

Biology 10H (BIOL-10H) Honors Introduction to Life Sciences

<i>Semester: Spring 2021</i>	<i>Reedley Community College</i>
Instructor: Andrew Strankman	<i>Class No. 57163</i>
Email: andrew.strankman@reedleycollege.edu	Lecture Times: Asynchronous Online
Phone: 559-638-0300 ext. 3499	<i>Date: 01/11/21 - 05/21/21</i>
Office: Online	Class Time: Tu 12:00-1:30pm (optional)
Office Hours: Mon 5:00-6:20pm Tu (BIOL 10 only) 12:00-1:30pm Friday: 10:00-11:20am	

Catalog Description:

This lecture course is recommended for the non-biological science and pre-education majors seeking honors natural science credit. In this introductory course a range of biological concepts will be examined; organismal structure, function, inheritance, evolution, and ecology are covered. Within this course honors level student directed research will be incorporated into the teaching curriculum. This course is not open to students with credit in Biology 3. ADVISORIES: English 1A or 1AH. (A, CSU)

Course Content

Student Learning Outcomes:

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

1. BIOL-10H SLO1: Demonstrate skills in conducting academic and scientific research through peer reviewed literature.
2. BIOL-10H SLO2: Identify structures of a cell and describe their function.
3. BIOL-10H SLO3: Describe evolutionary theory and apply knowledge to understanding of natural systems.
4. BIOL-10H SLO4: Develop an understanding of the effects of humanity and human development on the natural world.
5. BIOL-10H SLO5: Diagram the life cycles and adaptations of plants and animals.
6. BIOL-10H SLO6: Develop the skills to read and apply scientific literature as a component of the scientific method.
7. BIOL-10H SLO7: Recognize the chemical and molecular aspects of biology including, elements, and biological macromolecules, transcription and translation.
8. BIOL-10H SLO8: Describe the process of cellular division and relate these processes to patterns of inheritance

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: Openstax: Concepts of Biology Available online at <https://openstax.org/details/books/concepts-biology> for free, or available as a print copy with isbn: 9781506696539

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 **course scheduled zoom sessions OR post on weekly check in boards (more on this below)**. There are NO excused absences except as defined in the Reedley College Catalog. Students will sign in during the zoom sessions they attend by typing their names into the chat in the meeting.

During the early term of the course, students will be dropped for inactivity in the course. 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 day on Tuesday of week 1 (1/12/21 @11:59PM)
 1. Complete the Syllabus Quiz
 2. Post a profile picture
 3. Participate in the Check-In: Meet & Greet Discussion Board

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 3 weeks of zoom sessions/check in discussion board by the end of the semester, your final grade will be lowered by one letter grade. For example, if you earned an A but didn't attend any zooms/post in the check in board for 3 weeks (or post on the alternative discussion board mentioned below), your final grade will be a B. If you miss more than 5 weeks of zoom/didn't post in the course check in the semester, your grade will be lowered by two letter grades. For example, if you earned an A but missed 5 weeks of zoom class, your final grade will be a C. If you miss more than 7 weeks of zoom/didn't post in the check in board. in the semester you will fail the class, no questions asked.

Zoom Attendance and Netiquette:

Zoom Attendance:

This course is asynchronous. This means that you will not need to attend any sessions on zoom. However, there will still be attendance requirements for this course (more on that below). There will also be optional zoom class sessions and zoom office hour zoom sessions available for you to attend should you choose to do so.

There will however be two honors program specific dates of attendance required:

Midterm research presentations: Thursday, March 11, 2021 from 6-7pm

Honors Completion Celebration/Final research presentations: Thursday, May 13 from 5-7pm

IF YOU CANNOT ATTEND THESE EVENTS, YOU CANNOT BE IN THE HONORS VERSION OF THIS COURSE

During zoom sessions active participation is expected. This means **cameras on**, and **engaging with either chat, or verbal responses**. If you are in a position where you feel uncomfortable or are unable to have cameras on during a session, just send me a quick private chat note to let me know during the session. Something as easy as "Mr. S, I'm at work, I can't have my camera on today" or "Hey Mr. S... got my kids running around everywhere, I can't have my camera or microphone on today". Life happens, and I get it, I promise to make things as flexible and understanding as I can.

Students who do not attend an online office hour zoom session each week due to extenuating circumstances (work schedule, childcare, etc) then you can post in the "check in discussion board" available in the course modules page.

Your post must include:

1. How is your week going? How are you feeling with where you are at in the course?
2. What work have you completed so far this week? What is left to complete?
3. Do you have any questions for me?
4. One joke that you think is funny (PG/Disney appropriate).
5. Posted by Thursday of the week you will be missing zoom.

