

Biology 5 (Biol 5) Human Biology

<i>Semester: Fall 2021</i>		<i>Reedley Community College</i>
Instructor: Dr. Christopher Emerling		<i>Class No. 55029, 55031</i>
Email: christopher.emerling@reedleycollege.edu		Lecture Times: Online
Zoom ID: 990 6009 7271		Lab Times: Online
Office Hours: TBA		
Can request appointments		
<i>Class Dates: 8/9/21- 12/10/21</i>		

Catalog Description:

This course is an introductory human biology course that examines science and societal issues. This course emphasizes the structure of the human body and the functional interrelationships of the body's systems: integument, circulatory, digestive, respiratory, urinary, skeletal, muscular, nervous, endocrine, reproductive, and genetics

Prerequisites:

None, eligibility for ENGL 125, 126, or 153; or ESL 67 and 68 recommended. This is an introductory course using the principles approach to general biology which satisfies the general science requirements focused on students entering health or science careers. It is a prerequisite for all advanced science courses (Human Anatomy, 20; Human Physiology, 22; Human Anatomy and Physiology, 24; Microbiology, 31).

Student Learning Outcomes:

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

1. demonstrate knowledge regarding the process of science and society, microscopy, and the cell
2. identify human body levels of organization and homeostatic mechanisms
3. demonstrate knowledge of the chemical basis of life
4. evaluate scientific literature and current biological achievements
5. apply the principles of genetics to humans and understand the outcome of normal and abnormal DNA
6. 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
7. identify and recall fundamental structures from anatomical models and slides using correct nomenclature and language

Course Objectives:

In the process of completing this course, students will:

1. read, analyze, evaluate, and discuss scientific method, the cell, and human levels of organization
2. learn the periodic table of the elements, the chemistry of the carbon atom, and the chemical structure of humans
3. analyze and interpret data on the homeostatic mechanisms within the human body
4. learn the cell's structure, function, and the cell cycle in relation to the multicellular human body
5. 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
6. review classical and molecular genetics and learn the processes of replication, transcription, and translation

7. perform experiments, observe, and record data
8. study evolution
9. discuss social issues between humans and science
10. develop a vocabulary to effectively communicate information related to anatomy and physiology.
11. summarize the levels of structural organization important to human anatomy

TENTATIVE SCHEDULE

Unit	Week	Lecture(s)	Assignments
Unit 1	Week 1: 8/9–8/13	Lecture 1: Exploring Life and Science Lecture 2: Chemistry of Life	Lab 1: Intro to Microscopy
	Week 2: 8/16–8/20	Lecture 3: Cells Lecture 4: Tissues, Organ Systems and Integumentary System	Lab 2: Biological Molecules
	Week 3: 8/23–8/27	Lecture 5: Cardiovascular Lecture 6: Cardiovascular continued	Lab 3: Cell Structure and Function Lab 4: Histology Quiz and Quiz Reflection 1
	Week 4: 8/30–9/3	Exam Week	Lecture Exam 1, Lab Practical 1
Unit 2	Week 5: 9/6–9/10	Lecture 7: Lymphatic and Immune System Lecture 8: Infection	Lab 5: Cardiovascular System Choose Paper Topic
	Week 6: 9/13–9/17	Lecture 9: Digestive System Lecture 10: Respiratory System	Lab 6: Homeostasis: Digestion, Respiration and Urinary Systems
	Week 7: 9/20–9/24	Lecture 11: Urinary System Lecture 12: Skeletal System	Lab 7: Musculoskeletal System Quiz and Quiz Reflection 2
	Week 8: 9/27–10/1	Exam Week	Lecture Exam 2, Lab Practical 2

