

# McLennan C O M M U N I T Y C O L L E G E

WACO, TEXAS

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## **COURSE SYLLABUS**

**AND**

## **INSTRUCTOR PLAN**

**Clinical Microbiology**

**MLAB 2534.01**

**Dr. Samantha Dove, Ed.D.**

**NOTE: This is an 16-week course.**

**NOTE: This is a Blended/Hybrid course.**

### **COVID 19 Notice:**

McLennan Community College is committed to providing you with every resource you need to reach your academic goals. We are also concerned for your safety. We are working through COVID-19 guidelines to make sure we offer a safe environment for you and our faculty. This will include smaller class sizes to manage social distancing and proper cleaning techniques. You will have the advantage of a physical classroom experience but may also need to work part of the time online as we adjust to limited classroom capacity. This will also allow us the flexibility to move online if so directed by federal, state and/or local COVID 19 guidelines. Faculty and staff are preparing now to ensure that you have the best experience in the midst of these uncertain times.

## Clinical Microbiology

MLAB 2534.01

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### **Course Description:**

MLAB 2534 Microbiology deals with the instruction of the theory, practical application, and pathogenesis of clinical microbiology, including collection, setup, identification, susceptibility testing, and reporting procedures. We utilize a student/clinical laboratory for experiences in fundamental microbiology laboratory techniques.

### **Prerequisites and/or Corequisites:**

Prerequisite: Admission to the medical laboratory technician program and approval by the program director. Semester hours: 5 (4 lec/ 2 lab).

### **Course Notes and Instructor Recommendations:**

- Have your textbook by the first day of class
- Estimated study time outside of class: 15-18 hours per week
- Check your student email daily
- Use computer with reliable internet access

#### **Please note:**

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. If the computer you are using does not have a copy of *Microsoft Office for Word, Power Point, Excel* Spreadsheets, etc. you will need to either purchase *Microsoft Office* (MCC Bookstore has student version/price) or download *Open Office*. Students should also download *Adobe Reader* to open any PDF files in the course (free download). McLennan Community College now provides students, faculty & staff the ability to sign up for and download Microsoft Office 365, for free!

### **Instructor Information:**

Instructor Name: Dr. Samantha Dove, Ed.D.

MCC Email: sdove@mclennan.edu

Office Phone Number: 254-299-8119

Office Location: S321

Office/Teacher Conference Hours: Posted by office

Other Instruction Information:

**Required Text & Materials:**

Title: *Introduction to Diagnostic Microbiology for the Laboratory Sciences*

Author: Maria Dannessa Delost Edition:

1st Publisher: Jones and Bartlett Learning

ISBN: 978-1-284-03231-4

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

**Methods of Teaching and Learning:**

Students will be taught using various learning methods and activities including lectures, demonstrations, practice sessions, case studies, projects, laboratory exercises, clinical experiences, 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 student laboratory, campus library, and hospital libraries, as well as at the clinical sites.

**Course Objectives and/or Competencies:**

MLAB 2534 is designed to prepare students to function at an entry-level position in a routine microbiology laboratory. Emphasis will be placed on routine microbiology procedures and interpretations of test results in relationship to disease states. The student will discuss morphology and physiology of microbes; demonstrate sterile technique; identify and classify microorganisms; and perform antimicrobial susceptibility testing using appropriate quality control procedures. The student will evaluate the suitability of clinical specimens. Using critical thinking skills, s/he will evaluate laboratory test outcomes; select additional procedures to be performed; and correlate test results with patient conditions. Emphasis will be placed on the cultivation and identification of microorganisms in patient specimens. Pathogenic microorganisms will be studied in relationship to disease states. Routine and special medical microbiology procedures will be examined. After completion of MLAB 2534 Microbiology the student will be able to meet the following general course objectives:

1. *Collect, process, and analyze microbiological specimens.*
2. *Recognize factors that affect methods and test results and take appropriate actions within established guidelines using the skills of critical thinking and problem solving.*
3. *Perform and monitor routine departmental quality control within established guidelines by applying the principles of critical thinking and problem solving.*
4. *Perform preventive and corrective maintenance of equipment and instruments and refer to appropriate sources as necessary.*

5. *Apply and encourage the use of the principles of laboratory safety, including Universal Precautions.*
6. *Demonstrate professional conduct and interpersonal communication skills with patients, laboratory personnel, other health care professionals, and with the public.*
7. *Apply basic scientific principles in learning new techniques and procedures*
8. *Relate laboratory test results to common disease processes by recognizing the principles and methodologies practiced in the department*
9. *Establish and maintain continuing education as a function of growth and maintenance of personal and professional competence.*

**Course Outline or Schedule:**

1. Introduction to Clinical Microbiology
2. Safety in the Clinical Microbiology Laboratory
3. Specimen Collection, Transport, and Processing: Preliminary Identification Methods
4. Microscopy, Staining, and Traditional Methods of Examination
5. Automation and Immunodiagnostics
6. Antimicrobial Susceptibility Testing
7. Staphylococcal and Other Catalase-Positive Gram-Positive Cocci
8. Streptococcus, Enterococcus, and Related Organisms
9. Neisseria
10. Enterobacteriaceae
11. Nonfermentative Gram-Negative Bacilli
12. Miscellaneous Gram-Negative Bacilli
13. Gram-Positive Bacilli
14. Spirochetes
15. Anaerobes
16. Mycobacteria
17. Chlamydia, Mycoplasma, and Rickettsia
18. Clinical Specimens

The class schedule (calendar) will be made available the first day of class.

