

# Syllabus: Biology 10 – Intro to Life Science

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## Course Information

Semester: Spring 2020

Section: 50157

Class Meetings: Tuesday & Thursday 12:30 – 1:45 PM, Life Science 17

Instructor: Whitney Menefee

- Email: whitney.menefee@reedleycollege.edu
  - Office: LFS 13
  - Office Phone: (559) 638 – 0300 ext. 3257
  - Office Hours: Thursday 2:00 – 3:00PM, Friday 9:00 – 12:00PM
    - Virtual Office Hour\*: Monday 3:00 – 4:00PM
- \*Details on how to access virtual office hours posted on Canvas

## Course Description

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

ADVISORIES: English 1A. (A, CSU-GE, UC, I)

## Student Learning Outcomes

Upon completion of this course, students will be able to

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

## Course Objectives

In the process of completing this course, students will

- compare anatomical and physiological features seen in the animal kingdom.
- compare and contrast Eukaryote and Prokaryote cell structure.
- demonstrate knowledge of evolutionary theory and identify the different mechanisms responsible for biological change.
- describe energy flow and nutrient cycling within an ecosystem. -consider human impact on natural systems.

- diagram plant life cycles and identify major plant adaptations.
- distinguish the processes of transcription and translation and identify their roles in protein synthesis.
- explain and compare the processes of photosynthesis and cellular respiration.
- read scientific literature and apply the steps of the scientific method to laboratory research.
- recognize chemical elements, bonds and properties of water.
- relate principles of population ecology to the study of the global human population.
- calculate genetic probabilities based on the principles of Mendelian genetics. -identify human genetic mutations and explain probable causes for their occurrence.

## Course Requirements and Policies

### Prerequisites

None

### Required Course Materials

- Textbook: Concepts of Biology, OpenStax (available for free on Canvas)
  - Can also be accessed/downloaded for free at: <https://openstax.org/books/concepts-biology/pages/1-introduction>
  - Print Version ISBN: 978-1-938168-11-6
- Scantrons: 882-E (4x - exams)

### Technology Requirements

- Check Canvas and your Reedley College email accounts regularly (multiple times per week) for announcements.
- All lecture PowerPoints, handouts, notes, schedules, grades, ect. will be posted on Canvas.
- All course assignments (quizzes, discussion boards, writing assignment, ect.) will be completed on Canvas.

### Class Policies

#### Attendance and Drop Policy

- Students are expected to attend all in-person class sessions. Sign-in sheets will be used and each student must sign in for himself/herself ONLY.
  - *If you miss 12 hours or more of the this class throughout the semester, it will result in the lowering of your final course letter grade by one letter grade.*
- Excessive tardies (10 min late) will NOT be tolerated (three tardies equals one absence).
- Students will be dropped from this course if they do not attend the first lecture without prior notification to the instructor.
- Students will be dropped from this course if they have excessive absences of 5 hours or more of lecture by the end of the third week of instruction (January 31st).
- The final drop date for this course is March 13<sup>th</sup>, 2020.
  - It is the student's responsibility to drop this course if he/she feels necessary. The instructor will NOT drop any students after the third week of instruction.

## In-class Conduct Policy

No cell phones should go off during this class. Please be respectful to your instructor and classmates by silencing your phone, and taking phone calls outside if necessary. If they ring or are used during an exam, the student will receive a 0 for that exam. In this case, exams cannot be made-up.

## Late Work Policy

### Exams

Lecture Exams 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)*.

### Online Assignments/In-class Activities

No late work for any assignments/activities in-person or online, including but not limited to quizzes and discussion board posts, will be accepted for any reason. No exceptions.

## Communication Policy

### Email/Messaging

The best and most effective way of communicating with me is to email me at [whitney.menefee@reedleycollege.edu](mailto:whitney.menefee@reedleycollege.edu) or by sending me a message in Canvas. Not sure 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 will always respond to emails and messages within 24 hours, but please allow up to 24 hours. Do not send an email and two hours later send the email again if I haven't responded. If I don't respond within 24 hours, please double check the email address and resend your message then, chances are I didn't receive it!
- Emailing and messaging can be used 24 hours a day, 7 days a week!

### Office Hours

I hold on-campus and virtual office hours. If you would like to come by my office, I am always guaranteed to be in my office during these hours. My office is on the Reedley College Campus in room Life Science 13. You can drop by anytime during this time frame, no appointment needed! If you are unable to make these office hours, but would like to meet with me in person, please email me and we will arrange an appointment to meet in my office. My virtual office hours are held through Canvas using the messaging function. You can expect an immediate response during this time frame if you send me a message in Canvas.

## College Policies

- “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
  - 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.

## Grading Policy

Final letter grade scale: A = 90% +, B = 89 - 80%, C = 79 - 70%, D = 69 - 60%, F = 59% or less.

TASK	Points	% of Grade	Breakdown
Exams	300	33.3%	3 exams @ 100 points each
Final Exam	150	16.7%	1 cumulative final
Quizzes	225	25%	15 quizzes @ 15 points each
Writing Assignment	125	13.9%	1 writing assignment
Discussion Board Posts	100	11.1%	10 posts @10 points each
Totals	900	100%	

Grades will be posted on Canvas and will be updated regularly throughout the semester.

