BIOL 1213 EXPLORATION TO GENERAL BIOLOGY(4 credit hours)

Elmira College

SPRING 2025

Required Text:
Scott Freeman; Kim Quillin; Lizabeth Allison; Michael Black; Greg Podgorski; Emily Taylor; Jeff Carm (2020). ***Biological Science*** (7th ed.). Pearson.
Supplemental readings might be included to illustrate or expand on textbook readings.

Pre-requisites: None.

Course Description

Exploration to General Biology is an general introduction that provides a comprehensive overview of concepts in biology. The course covers topics ranging from the nature of science, life chemistry, cell structure and function, photosynthesis and respiration, genetics, and evolution. This course focuses on the inquiry into biology and the application of biological principles to the real world.

Course Objectives and Goals

- Develop a foundational understanding of biodiversity and relationships of living systems.
- Examine evolutionary processes and their impact on biodiversity.
- Explore the structure and function of cells, tissues, and organs.
- Describe the mechanism of life continuation, ranging from the processes of inheritance, photosynthesis and respiration and evolution.
- Enhance critical thinking skills and the ability to analyze scientific data to apply biological concepts to real-world situations.

Evaluation of Performance

Your grade will be based upon your performance on exams, assignments, and participation.

6 Labs and Reports	30%
Quizzes	20%
Midterm Exam	25%
Final Exam	25%
Total	100%

Grades will be assigned as follows:

A	93% and above	B-	80 - 82%	D+	67 - 69%
A-	90 - 92%	C+	77 - 79%	D	63 - 66%

B+	87 - 89%	C	73 - 76%	D-	60 - 62%
B	83 - 86%	C-	70 - 72%	F	59% or below

Withdrawal Policy: Please see Elmira College Bulletin for information on this policy.

Academic Honesty: Please read the section on Academic Honesty in the **Code of Conduct**. Briefly, academic dishonesty includes: cheating, fabrication, facilitating academic dishonesty, and plagiarism. Ask if you have any questions on whether something constitutes as academic dishonesty. All work must be original and new. Past assignments from current or other courses will not be accepted. Academic dishonesty will not be tolerated. It will result in zero on the assignment, and a report will be filed with the school. Continued practice will result in failure of the class. Institutional penalties may also apply with repeated acts of academic honesty.

Student Responsibility:

- It is your responsibility to keep track of assignments and due dates.
- You should ask questions concerning assignments and lectures, if you need any clarifications.
- If you are struggling in class, have concerns, and/or unsure about expectations, please stop by during office hours or make an appointment for another time.

Tentative Schedule of Topics

Topic	Materials	Tasks & Evaluations
Biology: The Study of Life	Chapter 1	
The Molecular Origin and Evolution of Life	Chapter 2	Lab and Report #1
The Nature of Science	Chapter 3	
Cell Structure and Function	Chapter 4	Lab and Report #2
Photosynthesis	Chapter 5	Quiz #1
Analyzing Genetic Variation	Chapter 6	Lab and Report #3
Meiosis	Chapter 7	
Transcription, RNA Processing, and Translation	Chapter 8	Midterm Exam
How Genes Work	Chapter 9	
Genes, Development, and Evolution	Chapter 10	Lab and Report #4
Evolution by Natural Selection	Chapter 11	
Evolutionary Processes	Chapter 12	Lab and Report #5
Speciation	Chapter 13	Quiz #2
The Diversification of Life	Chapter 14	
How Plants Work	Chapter 15	Lab and Report #6
How Animals Work	Chapter 16	
Introduction to Ecology	Chapter 17	Final Exam