

Biology 5 (BIOL5) Human Biology

<i>Semester: Spring 2022</i>		<i>Reedley Community College</i>	
Instructor: Andrew Strankman		Class No. 53366	
Email: andrew.strankman@reedleycollege.edu		Date: 01/10/22- 03/11/22	
Phone: 559-494-300 ext. 3196		Lecture: Online	
Office: LFS 5/Online		Lab: LFS-11	
Office Hours: M 2:00-3:20pm (virtual)		10:00AM-12:50PM Wednesday	
W 1:00-2:50pm		10:00AM-12:50PM Friday	
Th: 3:30-4:20pm		*virtual office hours can be accessed through zoom, or email. Zoom link can be found in canvas.	

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 the human anatomy

Required Course Materials

- The course technically requires no textbooks. All lecture readings and lab handouts will be provided for free via canvas.
- Optionally, students may purchase a printed copy of the laboratory manual through the bookstore for a low cost but the manual will be provided as an electronic copy for free in canvas.
- Masks

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 AND DROP/ADD POLICY

You are required to attend **ALL** in-person class sessions. There are NO excused absences except as defined in the Reedley College Catalog. Sign-in sheets will be used in each class, and a student must sign in for themselves only.

In order to avoid being dropped from this class, you must complete the following tasks:

1. Web/Online requirements: The following tasks must be completed on Canvas by the end of the day on Tuesday of week 1 (1/11/22 @11:59PM)
2. Complete the Syllabus Quiz
3. Participate in the Check-In: Meet & Greet Discussion Board
4. In-person requirements: Students must attend the first day of in-person meeting (lab)

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 class 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 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 class 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 in the semester you will fail the class, no questions asked.

Expectations and Policies:

- Be respectful and discipline yourself so others don't have to.
- No makeups are possible this semester.
- 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.

COVID-19 Related Safety Clauses and Information:

As of the writing of this syllabus (12/16/21), this course is scheduled to meet in person for labs only. However, I reserve the right to move this course back to fully online if deemed necessary following increases in prevalence of COVID-19 cases, and/or changes to local, state and/or federal public health policies.

Additionally, class capacities may become limited due to changes in local guidance in accordance with COVID-19 spread. This may result in fewer days of in person instruction than scheduled. For example, if classroom capacities are limited to 50% capacity, I will be forced to adjust days of in person instruction accordingly. As such I would emphasize **Syllabus schedule is subject to change.**

Mask Policy: ALL students will be expected to wear a mask in the laboratory classroom regardless of vaccination status. Enforcement of this policy will be dependent on local public health advisories. Masks are an integral component in PPE in biology. Examples of acceptable masks are: surgical grade masks, kn95s, n95s (without venting valves), examples of unacceptable masks are, cloth masks, neck gaitors, bandanas, scarves.

Temperature Checks: Mandatory temperature checks will be available as you enter the classroom as required by Reedley College campus. If you present with a fever (temperature above 100.3F) you will be asked to leave.

Vaccinations: As of the writing of this syllabus (12/16/21) vaccines are **mandatory** at all SCCCD campuses and sites. You will be expected to provide evidence of vaccination or verification of approved exemption (in this case negative PCR test results will also need to be presented in accordance with district policy) to enter the classroom. If you cannot provide appropriate documentation, you will be asked to leave immediately.

Social Distancing: While in the classroom in person, students are expected to practice appropriate social distancing. This means maintaining a healthy distance from others in the classroom, and also minimizing the movement around the classroom during class time.

Cleaning: Students will be expected to clean up appropriately in the laboratory.

Exposed to COVID-19 or COVID-19 positive?: DO NOT COME TO CLASS! SEND ME AN EMAIL AND WE CAN DISCUSS AND ARRANGE SOLUTIONS AS NEEDED... AGAIN, DO NOT COME TO CLASS COVID POSITIVE.

Failure to adhere to the COVID-19 policies as stated above will result in ejection from the class and further disciplinary action.

Late Assignments and Makeups

No late assignments will be accepted **EVER**. NO EXCEPTIONS. Late/makeup exams will only be given except in the most extreme of situations and only with explicit approval from your instructor... me. If an extenuating circumstance arises that is beyond the realm of your control, let me know and we can discuss. However, you **MUST** alert me of any situation at least 3 hours before the exam time.

TESTS AND EVALUATION

Assignment Description	Points Possible
2 Lecture Exams (112.5 points each)	225
8 Quizzes (20 pts each)	160
1 Case Study Presentation	50
Online Discussion Boards (8pts each)	80
Lab Review Sheets/Activities	140
Writing Assignment	75
2 Lab Practical Exams (60 points each)	120
1 Lecture Final	150
Total Points Possible	1000
Extra Credit (See below for details)	Maximum of 25

To calculate your grade, total all points earned and divide that number by the total points available (1,000). **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

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. Lecture exams will be given online during scheduled time periods over 3 days.

