

Syllabus: Biology 10 – Introduction to Life Science

Course Information

Instructor: Edgar Munoz

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Semester: Spring 2018

Section: 57171

Class Meetings: Lecture – Thursday 6:00 – 08:50 PM, FEM Room 3

Course Description

Biology 10 is a 3-unit biology course with 3 lecture hours per week. This is a course is recommended for 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.

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. Understand the chemical basis of life.
3. Identify levels of biological organization and apply these concepts to living systems.
 - a. By examining anatomical and physiological features.
 - b. By investigating chemical and energy relationships.
4. Assess human impacts on natural systems and critically evaluate solutions to environmental problems.
 - a. By examining anatomical and physiological features.
 - b. By investigating chemical and energy relationships.
5. Apply the principles of Mendelian genetics to evolutionary theory and human medicine.
6. Classify the wide range of living organisms and identify the evolutionary mechanisms that have impacted this diversity.
7. Examine the function of DNA and recognize how its discovery has impacted modern science.
8. Understand the cellular basis of life.

Course 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.
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.

Course Requirements and Policies

Prerequisites

None – Just the desire to learn.

Required Course Materials

- Textbook: Mader, S. Essentials of Biology, custom, 5th edition McGraw Hill. With active Learnsmart access code.
- Scantrons: 882-E (5x - exams)

Technology Requirements

- Electronic Device in class daily; laptop, tablet, smart phone.
- Check Canvas and your Reedley College email accounts regularly (multiple times per week) for announcements.
- All lecture and lab PowerPoints, handouts, notes, schedules, grades, ect. will be posted on Canvas.

Class Policies

Attendance and Drop Policy

- Students are expected to attend person class sessions. Sign-in sheets will be used and each student must sign in for himself/herself ONLY.
 - *If you miss 15 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 and/or first lab without prior notification to the instructor.
- Students will be dropped from this course if they have excessive absences of 8 hours or more of lab and/or lecture by the end of the third week of instruction (January 31).
- The final drop date for this course is March 15th, 2019.
 - 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 a test or quiz, the student will receive a 0 for that exam or quiz. You cannot make up these assignments.

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 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 <mailto:edgar.munoz-ruiz@reedleycollege.edu>

- 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!

Grading Policy

Grades will be based on the following scale:

- A: 90.00% and above
- B: 80.00% to 89.99999%
- C: 70.00% to 79.99999%
- D: 60.00% to 69.99999%
- F: 59.99999% and below

Your total grade is the sum of the points that you earn in lecture. Grades will be posted on Canvas and will be updated regularly throughout the semester.

Course Exams and Major Assignments

TASK	Points	% of Grade	Breakdown
Lecture Exams	400	40%	4 exams @ 100 points each
Learnsmart Assignments	230	23%	23 @ 10 pts each
Writing Assignment	120	12%	10 pts turning in rough draft on time; 10 pts for peer reviews; 100 pts for Final Draft
Participation	100	10%	Various in class assignments, must be present
Cumulative Final	150	15%	
Totals	1000	100%	

Lecture 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 4 lecture exams and a comprehensive final exam (see the Tentative Schedule 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 is highly recommended. All exams will be given in class. **Final Exam** is cumulative.

Exam preparation & studying

Tests will cover material covered in the lectures. Textbook chapters that are NOT on the reading list will NOT be on the tests (see Tentative Course Schedule). Prepare for each lecture by completing the readings and assignments listed on the course schedule and attending and participating in each class session.

Writing Assignment

You are required to complete one writing assignment in this course 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 will be 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.

In-class Participation

Every class session will have points associated with participation in individual and/or group activities. Activities may require (but are not limited to): 1) materials to be turned in during class (i.e. handouts), 2) online questions during class, 3) uploading information to Canvas or 4) Canvas quizzes. In-class activities/ participation points must be completed in class, and CANNOT be made up

Extra Credit

There will 50 points (5% boost) of extra credit throughout the semester. These opportunities will be available to everyone in class. I do not offer extra credit on an individual basis, as it is unfair to offer credit to some students and not others.

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 9 hours outside of class each week. Some students may need more outside study time and some less."

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! I am here to help you be successful in the course and learn Biology along the way.

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.

***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 (Chapter)	Other
Week 1 01/17	Course Intro Biology: The Science of Life	1	
Week 2 01/24	The Chemical Basis of Life The Organic Molecules of Life	2 3	Choose Writing Assignment Topic
Week 3 01/31	Inside the Cell The Dynamic Cell	4 5	
Week 4 02/07	Energy for Cells Cellular Reproduction	7 8	
Week 5 02/14	Lecture Exam # 1 (Ch. 1-5, 7,8)		
Week 6 02/21	Energy for Life DNA Biology	6 11	
Week 7 02/28	Meiosis and the Genetic Basis of Sexual Reproduction Patterns of Inheritance	9 10	
Week 8 03/07	Mutations and Genetic Testing	13	
Week 9 03/14	Lecture Exam #2 (Ch.6,9-11,13) Peer Reviews		Writing Assignment Draft due Wednesday 03/13 @1159pm
Week 10 03/21	Darwin and Evolution Evolution on a Small Scale	14 15	
Week 11 03/28	Evolution on a Large Scale The Microorganisms-Viruses	16 17	
Week 12 04/04	Lecture Exam #3 (Ch.14-17) The Microorganisms-Prokaryotes	17	
Week 13 04/11	The Microorganisms-Protist The Planet and Fungi	17 18	
Week 14 04/18	The Animals	19	Writing Assignment Final due Wednesday 04/10 @ 1159pm
Week 15 04/25	Lecture Exam #4 (Ch.17-19)		
Week 16 05/02	Ecology and Populations	30	
Week 17 05/09	Communities and Ecosystems	31	
Week 18 05/16	Human Impact on the Biosphere	32	
Week 19 05/23	Cumulative Exam #5		

Other Important Dates: **Final Drop Date to avoid "W": February 3rd** **Final Drop Date (with "W"):**
March 15th