

# Louisiana Delta Community College

## Academic Affairs Master Syllabus

**Course Name:** General Microbiology

**Course Number:** BIOL 210

**Lecture hours:** 3                      **Lab Hours:** 0                      **Credit Hours:** 3

**Textbook, Author, and Publisher:** To be provided by College Campus

**Instructor Information:** To be provided by College Campus

**Class Location:** To be provided by College Campus

### **Course Description:**

The goal of this course is to present an integrated approach to essential core themes and concepts for an introductory microbiology course. This course is for science majors and provides a foundation for practical hands-on applications and critical thinking skills that are a critical part of science and medical based professions. Darwinian principles of evolution provide an overarching theme to the course. Cellular structures, metabolic pathways, regulatory signals, and genetic exchange mechanisms exhibited by microorganisms at present are the products of natural selection. Evolutionary processes are observed in the microbial world today and demonstrated in cases such as antibiotic resistance, xenobiotic biodegradation, and the coevolution of hosts and pathogens. Microorganisms discussed in the course include subcellular viruses and other infectious agents, cellular life forms to include all prokaryotic and eukaryotic microbes, and multicellular helminthic worms.

**Prerequisites:** BIOL 221 or BIOL 201 with a C or better

**Co-requisites:** BIOL 211 Micro Lab should be taken in conjunction with this course

### **Learning Outcomes:**

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

1. Identify and explain major concepts of cellular evolution via natural selection
2. Discuss the structure and physiology of microorganisms
3. Identify metabolic diversity and interactions of microorganisms among themselves and their environment
4. Illustrate how growth of microorganisms can be controlled by physical, chemical, mechanical, and biological means
5. Discuss how genetic variations can impact microbial functions
6. Demonstrate the ubiquity of microorganisms and discuss the impact they have on the human existence
7. Utilize quantitative reasoning, critical thinking, experimental design, and effective communication using credible scientific sources
8. Discuss the relationship between science and society
9. Identify and discuss ethical issues in microbiology

**Assessment Measures:** To be provided by College Campus

**Library Resource Center:**

The Delta Library and Learning Resource Center is committed to providing quality information and learning resources and services, including technology, in supporting the overall mission of Delta Community College and its commitment to lifelong learning.

**Special Accommodations:**

Louisiana Delta Community College complies with Section 504 of the Rehabilitation Act, as well as the Americans with Disabilities Act. Students with disabilities who attend the Monroe campus may make a request by contacting the Director of Counseling and Disability Services (See College Directory for contact information.) at the beginning of each semester. Reasonable accommodations will be attempted for students with documented disabilities. If an impairment is identified later in the semester, a non-retroactive accommodation plan will be developed. Students at satellite campuses should contact the Coordinator of Student Affairs at their particular campus.

**Title IX:**

Louisiana Delta Community College is committed to protecting the rights of students, which includes compliance with Title IX requirements. As such, the institution and members of our community will not tolerate the offenses of dating violence, domestic violence, sexual assault, and stalking. Students with Title IX concerns should contact the College's Title IX Coordinator (See College Directory for contact information.) Students are required to complete Sexual Assault Awareness and Prevention Online Training. Access to this online course will be sent out through the Delta email account.

**Student Code of Conduct:**

Louisiana Delta Community College encourages an environment of academic integrity and mutual respect. Students should read and follow both academic and behavioral expectations identified in the Code of Student Conduct that can be found online at [www.ladelta.edu](http://www.ladelta.edu). Students are expected to act with integrity, respect the rights of others, and conduct themselves in a professional manner. The Honor Code prohibits academic misconduct such as cheating, engaging in unauthorized collaboration, and plagiarism. Violations of the Code of Student Conduct may result in disciplinary action as provided in the Code. Incidents are reported through the online Student Conduct system.