

Biology 10 (BIOL-10) Introduction to Life Sciences

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| <i>Semester: Spring 2019</i> | <i>Reedley Community College</i> |
| Instructor: Andrew Strankman | <i>Class No. 57170</i> |
| Email: andrew.strankman@reedleycollege.edu | Lecture Times: M:12:00pm-2:50pm LFS-17 |
| Phone: 559-638-0300 ext. 3499 | <i>Date: 01/14/19 - 05/24/19</i> |
| Office: LFS 10 | |
| Office Hours: Tu/Th: 4:00-5:00PM | |
| We: 12:00-12:50PM (in tutorial center) | |
| Fr: 11:00-11:50AM (digital via skype) | |
| <i>Date: 01/14/19 - 05/24/19</i> | |

Catalog Description:

This lecture course is recommended for the nonbiological science and pre-education majors. This is an introductory course using biological concepts. The organismal structure, function, inheritance, evolution, and ecology are covered. Not open to students with credit in Biology 3. (A, CSU-GE, UC, I)

Course Content

Student Learning Outcomes:

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

1. Evaluate current scientific literature and examine how the scientific method is employed in biological research.
2. Identify levels of biological organization and apply these concepts to living systems.
 1. By examining anatomical and physiological features.
 2. By investigating chemical and energy relationships.
3. Assess human impacts on natural systems and evaluate solutions to environmental problems.
4. Explore the cellular basis of life.
5. Apply the principles of Mendelian genetics to evolutionary theory and human medicine.
6. Recognize the function of DNA and how its discovery has impacted modern science.
7. Classify the wide range of living organisms and identify the evolutionary mechanisms that have impacted this diversity.
8. Recognize the chemical basis of life.

Objectives:

In the process of completing this course, students will:

1. compare and contrast Eukaryote and Prokaryote cell structure.
2. recognize chemical elements, bonds and properties of water.

3. compare anatomical and physiological features seen in the animal kingdom with emphasis on human body systems.
4. calculate genetic probabilities based on the principles of Mendelian genetics.
 - identify human genetic mutations and explain probable causes for their occurrence.
5. distinguish the processes of transcription and translation and identify their roles in protein synthesis.
6. diagram plant life cycles and identify major plant adaptations.
7. explain and compare the processes of photosynthesis and cellular respiration.
8. demonstrate knowledge of evolutionary theory and identify the different mechanisms responsible for biological change.
9. describe energy flow and nutrient cycling within an ecosystem.
 - consider human impact on natural systems.
10. relate principles of population ecology to the study of the global human population.
11. read scientific literature and apply the steps of the scientific method to laboratory research.

Required Materials:

1. Text: Mader, S. Essentials of Biology, custom, 5th edition McGraw Hill. ***With active Learnsmart access code.***
2. Scantron 882-E (6)

Technology Requirements

- The web/online portion of this course will occur through Canvas. All students must have access to a device with internet access to that allows students to retrieve and complete assignments through Canvas.
- Check Canvas and your Reedley College email accounts regularly (multiple times per week) for announcements.

Attendance:

ATTENDANCE AND DROP/ADD POLICY

You are required to attend **ALL** in-person class sessions. There are NO excused absences except as defined in the Reedley College Catalog. Sign-in sheets will be used in each class, and a student must sign in for themselves only.

In order to avoid being dropped from this class, you must complete the following tasks:

- Web/Online requirements: The following tasks must be completed on Canvas by the end of the first week of instruction (1/18/18 @11:59PM)
 1. Complete the Syllabus Quiz
 2. Post a profile picture
 3. Participate in the Check-In: Meet & Greet Discussion Board
- In-person requirements: Students must attend the first day of in-person meeting (lab)

Failure to complete ALL the tasks listed above, will result in a student being dropped from this course after the first week of instruction.

If you miss more than TEN hours of course time in the semester, your final grade will be lowered by one

letter grade. For example, if you earned an A but missed 11 hours of class, your final grade will be a B. If you miss more than TWENTY hours of course time in the semester, your grade will be lowered by two letter grades. For example, if you earned an A but missed 21 hours of class, your final grade will be a C. If you miss more than THIRTY hours of course time in the semester you will fail the class, no questions asked.

I reserve the right to drop students (both enrolled and waitlisted) based on the following policy:

1. Student does not attend the first lecture.
2. Student does not attend the first lab.
3. Student misses a cumulative 3 hours (lecture or lab) in the first week.
4. Student misses a cumulative 4 hours (lecture or lab) in the first three weeks.
5. Student misses 6 hours (lecture or lab) up to drop date without providing a valid excuse (determined by me).

I reserve the right to drop students who do not purchase and use an active Learnsmart access code by the end of the second week of class.

Expectations and Policies:

- Be respectful and discipline yourself so others don't have to.
- No makeups without prior arrangement.
- Cheating and plagiarism will result in failing the assignment and discussed further with administration.
- Please keep electronic devices silent and electronics of any kind are not permitted during exams.
- No food or drink in the trash cans.
- I will do my best, I expect you to do the same.

