



COURSE SYLLABUS

COURSE: BIO 275 MICROBIOLOGY

HOURS: Lecture: 3 Lab: 3 Shop/Clinical: 0 Credits: 4

COURSE DESCRIPTION:

This course covers principles of microbiology and the impact these organisms have on man and the environment. Topics include the various groups of microorganisms, their structure, physiology, genetics, microbial pathogenicity, infectious diseases, immunology, and selected practical applications. Upon completion, students should be able to demonstrate knowledge and skills including microscopy, aseptic technique, staining, culture methods, and identification of microorganisms. *This course has been approved for transfer under the Comprehensive Articulation Agreement as a Pre-Major/Elective course requirement.*

PREREQUISITE(S): BIO 110, BIO 111, BIO 163 OR BIO 168, and MAT 070 or DMA 010, DMA 020, DMA 030, DMA 040, and DMA 050

COREQUISITE(S): None

TEXTBOOK(S) & OTHER SPECIAL REQUIREMENTS:

Foster, Aliabadi, Slonczewski. **Bundle:** *Microbiology The Human Experience (text): Microbiology The Laboratory Experience (lab Manual): Infectious Disease Flashcards, 1st Edition.* New York: W.W. Norton, 2015 (text), 2016 (lab manual). Print. ISBN 978-0393612639

STUDENT LEARNING OUTCOMES:

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

1. List the kingdoms of life and the main groups of bacteria.
2. Describe the process of fermentation, anaerobic respiration, and aerobic respiration.
3. Illustrate and recognize the main morphological features of bacteria.
4. Discuss physical and chemical controls of microorganisms.
5. Describe the mode of action of antibiotics.
6. Outline the methodologies and uses of genetic engineering in medical diagnostics and treatment.
7. Identify the main body systems, causative agents of their most common

- diseases, and disease processes.
8. Perform competently the following laboratory procedures:
 - a. aseptic transfer
 - b. streaking for isolation
 - c. simple and Gram staining
 - d. oil immersion microscopy
 - e. use and interpretation of selective and differential media
 - f. identification of unknown bacteria

SYLLABUS INFORMATION:

The Student Learning Outcomes listed in this syllabus are those required actions that a student who successfully completes the course must be able to perform. The educational experience, however, is a two-way, interactive process involving both the student and the instructor. The student must play an active role in the learning process in order to be successful. Instructors will provide an Instructor's Syllabus at the first class meeting explaining how they measure each of the Student Learning Outcomes. A student who is unable to accomplish the outcomes will not receive a passing grade in the course.

The information in this BCC Syllabus may not be accurate beyond the current semester. Textbooks and other course materials are subject to change. Students should verify the textbooks at the first class meeting with their instructor prior to purchasing.

GRADING SYSTEM:

Brunswick Community College employs a system of letter grades and corresponding quality points per grade to evaluate a student's performance in meeting the stated goals and objectives for each course. The grading system is published in the [BCC Catalog and Student Handbook](#).

ATTENDANCE POLICY:

Each student has individual responsibility for attending class regularly and for meeting course objectives. A student is expected to attend all class meetings in a course. Rules on tardiness and leaving class early are addressed in each instructor's syllabus addendum. Instructors are required to record absences and report excessive absenteeism to the Registrar.

If a student is absent for any reason in excess of 20 percent of the class hours, he or she is in violation of the Brunswick Community College attendance policy. Unless the student officially withdraws from the course prior to the 65 percent point of the 16 week semester (or equivalent days for courses of other duration), he or she may receive a grade of "F."

Students who receive an "EXCESSIVE ABSENTEEISM NOTICE" are advised to contact their instructors immediately to review the conditions for withdrawing from the course or for continuing the course.

STUDENTS WITH DISABILITIES:

Brunswick Community College complies with the Americans with Disabilities Act and Section 504 of the Rehabilitation Act, which require that no qualified student with a disability be excluded from participation in or be denied the benefits of any services, programs or activities on the basis of his or her disability. If a student has a disability that is covered by the Americans with Disabilities Act and requires accommodations in the classroom and/or in extracurricular activities, the student must request the accommodations in writing and submit the request to the Disability Services Coordinator. Instructors will not provide accommodations without notification from the Disability Services Coordinator. Brunswick Community College will make every effort to provide reasonable accommodations.