Unit 3	Week 9: 10/4–10/8	Lecture 13: Muscular System Lecture 14: Nervous System	Lab 8: Nervous System and Senses Paper: Choose Research Sources
	Week 10: 10/11–10/15	Lecture 15: Senses Lecture 16: Endocrine System	Lab 9: Reproduction & Development
	Week 11: 10/18–10/22	Lecture 17: Reproductive System Lecture 18: Human Development and Aging	Lab 10: Dissection, Quiz and Quiz Reflection 3 Paper: Outline due
	Week 12: 10/25–10/29	Exam Week	Lecture Exam 3, Lab Practical 3
Unit 4	Week 13: 11/1–11/5	Lecture 19: Patterns of Chromosome Inheritance Lecture 20: Cancer	Lab 11: DNA: Transcription and Translation Lab 12: Mitosis and Meiosis
	Week 14: 11/8–11/12	Lecture 21: Patterns of Genetic Inheritance Lecture 22: DNA Biology and Technology	Lab 13: Genetics and Inheritance Paper: Rough Draft Due
	Week 15: 11/15–11/19	Lecture 23: Human Evolution	Lab 14: Human Evolution, Quiz 4, Quiz Reflection 4; Paper: Peer Feedback
	Week 16: 11/22–11/26	Exam Week, Thanksgiving Week	Lecture Exam 4, Lab Practical 4
Finals	Week 17: 11/29-12/3	Review Week	Final Paper and Infographic Due
	Week 18: 12/6–12/10	Final Week	Final Cumulative Exam

Required Course Materials

- McGraw-Hill Connect package for Human Biology. Can purchase in bookstore or online directly through McGraw-Hill
- There is an **optional** textbook available for purchase: McGraw-Hill's Human Biology 16th Edition by Sylvia Mader and Michael Windelspecht (ISBN10: 1260233030 ; ISBN13: 9781260233032). If you purchase Connect through the Reedley College bookstore, the textbook is available in digital form as part of the digital package. Alternatively, you may purchase or rent it through McGraw-Hill's website.

Technology Requirements

- The web/online portion of this course will occur through Canvas and McGraw-Hill's Connect. All students must have access to a device with internet access to that allows students to retrieve and complete assignments through Canvas and Connect.
- Check Canvas and your Reedley College email accounts regularly (multiple times per week) for announcements.
- If you need access to technology in order to complete your course, please make sure to contact the [Information Center](#) to check out a laptop or other needed technology.

ATTENDANCE AND DROP/ADD POLICY

Attendance is expected of all students every week in this class. Given that we are in an online environment, "attendance" exists in the form of completing assignments.

In order to avoid being dropped from this class, you must complete the following tasks on Canvas by **the end of the second day of instruction**:

1. Complete the Student Survey
2. Complete the Syllabus Quiz
3. Post a profile picture of yourself (not an avatar) on Canvas

Failure to complete ALL of the tasks listed above will result in a student being dropped from this course after the first week of instruction.

Beyond this, I reserve the right to drop students (both enrolled and waitlisted) based on the following policy:

1. Student does not complete the first week's assignment
2. Student does not complete the second week's assignment and does not respond to contact efforts from the professor during the third week

ASSESSMENTS

Category	Assignment Description	Points
Lecture	Lecture Exams (4)	30% of grade (7.5% each)
	Final Cumulative Exam	20% of grade
	Quizzes (4)	2% of grade (0.5% each)
	Quiz Reflections (4)	2% of grade (0.5% each)
	Online discussions (15)	3% of grade (0.2% each)
	Writing Assignment and related activities	17% of grade
Lab	Labs Activities (14)	14% of grade (1% each)
	Lab Practical Exams (4)	12% of grade (3% each)

The final course grade is based on the traditional scale:

Percent Range	Grade
90-100	A
80-89.99	B
70-79.99	C
60-69.99	D
Less than 60	F

Course grades are non-negotiable. Instructor reserves the right to adjust individual tests and/or assignments should it be to the benefit to the entire class. Final grades may be adjusted to the benefit of the students, should their be a justifiable reason for doing so. I do not round up grades to the next letter grade given that there are multiple opportunities to boost grades during the course.

LECTURE ASSESSMENTS

Lecture exams These may be any combination of multiple-choice, true-false, matching, short-answer and essay questions based on the main objectives of each lecture and may be based on words only or may include images. Given that cheating in online courses is pervasive, efforts will be made to ensure that the exam reflects your actual knowledge as opposed to you reading off of your notes or googling answers, including time limits, randomization of questions, etc. Some questions will require critical thinking and cannot simply be searched in your notes or online. Please note that I require spelling and grammar be as close to accurate as reasonably possible; spelling must be at least phonetically approximate, such that it is unambiguous what your answer is. If I can't clearly understand it, I can't give you points for it. Lecture Exams will be given online over a 72-hour period to accommodate schedules as reasonably as possible.