Tests and Evaluations:

A. Grading

| Description | Points Possible |
|---|-----------------|
| 25 Learnsmart assignments (8 pts. each) | 200 |
| 3 Exams (100 pts. each) | 300 |
| 1 Final Exam | 150 |
| 10 Discussion Boards (10pts each) | 100 |
| Research Paper | 150 |
| 10 Quizzes (10 pts. each) | 100 |
| Total Points = | 1,000 |

To calculate your grade, total all points earned and divide that number by the total points available (1,000). **Course grades are non-negotiable; Instructor reserves the right to curve individual tests and/or assignments. FINAL GRADES WILL NOT BE CURVED... ALSO, I DO NOT round up your grades to the next letter grade.**

The final course grade is based on:

| Percent Range | Grade |
|---------------|-------|
| 90-100 | A |
| 80-89.99 | B |

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|--------------|---|
| 70-79.99 | C |
| 60-69.99 | D |
| Less than 60 | F |

At any point you can check your grades on canvas via our canvas site through the Reedley College homepage: www.reedleycollege.edu

Exams will include multiple choice questions, true/false, short answer, and essay questions. Many times these essays will be the main objectives of each chapter.

LATE ASSIGNMENTS, CHEATING, AND MAKE-UP POLICY

No late assignments will be accepted **EVER**. NO EXCEPTIONS. This includes all in person, and online assignments.

Lecture Exams will be taken during in person class meeting times and may only be made up due to extreme circumstances, at the discretion of the instructor, if arranged with the instructor before the scheduled exam period (at least 3 hrs prior).

Learnsmart assignments: will be assigned for each chapter covered in the textbook. You will need an active Learnsmart access code purchased through the publisher. Learnsmart assignments for each unit are due by Sunday at 11:59pm before each unit examination.

Research Paper will be completed on a biology topic of your choice. Paper will be submitted through Canvas/Turnitin. More information will follow on canvas.

Lecture exams may be any combination of multiple-choice, true-false, matching, short-answer and essay questions based on the main objectives of each chapter. Please note that I require correct spelling and grammar. If I can't read it, I can't grade it! Write neatly!

Lecture final exam will be comprehensive. Since this course is a prerequisite for all other Biology classes, it is important that you retain as much knowledge as possible from this course to ease your way in the following semesters.

QUIZZES will occur on dates specified on the course schedule. Quizzes are given at the very start of the class period and last for 20 minutes, if you are late your quiz will still be collected 20 minutes from when the class period began. Material may include and combination of multiple-choice, true-false, matching, and short answer questions.

Extra Credit I strongly recommend doing extra credit if you feel you have a borderline grade. You earn up to a maximum of 25 points this term.

Communication Policy

The best way to get ahold of me is to email me at andrew.strankman@reedleycollege.edu or by sending me a direct message through canvas. Don't know how to send a message in canvas? Check out this quick guide [How to send a message in canvas](#).

- Please allow a 24hr response time. I am very prompt with my email responses, however, there are times when it may take me up to 24hrs to respond. If you do not receive a response from me

after 24hrs then please double check that you have the correct email address, and resend. Most likely, I didn't get it if I didn't respond quickly.

- Emailing and messaging can be used 24/7. If I expect to be away from my computer for any significant length of time, you will be notified in advance.

Office Hours

I hold regular office hours both digitally as virtual office hours and on campus in my office. During these hours, I am 100% guaranteed to be present in my office. My office is at Reedley College campus in room Life Science 11 (LFS-11). This room is located inside of the back of a classroom, so you will have to enter there, before coming to my office. If you would like to meet with me outside of these office hours, please email me to arrange an appointment to meet. My virtual office hours are held through the canvas messaging function. You can expect an immediate response during this time frame if you message me.

Canvas

All lecture and lab handouts, lecture notes, course schedules, and announcements are available at <https://scccd.instructure.com/login/ldap>. Your user name and password will be discussed in class.

Professional Behavior is expected at ALL TIMES

Please respect other student, the laboratory materials, and me. No food, cellular phones, pagers, or profanity at any time! I am aware that emergencies arise, but place your electronics on silent or "manner" mode. Disruptive behavior that interferes with the teaching and learning processes will be cause for appropriate penalties as described under "University Policies" below.

Food and/or liquids in the laboratory may result in deduction of points.

You will be given a Safety Rules sheet to sign in the lab, which delineates further safety procedures that you MUST follow. OTHER COURSES USE THE MODELS AND THE LAB. PLEASE BE RESPONSIBLE. Do not use pencils to point out structures on the models. Please remember to clean up the lab after every exercise, as areas left dirty or messy at the end of the period will result in those student groups being **docked 5 points** for every offense.

No food or beverages allowed. Cell phone use will not be tolerated in this class; turn off your cell phones prior to class. Students are allowed to do audio recordings of lectures but not video. Web or internet posting of recorded lecture materials are not allowed. Laptops may be used in this class; laptop users should sit in the back row to avoid distracting others.

Children In Class: In order to promote a positive learning environment, please make arrangements for your child's care while class is in session. Do not bring children to class.

