

BIOLOGY 10: Introduction to Life Science Online

Fall 2023

Instructor: Ms. Smith Bush

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Lecture: Online and asynchronous

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 10 – Introduction to Life Science

Prerequisite: None-Just the desire to learn.

Summary: This lecture 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. Students needing a life science lab must enroll in Biology 10L in addition to Biology 10. Not open to students with credit in Biology 3. Biology 10 is a 3 unit lecture 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:

Reliable internet connection and computer.

COURSE POLICIES

Communication Policy

Zoom meetings can be scheduled on an individual basis; Emails/Canvas messages will be responded to within 24 hours Monday-Friday.

Attendance and Drop Policy

You will be considered absent if you fail to participate in the weekly online discussions/postings, assignments, and quizzes. After one week of no communication, you may be dropped from the course.

Simply Logging in to the Course Is Not Considered Attendance

If you fail to participate in the first introductory online discussion by midnight the first week of class Wednesday, you will be dropped from the class.

Late work Policy

Policy for missed exams

Your exam score will have 10 percent deducted for every 24 hours that your work is late. For example if you are one day late you will be penalized 10%, three days late would be 30%. If you have a medical excuse you will be exempt from the point deduction.

Policy for discussions

Your score will have 10 percent deducted for every 24 hours that your work is late. If you have a medical excuse you will be exempt from the point deduction.

Quiz Grading

Each unit in the class will have quiz based on the unit material.

TESTS AND EVALUATIONS:

Total Percentage of Points

Letter Grade

89.5%-100%

A

79.5%-89.4%

B

69.5%-79.4%

C

59.5%-69.4%

D

59.4% and below

F

Assignment

Points Possible

Exams (5)

500

Quizzes

100

Discussions

135

Research Presentation

100

Total Points

835

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.

Extra Credit: Extra credit is recommended if you feel that you are a borderline grade and that you need 25 points to get you over the hump. Extra credit should be viewed like an insurance policy. You're never quite sure when it may be needed. All extra credit is due module 17.

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!

Always keep in mind that this is a three-unit course. As a general rule, each hour of lecture requires two hours of additional study outside of the classroom each week. Do your planning accordingly. Success comes before work only in the dictionary. Overall, I hope you have a fun semester and learn Biology along the way. Good Luck.

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.

Diversity Statement: Respect for Diversity: It is my intent that students from all diverse backgrounds and perspectives be well served by this course, that students' learning needs be addressed both in and out of class, and that the diversity that students bring to this class be viewed as a resource, strength and benefit. It is my intent to present materials and activities that are respectful of diversity: gender, sexuality, disability, age, socioeconomic status, ethnicity, race, and culture. Your suggestions are encouraged and appreciated. Please let me know ways to improve the effectiveness of the course for you personally or for other students

or student groups.

Schedule

Lectures & Exams Textbook Reading Discussions - Due Wednesdays @ 11:59pm
MODULE 1

Orientation, Grading, Goals, Attendance

Introduction to Biology

Syllabus

Ch.1

Discussion #1: Introduction
MODULE 2

Chemistry of Life

Ch.2

MODULE 3

Cell Structure & Function

Ch.3

Discussion #2: Cells
MODULE 4

Reproduction of the Cellular Level

How Cells Obtain Energy

Ch.6

Ch.4

Discussion #3: Save the World Topic Choice
MODULE 5

Exam #1

Photosynthesis

Ch.5

MODULE 6

Molecular Biology

Cellular Basis of Inheritance

Ch.9

Ch.7

MODULE 7

Patterns of Inheritance

Ch.8

Discussion #4: Non-Mendelian Genetics
MODULE 8

Exam #2

Evolution

Ch.11

MODULE 9 Evolution cont.

Ch.11

Discussion #5: Evolution

MODULE 10

Viruses

Prokaryotes

Ch.17

Ch.13

Discussion #6: Microbiome

MODULE 11

Exam #3

Protists

Ch.13

MODULE 12

Fungi

Plants

Ch.13

Ch.14

Discussion #7: Plant Evolution

MODULE 13

Animals

Ch.15

Discussion #8: Animals
MODULE 14

Exam #4

Population Ecology

Ch.19

MODULE 15

Ecosystems

Ch.20

MODULE 16

Biosphere

Ch.20

Save the World Presentation
MODULE 17

Conservation Biology

Ch.21

Discussion #9: Conservation Biology
MODULE 18 Exam #5