BIOL 10 Introduction to Life Science

Section 50022 LEC: Asynchronous online

Welcome to Reedley College

Our Mission

The mission of Reedley College is to cultivate opportunities that empower our students and communities through engaging, equity-minded programs and services.

Our Commitment to Diversity, Equity, and Inclusion

At Reedley College, we believe that the best learning environment for students and staff is one in which we encounter viewpoints and experiences that are different, yet complementary to ours. This environment is fostered by the presence of people with diverse backgrounds. We recognize that acknowledging diversity is a necessary precondition, but sustained effort is necessary to ensure equity and greater inclusion. Through strategic planning and initiatives, we seek to develop programs that promote equity and inclusion for everyone so that all members of RC community can reach their full potential. To create and maintain a truly diverse, equitable and inclusive learning community, we strive to make all feel equally valued, and we uphold our Commitment to Freedom of Expression. We may celebrate diversity, but we "live" inclusion.

Course Overview

What's this course about?

The Introduction to Biology course offers a broad survey of biological principles and processes. Tailored to lay the groundwork for future health and science studies, this course will guide students through the core aspects of biological science, emphasizing their applications in human genetics, medicine, and environmental science. Students will engage with the foundational elements of life's chemistry, the significance of DNA in modern science, and the cellular basis of life. They will apply Mendelian genetics to understand evolutionary theory and its relevance in human health. The course also highlights the importance of environmental stewardship by assessing human impacts on natural systems and evaluating solutions to ecological challenges. In exploring the biological diversity, students will classify organisms and delve into the evolutionary mechanisms that shape this variety. They will also critically analyze scientific literature, gaining insights into the scientific method's application in biological research.

Course Objectives

- 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 Student Learning Objectives

- 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.
- By examining anatomical and physiological features.
- By investigating chemical and energy relationships.
- 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.

Faculty Member

Instructors: Lecture: Joseph Lin	Email: Joseph.lin@reedleycollege.edu
Telephone: 5596380300 ext. 3407	Office Hours: Lin: Upon request and Discord https://discord.gg/B7UbGUW

Communication Expectations

Online

Identify yourself by your real name. Be mindful of your language, and avoid including personal information, such as phone numbers or addresses, in any online discussions. All online communications should be transmitted with the intent to inform, inspire, etc. and not to offend or breach personal privacy. Use humor, joke, or sarcasm with caution. We often rely on non-verbal cues such as facial expressions to communicate joking or sarcasm, but these cues are not always clear in an online environment. These cues can be simulated with emoticons to reduce misunderstandings.

Be Professional, Clear and Respectful. Clear and effective writing translates to clear and effective communication. Writing the way, you speak is a good rule of thumb, use a positive tone and adhere to the same rules you would follow in face-to-face communications. Remember This Course is Online. Your instructor and fellow students may be located around the world or have very different schedules than you do. You may not always receive an immediate response.

Apps and technology

Connect: Connect is an online learning platform designed to enhance student engagement and facilitate interactive learning experiences in higher education. The platform offers a range of tools and features that allow instructors to create and deliver interactive content, assess student understanding, and foster active participation in the classroom. You will need to purchase access key to use the textbook.

https://connect.mheducation.com/class/j-lin-rc-biol-10-sp24-short-term

Canvas: Canvas is fully functional on many types of smartphones and tablets. Compatible devices include platforms such as

iPhone/iPad/iPod Touch, and Android. **However, it is recommended that you do not solely rely on one of these devices to complete your online course work. Access to a computer is still needed for many online activities.** Visit the Mobile section of the Canvas Guides website for more information.

Learner Expectation

What to keep in mind

- **Lectures are asynchronous (self-paced online) via Canvas and Connect which includes videos and readings.**
- **If you feel any symptoms from any airborne illness (including COVID) sneezing, coughing, or fevers you are excused from the lab and can request an extension for any assignment.**
- Review the assignments on the Course Schedule and print them out for easy reference as you complete each task.
- You are expected to plan your study time around the course schedule and recommended completion dates.
- While the due dates for the course are just suggestions, it is expected that all assignments will be submitted based on due dates located on McGraw-Hill Connect website and Canvas.
- Check your email account regularly for updated information. Use e-mail for private messages to the instructor and other students.
- If you have questions or confusion about an assignment, act promptly! Check the Question Cafe to see if your concern has been addressed already and post your question there if you don't see an answer.

