

**BIOL 201 Microbiology lab****Credit Hours:** 1**Scheduled hours per week**

Lecture: 0

Lab: 2

Field

Experience:

**Catalog Course Description:** Biology 201 is designed to accompany Biology 200 (Microbiology) lecture to practical laboratory experiences for students requiring a basic medical microbiology course to meet program requirements or as a science elective. Topics include staining procedures, observations and study of fixed specimens using the microscope, and culturing and identifying living microorganisms.

**Prerequisites:** BIOL 107 and 108; OR BIOL 101/103 and 102/104; OR BIOL 115 and 117

**Co-requisites:** BIOL 200

**Course Learning Outcomes (CLO):**

1. Demonstrate acceptable microscopic technique.
2. Describe the preparation of bacteriological media.
3. Describe the sterilization methods for bacteriological media.
4. Isolate bacteria from simulated clinical specimens.
5. Demonstrate collection of microbiological specimens.
6. Demonstrate aseptic technique in handling microbiological specimens.
7. Perform the Gram stain technique.
8. Perform such special staining techniques as the acid-fast stain, the capsule stain, and the spore stain.
9. Identify according to genus selected saprophytic fungi.
10. Identify by microscopy selected animal parasitic agents.
11. Identify by simple biochemical tests selected medically important bacteria.
12. Perform antimicrobial susceptibility testing.
13. Perform disinfection techniques.

**CLO Assessment Methods:**

- Direct methods - Lab Activities, Practicals, Quizzes
- Indirect methods – course evaluations

**Topics to be studied:**

- Lab Safety
- Cell Structure and function
- Metabolism
- Microbial growth
- Identification of microbes
- Bacteria
- Yeast and molds
- Antimicrobial drugs

**Relationship of Course to Program Learning Outcomes (PLO) or Institutional Learning Outcomes:**

Check if approved as:  Foundational Learning Course     Reinforcement Learning Course

**Special requirements of the course:**

None

**Additional information:**

None

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**Date:** 10/05/2023