**Subject to Change Disclaimer:**

The policies, regulations, procedures, and fees associated with this program are subject to change without prior notice, if necessary, to keep College and program policies in compliance with State and Federal laws and/or with rules related to the program's accrediting agency. The College and the program reserve the right to change curricula, rules, fees, and other requirements, of whatever kind, affecting students in any way. The provisions of this document do not constitute a contract, express or

implied, between any applicant, student, faculty or staff member and McLennan Community College or this program.

**Course Grading Information:****Grading Policy**

Grade	Percentage Points
A	90-100%
B	80-89%
C	75-79%
D	70-74%
F	69% and below

I round final grades. For example, if you achieve a final score of 79.5%, you will receive a B in the course. If you achieve a 79.4%, you will receive a C.

Any student earning a grade of less than 75% on an assignment is required to schedule a conference time with the Program Director.

	Breakdown
Assignments	20%
Lab Exercises	20%
Examinations	45%
Final Exam	15%
<b>Total Course Points</b>	100%

Grades will be posted on *Brightspace*.

**Assignments**

Your assignment grade may include work such as quizzes, projects, worksheets, and/or homework.

**Lab Exercises**

Being competent in the laboratory is critical for the MLT. Therefore, it is crucial that each student be present and able to complete his/her lab assignments. Practical lab exams may be given to determine competency. Many lab exercises/assignments may **not** be available to makeup.

### Examinations

There are four major examinations which may be comprehensive. Make-up examinations will be scheduled during the week before finals at the end of the semester

- please see the attendance policy. No student will be allowed to make up more than one examination.

**ALL tests will be proctored.**

### Final Exam

The Final Exam will be a comprehensive, testing your knowledge of the material for the entire course.

### **Late Work, Attendance, and Make Up Work Policies:**

Regular and punctual attendance is expected of all students, and each instructor will maintain a complete record of attendance for the entire length of each course. Students will be counted absent from class meetings missed, beginning with the first official day of classes. Students, whether present or absent, are responsible for **all** material presented or assigned for a course and will be held accountable for such materials in the determination of course grades.

### **Student Behavioral Expectations or Conduct Policy:**

Students are expected to maintain classroom decorum 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.

#### Dress Code

The student classroom/laboratory is a level 2 biohazard lab. Therefore, students will be required to wear scrubs (preferably the MLT scrubs) and closed toe shoes to class and lab. We are representing our profession and our program. Please see the MLT Student Handbook for more information.

#### 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. "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.

Cellular Telephones, Personal Telephone Calls, and Electronic Devices

Students may use laptop computers during lectures as directed by the instructor. Students are NOT to receive or place telephone calls or text messages during class, labs, or clinical hours. Cellular telephones and other electronic devices are to be turned off before entering the classroom, student laboratory, or the clinical site. Messages for students may be left with the Health Professions Executive Secretary (254-299-8568). Messages during an emergency will be delivered immediately to the student. Inappropriate use of any electronic device may result in disciplinary action.

**\* [Click Here for the MCC Academic Integrity Statement](#)**

**([www.mclennan.edu/academic-integrity](http://www.mclennan.edu/academic-integrity))**

The link above will provide you with information about academic integrity, dishonesty, and cheating.

**\* [Click Here for the MCC Attendance/Absences Policy](#)**

**(<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.

***\* You will need to access each link separately through your Web browser (for example: Mozilla Firefox, Chrome, Microsoft Edge or Safari) to print each link's information.***

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## 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. Students can 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](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 contacted/notified through 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.

\* [Click Here for the Minimum System Requirements to Utilize MCC's D2L|Brightspace](https://www.mclennan.edu/center-for-teaching-and-learning/Faculty%20and%20Staff%20Commons/requirements.html)  
(<https://www.mclennan.edu/center-for-teaching-and-learning/Faculty%20and%20Staff%20Commons/requirements.html>)

Click on the link above 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 her/his 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.

**Forwarding Emails:**

You may forward the 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 become lost or placed in junk or spam filters.

**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. Instructors should not provide accommodations unless approved by the Accommodations Coordinator. For additional information, please visit [mclennan.edu/disability](http://mclennan.edu/disability).

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

[disabilities@mclennan.edu](mailto:disabilities@mclennan.edu)

254-299-8122

Room 319, Student Services Center

\* [Click Here for more information about Title IX](http://www.mclennan.edu/titleix)  
([www.mclennan.edu/titleix](http://www.mclennan.edu/titleix))

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](mailto:titleix@mclennan.edu) or by calling Dr. Drew Canham (Chief of Staff for Equity & Inclusion/Title IX) at 299-8645. Individuals also may contact the MCC Police Department at 299-8911 or the MCC Student Counseling Center at MCC by calling 299-8210. The MCC Student Counseling Center is a confidential resource for students. Any student or employee may report sexual harassment anonymously by visiting the following website: <http://www.lighthouse-services.com/mclennan/>.

McLennan's Title IX webpage (<http://www.mclennan.edu/titleix/>) 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.

*\* You will need to access each link separately through your web browser (for example Mozilla Firefox, Chrome, Microsoft Edge, or Safari) to print each link's information.*