Lecture final exam This will be comprehensive. Since this course is a prerequisite for all other health-related Biology classes, it is important that you retain as much knowledge as possible from this course to ease your way in the following semesters.

Discussion board posts Every week, there will be required Discussion board posts to ensure you all get a chance to have student-student interactions. These discussions will largely be used to give you practice with the material, particularly by having students generate questions for others to answer.

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 it 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 below under the College Policy section).

Writing assignment You will be writing a paper on a disease that occurs in humans, and your grade will depend on coming up with a topic, finding sources, writing an outline, completing a rough draft, giving feedback to your peers on their drafts, completing a final version of the paper and then creating a visual representation of what you learned about your topic (i.e., an infographic).

Quizzes These will not be traditional quizzes in which you will be graded on the accuracy of your answers. Rather, these will be used to prepare you for the exams by giving you a feeling for the format and helping you to assess your level of knowledge so that you know what to focus on before the exam. Merely attempting to answer the questions will result in full credit. Furthermore, there will be reflection assignments to help you to evaluate how you're performing on these quizzes.

LAB ASSESSMENTS

Lab assignments These will complement the content we are learning in lecture, using online approximations of laboratory work, especially using resources from McGraw-Hill Connect.

Lab practicals These are exams that will be based on the work done in the laboratory assignments. They may include multiple choice, true-false, matching, and short answer questions, and will predominantly use images from the lab assignments.

EXTRA CREDIT

I do not provide extra credit opportunities in a traditional sense. My belief is that you need to learn and complete what we are doing in class, not something beyond the scope of the normal content. However, I do believe strongly in providing the chance to learn from your mistakes and redeem yourself. As such, I do have opportunities to earn back points on certain assessments, as part of my 'redemption' policy.

REDEMPTION POLICY

Students often make mistakes on assignments and exams, whether due to lack of proper studying or personal life crises. However, the way classes are typically structured, any damage done early in the semester can permanently damage a student's standing, such that their grade is irrecoverable. This is problematic from the perspective of learning because it punishes mistakes, without rewarding any learning from those mistakes. To correct for this imbalance, I will be providing two forms of 'redemption' in the course, including 'exam autopsies' and final exam redemption. Typically, only on the first exam, you will have an exam autopsy in which you will get a chance to earn back points if you reflect on everything you missed. There may be more autopsies at the instructor's discretion, but these may vary in the % of points that can be earned back (typically fewer points on later exams). The final exam redemption involves using your final exam score to boost your score on certain previous assessments, should the grade be high enough. The hope is that this incentivizes students to learn from their mistakes and apply their new knowledge on the final exam.

An example of how the final exam redemption policy occurs is as follows: if you received a 56% on exam 3, but you received an 86% on the final, your exam 3 score will change to 86%. In other words, if your final exam grade (%) is higher than a qualifying assessment grade, then I will replace that grade with your final exam grade %. This is exact example should not be taken as the definitive policy, as I am still trying to figure out the optimum method. As such, more specifics regarding this policy will be given later on in the course. A similar policy may apply to the labs, but would involve students taking an optional final lab practical, and will depend largely on time and interest.

LATE ASSIGNMENTS AND EXAM MAKE-UP POLICY

Unless otherwise indicated, assignments can be turned in late, but for each day late, I will automatically deduct 10% of the possible points. One "day late" constitutes turning something in within the 24 hours following an assignment due date and time. For example, if an assignment is due on a Monday @ 7:00 pm, any point between Monday @ 7:01 pm and Tuesday @ 7:00 pm, the assignment will lose 10% of the points. This will policy will apply to discussions only up to a point and may be cut off at a 0 early, given that students that reply too slowly to other students will render their discussion comments irrelevant.

This policy does not apply to lecture exams and practicals. These can only be made up if the student falls victim to extreme, *documentable* circumstances, and therefore making up exams will be fully at the discretion of the instructor. A file entitled "Online Exam Make-Up Policy" can be requested by students that wish to read it, and it will be offered to students in such situations.

