

**CLS 3305. Introduction to Clinical Laboratory Techniques.**

Clinical Laboratory Science students will be introduced to techniques, procedures, and instrumentation commonly used in clinical laboratories. (WI).

**3 Credit Hours. 2 Lecture Contact Hours. 3 Lab Contact Hours.**

**Course Attribute(s):** Dif Tui- Health Professions|Lab Required|Writing Intensive

**Grade Mode:** Standard Letter

**CLS 3323. Clinical Microscopy and Analysis of Body Fluids.**

Study of body fluids present in the various anatomical compartments of the body as they differ in health and disease. Physical and chemical tests, and microscopic examination of select body fluids are performed.

**3 Credit Hours. 2 Lecture Contact Hours. 3 Lab Contact Hours.**

**Course Attribute(s):** Dif Tui- Health Professions|Lab Required

**Grade Mode:** Standard Letter

**CLS 3326. Medical Parasitology.**

This course includes lecture and laboratory instruction in medically important parasites producing disease in humans with emphasis on epidemiology, life cycles, identifying characteristics, and pathology of these parasites.

**3 Credit Hours. 2 Lecture Contact Hours. 3 Lab Contact Hours.**

**Course Attribute(s):** Dif Tui- Health Professions

**Grade Mode:** Standard Letter

**CLS 3410. Clinical Chemistry I.**

This course is designed to acquaint the clinical laboratory science student with some of the concepts, techniques, procedures, and instrumentation used in clinical chemistry.

**4 Credit Hours. 3 Lecture Contact Hours. 4 Lab Contact Hours.**

**Course Attribute(s):** Dif Tui- Health Professions|Lab Required

**Grade Mode:** Standard Letter

**CLS 3412. Hematology/Coagulation I.**

This course includes qualitative and quantitative evaluation of formed elements of the blood and studies in coagulation abnormalities.

**4 Credit Hours. 3 Lecture Contact Hours. 4 Lab Contact Hours.**

**Course Attribute(s):** Dif Tui- Health Professions|Lab Required

**Grade Mode:** Standard Letter

**CLS 3424. Clinical Immunology.**

Principles of immune response and underlying immunologic procedures of diagnostic value are discussed. Lectures and laboratory emphasize detection, identification, nature of antigens and antibodies, and the antigen-antibody reactions encountered.

**4 Credit Hours. 3 Lecture Contact Hours. 3 Lab Contact Hours.**

**Course Attribute(s):** Dif Tui- Health Professions|Lab Required

**Grade Mode:** Standard Letter

**CLS 4177A. Community Health Education through Laboratory Science.**

This service learning course is designed to teach students about best practices in community health and community health education from a laboratory science perspective. Students will learn about cultural humility in healthcare, social determinants of health, and how clinical laboratory professionals can be integrated into a variety of public health initiatives.

**1 Credit Hour. 1 Lecture Contact Hour. 0 Lab Contact Hours.**

**Course Attribute(s):** Exclude from 3-peat Processing|Dif Tui- Health Professions|Topics

**Grade Mode:** Credit/No Credit

**CLS 4225. Laboratory Management and Supervision.**

Lectures and discussions of general principles of management and supervision of the clinical laboratory and its personnel. (WI).

**2 Credit Hours. 2 Lecture Contact Hours. 0 Lab Contact Hours.**

**Course Attribute(s):** Dif Tui- Health Professions|Writing Intensive

**Grade Mode:** Standard Letter

**CLS 4241. Molecular Diagnostics.**

This course consists of an introduction to the principles, methodologies, and applications of molecular diagnostic procedures used in clinical laboratories. Emphasis is placed on the procedures used in the identification of infectious agents that cause human disease, the diagnosis of inherited diseases, and the diagnosis of cancer.

**2 Credit Hours. 2 Lecture Contact Hours. 3 Lab Contact Hours.**

**Course Attribute(s):** Dif Tui- Health Professions

**Grade Mode:** Standard Letter

**CLS 4318. Hematology II.**

In-depth study of theoretical and practical aspects of clinical hematology and hemostasis with emphasis on principles, methodology, problems encountered, and clinical applications.

**3 Credit Hours. 2 Lecture Contact Hours. 3 Lab Contact Hours.**

**Course Attribute(s):** Dif Tui- Health Professions|Lab Required

**Grade Mode:** Standard Letter

**CLS 4321. Directed Study in Clinical Laboratory Science.**

An indepth study of a narrow range of topics or a related problem in the clinical laboratory sciences. Topics to be announced; may be repeated for credit when topics vary.