Lab exams will be practical based on the laboratory activities. They may include multiple choice, true-false, matching, and short answer questions. Lab exams will be given during scheduled time periods in person.

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. The final exam will be given during a 3 day period

Discussion Board Posts

Most weeks will require discussion board posts as part of the web/online part of this class. Topics will relate to material covered for that unit. All discussion board topics and due dates can be found on Canvas. No late posts will be accepted.

Quizzes will occur on dates specified on the course schedule. Quizzes are to be assigned and completed through canvas. Quizzes may only be accessed one time and must be completed in one sitting. Material may include and combination of multiple-choice, true-false, matching, and short answer questions. Note on technology: Quizzes will not be reset or allowed to be made up due to technology issues (e.g. internet connection lost, computer battery died, ect.). It is the student's responsibility to make sure the correct technology requirements are met to complete the quiz, when accessed, in one sitting.

Lab reviews will be submitted digitally at the end of each day where a laboratory exercise was conducted. So this means, you can upload them in class, or at home, as long as they are in by 11:59pm the day the activity happened, you are good to go. For example, lab 1 is on January 12th from 10am-1pm... this lab activity must be uploaded to the lab submission link on canvas by 11:59pm on January 12th for credit.

Writing Assignment will be assigned in the 1st week of class. No later than the end of the 2nd week of the semester students will submit their writing assignment topic through a link available on Canvas. Specific directions will be available on Canvas. At a minimum the assignment will use 5 peer-reviewed references and be of a minimum of 1000 words of original composition. If you do not fulfill the requirements of this writing assignment in its entirety, you cannot pass Biol 5. Other dates of note can be found in the assignment directions, and class schedule.

Case Study will be assigned in the 2nd week of class. At this time, the class will be broken up into groups of between 3-4 students. Each group of students will be assigned a 'patient' with an mysterious illness. As a group you will seek out to identify and treat this patient... in the final week of the course, each group will give a 10-15 presentation to the class describing their patient's disease, and the appropriate courses of treatment. Specific directions will be available on Canvas. If you do not fulfill the requirements of this presentation assignment in its entirety, you cannot pass Biol 5.

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 by doing one or more of the following items. It is offered at my discretion.

**** I reserve the right to make changes in this syllabus with notification ****

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

For spring 2022, all my office hours will be delivered as a mix of in person and virtual office hours. During these hours, I am 100% guaranteed to be present on zoom/skype (please see canvas for connection links and the top of the syllabus for hours). If you need to find me in person, my office at Reedley College campus in room Life Science 5 (LFS-5).. which is just across the hall from our lab room. If you would like to meet with me outside of these office hours, please email me to arrange an appointment to meet.

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Laboratory Conduct:

- A. Students are to maintain clean areas at all times. Keep unnecessary books, papers, purses, etc., off the laboratory tables.
- B. Disinfectant laboratory tables at the beginning and at the end of every lab period.
- C. Dress code: Students with long hair must keep it contained with pins, clips, headbands, or rubber bands, etc whenever open flames are in use. Legs are to be always covered (aka wear pants). Close toed-shoes and socks are to be always worn. (Please wear pants/shoes without holes in them... holes don't protect from spills or glass)

- D. Caution must be exercised in handling chemicals, as they may be harmful to clothing, skin, eyes, floor, etc. Safety glasses must be worn when handling and using caustic or other dangerous chemicals. They are available in the classroom.
- E. Food and drinks are NOT allowed in the laboratory! NEVER eat or drink in the laboratory and avoid putting any objects in your mouth.
- F. Wash your hands thoroughly and dry them before you leave the laboratory.
- G. Adhere to the Reedley Community College rules of student dress and conduct.
- H. Masks must be worn when working with any potential pathogenic organism.

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.

Professional Behavior is expected at ALL TIMES

Please respect other student, the laboratory materials, and me. No food, cellular phones, pagers, or profanity at any time! I am aware that emergencies arise, but place your electronics on silent or "manner" mode. Disruptive behavior that interferes with the teaching and learning processes will be cause for appropriate penalties as described under "University Policies" below. If you are deemed by the instructor to be unprofessional or disruptive, you will be asked to leave the classroom, and banned for the next two class periods in keeping with education code policy.

Food and/or liquids in the laboratory may result in deduction of points.