Netiquette:

1. **Make sure identification is clear in all communications.** Begin all communication with a salutation (“Hi, Jason” etc) and end with your signature (“Hannah Kay, BIOL 10”).
2. **Review what you wrote and try to interpret it objectively.** When we speak face to face and are misunderstood, we have an on-the-spot opportunity to rephrase our words. In writing, we must strive twice as hard to be understood, as we do not have the benefit of modifying or elaborating in real time. All caps (“I’M SHOUTING”) and exclamation points (“Give me a break!!!”) can be misinterpreted as intense anger or humor without the appropriate context.
3. **If you wouldn’t say it face to face, don’t say it online.** When you’re working online, you’re safe behind a screen, but that’s no excuse to be ill-mannered or say things you would never say in public.
4. **Don’t assume everyone understands where you’re coming from.** Sarcasm and wit is often the spice of in-person conversation, but in online discussion, it can not only lose its edge, it can bite! In your high school classroom, all students were the same age, came from similar backgrounds and lived in the same area. In contrast, your online classroom is made up of people of all ages and cultures who have varied backgrounds, lifestyles and geographic locations. With this in mind, review what you wrote before contributing to the conversation and ask yourself, “Will *everyone* get the joke?”
5. **Don’t spam.** Please don’t take advantage of your connection with the other students in your online classroom to forward emails and links regarding your political/spiritual beliefs or to sell your services.
6. **Use emoticons.** In casual chatroom settings, emoticons can help convey feelings that may otherwise get lost in translation, including humor, exasperation, exhaustion and even confusion.
7. **Respect others’ privacy.** Don’t give out another student’s personal email address without permission.
8. **Remember, if it’s on the internet, it’s everywhere.** Don’t share personal information about yourself in a public online forum, especially something that could put your safety or security at risk.
9. **Follow the rules.** Just as your online college posts guidelines related to [academic integrity and student expectations](#), online forums also have rules of conduct. Make a point to read them every time, as they can vary from class to class.
10. **Forgive and forget.** If you’re offended by something another student says online, keep in mind that you may have misunderstood their intentions. Give them the benefit of the doubt.

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
3 Exams (100 pts. each)	300
3 Exam Reflection Assignments (10 pts, each)	30
Canvas Assignments	90
1 Final Exam	150
14 Discussion Boards (10pts, each)	140
Research Paper /Poster Presentation	200
14 Quizzes (10 pts. each)	140
Total Points =	1,000

To calculate your grade, total all points earned and divide that number by the total points available (1,050). **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
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.

Lecture Exams will be taken during scheduled online windows: Friday-Sunday of the assigned week (listed in schedule at end of syllabus) 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).

Discussion boards will cover topics pertinent to the weekly course content, and may include activities, etc. Unless otherwise noted, primary posts for discussion boards must be completed by Thursday at 11:59pm and responses to classmates' posts must be completed by Saturday at 11:59pm.

Research Paper/Poster Presentation will be completed on a biology topic of your choice. Paper will be submitted through Canvas/Turnitin. More information will follow on assignment details sheet provided on canvas. This honors version of the course requires additional research details which will be provided in canvas during week 2. In brief, students will be designing their own research projects for this course; qualitative, quantitative or literature based. These will be presented in the campus honors symposium, and will be written into a research paper.

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! You will have 1 attempt to complete the exam, no exceptions, redo, extra attempts will be considered, ever.

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.

Canvas Assignments: The 11 homework assignments vary in point value, but are between 10-20 points each and are available for 7 days, Monday – Sunday. These assignments can include, but are not limited to, listening to a podcast, watching a video, reading articles, and answering quiz questions.

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.

Misc. 'in class' activities may be given during zoom sessions. These cannot be made up or otherwise. If you miss the sessions where these activities are conducted, you miss out. Period.

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

Due to COVID 19 all of my office hours will be held digitally. During these hours, I am 100% guaranteed to be present in my office (well the digital office). The best time to get ahold of me is during your class zoom times, but 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.

Course Policies

Professional Behavior: You are an adult, act like it. If you act in a manner deemed inappropriate by

the instructor, you will be removed from the course.

Children In Class: With the course being offered 100% online, everyone's schedule is different. If you are in a situation where your kids/young siblings etc are around that is no problem. No worries. Please note, if you have your camera on during a zoom, their images may be recorded if they run by the camera, by turning on your camera during zoom you consent that any recording that may contain them is authorized to be posted for course usage.

Dress code: While on zoom, please be dressed... you want to wear PJs, go for it... sleeveless tank and shorts, no problem... just please don't be naked on camera.

