

Biological Sciences I

Syllabus Outline

Course Information

- **Course Title:** Biological Sciences I
- **Course Number:** BIO 101
- **Semester:** Fall 2024
- **Credits:** 4

Instructor

- **Name:** [Instructor Name]
 - **Email:** [Email Address]
 - **Office Hours:** [Day/Time or by appointment]
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Course Description

Introduction to fundamental concepts in biological sciences with emphasis on the molecular, cellular, and organismal levels of life. The course covers cell structure and function, genetics, evolution, and the diversity of living organisms.

Learning Outcomes

1. Understand and describe the scientific method and its applications in biology.
 2. Explain cellular structure, function, and energetics.
 3. Discuss principles of genetics and heredity.
 4. Interpret evolutionary processes and patterns.
 5. Identify the diversity and classification of living organisms.
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Weekly Topics

1. Introduction to Biology & Scientific Method
2. Chemistry of Life
3. Cell Structure & Function
4. Cellular Energetics
5. Mitosis & Meiosis
6. Mendelian Genetics
7. Molecular Genetics
8. Evolution & Natural Selection
9. Classification of Organisms
10. Survey of Living Organisms: Prokaryotes
11. Survey of Living Organisms: Protists & Fungi
12. Survey of Living Organisms: Plants & Animals
13. Review & Assessment

Assessment & Grading

- Quizzes: 15%
- Lab Reports: 20%
- Midterm Exam: 25%
- Final Exam: 30%
- Participation: 10%

Required Materials

- Textbook: [Title, Author, Edition]
- Lab Manual: [Details]
- Notebook or Digital Device

Course Policies

- Attendance is expected at all classes and labs.
- Assignments must be submitted by the deadline.
- Academic integrity is strictly enforced.