



WACO, TEXAS

COURSE SYLLABUS

AND

INSTRUCTOR PLAN

**Advanced Topics in
Medical Laboratory Technician**

MLAB 2238.01

Alisa J. Petree, MHSM, MLS(ASCP)cm

NOTE: This is an 11-week online course.

COVID 19 Notice:

McLennan Community College is committed to providing you with every resource you need to reach your academic goals including your safety. We will continue to monitor the evolving situation with COVID 19 and adjust our safety guidelines to make sure we offer a safe environment for you and our faculty. Please make sure to consult your faculty and the MCC website on any changes to these guidelines.

Course Description:

MLAB 2238 is a cumulative review of clinical laboratory science theory. The seminar consists of a summation of previous classes emphasizing recall, application of theory, correlation, and evaluation of all areas of clinical laboratory science. Upon completion, students should be able to apply theory of analytical methods, recognize normal, abnormal, and erroneous results, and relate laboratory results to pathological conditions.

Prerequisites and/or Corequisites:

Prerequisite: Successful completion of all MLAB courses in the first two semesters of the MLT program
Semester hours: 2 (2lec)

Course Notes and Instructor Recommendations:

Please note:

- Use your MLT program textbook(s)
- Check your student email daily
- Use computer with reliable Internet access

It is MCC's policy to assign all students, upon registration, an official e-mail address, which may remain in effect up to twelve months after students are no longer enrolled at MCC. MCC student e-mail addresses will be the only e-mail authorized to communicate official college information or business. A student's failure to receive or read official communications sent to the student's assigned e-mail address in a timely manner does not absolve the student from knowing and complying with the content of the official communication.

Students must have access to a computer with reliable Internet access to participate in this class.

- Microsoft Office 365 Available as a free download when you register with your @mclennan.edu or @students.mclennan.edu email address
- [Click here](#) to sign up and download

Instructor Information:

I Instructor Name: Alisa J. Petree

MCC Email: apetree@mclennan.edu

Office Phone Number: 254-299-8406

Office Location: S 320 (3rd floor of the science building)

Office/Teacher Conference Hours: 9:30 AM - 11:30 AM Tuesday-Thursday

Other Instruction Information: Other times available upon request.

Required Text & Materials:

Title: Medical Laboratory Science Examination Review

Author: Linda Graeter, Elizabeth Hertenstein, Charity Accurso and Gideon Labiner

Edition: 1

Publisher: Saunders - Elsevier

ISBN: 9781455708895

E-ISBN 9780323292412

Title: ASCP BOC Study Guide

Author: ASCP Press

Edition: 6th

ISBN: 9780891896609

Publisher: ASCP Press

MCC Bookstore Website: <http://www.mclennan.edu/bookstore/>

Methods of Teaching and Learning:

Students will be taught using various learning methods and activities including prerecorded lectures, demonstrations, practice sessions, case studies, projects, worksheets, Internet exercises, quizzes, exams, streaming video, and recordings. Course materials will be available on Brightspace for student access during the course. Resources are also available in the MLT student laboratory and campus library.

Course Objectives and/or Competencies:

The student will describe basic laboratory techniques used in the clinical laboratory, identify principles and procedures of all major areas of the clinical laboratory to include sources of error and clinical significance of results, and evaluate normal and abnormal test results and related diseases. The student will demonstrate a comprehensive understanding of clinical laboratory science by describing disease states associated with abnormal laboratory results and by scoring a grade of 75 or better on the capstone test.

After completion of MLAB 2238 Advanced Topics in Medical Laboratory Technician, the student should be knowledgeable of the following general program objectives:

1. State the procedures for specimen collection and processing.
2. Recognize and apply principles related to the use of laboratory information systems used in the clinical laboratory.

