clinical rotation at an affiliated clinical site to emphasize practical/technical skills and applications. Two hours of lecture and eighteen hours of laboratory per week. Prerequisite: Fourth year standing and consent of the Program Director.

College/School: College Of Pharmacy/Hlth Sci.

Department: Phar Prattice/Clinical Hlth Sci