Grade Disputes: You have two weeks to dispute a grade once it is posted on Blackboard. This includes any documentation of medical/ legal issues that may have prevented you from completing the assignment/ test.

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. Students are responsible for understanding the policies and procedures about the adding/dropping of classes, academic renewals, etc.

Plagiarism Detection: The campus subscribes to Turnitin and the SafeAssign plagiarism prevention service through Canvas, and you will need to submit written assignments to Turnitin/SafeAssign. Student work will be used for plagiarism detection and for no other purpose.

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.

Cheating involves the willful act to defraud or cheat the integrity of your assignments and can include (but is not limited to) the following examples:

1. Using electronic devices/internet to search for/acquire answers on quizzes and exams.
2. Plagiarizing others work (such as submitting someone else's writing or reusing a paper from another class).
3. Soliciting someone else to complete your work (paid or otherwise).
4. Working on assessments such as; quizzes or examinations in groups and sharing answers.

I have legitimately caught people doing some seriously shady and complex things to cheat... I am getting paranoid... If I even suspect cheating, your grade will go to 0 and it will be YOUR responsibility to prove you weren't cheating.

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.

Subject to Change Statement

This syllabus and schedule are subject to change in the event of extenuating circumstances.

Week	Dates	Unit	Topic and Assignments
1	Week of (1/11)	Nature of Science 1	Introduction/Syllabus Recap Chapter 1: Introduction to Biology Quiz 1 Discussion Board 1
2	Week of (1/18)	Chemistry and Nutrition 1	Chapter 2: Chemistry of Life Quiz 2 Discussion Board 2
3	Week of (1/25)	Chemistry and Nutrition 2	Chapter 3: Cell Structure and Function Quiz 3 Discussion Board 3
4	Week of (2/1)	Chemistry and Nutrition 3	Chapter 4: How Cells Obtain Energy Chapter 5: Photosynthesis Quiz 4 Discussion Board 4

5	Week of (2/8)	Genetics 1	Chapter 6: Reproduction at the Cellular Level Chapter 7: Cellular Basis of Inheritance Lecture Exam 1 (Chapters 1-5): Available Fri - Sun
6	Week of (2/15)	Genetics 2	Chapter 8: Patterns of Inheritance Quiz 5 Discussion Board 5
7	Week of (2/22)	Genetics 3	Chapter 9: Molecular Biology Chapter 10: Biotechnology Quiz 6 Discussion Board 6
8	Week of (3/1)	Infection 1	Chapter 17: Immune System and Diseases Quiz 7 Discussion Board 7
9	Week of (3/8)	Infection 2	Assigned Readings: On Canvas Quiz 8 Discussion Board 8
10	Week of (3/15)	Infection 3	Assigned Readings: On Canvas Lecture Exam 2 (Chapters 6-10, 17): Available Fri - Sun Term Paper: Rough Draft (Due Sunday @11:59PM)
11	Week of (3/22)	Diversity of Life 1	Chapter 12: Diversity of Life Chapter 13: Diversity of Microbes, Fungi and Protists Quiz 9 Discussion Board 9 Term Paper: Rough Draft Peer Reviews (Due Sunday @11:59PM)
	Week of (3/29)	Spring Break	Spring Break No Class
12	Week of (4/5)	Diversity of Life 2	Chapter 14: Diversity of Plants Chapter 15: Diversity of Animals Quiz 10 Discussion Board 10
13	Week of (4/12)	Evolution 1	Chapter 11: Evolution and its Processes Quiz 11 Discussion Board 11 Term Paper: Final Draft (Due Sunday @11:59PM)
14	Week of (4/19)	Evolution 2	Chapter 11: Evolution and its Processes Quiz 12 Discussion Board 12 Term Paper: Final Draft Peer Reviews (Due Sunday @11:59PM)
15	Week of (4/26)	Ecology 1	Chapter 19: Population and Community Ecology Chapter 20: Ecosystems and the Biosphere Lecture Exam 3 (Chapters 12-15, 11): Available Fri - Sun
16	Week of (5/3)	Ecology 2	Chapter 21: Conservation and Biodiversity Quiz 14

			Discussion Board 14
17	Week of (5/10)	Final Review	Final Exam Review
18	Week of (5/17)		Final Exam (Cumulative) Available Saturday (5/15) – Tuesday (5/18)

Important Dates

- January 22: Last day to drop with full refund
- January 29: Last day to add/drop a class (no “W” on transcript)
- February 5: Last day to declare pass/no pass (P/NP) grade option
- March 5: Last day to be dropped with a “W”