3. Review analytical tests as directed on selected laboratory specimens.
4. Recognize factors that affect methods and test results and recommend appropriate actions within established guidelines using the skills of critical thinking and problem solving.
5. Recognize the clinical significance of selected laboratory procedures used in the diagnosis and treatment of disease.
6. Discuss routine quality control procedures within established guidelines by applying the principles of critical thinking and problem solving.
7. Discuss preventive and corrective maintenance of selected equipment and instruments and refer to appropriate sources as necessary.
8. State the principles of laboratory safety, including Universal/Standard Precautions.
9. Demonstrate professional conduct and interpersonal communication skills with patients, laboratory personnel, other health care professionals, and with the public.
10. Recognize the responsibilities of other laboratory and health care personnel and interact appropriately with them for quality patient care.
11. Relate selected laboratory test results to common disease processes by recognizing common principles and methodologies used in the clinical laboratory.
12. Establish and maintain continuing education as a function of growth and maintenance of personal and professional competence.

All cognitive, psychomotor and affective domain objectives are written with these competencies in mind. The affective domain objectives help the student understand the importance of professionalism, responsibility, and other "soft skills" associated with job competency. Rationale Medical laboratory technician and phlebotomy students must gain awareness of the scope and practice of their profession to demonstrate entry-level proficiency in the various disciplines of the clinical laboratory as a fundamental part of their training. This course is designed to aid students academically, mentally and emotionally for experiences they may encounter in the clinical or workplace setting.

Learning Outcomes

Learning outcomes, or specific course objectives, for the cognitive, affective, and psychomotor domains are listed for each unit and will be available to students on the first day of class via Brightspace.

Course Outline or Schedule:

Medical Laboratory Technician Examination Content from ASCP Board of Certification

- a. Hematology/Hemostasis
- b. Immunology and Serology
- c. Immunohematology

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- d. Microbiology/Parasitology/Mycology/Virology
- e. Clinical Chemistry
- f. Urinalysis/Lab Operations
- g. Comprehensive exam review

CAPSTONE EXAM – CLS Lab Simulator – Certifications Practice Exam – You are required to pass a comprehensive registry practice exam from this website. www.medialabinc.net

See announcements in D2L/Brightspace for information about your subscription/password. The course calendar is subject to change. All changes will be communicated via the announcement page in D2L/Brightspace. The due dates are shown in the calendar on D2L/Brightspace.

Learning Units	Topics	MLS Exam Review Chapter	ASCP Textbook
Learning Unit 1			
	Hematology	Ch 3	Pages 219-312
	Hemostasis	Ch 4	
Learning Unit 2			
	Immunology and Serology	Ch 6	Pages 313-354
	Molecular Diagnostics	Ch 9	Pages 451-464
Learning Unit 3			
	Immunohematology and	Ch 7	Pages 1-84
	Blood Transfusion Medicine		
Learning Unit 4			
	Microbiology	Ch 1	Pages 355-450
	Mycology/Virology/Parasit	Ch 2	
Learning Unit 5			
	Clinical Chemistry	Ch 8	Pages 141-218
	Register for ASCP Exam		
Learning Unit 5			
	Urinalysis/Body Fluids	Ch 5	Pages 85-140
Learning Unit 7			
	Laboratory Operations	Ch 10	Pages 465-516
	Laboratory Calculations	Ch 11	
LabCE Practice Exam Due			
	Comprehensive Practice Registry		
Grades due on August 11th - August 17th Commencement			

Course Grading Information:

Grading Policy

A = 90 – 100

B = 80 - 89

C = 75 - 79

D = 70 – 74

F = 69 and below

Any student earning a D or below on any assignment/test is required to schedule conference

Course Breakdown

The grading will be based on the ASCP Board of Certification weights for each category. The content areas are weighted as follows:

Blood Bank 20%

Urinalysis 8%

Chemistry 20%

Hematology/Coagulation 20%

Immunology 7 %

Microbiology/Parasitology/Virology/Mycology 20%

Lab Operations 5%

Examinations: There are no major exams in this course with the exception of the practice registry exam(s). Course work will include short answers/case studies and multiple choice questions from LabCE as well as watching webinars with short answer worksheets or multiple choice questions regarding the content, and studies provided by various professional organizations to include the CDC, Sysmex, Siemens and Cellavision. Grades will be posted on Brightspace.

