

# BIOLOGY 10: Introduction to Life Science Online

Summer 2022

Instructor: Ms. Smith Bush

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Lecture: Online and asynchronous

## COURSE DESCRIPTION

- 1. Title:** Biology 10 – Introduction to Life Science
- 2. Prerequisite:** None-Just the desire to learn.
- 3. 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.
- 4.** 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:** By examining anatomical and physiological features.

**SLO5:** By investigating chemical and energy relationships.

**SLO6:** Classify the wide range of living organisms and identify the evolutionary mechanisms that have impacted this diversity.

**SLO7:** Evaluate current scientific literature and examine how the scientific method is employed in biological research.

**SLO8:** Examine the function of DNA and recognize how its discovery has impacted modern science.

**SLO9:** Understand the cellular basis of life.

**SLO10:** Identify levels of biological organization and apply these concepts to living systems:

By examining anatomical and physiological features.

By investigating chemical and energy relationships.

### REQUIRED MATERIALS:

1. Text: Mader, S. Essentials of Biology, custom, 6th edition McGraw Hill. **With active Learnsmart access code.**
2. Reliable internet connection and computer.

## COURSE POLICIES

1. Communication Policy
  - a. Office hours 3:00-4:00pm Monday – Thursday via Canvas messaging; Additionally, Zoom meetings can be scheduled on an individual basis; Emails/Canvas messages will be responded to within 24 hours Monday-Friday.
2. Attendance and Drop Policy
  - a. 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.
  - b. *Simply Logging in to the Course Is Not Considered Attendance*
  - c. 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. Students who do not purchase and use a Learnsmart access code by the end of the second week will be dropped from the class.
3. Late work Policy
  - a. Policy for missed exams
    - i. 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.
  - b. Policy for discussions and final papers
    - i. 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.
  - c. Policy for late Learnsmart assignments
    - i. No late Learnsmart assignments will be accepted without a medical excuse.

## 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
Learnsmart Assignments (24)	240
Exams (5) & Quizzes (22)	610
Discussions (9) & Activities (8)	175

Research Paper	145
Total Points	1,170

*Other information:*

**1. 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.

**2. 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 the last week of the semester.

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.

**Schedule**

Lectures & Exams	Textbook Reading & Learnsmart	Discussion/Activities
<u>Lesson 1</u> Orientation, Grading, Goals, Attendance A View of Life	Syllabus  Ch.1	Discussion 1: Introduction Due Wednesday @ 11:59PM
<u>Lesson 2</u> Chemistry Organic Molecules	Ch.2 Ch.3	Build an Atom Activity

<u>Lesson 3</u> Inside the Cell Dynamic Cell	Ch.4 Ch.5	Discussion 2: Cells Cell Exploration Activity
<u>Lesson 4</u> Cell Reproduction Cellular Respiration	Ch.8 Ch.7	Discussion 3: Save the World Topic Choice Cell Respiration Activity
<u>Lesson 5</u> <b>Exam #1</b> Photosynthesis	Study Guide #1 Ch.6	Photosynthesis Animation
<u>Lesson 6</u> DNA & Protein Synthesis Sexual Reproduction	Ch.11 Ch.9	Discussion 4: Meiosis & Mitosis Protein Synthesis Race
<u>Lesson 7</u> Patterns of Inheritance Genetic Counseling	Ch.10 Ch.13	Discussion 5: Genetics Meiosis & Genetics Activity
<u>Lesson 8</u> <b>Exam #2</b> Evolution	Study Guide #2 Ch.14	Snurfle Island Activity
<u>Lesson 9</u> Microevolution Macroevolution & Species	Ch.15 Ch.16	Discussion 6: Evolution Save the World Rough Draft
<u>Lesson 10</u> Viruses & Prokaryotes	Ch.17A & B	Discussion 7: Antibiotics Save the World Peer Reviews
<u>Lesson 11</u> <b>Exam #3</b> Protists	Study Guide #3 Ch.17C	Diversity of Protist Video
<u>Lesson 12</u> Fungi & Plants	Ch.18A & B	Discussion 8: Plant Evolution Angiosperm reproduction
<u>Lesson 13</u> Animals	Ch.19A & B	Discussion 9: Animals Diversity of Animals Video
<u>Lesson 14</u> <b>Exam #4</b> Population Ecology	Study Guide #4 Ch.30	World Population Activity
<u>Lesson 15</u> Ecosystems	Ch.31	Save the World Final Proposal
<u>Lesson 16</u> Biomes		Biome Activity
<u>Lesson 17</u>		Discussion 10:

Conservation Biology	Ch.32	Conservation
<u>Lesson 18</u> <b>Exam #5</b>	Study Guide #5	