SOUTHEAST COMMUNITY COLLEGE
HEALTH SCIENCES DIVISION
MEDICAL LABORATORY TECHNOLOGY
Revision Date: 10/2020
Syllabus Statements

I. CATALOG DESCRIPTION

Course Number: **MEDT 2100**
Course Title: Medical Microbiology 2
Prerequisites: MEDT 1190

Catalog Description: Continuation of Medical Microbiology 1. Study of theory and procedures; culturing, isolating and identifying microorganisms, parasites and fungi from human specimens. Skills and laboratory techniques corresponding to theoretical information presented in the lecture. Laboratory is concurrent with lecture.

Credit Hours: 4
Class Hours: 30
Lab Hours: 90
Total Contact Hours: 120

II. COURSE OBJECTIVES: *Course will:*

1. Diagram morphological and biochemical procedures for identification of pathogenic bacteria.
2. Outline procedures for susceptibility testing.
3. Summarize procedures for processing body specimens for bacterial growth.
4. Differentiate common pathogens from normal flora in body specimens.
6. Apply the concept of quality control to microbiology procedures.
7. Describe accepted terminology and classification of medically important parasites.
8. Identify current laboratory techniques for collection, preservation, and processing of specimens for parasite examination, mycobacterial exam and fungal exam.
9. Discuss the life cycles and clinical manifestations of the medically important parasites.
10. Apply isolation and identification techniques learned in Medical Microbiology I.
11. Familiarize the student with infectious diseases and immunologically related disorders.

III. STUDENT LEARNING OUTCOMES AND GENERAL EDUCATION LEARNING OUTCOMES:

A. STUDENT LEARNING OUTCOMES: *Student will be able to:*

1. Identify organisms that are normal flora and pathogens using current laboratory techniques.
2. Identify normal flora and pathogens in different body specimens.
3. Discuss the disease processes and laboratory diagnostic tests used for the diagnosis of infectious diseases.
4. Explain and interpret serial dilutions.
5. Perform, outline, and analyze agglutination, hemagglutination, precipitation,

immunofluorescent assays and ELISA methods.

6. Correlate the above serological assays to disease identification.

A. GENERAL EDUCATION LEARNING OUTCOMES

1. GELO #3: Critical Thinking & Problem Solving

Collect, identify, interpret and analyze data.

Evaluate the validity of arguments, alternatives, data, outcomes, and/or impacts of actions.

IV. CONTENT/TOPICAL OUTLINE (*course outline may provide more detailed information)*

- **A. RESPIRATORY TRACT CULTURES**
- **B. GENITAL CULTURES**
- **C. *TREPONEMA PALLIDUM* SEROLOGY**
- **D. RHEUMATOID ARTHRITIS, CRP AND FEBRILE DISEASES**
- **E. ANAEROBES**
- **F. BODY FLUIDS**
- **G. MYCOBACTERIOLOGY**
- **H. MYCOLOGY**
- **I. INTRODUCTION TO PARASITOLOGY**
- **J. PROTOZOA**
- **K. NEMATODES**
- **L. CESTODES**
- **M. TREMATODES**
- **N. INFECTIOUS DISEASES**
- **O. BIOTERRORISM**

V. INSTRUCTIONAL MATERIALS

A. Required text(s):

Leboffe, Michael J. and Pierce, Burton E. **Microbiology Laboratory Theory and Application** (most current edition)

Mahon, Connie **Diagnostic Microbiology** (most current edition)

Turgeon, Mary Louise. **Immunology and Serology in Laboratory Medicine** (most current edition)

B. Other Required Resources:

Packet of Handouts

VI. METHODS OF PRESENTATION/INSTRUCTION

A. Methods of presentation typically include a combination of the following:

1. Lecture
2. Images
3. Demonstrations
4. Lab Exercises
5. Video microscope
6. Case Studies

VII. METHODS OF EVALUATION

A. Methods of evaluation typically include a combination assignments, quizzes, exams, projects, laboratory competencies, etc. For grading expectations please see the course information document.

SCC STANDARD GRADING SCALE POLICY:

A+	**95-100**	**C+**	**75-79**
A	**90-94**	**C**	**70-74**
B+	**85-89**	**D+**	**65-69**
B	**80-84**	**D**	**60-64**
		F	**Below 60**

VIII. SPECIFIC COURSE REQUIREMENTS

A. GRADING

Lecture and laboratory must be passed with a 75% or higher. If either the Lecture Grade or Lab Grade is below 75% (C+), the student will receive the lower grade as the Grade for the course.

B. ATTENDANCE

Attendance is crucial to the success of this course. The attendance policy can be found in the MLT Student Handbook.

Attendance for lecture is expected. Missing lecture will result in valuable information being missed and may have a negative effect on a student's grade in the course.

Attendance for laboratory sessions is required. The MLT attendance policy will be followed and applied in this course. Failure to attend laboratory sessions will have a negative effect on a student's grade in the course.

C. OTHER

Please see the Course Information Document for course policies related to grading, expectations, assignments, assessment, and participation.