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# BIOL5 Human Biology (Hybrid)

Section 53005 Lab MTW 9:00AM-12:05PM and 53006 Lab MTW 12:15-3:20PM

## Welcome to Reedley College

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### 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

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### What's this course about?

The field of human biology is among the most exciting in modern science. The purpose of this course is to help you develop an understanding of fundamental processes that form the basis of biological life. Primarily for students majoring in health-related professions, this course is a prerequisite for Biol 20 (Human Anatomy) and Biol 22 (Human Physiology). This is a hybrid class. This means lectures will be asynchronous (self-paced online) content while lab is synchronous on campus. Lectures will utilize videos and a variety of multimedia presentations which will be uploaded. The laboratory portion will be in person and will utilize a variety of resources including multimedia, prepared microscope slides, models, and human and animal specimens. The course outcomes are designed to help you understand and apply (not just memorize) cell biology concepts, and to help you think in an analytical and critical way.

### Course Objectives

- Learn the periodic table of the elements, the chemistry of the carbon atom, and the chemical structure of humans.
- Analyze and interpret data on the homeostatic mechanisms within the human body.
- Learn the cell's structure, function, and the cell cycle in relation to the multicellular human body.
- Observe and document the structure and function of the human body by examining human body systems including circulatory, digestive, respiratory, urinary, skeletal, muscular, nervous, sensory, endocrine, and reproduction.
- Review classical and molecular genetics and learn the processes of replication, transcription, and translation.
- Perform experiments, observe, and record data.
- Study evolution
- Discuss social issues between humans and science.
- Develop a vocabulary to effectively communicate information related to anatomy and physiology.
- Summarize the levels of structural organization important to human anatomy.

## Course Student Learning Objectives

- Demonstrate knowledge regarding the process of science and society, microscopy, and the cell.
- Identify human body levels of organization and homeostatic mechanisms.
- Demonstrate knowledge of the chemical basis of life
- Evaluate scientific literature and current biological achievements.
- Apply the principles of genetics to humans and understand the outcome of normal and abnormal DNA.
- Describe the basic cellular, molecular, and gross anatomy of tissues, organs and organ systems and explain the basic function of those tissues and organs that relate to the integument, circulation, digestive, respiratory, urinary, skeletal, muscular, nervous, endocrine, reproduction, genetics, and evolution.
- Identify and recall fundamental structures from anatomical models and slides using correct nomenclature and language.

## Faculty Member

Instructors: Lecture: Joseph Lin Lab: Kevin Helwick, Lesly Pereira-Fita	Email: <a href="mailto:Joseph.lin@reedleycollege.edu">Joseph.lin@reedleycollege.edu</a> <a href="mailto:Kevin.helwick@reedleycollege.edu">Kevin.helwick@reedleycollege.edu</a> <a href="mailto:Lesly.perirafita@reedleycollege.edu">Lesly.perirafita@reedleycollege.edu</a>
Telephone: 5596380300 ext. 3407	Office Hours: Lin: Upon request and Discord <a href="https://discord.gg/B7UbGUW">https://discord.gg/B7UbGUW</a>

## Communication Expectations

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### In class and online

Identify yourself by your real name. Be mindful of your language, and avoid including personal information, such as phone numbers or addresses, in discussion forums. 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

**McGraw-Hill Connect:** Your access code will allow you to access the textbook and assignments. Although I have the assurance from the publisher that the content in your online assignments works for all electronics, this may not be the case. **It is your responsibility to find out if the content works with your electronic device.**

Section 53005: <https://connect.mheducation.com/class/j-lin-biol-5-su23---53005-1>

Section 53006: <https://connect.mheducation.com/class/j-lin-biol-5-su23---53006>

**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

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## What to keep in mind

- Lecture is asynchronous (self-paced online) via Canvas and Connect which includes videos and readings.
- Lab is synchronous (in-person) at Reedley College campus.
- 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. The discussion forum is for public messages.
- 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.
- We are human and sometimes links or other pages need updating or become inactive.
- Read directions carefully.

# Course Requirements/Assignments

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## Total points

Assignment Description	Points
Smartbook (20@5pt) - Connect	100 points
IRAT Quizzes (20@10pt) - Connect	200 points
Final Exam - Connect	150 points
Lecture Exams (4@75pt) - Connect	300 points
Lab Quizzes (12@5pt) - Canvas	60 points
Lab Exams (3@50pt) - Canvas	150 points
Lab Reports (15@10pt) - Canvas	150 points
Case Study Project - Canvas	50 points
Discussions (10@8pt) - Canvas	80 points
<b>Total</b>	<b>1240 points</b>

# Activities, Assignments, and Submissions

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## 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 with a required Lock-down browser during this timed exam.