Cell Phones: Cell phones that are used or go off in class will be confiscated until the end of the class hour. No iPods are allowed in class.

No food, open beverages are allowed in the class at anytime. No profanities are allowed in class.

Dress code: In order to participate in lab activities, wearing shoes with closed toes is required.

Drops: You have until the end of the 9th week to drop the class. If you elect to do so, drop yourself. Do not assume you have automatically been dropped. After the 9th week you must be assigned a grade by state law, whether you attend class or not.

Tutoring: Tutors are available in the tutorial center. If you have not had a biology class since high school, working with a tutor will get you up to speed. The tutors are former students who know how to study for the class. “With this statement on my course syllabus, I am referring each of my enrolled students in need of academic support to tutorial services. Referral reason: Mastering the content, study skills, and basic skills of this course is aided by the use of trained peer tutors”.

College Policies

The university has several policies that you will be expected to adhere to in my course. The **Policy on Students with Disabilities, the University Honor Code, the Policy on Cheating and Plagiarism, a statement on copyright, and the university computer requirement**, portions of which are below, can all be found in the University Catalog (Policies and Regulations) and Class Schedule.

“Students at the 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 responsibility for seeing that their 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 entirely honest effort in all academic endeavors. Academic dishonesty in any form is a very serious offense and will incur serious consequences.” Reedley College Catalog pg. 45 o Please see Disciplinary Procedures in the Student Conduct Standards and Grievance Procedures Handbook available in the Vice-President of Student Services office, or at the link listed below. For a comprehensive list of Student Conduct Standards, see: <http://reedleycollege.edu/index.aspx?page=233>

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

Cheating and Plagiarism:

I DO NOT TOLERATE CHEATING. PERIOD. Most of you are entering into the health care field and could harm or seriously injure other human beings if you do not know the basic information in this course.

Any student caught cheating or plagiarizing will be subject to the Reedley College disciplinary procedures (review the Reedley College catalog section on academic dishonesty). Electronics of any kind are not permitted during exams and will result in an automatic zero for that exam.

Students with diagnosed disabilities should contact the Disabled Students Programs and Services’ (DSP&S). Please give me a copy of the letter you receive from DSP&S detailing class accommodations you may need. If you require accommodation for test-taking please make sure I have the letter no less than three days before the test. If you have a need for an academic accommodation or materials 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.

| Week | Dates | Lecture (Book Chapter) |
|------|-------------------|--|
| 1 | Week of (1/14) | Introduction/Syllabus Recap Chapter 1: A View of Life Chapter 2: Chemistry Quiz 1 Discussion Board 1 |

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| 2 | Week of (1/21) | Martin Luther King Jr Day NO CLASS Chapter 3: Organic Molecules Digital Lecture |
| 3 | Week of (1/28) | Chapter 4: Inside the Cell Chapter 5: The Dynamic Cell Quiz 2 Discussion Board 2 |
| 4 | Week of (2/4) | Chapter 8: Cellular Reproduction Chapter 7: Cellular Respiration and Fermentation Quiz 3 Discussion Board 3 |
| 5 | Week of (2/11) | Chapter 6: Photosynthesis Chapter 11: DNA and Protein Synthesis Lecture Exam 1 |
| 6 | Week of (2/18) | Washington Day NO CLASS |
| 7 | Week of (2/25) | Chapter 9: Sexual Reproduction Chapter 10: Patterns of Inheritance Quiz 4 Discussion Board 4 |
| 8 | Week of (3/4) | Chapter 13: Genetic Counselling Quiz 5 Discussion Board 5 |
| 9 | Week of (3/11) | Chapter 14: Evolution Lecture Exam 2 |
| 10 | Week of (3/18) | Chapter 15: Microevolution Quiz 6 Discussion Board 6 |
| 11 | Week of (3/25) | Chapter 16: Macroevolution and Classification Quiz 7 Discussion Board 7 |
| 12 | Week of (4/1) | Chapter 17: Protists/Viruses Quiz 8 Discussion Board 8 |
| 13 | Week of (4/8) | Chapter 18: Fungi Chapter 18: Plants Lecture Exam 3 |
| 14 | Week of (4/15) | Spring Break No Class |
| 15 | Week of (4/22) | Chapter 19: Invertebrate Animals, Protostomes, Deuterostomes Quiz 9 Discussion Board 9 |
| 16 | Week of (4/29) | Chapter 30: Population Ecology Quiz 10 Discussion Board 10 |
| 17 | Week of (5/6) | Chapter 31: Communities and Ecosystems Quiz 11 |

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| | | Discussion Board 11 |
| 18 | Week of (5/13) | Chapter 32: Conservation Biology Final Exam Review |
| 19 | Week of (5/20) | Final Exam (Cumulative): Wednesday 5/22 12:00-1:50pm |

Important Dates

- January 25: Last day to drop with full refund
- February 1: Last day to add/drop a class (no "W" on transcript)
- February 8: Last day to declare pass/no pass (P/NP) grade option
- March 8: Last day to be dropped with a "W"