**BARTON COMMUNITY COLLEGE**

**COURSE SYLLABUS**

# **GENERAL COURSE INFORMATION**

Course Number: MLTC 1506

Course Title: MLT Human Parasitology, Mycology, and Mycobacterium

Credit Hours: 3

Prerequisite: High school diploma/GED and a college 5 credit hour science course passed with a C, or admission to the MLT Program or instructor approval.

Division/Discipline: Workforce Training and Community Education Division, Medical Laboratory Technology Program

Course Description: A study of clinical microbiology that includes parasites, fungi, mycobacteria, and viruses that cause human diseases. Methods of examination and identification of these organisms are also covered. This course is designed to enable students to learn the theory and application of skills required to perform in a human medical laboratory. No hands on laboratory time required.

# **INSTRUCTOR INFORMATION**

# **COLLEGE POLICIES**

Students and faculty of Barton Community College constitute a special community engaged in the process of education. The College assumes that its students and faculty will demonstrate a code of personal honor that is based upon courtesy, integrity, common sense, and respect for others both within and outside the classroom.

Plagiarism on any academic endeavors at Barton Community College will not be tolerated. The student is responsible for learning the rules of, and avoiding instances of, intentional or unintentional plagiarism. Information about academic integrity is located in the Student Handbook.

The College reserves the right to suspend a student for conduct that is determined to be detrimental to the College educational endeavors as outlined in the College Catalog, Student Handbook, and College Policy & Procedure Manual. (Most up-to-date documents are available on the College webpage.)

Any student seeking an accommodation under the provisions of the Americans with Disability Act (ADA) is to notify Student Support Services via email at [disabilityservices@bartonccc.edu](mailto:disabilityservices@bartonccc.edu)

# **COURSE AS VIEWED IN THE TOTAL CURRICULUM**

This is one of a series of technical courses for the Medical Laboratory Technology Program.

This course is designed to develop knowledge, competencies and critical thinking related to parasites, mycology, mycobacterium and viruses. It will enable the student to develop useful job-oriented skills and safety practices for medical laboratory testing as well as provide information to the general healthcare worker or interested student. This course includes information, at a minimum, from the current Body of Knowledge for Medical Laboratory Technicians.

Students planning to transfer credit for a baccalaureate degree will be granted transfer credit only as determined by the four-year institution.

The transferability of all college courses will vary among institutions, and perhaps even among departments, colleges, or programs within an institution. Institutional requirements may also change without prior notification. Students are responsible to obtain relevant information from intended transfer institutions to insure that the courses the student enrolls in are the most appropriate set of courses for the transfer program.

# **ASSESSMENT OF STUDENT LEARNING**

Barton Community College is committed to the assessment of student learning and to quality education. Assessment activities provide a means to develop an understanding of how students learn, what they know, and what they can do with their knowledge. Results from these various activities guide Barton, as a learning college, in finding ways to improve student learning.

## Course Outcomes, Competencies, and Supplemental Competencies

By the end of this course the student should be able to:

1. Evaluate specimen acceptability for testing purposes.
2. Discuss proper specimen collection, transportation, and cultivation of parasites, fungi, and mycobacteria and viruses.
3. Describe and apply the use of direct smears, permanent stains, and concentration techniques.
4. Explain the use of an ocular micrometer for measuring parasites.
5. Exhibit safe laboratory practices according to established laboratory protocol.
6. Describe and list major classification categories for commonly encountered and medically significant parasites, fungi, and mycobacteria and viruses.
7. Differentiate the following parasites according to pathogenicity, morphology of trophozoite/cyst stage forms, size, method of infection, diagnostic and infective stage, and treatment.
8. Protozoa-this includes Amebae, flagellates, and ciliates
9. Nematodes-this includes Roundworms
10. Cestoda-this includes Flatworms and Tapeworms
11. Digenea-this includes Trematodes and Flukes
12. Blood and Tissue Parasites
13. Differentiate the following fungi according to macroscopic and microscopic morphology and growth rate:
14. Common Fungal Opportunists
15. Superficial and Dermatophytic Fungi
16. Yeasts
17. Subcutaneous Mycoses
18. Systemic Mycoses

3. Analyze and correlate mycobacteria according to the Runyon Group   
 classification.

C. Discuss viruses and spirochetes, correlating the different disease processes associated with   
 them.

D. Correlate human disease relationships of medically important parasites, fungi, and   
 mycobacteria and viruses.

1. Recognize and communicate through the use of critical thinking skills and case studies the correlation of pathogenic parasites, fungi, mycobacteria, and viruses and their disease states.

2. Describe the diseases, symptoms, mode of infection and treatment.

E. Demonstrate proper affective behavior

1. Exhibit professional conduct and positive interpersonal communication skills with   
 patients, laboratory personnel and other health care professionals.

2. Recognize the responsibilities of other laboratory and health care professionals and   
 interact with them with respect for their roles in patient care.

3. Demonstrate an understanding of Quality Control (QC), Quality Assurance (QA) and   
 HIPAA (Health Insurance Portability and Accountability Act of 1996) Programs.

1. **INSTRUCTOR'S EXPECTATIONS OF STUDENTS IN CLASS**

# **TEXTBOOKS AND OTHER REQUIRED MATERIALS**

# **REFERENCES**

# **METHODS OF INSTRUCTION AND EVALUATION**

# **ATTENDANCE REQUIREMENTS**

1. **COURSE OUTLINE**

03/31/2015clippert