Course Requirements/Assignments

Total points

Assignment Description	Points
Exams (2 @ 75 points each)	150
Connect Prework (16 @ 5 points each)	80
Connect Homework (16 @ 5 points each)	80
Final Exam	150
Writing Assignment Rough draft	75
Writing Assignment Final draft	75
Total	610 points

Activities, Assignments, and Submissions

Connect: Final and Lecture Exams

Four midterms and one comprehensive final will cover the topics listed in the schedule below. Each exam will be scheduled on the Connect platform at a fixed time slot. Extensions can be requested if you are feeling symptomatic or have an excused absence.

Connect: Reading and Homework Assignments

Connect reading assignments include interactive elements such as embedded videos, animations, and self-assessment quizzes, enhancing students' understanding and retention of the subject matter. These multimedia components can help visualize complex physiological processes, making the learning experience more dynamic and comprehensive. Connect homework assignments include multiple choice and short answer questions that review key concepts related to the reading. **Connect reading and homework assignments will be due the Sunday 11:59PM each week.** Extensions can be requested if you are feeling symptomatic or have an excused absence.

College Information, Policies, and Guidelines

Expectations of Students at Reedley College

As a student at RC, you will need to balance your academic work with your personal and professional life. This balance is not easy to achieve! As such, it's useful to know the expectations RC faculty and staff hold for you. As an RC student, you are expected to:

- Actively participate in all aspects of the course in which you are enrolled, including reading the assigned readings, viewing the presentations, submitting course assignments, and completing assessments like exams and module quizzes.
- Apply professional standards and conventions to your written work. It is assumed that you utilize available tools (e.g., spell- checker) to review your documents before submitting them.
- Submit all required coursework on the published due dates in your course.
- Unless clearly identified as a collaborative project, each assignment must be submitted as an individual effort.
- Adhere to standards and guidelines pertaining to intellectual property and plagiarism, including the "student conduct standards" policy: https://www.reedleycollege.edu/about/policies-and-procedures/student%20conduct%20standards.html
- These policies and guidelines will help you complete this course more successfully: Submit ALL required coursework by the due dates and times published in your course. Check your email daily.
- For help with issues, call Student Services at 559-494-3526.
- If you have questions about an assignment, please contact your course faculty member.

Attendance Policy

An attendance policy is required by the college to fulfill a federal compliance mandate. Reedley College of Education recognizes regular attendance and interaction in a course is required to optimize the student learning experience.

Maximum student learning outcomes are achieved through course attendance and interaction. Students, in their own interest, are, therefore, responsible for regular attendance. Students may expect poor attendance or lack of participation and interaction to negatively impact their course grades.

Student Attendance: For all electronically delivered credit hour courses at Reedley College, attendance is measured by a student's engagement in the course by submission of assignments. To maintain registration in the course, students must complete the Mandatory Attendance Verification form by 5:00 PM PST on Friday of the first week. Students who do not complete the Attendance Verification form by 5:00 PM PST on the Friday of the first week of the term are administratively withdrawn from the course.

Grade Evaluation

To calculate your grade, total all points earned and divide that number by the total points available. Course grades are non-negotiable. 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

Late Work

Due to extenuating circumstances, students may submit an assignment past the due date.

Assignments: Students are responsible for contacting their faculty member regarding all late work and to establish the deadline for late submission. At the faculty's discretion, late work may be accepted without a point deduction, dependent solely on extenuating student circumstances which will require documentation when asked.

Quizzes/Exams: Quizzes and Exams must be completed by the specified deadlines. Late submissions of quizzes and exams are not accepted except in the case of extenuating circumstances.

For Students Requesting Extensions Due to Extenuating Circumstances Only: Extenuating circumstances are limited to any emergency which can be clearly documented, including, but not limited to, a death in the family, medical emergency/illness requiring medical attention for the student or family member, or related urgent issues beyond the student's control. Students must submit all documentation within 48 hours after the original assignment deadline.

Standards of Student Behavior

A college is a marketplace of ideas, and in the course of the search for truth, it is essential that freedom exists for contrary ideas to be expressed. RC students are expected to conduct themselves as responsible members of the College's academic community. This requires the demonstration of mutual respect and civility in academic and professional discourse. As such, it is mandatory students interact with other students and all College faculty, administrators, and staff with respect and in a professional manner. Conduct that is determined to impair the opportunities of others to learn or that disrupts the orderly functions of the College will be deemed misconduct and will be subject to appropriate disciplinary action,

Disciplinary Action for Student Conduct Behavior: While an alleged violation of the Standards of Student Behavior is being investigated, a student may be removed from class, College-sanctioned events, or other College functions. If a violation is found, disciplinary action will be based on the seriousness of the situation and may include, but not be limited to, documented counseling by a college staff member, loss of credit, suspension and/or dismissal.

