

## BIOLOGY 10L: Introduction to Life Science Lab

Fall 2023

Instructor: Ms. Smith Bush

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Lab #52011: Wednesday 9:00-11:50am; LFS 17

Office Hours: Wednesday 12:00-1:00pm & Thursday 1:00-3:00pm LFS 13; Monday & Friday 3:00-4:00pm via Canvas messaging.

### COURSE DESCRIPTION

Title: Biology 10L – Introduction to Life Science Lab

Prerequisite or Co-requisite: Biology 10.

Summary: This lab course is recommended for the non-biological science and pre-education majors. This is an introductory course using biological concepts. The organismal structure, function, inheritance, evolution, and ecology are covered. Field trips may be required. Not open to students with credit in Biology 3.

Biology 10L is a 1 unit lab class.

### COURSE CONTENT:

#### Student Learning Outcomes

Upon completion of this course, students will be able to:

SLO1: Apply the principles of Mendelian genetics to evolutionary theory and human medicine.

SLO2: Understand the chemical basis of life.

SLO3: Assess human impacts on natural systems and critically evaluate solutions to environmental problems.

SLO4: Classify the wide range of living organisms and identify the evolutionary mechanisms that have impacted this diversity.

SLO5: Evaluate current scientific literature and examine how the scientific method is employed in biological research.

SLO6: Examine the function of DNA and recognize how its discovery has impacted modern science.

SLO7: Understand the cellular basis of life.

SLO8: Identify levels of biological organization and apply these concepts to living systems: By examining anatomical and physiological features and By investigating chemical and energy relationships.

### REQUIRED MATERIALS:

E-mail address and internet access. This can be obtained free through the school

#### ATTENDANCE:

You will be dropped if you fail to attend the first lab. You will also be dropped if you miss more than two labs in the first 9 weeks.

#### TESTS AND EVALUATIONS:

##### Grading:

Description	Points Possible
17 Lab Assignments (10 pts. each)	170
17 Lab Quizzes (10 pts. each)	170

Approximate Total Points = 340

##### Grading scale:

90% = A      80% = B      70% = C      60% = D      59% and below = F

At any point you can check your grades on our Canvas site through the Reedley College homepage: [www.reedleycollege.edu](http://www.reedleycollege.edu)

You are encouraged to check this site regularly and keep track of your own grades!

Quizzes will include multiple choice questions, true/false and matching questions. The information on the quizzes is taken from the labs we have performed in class. There are no make-up quizzes.

##### Other information:

**Drops:** You have until half way through the semester to drop. If you elect to do so, be sure to drop yourself. Do not assume you have been automatically dropped. This is very important, as after the half way point a grade must be given, by state law, whether you attend class or not.

**Help:** If you should have difficulty grasping the material presented during the course be sure to talk to your instructor at the first sign of trouble. Often, a few minutes can clear up many problems! If you are having trouble studying, perhaps you need a few study hints or a tutor at the Tutorial Center. Please go in for help!

**Academic Dishonesty:** Students at Reedley College are entitled to the best education that the college can make available to them, and they, their instructors, and their fellow students share the responsibility to ensure this education is honestly attained. Because cheating, plagiarism, and collusion in dishonest activities erode the integrity of the college, each student is expected to exert an entire honest effort in all academic endeavors. Academic dishonesty in any form is a very serious offense and will incur serious consequences. See college catalog for details.

**Accommodations:** If you have a verified need for an academic accommodation or material in alternate media (i.e. Braille, large print, electronic text, etc.) per the Americans with Disabilities Act (ADA) or Section 504 of the Rehabilitation Act, please contact me as soon as possible.

#### Lab Schedule

Biology 10L – Fall 2023

Wednesdays 9:00-11:50am LFS 17

Week 1: 8/9

Quiz

Lab 1: Scientific Method

Week 2: 8/16

Lab 2: Chemistry of Life

Quiz 1 Scientific Method

Week 3: 8/23

Lab 3: Microscopy

Quiz 2 Chemistry

Week 4: 8/30

Lab 4: Cells & Membranes

Quiz 3 Microscopy

Week 5: 9/6

Lab 5: Cellular Respiration & Fermentation

Quiz 4 Cells

Week 6: 9/13

Lab 6: Photosynthesis

Quiz 5 Cellular Respiration

Week 7: 9/20

Lab 7: DNA & Proteins

Quiz 6 Photosynthesis

Week 8: 9/27

Lab 8: Mitosis & Meiosis

Quiz 7 Protein Synthesis

Week 9: 10/4 (drop day)

Lab 9: Genetics

Quiz 8 Mitosis & Meiosis

Week 10: 10/11

Lab 10: Epidemiology

Quiz 9 Genetics

Week 11: 10/18

Lab 11: Evolution

Quiz 10 Disease

Week 12: 10/25

Lab 12: Diversity of Life I

Quiz 11 Evolution

Week 13: 11/1

Lab 13: Diversity of Life II

Quiz 12 Diversity of Life I

Week 14: 11/8

Lab 14: Diversity of Life III

Quiz 13 Diversity of Life II

Week 15: 11/15

Lab 15: Ecology & Biodiversity

Quiz 14 Diversity of Life III

Week 16: 11/22

Lab 16: Humans & The Planet

Quiz 15 Ecology/Biodiversity

Assign Carbon Footprint Worksheet

Week 17: 11/29

Lab 17: TBA

Quiz 16 Humans & the Planet

Week 18: 12/6

Quiz 17 TBA