## Lab Exams

Lab exams must be taken on the day that they are scheduled. There will be 3 lab exams (see the Tentative Schedule for exam dates). These exams will be administered in person via Canvas and utilize images of models, slides, diagrams, and experimental set up. Question formats will include multiple choice true and false, and matching questions.

## Smartbook, IRAT (Individual Readiness Assurance Test), and Discussion

Pre-class preparation is essential for successful in-class experiences. What you learn on the McGraw-Hill Connect platform will be assessed prior to the weekly lecture content. The Smartbook are reading assignments based on participation and completion at a 10-point total and posted in the Canvas gradebook. IRAT (Individual Readiness Assessment Test) are quizzes that occur on dates specified on the course schedule in class. IRAT quizzes are given through Connect website and will only be open for a set period. If you are late your quiz will still be collected automatically when the time is up. Material may include and combination of multiple-choice, true-false, matching, fill in the blank, and short answer questions. The discussion board assignment is to foster online discussion and collaboration among your peers. There will be a prompt, or a set of questions related to the topic at hand. **Discussion posts are due at the end of our course 7/28 at 11:59PM. Smartbook and IRAT assignments will be due the Sunday 11:59PM each week.**

## Lab Report and Quizzes

The labs will be done in person in the lab and you will be required to submit a lab report through the canvas upload. A blank lab report is available for you on canvas at no cost. For the dissection lab, you will need to additionally complete a simulated VR dissection using the McGraw Hill Connect platform through Virtual lab simulations. To receive full credit, you will submit the print off lab report as a PDF in Canvas. Lab quizzes are on Canvas and typically consist of a series of multiple-choice or short answer questions that cover various topics related to the lab. **Late assignments will not be accepted. Lab reports will not be accepted for points for missed labs. Excessive (5 or more) lab absences will automatically result in a failing grade.**

## Case Study Project

At the end of the semester, each student will submit a case report in poster format that describes a theoretical patient with one of the diseases or disorders listed at <https://rarediseases.org/for-patients-and-families/information-resources/rare-disease-information/>. Before you begin the assignment, you must receive pre-approval for your chosen topic. If you are not sure what topic you want to research, ask your lab instructor for some ideas! To complete this assignment: Apply a standardized case report format as described at <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4175810/>. You will use the poster template supplied by canvas to complete the report. Length: consist of - 1,500 words and should include labeled figures. References: 5 or more citations formatted using AMA. References should be obtained from <https://pubmed.ncbi.nlm.nih.gov/>.

## College Information, Policies, and Guidelines

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### 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, posting to discussion boards, 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.
- Make connections from the course readings and presentations evidenced through citations in discussion posts and assignments and use the rubrics to self-assess your work before submission.
- 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.

**Discussion Boards:** Students may submit discussion board posts until the discussion closes on Saturday. Posts submitted after the deadline will not be awarded credit. Posts submitted late during the discussion timeframe – e.g., an original response posted after the due date – will be accepted with a late penalty.

**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.**

## 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 through <https://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.
- Reference your messages. When appropriate, you need to reference your course material or other sources to support your comments.
- Communicate using a respectful, professional tone suitable for collaborative learning environments.
- Uphold the standards of Academic Integrity set forth by the College. Work submitted in the discussions and your assignments should be your own. Cite materials from outside sources.
- Submit substantive responses to discussions. To receive full credit in discussions, do more than agree or disagree with your classmates.
- Avoid typing in all caps. Typing in all caps in the online environment is viewed as SHOUTING and should be reserved for strong emphasis. If you wish to please emphasis on an important passage, use bold or a different font color.
- Recognize that you are participating in an online dialogue. Use correct spelling and grammar in all forms of your writing.
- Utilize netiquette standards in all forms of communication.

