I. Introduction

CLT:104 was designed to acquaint the student with microorganisms with emphasis on the bacteria in diseases of man. Theory and principles of isolation, identification, biochemical reaction, growth requirement and susceptibility testing will be considered. Theory and practical application will include lecture, demonstration, laboratory practice, audiovisual presentations, written reports/journals, and small group activities. (4 credit hour; Prerequisite - CLT:101 or permission from the instructor.)

The course has been organized into four (4) major units of instruction as listed below:

Unit I    - Review of the Basics
Unit II   - Aerobic Microorganisms
Unit III  - Anaerobic Microorganism
Unit IV  - Acid-Fast and Unusual/Fastidious Microorganisms

Each unit will consist of one or more lessons that will be accompanied by a handout which includes the following:

Unit Number and Title:
Scope of Unit Statement
Title of Lesson
Lesson Objectives
Informational Assignment (if applicable)
Classroom or Laboratory Activities (if applicable)
Interaction Items

This course meets on Tuesday (1:30 PM - 2:50 PM), Wednesday (10:30 PM - 12:30 PM) and Thursday (1:00 PM - 2:30 PM) in B417.

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Professor and Program Director
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Appointments should be made at a mutually convenient time, by calling the instructor. Walk-in meetings are taken on a first come, first serve basis. Prior appointments and commitments will take priority over walk-in meetings.

II. Course Objectives

Upon successful completion of the course, the student should be able to:

1. Review information pertinent to processing specimens (Unit I).
2. Summarize characteristics of clinically relevant aerobic microorganisms (Unit II).

3. Relate characteristics of clinically relevant anaerobic microorganism (Unit III).

4. Explain characteristics of additional microorganisms to include acid-fast and unusual or fastidious organisms (Unit IV).

5. Work with others in a cooperative manner and as an equal partner.

6. Work safely in the laboratory.

III. Expected Outcomes:

The student should:

1. Process simulated specimens and correctly identify potential pathogens. Perform susceptibility testing on all significant isolates.

2. Use their knowledge of the characteristics of aerobic microorganisms to appraise aerobic growth and classify into probable genera. Choose appropriate biochemical tests to identify the microorganism. Discriminate between species. Relate the antibiogram pattern for common pathogens.

3. Use their knowledge of the characteristics of anaerobic microorganisms to evaluate anaerobic growth and categorize into probable genera. Select appropriate biochemical tests to presumptively identify the anaerobe. Differentiate between species. Describe the antibiogram pattern for common pathogens.

4. Relate the characteristics of acid-fast and unusual or fastidious microorganisms. Identify their presence in clinical specimens.

5. Interact with classmates in a cooperative, respectful manner; demonstrating preparation for and involvement in the assigned learning activity.

6. Apply principles of safety.

IV. Basis for Evaluation

1. Examinations covering lesson objectives and Interaction Items-65% 
   (Unit exam-50%; Comprehensive Final exam-15%) 
   Questions will evaluate recall, interpretive skills, and problem solving abilities. Types of questions may include multiple choice and short answer or essay.

2. Laboratory performance-25%

3. Weekly electronic journal and written assignment-10%

   Choose from the following (up to a limit of 3%)

4. Second chance to learn &/or mindmaps/outline-1-2%

5. Response to lesson interaction items, short writing assignments, and attendance-1%

6. Usage of available Computer Assisted Instruction -1%
V. Determination of Overall Course Grade

1. An overall unit examination average will be calculated by dividing the student’s total number of points accumulated by the total number of points possible.

2. An overall laboratory average will be calculated by dividing the student’s total number of points accumulated by the total number of points possible.

3. A final examination average will be calculated by dividing the student’s total number of points obtained by the total number of points possible.

4. An overall average for the weekly journal and written report will be determined after careful evaluation of the quality, content and form of work submitted.

5. The overall course average will be calculated as follows:

   Unit Examination Average X .50 = _____  
   Final examination average X .15 = _____
   Laboratory average X .25 = _____  
   Written work X .10 = _____
   TOTAL = _____

6. The Program grading scale will be used for assignment of the overall course letter grade.

   A = 93 - 100  
   B = 83 - 92  
   C = 75 - 82  
   D = 65 - 74  
   F = 64 and below

VI. Policies

1. Tests must be made up within one (1) week from the date of original administration. (i.e. The make-up exam must be completed prior to the start of class, 1 week later.) Failure to comply will result in a grade of zero (0). Only excuses that are validated by the instructor will allow make-up exams. (Presentation of a doctor’s excuse or other acceptable documentation may be required, before make-up exams will be given.) Please call me on the date of the scheduled exam to validate your excuse and discuss possible make-up dates.

2. No late laboratory reports will be accepted. A grade of zero (0) will be given if a report is not received on time.

3. Students are expected to attend all classes and laboratory sessions. No make-up will be allowed.

4. I expect students to arrive on time for all classes and laboratory sessions.

5. I expect all students to come to class prepared to work in an organized and efficient manner in order to complete the assigned activities within the allotted class time. I will not extend class time.

6. Cheating is defined as plagiarism or the use of texts or aids in test situations not specifically authorized by the instructor. To plagiarize is to copy someone else’s work and to submit it as your own original work without crediting the author. Even if you rewrite a little, such a paper is still considered to be plagiarized. A plagiarized paper receives an F and no points. Unethical
behavior such as cheating is cause for dismissal.

