

LABORATORY SCIENCES (LS)

LS 501: Molecular Biology

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture, On-Line

LS 504: Biochemistry

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Clinical, Exam, Lecture, On-Line, Seminar

LS 510: Intro to Molecular Diagnostics

Course focuses on the techniques, procedures and protocols, as well as the fundamental concepts, of assays used in the clinical molecular laboratory. These assays analyze DNA and RNA isolated from human specimens in order to diagnose human disease. Topics covered include DNA extraction, polymerase chain reaction (PCR), electrophoresis, DNA sequencing, DNA fingerprinting, and other assays for detection of unique DNA or RNA sequences. Laboratory sessions cover contemporary procedures for diagnostic testing including DNA isolation, real-time quantitative PCR, DNA fingerprinting, and electrophoresis.

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lab, Lecture, Lecture/Lab

LS 511: Functional Histology

Credits: 2.5

College: Jefferson College of Health Professions

Schedule Type: Lab, Lecture, Lecture/Lab, On-Line

LS 531: Immunology

Examines basic principles and mechanisms of the immune system in the physiologic condition and in disease. Immune mechanisms in infections, hypersensitivity reactions, autoimmunity, immunodeficiencies, as well as tumor and transplantation immunology are discussed. Lecture and laboratory.

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lab, Lecture, Lecture/Lab, Lab/Lecture/Online, On-Line

LS 540: Current Resrch in Biosciences

Examination and critical review of the literature pertaining to the bioscience disciplines of biotechnology, cytotechnology and medical technology. Students present research articles from contemporary literature for critical discussion. Students submit a written synopsis of two presented articles and one webinar of their choice. Graduate students, in addition, select a novel lab test or lab equipment found in the literature and produce a comprehensive proposal request suitable for publication.

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture, Seminar

LS 575: MLS Seminar

Credits: 2

College: ^Coll of Health Professions

Schedule Type: Seminar

LS 603: Research Design

Emphasis is placed on the acquisition of methods and techniques for extending the scientific base of knowledge for laboratory practice. Research studies which address questions of impact on laboratory science and which are drawn from an interdisciplinary health perspective, serve as the focus for discussion. Research designs and related statistical processes are examined in terms of their appropriateness for addressing various laboratory practice problems. (Cross-listed with NU 603, OT 603, PT 603)

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture, On-Line

LS 610: Reg & Fis Issues in Lab. Mgmt

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Exam, Lecture, Lecture/On-Line, On-Line

LS 613: Pathology

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture, Lecture/On-Line

LS 620: Labatory Info Systems Mgmt

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture

LS 626: Flow Cytometry I

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lab, Lecture, Lecture/Lab

LS 627: Flow Cytometry II

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lab, Lecture, Lecture/Lab

LS 630: Lab. Services Research Tech.

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture

LS 640: Methods in Bioscience Edu

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture, Lecture/On-Line, On-Line

LS 644: Laboratory Ed and Instruction

Completion of teaching and learning experience(s) in classroom, on-line and/or laboratory practice settings. Students acquire and demonstrate fundamental knowledge and practical skills in education administration, delivery and evaluation.

Credits: 3-4

College: Jefferson College of Health Professions

Schedule Type: Clinical, Seminar

LS 645: Lab Admin and Mgmt

Credits: 3-4

College: Jefferson College of Health Professions

Schedule Type: Clinical, Practicum, Seminar

LS 650: Lead,Manage,Develop People

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture, On-Line, Seminar

LS 651: Managing Medical Device Develo**Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, On-Line**LS 652: Fin & Acc Aspects of MPD****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, Lecture/Lab, On-Line**LS 653: Reg Requirements for MPD****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, Lecture/Lab, On-Line**LS 654: Statistics&Informatics in MPD****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Clinical, Lecture, On-Line, Seminar**LS 655: LeadMedProdDev: Prod&Bus Strat****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Clinical, Lecture, On-Line, Seminar**LS 698: Special Topics in Lab Instruct****Credits:** 3-4**College:** Jefferson College of Health Professions**Schedule Type:** Lab, Lecture, On-Line, Seminar**LS 699: Independent Study**

This course will provide students with research exploration of a specific topic of interest to the individual student under the advisement of an instructor who will monitor and critique the student's progress

Credits: 1-6**College:** Jefferson College of Health Professions**Schedule Type:** Independent Study, Lab**LS 801: Research Project I****Credits:** 1**College:** Jefferson College of Health Professions**Schedule Type:** Reseach**LS 802: Reseach Project II****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Reseach**LS 803: Contemporary Topics Research**

This course aims to provide a solid foundation in conducting quality literature-based research at the graduate level in the fields of Medical Laboratory Science, Cytotechnology and Biotechnology. Emphasis will be placed on how to locate and make the best use of relevant sources, development of an appreciation of scientific inquiry and development of skills needed for the creation of appropriate academic outputs (journal quality review articles and research presentations).

Credits: 2**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, Lecture/On-Line, On-Line**LS 804: Experimental Research I****Credits:** 1**College:** Jefferson College of Health Professions**Schedule Type:** Clinical, Reseach**LS 805: Experimental Research II****Credits:** 1**College:** Jefferson College of Health Professions**Schedule Type:** Lab, Lecture, Reseach**LS 812: Practicum I****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Clinical, Practicum**LS 813: Practicum II****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Clinical, Practicum**LS 814: Practicum III****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Clinical, Practicum**LS 815: Practicum IV****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Clinical, Practicum**LS 816: Comprehensive Examination****Credits:** 0**College:** Jefferson College of Health Professions**Schedule Type:** Exam, Lecture, On-Line