Provided in Brightspace is a copy of the ASCP BOC Content Guidelines.

Late Work, Attendance, and Make Up Work Policies:

Attendance

For this online course, the attendance will be based upon submitting the unit assignments by their due dates. The assignments are due per dates in Brightspace.

Failure to complete 25% of the unit assignments will result in the student being withdrawn from the course. Students who withdraw from an MLT course will be dropped from the MLT program

and must reapply for admission and repeat the MLT courses in their entirety to be eligible to graduate from the program and to sit for the ASCP MLT national certification exam.

Students will be permitted to makeup class work and assignments missed due to excused absences caused by (1) authorized participation in official College functions, (2) personal illness, (3) an illness or a death in the immediate family, or (4) the observance of a religious holy day. It is the student's responsibility to provide the proper documentation for an excused absence within three days of the work missed.

The instructor has the prerogative of determining whether or not a student may submit work missed due to an unexcused absence (the grade recorded will be no higher than a 75).

Student Behavioral Expectations or Conduct Policy:

Students are expected to conduct themselves in a professional manner in online discussions that includes respect for other students and the instructor, prompt and regular attendance, and an attitude that seeks to take full advantage of the education opportunity.

Plagiarism and Cheating

Any reported incidents of plagiarism or cheating will be investigated and documented with proper disciplinary action taken as necessary including possible dismissal from the program.

Please see Academic Integrity: A student's responsibility from the McLennan Community College website and the Highlander Student Guide.

www.mclennan.edu/academic-integrity

"Cheating" includes, but is not limited to: (1) use of any unauthorized assistance in taking quizzes, tests or examinations; (2) dependence upon the aid of sources beyond those authorized by the professor in writing papers, preparing reports, solving problems or carrying out other assignments; or (3) the acquisition, without permission, of tests or other academic material belonging to a member of the MCC faculty or staff.

"Plagiarism" includes, but is not limited to, the use, by paraphrase or direct quotation, of the published or unpublished work of another person without full and clear acknowledgment. It also includes the unacknowledged use of materials prepared by another person or agency engaged in the selling of term papers or other academic materials.

[Click Here for the MCC Attendance/Absences Policy](https://www.mclennan.edu/highlander-guide/policies.html)

(<https://www.mclennan.edu/highlander-guide/policies.html>)

Click on the link above for the college policies on attendance and absences. Your instructor may have additional guidelines specific to this course.

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C O M M U N I T Y

COLLEGE

ACADEMIC RESOURCES/POLICIES

Student Support/Resources:

MCC provides a variety of services to support student success in the classroom and in your academic pursuits to include counseling, tutors, technology help desk, advising, financial aid, etc. A listing of these and the many other services available to our students is available at <http://www.mclennan.edu/campus-resource-guide/>

College personnel recognize that food, housing, and transportation are essential for student success. If you are having trouble securing these resources or want to explore strategies for balancing life and school, we encourage you to contact a Success Coach by calling (254) 299-8226 or emailing SuccessCoach@mclennan.edu. Students may visit the Completion Center Monday-Friday from 8 a.m.-5 p.m. to schedule a meeting with a Success Coach and receive additional resources and support to help reach academic and personal goals. Paulanne's Pantry (MCC's food pantry) provides free food by appointment to students, faculty and staff based on household size. Text (254) 870-7573 to schedule a pantry appointment. The Completion Center and pantry are located on the Second Floor of the Student Services Center (SSC).

MCC Foundation Emergency Grant Fund:

Unanticipated expenses, such as car repairs, medical bills, housing, or job loss can affect us all. Should an unexpected expense arise, the MCC Foundation has an emergency grant fund that may be able to assist you. Please go to <https://www.mclennan.edu/foundation/scholarships-and-resources/emergencygrant.html> to find out more about the emergency grant. The application can be found at https://www.mclennan.edu/foundation/docs/Emergency_Grant_Application.pdf.

