

Bossier Parish Community College
Master Syllabus

Course Prefix and Number: BLGY 202L

Credit Hours: 1

Course Title: Microbiology Lab for Nursing and Allied Health

Course Pre/co-requisite: BLGY 202

Textbook: BLGY 202L Laboratory Manual for Microbiology

Course Description: Laboratory designed to supplement BLGY 202. Withdrawal from lecture mandates withdrawal from lab.

Learning Outcomes:

At the end of this course, the student will

- A. demonstrate aseptic technique and operate laboratory equipment safely to perform selected microbiology procedures, and tests; and
- B. record, interpret, and analyze data from microbiology laboratory testing results.

To achieve the learning outcomes, the student will

1. Describe methods to obtain a pure bacterial culture. (B)
2. Discuss ways to prevent microbial growth. (A,B)
3. Use the compound light microscope. (A)
4. Prepare slides for microbiological examination. (A)
5. Use aseptic techniques for the transfer and handling of microorganisms and instruments. (A)
6. Use appropriate microbiological media and test systems. (A,B)
7. Apply basics math skills to quantify the number of microbes in a sample using serial dilution techniques. (B)
8. Use standard microbiology laboratory equipment correctly. (A)
9. Use proper hand washing techniques. (A)
10. Gram stain student-prepared smears and examine them using oil immersion. (A)
11. Recognize flagella and capsules. (B)
12. Perform and / or recognize an endospore stain. (A,B)
13. Perform streak plate and pour plate. (B)
14. Identify plates, slants, and broths as commonly used forms of culture media. (B)
15. Identify bacteria in pure culture via colony morphology, cell morphology, and biochemical tests. (B)
16. Apply critical thinking skills in the application of clinical case studies(B)
17. Identify select protozoa, algae, and fungi. (B)
18. Perform and interpret antibiotic sensitivity tests. (A,B)
19. Collaborate in group projects. (A,B)

20. Practice verbal communication skills by presenting “research” in lab. (B)
21. perform at least one immunological test (A,B)
22. perform at least one genetics investigation (A, B)

Course Requirements

To earn a grade of “C” or higher the student must earn 70% of the total points for the course and meet all of the following course requirements.

- satisfactory completion of a minimum of 75% of the assigned microbiology laboratory activities while demonstrating appropriate aseptic technique and safety.
- Minimum average of 70% on technique skill checks.
- Minimum average of 60% on laboratory practical tests.
- Minimum of 70% on the written microscope test.
- Minimum combined average of 60% on quizzes, homework assignments, and case studies.

Course Grading Scale:

- A- 90% or more of total possible points and meets all course requirements
- B- 80% or more of total possible points and meets all course requirements
- C- 70% or more of total possible points and meets all course requirements
- D- 60% or more of total possible points and meets all course requirements
- E- less than 60% of total possible points or fails to meet all course requirements

Attendance Policy: The college attendance policy is available at <http://www.bpsc.edu/catalog/current/academicpolicies.html>

Course Fees: This course is accompanied with an additional non-refundable fee for supplemental materials, laboratory supplies, certification exams and/or clinical fees.

Nondiscrimination Statement

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COORDINATOR FOR SECTION 504 AND ADA

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Reviewed by Jamie Adams, Spring 2019