# Mark Your Calendar

Week	Dates	Lecture (Book Chapter)	Lab
1	Tuesday 6/20	Introduction, and Exploring Life and Science (1) <b>IRAT &amp; Smartbook Ch.1</b> (due 6/25) <b>Discussion:</b> Current Scientific Advances	Laboratory Safety Review Lab Report 1 Microscope Lab 1 Quiz
	Wednesday 6/21	Chemistry of Life (2) <b>IRAT &amp; Smartbook Ch.2</b> (due 6/25) <b>Discussion:</b> You are what you eat	Lab Report 2 Macromolecules Lab 2 Quiz
2	Monday 6/26	Cell Structure and Function (3) <b>IRAT &amp; Smartbook Ch.3</b> (due 7/2) <b>Discussion:</b> Cell Analogy	Lab Report 3 Cell Structure and Function Lab 3 Quiz
	Tuesday 6/27	DNA Biology and Technology (22) <b>IRAT &amp; Smartbook Ch.22</b> (due 7/2) <b>Discussion:</b> DNA	Lab Report 4 Transcription & Translation Lab 4 Quiz
	Wednesday 6/28	Chromosome Inheritance (19) <b>IRAT &amp; Smartbook Ch.19</b> (due 7/2) <b>Discussion:</b> How old is your body really?	Lab Report 5 Mitosis and Meiosis <b>Lab Exam 1 (LABS 1,2,3,4,5)</b>
3	Monday 7/3	Organization and Regulation of Body System Organ Systems (4) <b>IRAT &amp; Smartbook Ch.4</b> (due 7/9) <b>Discussion:</b> Creating your own genetic problems? <b>EXAM (Ch.1,2,3,22,19)</b>	Lab Report 6 Genetics and Inheritance Lab 6 Quiz
	Tuesday 7/4	Cardiovascular: Heart and Blood Vessel (5) <b>IRAT &amp; Smartbook Ch.5</b> (due 7/9) <b>Discussion:</b> Homeostasis	NO LAB, 4th of July Holiday
	Wednesday 7/5	Lymphatic System and Immunity (7) <b>IRAT &amp; Smartbook Ch.7</b> (due 7/9)	Lab Report 7 Histology Lab 7 Quiz
4	Monday 7/10	Digestive System (9) Respiratory System (10) <b>IRAT &amp; Smartbook Ch.9 and Ch.10</b> (due 7/16) <b>Discussion:</b> Respiration <b>EXAM 2 (Ch.4,5,7)</b>	Lab Report 8 Cardiovascular System Lab 8 Quiz
	Tuesday 7/11	Urinary System (11) <b>IRAT &amp; Smartbook Ch.11</b> (due 7/16)	Lab Report 9 Digestion, Respiration and Urinary Systems Lab 9 Quiz
	Wednesday 7/12	Skeletal System (12) <b>IRAT &amp; Smartbook Ch.12</b> (due 7/16)	Lab Report 10 Musculoskeletal System <b>Lab Exam 2 (LABS 6,7,8,9,10)</b>
5	Monday 7/17	Muscular System (13) <b>IRAT &amp; Smartbook Ch.13</b> (due 7/23)	Lab 14: Digital Dissection Fetal Pig (on Connect) Lab 10 Quiz
	Tuesday 7/18	Nervous System (14) Senses (15) <b>IRAT &amp; Smartbook Ch.14 and Ch.15</b> (due 7/23) <b>Discussion:</b> Food and the Nervous System <b>EXAM 3 (Ch.9,10,11)</b>	Lab Report 11 Nervous System & Senses Lab 11 Quiz
	Wednesday 7/19	Endocrine System (16) <b>IRAT &amp; Smartbook Ch.16</b> (due 7/23)	Lab Report 13 Endocrine System Lab 13 Quiz
6	Monday 7/24	Reproductive System (17) <b>IRAT &amp; Smartbook Ch.17</b> (due 7/28)	Lab Report 12 Reproduction Lab 12 Quiz
	Tuesday 7/25	Development and Aging (18) Biology of Infectious Disease (8) <b>IRAT &amp; Smartbook Ch.18 and Ch.8</b> (due 7/28) <b>EXAM 4 (Ch.12,13)</b>	Lab 15: Human Evolution Lab Report 15 <b>Lab Exam 3 (LABS 11, 12, 13, 14, 15)</b>
	Wednesday 7/26	Ecology and Nature of Ecosystems (24) <b>IRAT &amp; Smartbook Ch. 24</b> (due 7/28) <b>Discussion:</b> Evolution and Adaptation <b>Final Exam (Ch, 14, 15, 16, 17, 18)</b>	Case Study Project