Minimum Technical Skills:

Students should have basic computer skills, knowledge of word processing software, and a basic understanding of how to use search engines and common web browsers.

Backup Plan for Technology:

In the event MCC's technology systems are down, you will be notified via your MCC student email address. Please note that all assignments and activities will be due on the date specified in the Instructor Plan, unless otherwise noted by the instructor.

Minimum System Requirements to Utilize MCC's D2L|Brightspace:

Go to <https://www.mclennan.edu/center-for-teaching-and-learning/Faculty%20and%20Staff%20Commons/requirements.html> for information on the minimum system requirements needed to reliably access your courses in MCC's D2L|Brightspace learning management system.

Email Policy:

McLennan Community College would like to remind you of the policy (<http://www.mclennan.edu/employees/policy-manual/docs/E-XXXI-B.pdf>) regarding college email. All students, faculty, and staff are encouraged to use their McLennan email addresses when conducting college business.

A student's McLennan email address is the preferred email address that college employees should use for official college information or business. Students are expected to read and, if needed, respond in a timely manner to college emails.

Instructional Uses of Email:

Faculty members can determine classroom use of email or electronic communications. Faculty should expect and encourage students to check the college email on a regular basis. Faculty should inform students in the course syllabus if another communication method is to be used and of any special or unusual expectations for electronic communications.

If a faculty member prefers not to communicate by email with their students, it should be reflected in the course syllabus and information should be provided for the preferred form of communication.

Email on Mobile Devices:

The College recommends that you set up your mobile device to receive McLennan emails. If you need assistance with set-up, you may email Helpdesk@mclennan.edu for help.

Forwarding Emails:

You may forward emails that come to your McLennan address to alternate email addresses; however, the College will not be held responsible for emails forwarded to an alternate address that may be lost or placed in junk or spam filters.

MCC Academic Integrity Statement:

Go to www.mclennan.edu/academic-integrity for information about academic integrity, dishonesty, and cheating.

Accommodations/ADA Statement:

Any student who is a qualified individual with a disability may request reasonable accommodations to assist with providing equal access to educational opportunities. Students should contact the Accommodations Coordinator as soon as possible to provide documentation and make necessary arrangements. Once that process is completed, appropriate verification will be provided to the student and instructor. Please note that instructors are not required to provide classroom accommodations to students until appropriate verification has been provided by the Accommodations Coordinator. For additional information, please visit www.mclennan.edu/disability.

Students with questions or who require assistance with disabilities involving physical, classroom, or testing accommodations should contact:

disabilities@mclennan.edu

254-299-8122

Room 319, Student Services Center

Title IX:

We care about your safety, and value an environment where students and instructors can successfully teach and learn together. If you or someone you know experiences unwelcomed behavior, we are here to help. Individuals who would like to report an incident of sexual misconduct are encouraged to immediately contact the Title IX Coordinator at titleix@mclennan.edu or by calling Dr. Drew Canham (Chief of Staff for Diversity, Equity & Inclusion/Title IX) at (254) 299-8645. Individuals also may contact the MCC Police Department at 299-8911 or the MCC Student Counseling Center at MCC at (254) 299-8210. The MCC Student Counseling Center is a confidential resource for students. Any student or employee may report sexual harassment anonymously by visiting <http://www.lighthouse-services.com/mclennan/>.

Go to McLennan's Title IX webpage at www.mclennan.edu/titleix/. It contains more information about definitions, reporting, confidentiality, resources, and what to do if you or someone you know is a victim of sexual misconduct, gender-based violence or the crimes of rape, acquaintance rape, sexual assault, sexual harassment, stalking, dating violence, or domestic violence.

Disclaimer:

The resources and policies listed above are merely for informational purposes and are subject to change without notice or obligation. The College reserves the right to change policies and other requirements in compliance with State and Federal laws. The provisions of this document do not constitute a contract.