**3 Credit Hours. 2 Lecture Contact Hours. 6 Lab Contact Hours.**

**Course Attribute(s):** Exclude from 3-peat Processing|Dif Tui- Health Professions|Lab Required

**Grade Mode:** Credit/No Credit

**CLS 4333. Bridge to Clinical Practice.**

This course includes the study of professional and technical requirements for clinical laboratory science students and their role as part of the healthcare team. Students will demonstrate entry-level technical competency. The student's knowledge of all course material presented from the beginning of the CLS program through the spring semester will be evaluated. (WI).

**3 Credit Hours. 2 Lecture Contact Hours. 1 Lab Contact Hour.**

**Course Attribute(s):** Dif Tui- Health Professions|Writing Intensive

**Grade Mode:** Standard Letter

**CLS 4340. Clinical Microbiology II.**

Study of medically important fungi, viruses, chlamydiae, rickettsiae, and advanced topics in clinical microbiology. Automated identification of microorganisms, database management, and epidemiologic techniques will be discussed.

**3 Credit Hours. 2 Lecture Contact Hours. 3 Lab Contact Hours.**

**Course Attribute(s):** Dif Tui- Health Professions|Lab Required

**Grade Mode:** Standard Letter

**CLS 4341. Molecular Diagnostics.**

This course consists of an introduction to the principles, methodologies and applications of molecular diagnostic procedures used in clinical laboratories. Emphasis is placed on the procedures used in the identification of infectious agents that cause human disease, in the diagnosis of inherited diseases, and the diagnosis of cancer.

**3 Credit Hours. 2 Lecture Contact Hours. 3 Lab Contact Hours.**

**Course Attribute(s):** Dif Tui- Health Professions|Lab Required

**Grade Mode:** Standard Letter

**CLS 4361. Research Methods in Clinical Laboratory Science.**

Directed independent research covering the principles of research and development of clinical laboratory methodology. (WI).

**3 Credit Hours. 2 Lecture Contact Hours. 3 Lab Contact Hours.**

**Course Attribute(s):** Dif Tui- Health Professions|Lab Required|Writing Intensive

**Grade Mode:** Standard Letter

**CLS 4364. CLS Clinical Practice II.**

This course offers a continuation of CLS Clinical Practice I which includes structured clinical experience assigned on an individual basis for observation, study, and practical application of techniques and methodology in the clinical laboratory.

**3 Credit Hours. 0 Lecture Contact Hours. 16 Lab Contact Hours.**

**Course Attribute(s):** Exclude from 3-peat Processing|Dif Tui- Health Professions

**Grade Mode:** Standard Letter

**CLS 4370. Clinical Chemistry II.**

A study of the theoretical and practical aspects of clinical chemistry. Manual and automated laboratory procedures for quantitative analysis of various body fluids.

**3 Credit Hours. 2 Lecture Contact Hours. 3 Lab Contact Hours.**

**Course Attribute(s):** Dif Tui- Health Professions|Lab Required

**Grade Mode:** Standard Letter

**CLS 4440. Clinical Microbiology I.**

Study of pathogenic and nonpathogenic bacteria, fungi, and viruses with special emphasis on methods of isolation from body fluids, cultural and differential biochemical characteristics of body pathogens.

**4 Credit Hours. 3 Lecture Contact Hours. 6 Lab Contact Hours.**

**Course Attribute(s):** Dif Tui- Health Professions|Lab Required

**Grade Mode:** Standard Letter

**CLS 4460. Immunohematology.**

Study of theoretical and practical consideration of major blood groups with emphasis on grouping and typing, antibody detection and identification, compatibility testing and component therapy in blood transfusion service.

**4 Credit Hours. 3 Lecture Contact Hours. 4 Lab Contact Hours.**

**Course Attribute(s):** Dif Tui- Health Professions|Lab Required

**Grade Mode:** Standard Letter

**CLS 4463. CLS Clinical Practice I.**

Structured clinical experience assigned on an individual basis for observation, study, and practical application of techniques and methodology in the clinical laboratory.

**4 Credit Hours. 0 Lecture Contact Hours. 16 Lab Contact Hours.**

**Course Attribute(s):** Dif Tui- Health Professions

**Grade Mode:** Standard Letter

**CLS 4465. CLS Clinical Practice II.**

This course exposes students to structured clinical experiences assigned on an individual basis for observation, study and practical application of techniques and methodology in the clinical laboratory. This course exposes students to real life situations not available in a didactic classroom or student laboratory. In addition, it also provides a review of previously learned didactic courses.

**4 Credit Hours. 0 Lecture Contact Hours. 16 Lab Contact Hours.**

**Course Attribute(s):** Dif Tui- Health Professions

**Grade Mode:** Standard Letter