Academic Integrity

Academic dishonesty, which includes but is not limited to plagiarism, self-plagiarism, collusion, abuse of resource materials, fabrication, conspiracy to plagiarize, or cheating on an examination or other academic work, is subject to disciplinary action. Student work created for a specific assignment in a course will be subject to plagiarism sanctions if reused for any other purpose. For questions regarding self-plagiarism, students should visit the College's Writing Center for assistance. **Exams must be taken independently.**

Please see the Student Conduct Standards and Grievance Procedures Handbook available in the Vice- President of Student Services office, or at the links listed below.

Student Conduct Standards: https://www.reedleycollege.edu/about/about-us/policies-and-procedures/student%20conduct%20standards.html

Grievance Procedures: https://www.reedleycollege.edu/about/about-us/policies-and- procedures/grievance-procedures.html

Accommodation of Disabilities Policy

To be considered for disability-related accommodations, individuals are responsible for identifying themselves and disclosing information about their disability to Disability Support Services at 559-494-3032 or throughhttps://www.reedleycollege.edu/student-services/disabled-student-programs-and-services/index.html

In keeping with its mission to deliver high-quality, affordable, and accessible online programs to its students, Reedley College makes all efforts to comply with the requirements of applicable state and federal laws, including Section 504 of the Rehabilitation Act of 1973, the Americans with Disabilities Act of 1990 (ADA), and the ADA Amendments Act of 2008, in the provision of and access to post-secondary education. As such, the college provides reasonable accommodation for qualified students with disabilities unless doing so would cause undue hardship to the College.

Best Practices for Online Learning

An online learning environment needs structure for effective communication to occur. Below is a list of guidelines for effective online communication:

- Stay engaged and on-task with relevant messages.
- Communicate using a respectful, professional tone suitable for collaborative learning environments.
- Utilize netiquette standards in all forms of communication.

Mark Your Calendar

This syllabus and schedule are subject to change in the event of extenuating circumstances. It is **your responsibility** to check Canvas announcements during the semester of this course. (*) Double chapters in the week.

Week	Dates	Lecture	Due Dates
1	3/11 – 3/15	**Welcome video and Connect Sign up** **Scientific Thinking** Prework: Scientific Thinking 1 Scientific Learning: Modules 1 Homework	**3/17 @ 11:59 PM**
2	3/18 – 3/22	**Energy & Nutrients** Prework: Energy Drinks Modules 1 Energy Drinks: Modules 1 Homework Prework: Energy Drinks Module 2 Energy Drinks: Modules 2 Homework	**3/24 @ 11:59 PM**
3	3/25 – 3/29	**Energy & Nutrients** Prework: Energy Drinks Module 3 Energy Drinks: Modules 3 Homework Prework: Energy Drinks Module 4 Energy Drinks: module 4 Homework	**3/31 @ 11:59 PM**
4	4/1 – 4/5	**Cells & Cell Division** Prework: Cancer Module 1 Cancer: Module 1 Homework Prework: Cancer Module 2 Cancer: Module 2 Homework **Exam 1 (Scientific Thinking, Energy & Nutrients)**	4/7 @ 11:59 PM
5	4/8 – 4/12	**Cells & Cell Division** Prework: Cancer Module 3 Cancer: Module 3 Homework **Writing Assignment Rough Draft**	4/14 @ 11:59 PM
6	4/15 – 4/19	**Genetics & DNA Biology** Prework: Sickle Cell Disease Module 1 Sickle Cell Disease: Modules 1 Homework Prework: Sickle Cell Disease Module 2 Sickle Cell: Modules 2 Homework	4/21 @ 11:59 PM
7	4/22 – 4/26	**Genetics & DNA Biology** Prework: Sickle Cell Disease Module 3 Sickle Cell Disease: Modules 3 Homework Prework: Sickle Cell Disease Module 4 Sickle Cell: Modules 4 Homework	4/28 @ 11:59 PM
8	4/29 – 5/3	**Evolution & Viruses** Prework: Influenza Module 1 Influenza A: Module 1 Homework Prework: Influenza Module 2 Influenza A: Module 2 Homework **Exam 2 (Cells & Cell Division, Genetics & DNA Biology))**	5/5 @ 11:59 PM
9	5/6 – 5/10	**Ecology & Envi Sci** Prework: Climate Change Module 1 Climate Change Module 1 Homework Prework: Climate Change Module 2 Climate Change Module 2 Homework **Writing Assignment Final Draft**	5/12 @ 11:59 PM
10	5/13 – 5/17	**GMO (Plants and Genetic Engineering)** Prework: GMOs Module 1 (Extra credit) GMOs Module 1 Homework (Extra credit) **Final Exam (Cumulative)**	5/14 @ 11:59 PM