Clinical Microbiology, MLAB 2434
Course Syllabus: 2015

“Northeast Texas Community College exists to provide responsible, exemplary learning opportunities.”

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The information contained in this syllabus is subject to change without notice. Students are expected to be aware of any additional course policies presented by the instructor during the course.

Catalog Course Description (include prerequisites):
Clinical Microbiology is the study of bacteria and viruses that can cause infection and disease in humans. The course will include methods used to grow, identify and perform susceptibility testing on bacterial isolates.

Required Textbook(s):
Tille, P.M., Bailey & Scott’s Diagnostic Microbiology, 13th Edition, Mosby, 2014

Publisher: Elsevier / Mosby
ISBN Number: 978-0-323-08330-0

Recommended Reading(s):

Indiana Pathology Atlas (available on PCs in MS103 and UHS student computer labs)

Student Learning Outcomes:
The primary goal of this course is to provide students with an understanding of what organisms are significant for specific body sites, how best to recover and identify them and when and how to perform susceptibility testing. Upon completion of this course the student should be able to do the following:
- Describe specific media and conditions to recover significant organisms
- Explain the principle of the Gram Stain procedure
- Describe cell morphologies – shapes and arrangements
- Explain the concept of normal flora and distinguish normal flora from possible pathogens based on specimen source
- Explain the clinical significance of various organisms
- Perform isolation and identification procedures
- Explain the theory and principles of susceptibility testing
SCANS Skills:
Scan Competency Clinical Microbiology

Resources Identify supplies needed for each lab and organize laboratory procedure so that all supplies and equipment are used correctly.
Interpersonal Recognize limitations of expertise and communicate with instructor when questions arise. Show respect for instructor and peers during class time.
Information Apply information gained from lecture, laboratory and independent study to problem-solve results provided as case studies or unknowns during laboratory.
Systems Apply critical thinking skills to problems encountered in the laboratory and theoretical case studies.
Technology Achieve competency in routine microbiology procedures.

Lectures & Discussions:
Microbial Taxonomy
Genetics, Metabolism, and Structure of Microbes
Host-microorganism interactions
Specimen management
Microscopy
Recovery and Identification
Nucleic Acid Based Methodologies
Imunochemistry Methods
Serological Methods
Antimicrobial actions and Resistance
Methods and Strategies for Antimicrobial Susceptibility Testing
Identification Methods
Staphylococci and Micrococc
Streptococci and Enterococci
Gram-positive bacilli and other gram-positive organisms
Enterobacteriae
Other Gram-negative bacilli
Neisseria
Anaerobes
Mycobacteriology
Miscellaneous bacteria
Bloodstream infections
Respiratory Tract Infections
Central Nervous System Infections
Eyes, Ears & sinus Infections
Urinary Tract Infections
Genital Tract Infections
Gastrointestinal Tract Infections
Skin, Tissue, and Wound infections
Sterile body site infections
**Evaluation/Grading Policy:**

Exams 60%
Quizzes/Homework 10%
Lab 30% (Written assignments / exams 50%, Procedures 50%)

Course Grades:
- A = 90% or above
- B = 80 – 89%
- C = 70 – 79%
- D = 60 – 69%
- F = Less than 60%

A minimum grade of “C” is required for BOTH the lecture and laboratory components of all Medical Laboratory Technology courses. Failure to meet the minimum passing score in each area will result in a “D” for the course and dismissal from the program.

**Tests/Exams:**
- 5 exams + Final comprehensive exam
- Daily quizzes may be given periodically

**Assignments:**
- All assignments are due on the specified due date. Assignments will be accepted, but marked as late three (3) days following the due date. No assignment will be accepted after graded assignments are returned. Late assignment scores will be reduced by 10%. No late assignments will be accepted the last week of the school schedule.

Homework and/or case studies will be assigned over each unit.

**Other Course Requirements:**
- Students are required to wear specified scrubs every day of class and laboratory. Appropriate laboratory attire is required - close-toed shoes, lab coat and other supplied personal protective equipment if necessary. Without close-toed shoes or lab coat, no lab procedures may be performed and the grade will reflect a missed lab period.

**Student Responsibilities/Expectations:**
1. Attend all classes and labs, be on time and remain in class for the entire period. For every three days missed, one letter grade will be deducted from the final grade. Three episodes of tardiness or early departure will be equated with one class absence. Exams are to be taken on the scheduled date and time. Prior approval of the instructor is required for anyone missing an exam date. Makeup exams must be taken in the testing center within 2 days of returning to campus. Every day after that will have 10 points deducted from the exam grade. Missing an exam without notifying the instructor will result in a grade of "0" for the exam. Anyone more than 15 minutes late for an exam without prior approval will take the exam in the testing center after the class period and have 10 points deducted from the exam grade.
2. Complete assigned readings before the lecture over each topic.
3. Be prepared to take notes and participate in class.
4. Be respectful of instructors and classmates.
5. All cell phones will be turned off or to silent during class time.
6. Laptops/tablets may be used for note-taking but do not abuse this privilege. They are not for personal use during class time.
7. Any missed laboratory session for any reason will require an essay of no less than 250 words (2 hand-written pages) covering the topic or activity performed during that session. This essay will be submitted before the next class period. The activity or procedure must be made up, if possible, and any assignments as part of the missed lab session will also be turned in as soon as the lab activity has been completed. It is the student's responsibility to contact the instructor for such assignments.

8. When illness or emergencies arise which necessitate a student's absence from any scheduled class or other scheduled activity, the instructor should be notified as soon as possible.

NTCC Academic Honesty Statement:
"Students are expected to complete course work in an honest manner, using their intellects and resources designated as allowable by the course instructor. Students are responsible for addressing questions about allowable resources with the course instructor. NTCC upholds the highest standards of academic integrity. This course will follow the NTCC Academic Honesty policy stated in the Student Handbook."

Academic Ethics
The college expects all students to engage in academic pursuits in a manner that is beyond reproach. Students are expected to maintain complete honesty and integrity in their academic pursuit. Academic dishonesty such as cheating, plagiarism, and collusion is unacceptable and may result in disciplinary action. Refer to the student handbook for more information on this subject.

ADA Statement:
It is the policy of NTCC to provide reasonable accommodations for qualified individuals who are students with disabilities. This College will adhere to all applicable federal, state, and local laws, regulations, and guidelines with respect to providing reasonable accommodations as required to afford equal educational opportunity. It is the student’s responsibility to arrange an appointment with a College counselor to obtain a Request for Accommodations form. For more information, please refer to the NTCC Catalog or Student Handbook.

Family Educational Rights And Privacy Act (FERPA):
The Family Educational Rights and Privacy Act (FERPA) is a federal law that protects the privacy of student education records. The law applies to all schools that receive funds under an applicable program of the U.S. Department of Education. FERPA gives parents certain rights with respect to their children’s educational records. These rights transfer to the student when he or she attends a school beyond the high school level. Students to whom the rights have transferred are considered “eligible students.” In essence, a parent has no legal right to obtain information concerning the child’s college records without the written consent of the student. In compliance with FERPA, information classified as “directory information” may be released to the general public without the written consent of the student unless the student makes a request in writing. Directory information is defined as: the student’s name, permanent address and/or local address, telephone listing, dates of attendance, most recent previous education institution attended, other information including major, field of study, degrees, awards received, and participation in officially recognized activities/sports.