7. The laboratory will be available at times other than class hours for individual skill practice and processing unknown specimens. The laboratory assistant is available to provide assistance during open lab.

8. Safety-Lab coats will be worn by all students during lab. Labcoats will be placed in a Biohazard labeled bag and stored in the classroom. The lab coat will be autoclaved (if cloth) or discarded in a biohazard container (if disposable) at the end of the semester of if contaminated, torn or soiled. Gloves will be worn when processing the simulated specimens. Protective eyewear will be worn when a procedure may generate an aerosol or if contacts are worn. All rules outlined in the Medical Microbiology Lab Manual and the MLT Safety Manual apply.

9. I expect all students to conduct themselves in a professional manner. Please extend respect and courtesy to all individuals in class. (See the Program and College Student Handbook for Student Rights and Responsibilities information.)

10. Please turn off cell phones and pagers during class.

VII. Weekly Electronic Journal

The purpose of the Weekly Electronic Journal is to help each student reflect on their learning. It should result in a deeper level of processing of information (i.e. Not just recall of facts but understanding ). There should be 1 entry per week (except exam weeks). Each entry should be posted on Blackboards Discussion Board in the appropriate forum.

Journals can involve different modes of reflecting including writing (prose or poetry), and role-playing.
To help process the lessons content, try answering the following:

“A new insight or discovery is……”
“I really understood……I’m really confused about…..”
“A learning I can use beyond school is…..”
“Connections I’m making with other things I know are…..”
“The key concept learned this week is……”
“I read a newspaper/magazine article that relates to ……”

Entries should be presented in a logical, cohesive manner. The reader should be able to follow your train of thought to a natural conclusion. Enough data should be provided so that the reader understands what you are trying to convey. Any questions you had while reflecting on your learning, should be noted in parenthesis. Try to answer those questions yourself. If you cannot, see me during my office hours.

Remember that your entry will be read by other students. Stay focused on the subject of Pathogenic Bacteriology.

VIII. Written Assignment

Explore a variety of topics in Microbiology by reading and analyzing a professional journal article. A 3-4 page report must be submitted after reading the journal article. Additional information about this assignment will be provided by the instructor. Each student has the option of earning extra credit by giving a brief oral summary of their written assignment. This oral report should last about 5 minutes.

IX. Second Chance to Learn and/or Mindmap or Outline
Each student may submit a Mindmap/Outline or participate in second chance to learn activities with each exam. 1% may be earned by submitting a mindmap/outline or participating in the second chance to learn activity. Two may be earned by submitting a Mindmap/outline and participating in the second chance to learn activities.

To receive credit for the Mindmap/Outline, each assigned chapter must have either a one-page outline or mindmap. They must be submitted on each exam day and should cover the chapters included in the lessons on the exam. Submit Mindmap/Outline entries 3 out of 4 exams, to be considered in the overall course grade.

X. Office Hours:

Please make an appointment with the instructor to discuss any problems you are experiencing with the course assignments.

To help me do the best job possible helping you, please:

- Come to the office with specific questions. You should write these down before you arrive.
- Bring materials with you, with appropriate passages marked, when discussing reading assignments.
- Be prepared to argue ideas, not points when discussing grades.

I reserve the right to terminate any meeting with a student if I feel he/she has not adequately prepared.

XI. Textbooks and Other Supplies

1. Forbes, Betty; Sahm, Daniel; Weissfeld, Alice; “Bailey & Scott’s” Diagnostic Microbiology. Mosby Inc., St. Louis, MO., Current edition. (Required)

2. Large three-ring notebook.

3. Lab Coat and a large ziplock baggie.

4. Non-sterile latex gloves.

5. Protective eyewear.

6. Markal Sharpie (Black) “water resistant” pen.

XII. Supplemental Resources

1. Medical Microbiology text, notes, and lab manual.

2. Any Diagnostic Microbiology textbook in the library.

3. Computer Assisted Instruction (CD-ROM, Interactive videodisk, Drill & Practice, & Simulation) is available in B419 and on the internet.

   Lab Training Library (www.medtraining.org)
   Media Lab, Inc (www.medialabinc.net)
4. Karen Kiser’s Home Page on the Internet. (Internet access is available in the classroom, library, and computer lab.)

XIII. Access Office

The ACCESS OFFICE-Disability Support Services (G-215, 644-9039) has been designated by the College as the primary office to assist students with disabilities. If you have a disability and receive services through the ACCESS OFFICE, feel free to discuss your approved accommodation needs with me. (Approved classroom accommodations will be listed on the Instructor Notification Memo you will bring with you from the ACCESS OFFICE). I will hold any information you share with me in the strictest confidence, unless you give me permission to do otherwise.

Students need to inform faculty members of special needs as soon as possible to ensure that those needs are met in a timely manner.

XIV. Assessment

St. Louis Community College is committed to the continuous improvement of student academic achievement. The college undertakes assessment of its academic programs and courses to assure that student learning is not only occurring but improving. Further, classroom assessment by individual instructors discovers what is working in the particular classroom to facilitate learning. At each of these levels of academic achievement - classroom, course and program - you, the student, will be asked to participate to enable the College to improve its product, which is your learning. Assessment is a means to evaluate the learning process and is separate from the grading process. Your participation will be solicited and appreciated.

XV. Disclaimer

From time to time this syllabus may need to be amended. Students will be notified of syllabus changes during a regularly scheduled class. It will be the responsibility of the student to ensure they possess the latest version of the syllabus.