

JAMESTOWN COMMUNITY COLLEGE
State University of New York

MASTER COURSE SYLLABUS

Course Title: Microbiology - LAB

Course Abbreviation and Number: BIO 2532

Credit Hours: 1 credit hour.

Course Type: Lab

Course Description: Students will become skilled in appropriate techniques for handling bacterial cultures, identifying specimens and implementing and evaluating various standard diagnostic procedures.

Prerequisite: ENG 1510 and BIO 1550 or BIO 1570 or BIO 1575 or BIO 2510.

General Education Requirements Met

SUNY

Natural Sciences

JCC

Scientific Reasoning

Student Learning Outcomes:

Students who demonstrate understanding can:

1. Demonstrate an understanding of the application of scientific data, concepts, and models in one of the natural sciences as it applies to microbiology lab. [SUNY Gen Ed – Natural Sciences]
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Topics Covered:

- Introduction; Lab Safety; Microscopy
 - Microscopy with Oil Immersion; Means of Motility; Aseptic Techniques
 - Cultivation of Microorganisms
 - Staining Techniques (Simple and Differential)
 - Enumeration of Microorganisms
 - Bacteriological Examination of Water and Foods
 - Environmental Influences & Control of Microbial Growth
 - Parasitology
 - Environmental Effects- Oxygen and UV Light
 - Physical and Chemical Control (Handwashing, Disinfectants, antiseptics)
 - Control of Microbial Growth (Antibiotics; Phagetyping)
 - Metabolic Activities of Microorganisms and Identification of an Unknown Microbe
 - Medical Microbiology/Serology
 - Lab Exam and Clean-up
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Information for Students

- Expectations of Students
 - Civility Statement (<http://www.sunyjcc.edu/current-students/classroom-civility>)
 - Student Responsibility Statement (<http://www.sunyjcc.edu/academics/student-responsibility>)
 - Academic Integrity (<http://www.sunyjcc.edu/faculty-staff/academic-integrity>)
 - Accessibility/Special Services
 - Any student who requires accommodations to complete the requirements and expectations of this course because of a disability should make their needs known to the Coordinator of Accessibility Services, 716.338.1251.
 - Emergency Closing Procedures (<http://www.sunyjcc.edu/student-life/campus-safety/jcc-alert>)
 - Course grade is determined by the instructor based on a combination of factors, including but not limited to, homework, quizzes, exams, projects, and participation. Final course grade can be translated into a grade point value according to the following:

A=4.0	B+=3.5	B=3	C+=2.5	C=2	D+=1.5	D=1	F=0
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 - Veterans and active duty military personnel with special circumstances (e.g., upcoming deployments, drill requirements, VA appointments) are welcome and encouraged to communicate these to the instructor.
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Effective Date: Fall 2019