You will be given a Safety Rules sheet to sign in the lab, which delineates further safety procedures that you MUST follow. You must sign and date the safety sheet and turn it in to your instructor. If you are under 18, you must have your parent or guardian also sign the safety sheet. OTHER COURSES USE THE MODELS AND THE LAB. PLEASE BE RESPONSIBLE. Do not use pencils to point out structures on the models. Please remember to clean up the lab after every exercise, as areas left dirty or messy at the end of the period will result in those student groups being **docked 5 points** for every offense.

No food or beverages allowed. Cell phone use will not be tolerated in this class; turn off your cell phones prior to class. Students are allowed to do audio recordings of lectures but not video. Web or internet posting of recorded lecture materials are not allowed. Laptops may be used in this class; laptop users should sit in the back row to avoid distracting others.

Children In Class: Children cannot be brought to the laboratory setting for safety reasons, and should not be brought to the lecture class either. However, being a parent myself, I very much understand the challenges of child-care. If you find yourself in a situation where child care is affecting your class attendance, etc... please let me know and lets chat about how to best overcome the challenges. For online sessions like zoom, etc.. If you as a parent allow your children on zoom, I am 100% comfortable with this, but if they are on camera during a session recording, you provide me permission to post the video with them in it.

Cell Phones: Cell phones that are used or go off in class will be confiscated until the end of the class hour. No headphones can be worn during class.

No food, open beverages are allowed in the class at anytime. No profanities are allowed in class.

Dress code: To participate in lab activities, wearing shoes with closed toes is required. Some labs may require additional safety requirements (full length pants, lab coats, etc).

Grade Disputes: You have two weeks to discuss/dispute a grade once it is posted on Canvas. This includes any documentation of medical/ legal issues that may have prevented you from completing the assignment/ test. After that point, grades are FINAL. Notable exceptions are any assignment due/graded less than 2 weeks prior to the end of the semester... these must be discussed immediately.

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

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.

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. 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.

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.

Accommodations:

I am 1000% on your side in supporting you to be successful in this class and beyond.... If you have any needs for accommodation in the class, please don't be shy, let me know, and we can talk to make it work!

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.

TENTATIVE SCHEDULE

Subject to change with notification from your instructor!

Week	In person Dates	Lecture (Book Chapter)	Lab (Manual Chapter)
1	1/12, 1/14	Introduction/Syllabus Topic: Intro to Human Biology Topic: Chemistry Syllabus Quiz Discussion Board 1	Laboratory Safety Lab 1: Introduction to Microscopy (W) Lab 2: Biological Macromolecules (F)
2	1/19, 1/21	Topic: Cells Topic: DNA Quiz 1 Discussion Board 2	Lab 3: Cell Structure and Function (W) Lab 4: DNA: Transcription and Translation (F)
3	1/26, 1/28	Topic: Cell Cycle (Mitosis and Meiosis) Topic: Human Genetics Quiz 2 Discussion Board 3 Lecture Exam 1 (Fri-Sun)	Lab 5: Mitosis and Meiosis (W) Lab 6: Genetics and Inheritance (F)
4	2/2, 2/4	Topic: Body Organization and Integumentary System Topic: Cardiovascular and Digestive Systems Quiz 3 Discussion Board 4	Lab 7 : Histology (W) Lab Practical 1 (60pts) (F)
5	2/9, 2/11	Topic: Excretory and Respiratory System Topic: Skeletal System Quiz 4 Discussion Board 5 Writing Assignment Draft Due	Lab 8: Cardiovascular System (W) Lab 9: Homeostasis: Digestion, Respiration and Urinary Systems (F)
6	2/16 only 2/18 holiday!	Topic: Muscular System Topic: Nervous System (and senses) Quiz 5 Discussion Board 6 Lecture Exam 2 (Fri-Sun)	Lab 10: Musculoskeletal System (W) NO FRIDAY LAB LINCOLN DAY
7	2/23, 2/25	Topic: Endocrine System Topic: Reproduction and Development Quiz 6 Discussion Board 7 Writing Assignment Final Due	Lab 11: Nervous System and Senses (W) Lab 12: Reproduction and Development (F)
8	3/2, 3/4	Topic: Immune System and Infectious Diseases Topic: Nutrition Quiz 7 Discussion Board 8	Lab 13: Virtual Pig Dissection (W) Lab 14: Human Evolution (W) Lab Practical 2 (60pts) (F)
9	3/9, 3/11	Topic: Ecology Topic: Human Populations Quiz 8	Case Study Presentations (W)

		Discussion Board 9, 10 Final Exam (Wed-Fri)	
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Important Dates

- Last day to add a Fall full term class with refund: January 21
- Last day to drop a Fall full term class to avoid a W January 28 (in person) January 30 (webadvisor)
- Last day to change a Fall full term class to pass/no pass February 11
- Last day to drop a full term class March 11