

MLS 1501 - Introduction to the Medical Laboratory Profession

Fall 2026 Syllabus, Section 01, CRN 41272,

Credit hours: 2

Instructor

Hiba Ismail

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Public Instructor Information

Instructor Information

Instructor: Hiba M. Ismail, MHHS, MLS(ASCP)^{CM}

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Preferred Method of Contact: Email (hmismail@ysu.edu)

Response Time: Emails will typically be answered within **24 hours** during the workweek.

Professional Qualifications

- **Master of Health and Human Services (MHHS)**, Youngstown State University, 2012
- **Bachelor of Science in Medical Laboratory Science**, Youngstown State University, 2005
- **Bachelor of Science in Allied Health**, Youngstown State University, 2002
- **Associate of Applied Science in Medical Laboratory Technology**, Youngstown State University, 2002
- **Medical Laboratory Scientist, MLS(ASCP)^{CM}**, American Society for Clinical Pathology (Board Certified; Certification Maintenance)

Office Information

Office Location: Cushwa Hall

Office Phone: (330) 941-1761

Course Description

1501. Introduction to the Medical Laboratory Profession. Overview of the medical laboratory profession, ethics, responsibilities and clinical relevance of laboratory procedures. Concurrent with MLS 1501L. Prereq.: MATH 1504 or level 20 on Math Placement Test, high school chemistry or CHEM 1501, high school biology or BIOL 1505. 2 s.h.

MLT 1501, Introduction to Medical Laboratory Profession; taken concurrently with MLT 1501L. Prereq: Level 20 on Math Placement Test, high school chemistry or CHEM 1501, high school biology or BIOL 1505. Coreq.: MLT 1501L. 2 s.h.

Course Readings

Group	Title	Author	ISBN
Required	Required textbook: Turgeon, M. (2023). <i>Clinical Laboratory Science concepts, procedures, and clinical applications</i> (9th ed.). Elsevier Inc. ISBN# 978-0323829342		

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The course readings are subject to change in the event of extenuating circumstances, research developments, current events, and/or to ensure better learning.



Weekly Schedule

Day	Date	Reading(s)	Proposed Topic	Due/To Prepare for Class
Tue	8/25	Introduction Chapter 1: Fundamentals of the Clinical Laboratory		
Tue	9/1	Introduction Chapter 1: Fundamentals of the Clinical Laboratory		
Tue	9/8	Chapter 3: Quality Assessment and Quality Control in the Clinical Laboratory		
Tue	9/15	Chapter 7: Basic and Contemporary Techniques		
Tue	9/22	Chapter 8: Laboratory Testing from POC to Total Automation		
Tue	9/29	Chapter 9: Phlebotomy		
Tue	10/6	MIDTERM: Comprehensive Chapters 1,2,3,4,8,9		
Tue	10/13	MIDTERM: Comprehensive Chapters 1,2,3,4,8,9		
Tue	10/20	Chapter 12: Renal Physiology and Urinalysis		
Tue	10/27	Chapter 13: Other body Fluids		
Tue	11/3	Chapter 16: Medical Microbiology		
Tue	11/10	Chapter 18: Immunohematology and Transfusion Medicine		
Tue	11/17	Chapter 14: Clinical Chemistry		
Tue	11/24	Chapter 17: Immunology and Serology		
Tue	12/1	Chapter 11: Hemostasis and Blood Coagulation		
Tue	12/8	Final Comprehensive –		Final Comprehensive

The course schedule, policies, procedures, and assignments in this course are subject to change in the event of extenuating circumstances, by mutual agreement, and/or to ensure better learning.