

**JAMESTOWN COMMUNITY COLLEGE**  
State University of New York

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**INSTITUTIONAL 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 1570 or BIO 1575 or BIO 2510.

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**General Education Requirements Met**

**SUNY**

Natural Sciences

**JCC**

Scientific Reasoning

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**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](#)
    - [Student Responsibility Statement](#)
    - [Academic Integrity Statement](#)
  - [Accessibility Services](#)  
Students who require accommodations to complete the requirements and expectations of this course because of a disability must make their accommodation requests to the Accessibility Services Coordinator.
  - [Get Help: JCC & Community Resources](#)
  - [Emergency Closing Procedures](#)
  - 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 2021