## Course Exams and Major Assignments

### Exams

*Exams 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).* There will be 3 lecture exams and a comprehensive final exam (see the Tentative Schedule and Canvas for exam dates). Each exam will include new material covered in the corresponding unit. Exams will consist of multiple-choice, matching, fill in the blank, and short-answer/essay questions. Forming study groups and attending tutoring sessions are highly recommended. All exams will be given in class.

**Final Exam** is cumulative.

### Quizzes

Quizzes will be assigned and completed through Canvas (See Tentative Schedule and Canvas for due dates). Quizzes may only be accessed one time. Quizzes will consist of multiple-choice, true-false, fill-in, and short answer questions and will contain information covered in the unit up to that point. *Quizzes will not be accepted past the due date (will receive a 0) and cannot be made up if missed.*

*Note on technology: Quizzes will not be reset or allowed to be made-up due to technology issues (e.g. internet connection lost, computer battery died, ect.). It is the student's responsibility to make sure the correct technology requirements are met to complete the quiz, when accessed, in one sitting.*

### Writing Assignment

Students are required to complete one paper to fulfill the writing requirement of this GE course; the word count of this assignment must be over 1000 words to pass this class. Detailed instructions (including topics, formatting requirements, rubrics, due dates, ect.) for the assignment are available on Canvas. You will submit a draft of your report for peer feedback. The instructor will grade the final version of your assignment. Note: All drafts and final reports must be submitted to TurnItIn (on Canvas) for the peer feedback and grading process. *If you do not fulfill the requirements of this writing assignment in its entirety, you cannot pass Biol 10.*

- **Plagiarism Detection:** The campus subscribes to TurnItIn plagiarism prevention service through Canvas, and you will need to submit written assignments to TurnItIn. Your work will be used for plagiarism detection and for no other purpose. TurnItIn Originality Reports will be available for your viewing.

## Discussion Board Posts

Most weeks will require discussion board posts based on topics that relate to material covered for that unit. These assignments will require students to write an original post and reply to the original posts of their peers. All discussion board topics and due dates can be found on Canvas. No late posts will be accepted.

- Note on discussion board/online etiquette: All students are expected to be respectful when posting and reply to their peer's posts. The purpose of these discussions is to facilitate peer learning in a safe and respectful environment. Students who make disrespectful and/or inappropriate posts/comments in the discussion board forums will be subject to Reedley College Disciplinary Procedures (see link above under the College Policy section).

## Participation Standards

Study Expectations. Consider the following statement as a general guideline for participation for this class: It is usually expected that students will spend approximately 2-3 hours of study time outside of class for every one hour in class. Since this is a 3-unit class (3 hrs/week), you should expect to study an average of at least 6 - 9 hours outside of class each week. Some students may need more outside study time and some less.

## Subject to Change Statement

This syllabus and tentative schedule are subject to change with notification. If you are absent from class, it is your responsibility to check on announcements made while you were absent.

## Tentative Course Schedule\*

DATES	Lecture	Reading (Ch)	Quiz Due	Discussion Board Post	Writing Assignment
Week 1	Course Introduction Introduction to Science	1	1	1. Credible Sources	
Week 2	Biological Molecules	2	2		
Week 3	The Cell	3	3	2. Eukaryopolis	
Week 4	Cellular Respiration Photosynthesis	4 5	4		
Week 5	<b>EXAM #1</b> DNA Structure	9	5		
Week 6	DNA Function Mitosis	9 6	6	3. Decode the Message	
Week 7	Meiosis Genetics	7 8	7	4. Create your own genetics problem	
Week 8	Evolution: Natural Selection, Speciation	11	8		Writing Assignment Topics Due
Week 9	Evidence for Evolution Human Evolution	11	9	5. Review of Human Evolution	
Week 10	<b>EXAM #2</b> Classification of Organisms	12	10		
Week 11	Prokaryotes Protists	13	11	6. Biotechnology 1: Prokaryotes/Protists	
Week 12	Fungi Plants	13 14	12	7. Biotechnology 2: Fungi/Plants	
Week 13	Animals	15	13	8. Biotechnology 3: Animals	Rough Draft of Writing Assignments Due
Week 14	<b>EXAM #3</b> Ecosystems & Biomes	19 20	14		Peer Reviews of Writing Assignment Due
Week 15	Ecosystems: Biotic Factors Ecosystems: Abiotic Factors	19 20	15	9. California Biomes	
Week 16	Ecosystems: Abiotic Factors	19 20	16		Final Draft of Writing Assignment Due
Week 17	Cadillac Desert Final Exam Review			10. Review of Cadillac Desert	
Week 18	<b>Final Exam - Cumulative</b>				

\*A more detailed daily schedule and specific readings can be found on Canvas

Other Important Dates:

**Final Drop Date to avoid "W": January 31<sup>st</sup>**

**Final Drop Date (with "W"): March 13<sup>th</sup>**