COMMUNICATION POLICY

The best way to get ahold of me is to send me a direct message through Canvas. The second best way is to email me at christopher.emerling@reedleycollege.edu. I regularly check announcements for comments and replies, so this is also a viable option for communicating about specific content. 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 on business days (Mon-Fri). I often reply on weekends as well, but given that I try to give myself a mental break from work on Saturdays and earlier on Sundays, please do not assume that I will reply. I tend to be very prompt with my email responses, however, there are times when it may take me up to 24hrs to respond. As a rule, I try to prioritize Canvas messages and e-mails that require an immediate response over those that are less urgent, so please indicate if the message is urgent. If you do not receive a response from me after 24hrs then please double check that you have contacted me correctly (e.g., was it the correct email address?), and then try both Canvas messages and e-mail. 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

Office hours are a great chance to meet one-on-one with your instructor, so you can get extra clarification on concepts that you have found difficult, practical advice on studying, additional context for completing assignments, and otherwise general support in the course. Given that we are in a 100% online environment, my "office" hours will not take place in a physical office, but rather on the online video meeting app, Zoom. We will be using the same Zoom ID throughout the semester for all class related meetings. The Zoom ID and my office hours are posted on the first page of this syllabus. Office hours likely will not be posted in the first week but will be posted as soon as I have all the information I need to schedule them.

CANVAS

All lecture videos, lecture slides, discussion boards, quizzes, and other lecture assignments will be located on Canvas, which you can access here: <https://scccd.instructure.com/login/ldap>. Please turn on e-mail notifications for Announcements in Canvas or check them regularly (i.e., at least once a day). You can find them under the tab "Announcements" and see the three most recent announcements at the top of the course page.

DROPPING THE COURSE

It is the student's responsibility to drop themselves from the course, not the professor. Here are some important dates, derived from the [Reedley College Academic Calendar](#):

August 20th: last day to drop for full refund

August 27th: last day to drop to avoid a "W" in person

August 29th: last day to drop to avoid a "W" on WebAdvisor; last day to Add

September 10th: last day to change to/from Pass/No Pass grading basis

October 8th: last day to drop, letter grades assigned after this date

TUTORING

We will likely have a tutor embedded in our course this semester. The tutors are former, successful students who understand the material well, know how to study for the class and can help you succeed. I highly recommend most students to receive tutoring, even students who tend to do reasonably well. Students that are getting tutored are not 'less than' others who don't go to tutors. I received tutoring when I was in college (calculus and physics), and this tutoring helped me enormously to succeed in those classes.

COLLEGE POLICIES

The university has several policies that you will be expected to adhere to in my course. The policies on **Disabled Students Programs and Services, Student Conduct Standards, Academic Dishonesty**, and the **Computer/Network Equipment Use Policy**, portions of which are below, can all be found in the Reedley College Catalog.

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 that 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 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. In an online classroom, academic dishonesty can manifest in (1) copying other students’ work, (2) sharing answers on exams and much more. When you cheat, not only do you defraud the college, but you devalue your education and the education of others by weakening the integrity of our institution. Furthermore, in my experience, cheaters almost never succeed at their career goals, so don’t ruin your opportunity to learn!

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>

Academic Accommodations: 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.

DIVERSITY STATEMENT

Diversity is not only a fact of life but, to me, it is one of life’s most beautiful traits and greatest strengths. My goal is for all students from all backgrounds and perspectives to be able to succeed, thrive and feel valued in my courses. My valuing of diversity encompasses gender, sexual identity, disability and health status, age, socioeconomic status, religion, philosophy, ethnicity, race, and culture. If you believe that my course and/or my instructional techniques are in any way invalidating your group identity or are in some way hampering your ability to succeed, please let me know so that I can address any concerns you have.

FINAL NOTES

Every syllabus represents the intended roadmap and structure of the course, but due to unforeseen events and/or feedback during the semester, adjustments may be necessary. This is a reminder that some details described in this syllabus are potentially subject to change at the discretion of the instructor, but he will inform you as promptly and clearly as possible as to the reasoning for any changes.

Student Learning Outcomes are statements about what the discipline faculty hope you will be able to do at the end of the course. This is NOT a guarantee: the ultimate responsibility for whether you will be able to do these things lies with you, the student. In addition, the assessment of Student Learning Outcomes is done by the department in order to evaluate the program as a whole, and not to evaluate individual faculty performance.