## Parasitology / Mycology, MLAB 1231

Course Syllabus: Spring 2019

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

# Gaylon Barrett

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Office Hours	Monday	Tuesday	Wednesday	Thursday	Friday	Online
	9am-4pm	9am-11am	12pm-4pm	By appt.	By appt	

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): Parasitology is the study of clinically significant parasites; a comprehensive discussion of individual parasites, and relevant diagnostic methods designed to detect and identify the organisms present. Mycology is the study of fungi, how they cause disease in humans and how they may be cultivated and identified. This course will also cover the detection and identification of viruses in humans.

## **Required Textbook(s):**

COMMUNITY COLLEGE

Tille, P.M., Bailey & Scott's Diagnostic Microbiology, 14<sup>th</sup> Edition, Mosby/Elseivier, 2017

**Publisher:** Tille - Mosby

**ISBN Number:** Tille - 978-0-323-35482-0

#### **Recommended Reading(s):**

Evolve Student Resources accompanying Tille: http://evolve.elsevier.com/Tille/

Parasite Image Library, CDC: www.dpd.cdc.gov/dpdx

Mycology website: www.doctorfungus.org

Indiana Pathology Parasitology and Mycology Atlases (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 to humans, their life cycles, morphology, clinical disease, pathogenesis, diagnosis, treatment, epidemiology and prevention.

- Describe individual parasites and their life cycles
- Describe the morphologies of individual parasites
- Explain what is the most likely specimen source to recover specific parasites
- Describe the best diagnostic procedure(s) to recover specific parasites

- Explain the clinical significance of various parasites
- Perform diagnostic procedures to identify parasites
- Explain the growth requirements for specific fungi
- Describe the microscopic and macroscopic features of various fungal species
- Perform laboratory methods to identify various fungal isolates
- Describe the viral infectious cycle
- List viruses associated with specific clinical specimens
- List some of the most efficient laboratory tests or methods for detecting viruses

#### **SCANS Skills:**

Scan Competency Parasitology / Mycology

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 parasitology and mycology procedures.

#### **Lectures & Discussions:**

Introduction to Parasitology

Specimen Collection and Processing

The Amebas

The Flagellates

The Hemoflagellates

Select Sporozoa: Plasmodium and Babesia

Miscellaneous Protozoa

The Nematodes

The Filariae

The Cestodes

The Trematodes

**Artifacts and Confusers** 

The Arthropods

Introduction to Mycology

Morphology of Fungi - microscopic and macroscopic

Fungal media and stains

Mycotic infections

Yeasts

Moulds

Overview of virology

Viruses in Human Disease

Antiviral Therapy, Susceptibility, Testing, and Prevention

### **Evaluation/Grading Policy:**

Exams 65%

Lab/Quizzes/HW/Case Studies 35% (Participation 50%, Exams/Practicals/written assignments 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 Technician courses. This means you must maintain a 70 or better in both lecture exams and lab assignments. Failure to meet the minimum passing score in each area will result in a "D" for the course and possible dismissal from the program.

#### Tests/Exams:

4 exams + Final exam Unannounced quizzes may be given periodically

#### **Assignments:**

All assignments are due on the specified due date. Assignments will not be accepted after the due date, unless a legitimate reason is given. Not being here is not an excuse as assignments can be sent electronically. No assignment will be accepted after graded assignments are returned.

Homework and/or case studies will be assigned over each unit and will have specified due dates.

#### **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 possibly 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 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 scheduled class period. The activity or procedure must also 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.