

Biology 5: Human Biology

Fall 2021

Reedley College

Class No:
55028

Class Format:
Fully online

Units (Hours):
4 (3 Lec, 3 Lab)

Instructor:
Sara Blake

Optional Meeting Time:
MW: 2:00-3:00

Email:
sara.blake@reedleycollege.edu

Location:
<https://sccd.zoom.us/j/91099903068>

Office Hours:
Tuesday 2:00-4:00

Website:
<https://sccd.instructure.com>
Log in with your SCCCD credentials

Office Location:
<https://cccconfer.zoom.us/j/97440277758>

Course Description

Advisories: English 1A Mathematics 201.

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. (A, CSA-GE, UC, I)

Textbooks

There is no traditional textbook; you will need to purchase the access code for McGraw-Hill Connect to include the eBook. If you wish to have a traditional textbook you may contact McGraw-Hill and you will receive a discount on a hard copy of the text, but in order to complete this course you must have access to the eBook.

If you are having issues within Connect you are free to message me however I will not be able to do much to solve Connect problems. For these, you should contact their support team:

Tech Support & FAQ

Call: (800) 331-5094

Email & Chat: mhhe.com/support

You are required to finish assignments and assessments online. In addition, there will be important information on Canvas. It is YOUR RESPONSIBILITY to come to both lecture and lab prepared with the content assigned.

Course Structure

Biol 5 is being held entirely online this semester. Though it is set up to be completed asynchronously, I highly recommend attending the synchronous zoom meetings as an opportunity to talk to fellow students, discuss real-world applications with Professor Blake, and keep yourself on track. All information, assignments, and assessments are found through Canvas.

Course Objectives

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

Student Learning Objectives

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

Grading

Your grade will be determined by calculating the amount of points you earned divided by the total points available in the course. Do not hesitate to email me if you notice a mistake in your online grades, however emails regarding extra credit opportunities or requests to give you a higher grade will not be entertained. Letter grades are distributed on the following scale:

PERCENT	GRADE
90 – 100	A
80 – 89.99	B
70 – 79.99	C
60 – 69.99	D
0-59.99	F

The point breakdown for this course (as it sits now) is as follows:

TASK	POINTS
LearnSmart Assignments (20 x 5points)	100
IRAT Quizzes (20 x 10points)	200
Lecture Exams on Connect (4 x 75points)	300
Final Exam via Connect	150
Writing Assignment	50
VR Labs (20 x 2points)	40
Lab Reports (14 x 15points)	210
Case Study Presentation	50
Lab Exams via Canvas (1 x 25points; 2 x 50points)	125
Total Available	1,225

Significant Assignments

LearnSmart and IRAT Quizzes: McGrawHill Connect activities to ensure you are learning the materials. Each chapter's content will be due at 11:59pm on the Sunday after we complete the lecture.

Lecture Exams: Completed on **McGrawHill Connect** will be available for 24 hours on the day of the Exams for you to complete when you have the time. Lecture Exam days will not have any lecture meeting scheduled but Professor Blake will be in the usual Zoom room as an extra opportunity for office hours or any other questions.

VR Labs and Lab Reports: Labs will be held virtually on the Connect platform through McGraw-Hill's Virtual Lab Simulations. You will need to complete the simulation for each VR Lab as well as any corresponding worksheets from the Lab Manual. These worksheets will be turned in as "Lab Reports".

Case Study Presentation: Details will be provided **on Canvas** after a couple weeks. Small groups (3-4 students each) will be responsible for a presentation or project on a case study. Each group of students will be assigned a patient with a disease and will submit a written outline or visual infographic description of the disease, diagnosis, treatment, and prognosis.

Lab Exams: The 3 lab exams will be held **on Canvas** and use photos and illustrations of models, slides, diagrams, and experimental setups. Questions will be a combination of multiple choice, short answer, and matching questions. These exams must be taken on the scheduled day (see the Tentative Schedule at the end of the syllabus).

Communication Policies

Communicate with me:

During weekdays I will attempt to reply to any messages and emails within 24 hours, if you go more than 24 hours without hearing from me you can assume I missed your message in the shuffle and send it again.

My most-to-least preferred contact methods are listed below:

1. Via the Inbox built in to Canvas
2. Stop by my listed Office Hours on Zoom
3. Email (Subject line should include: Class name, class number, and a topic. I.e. Biol 10L 55006 Lab 7 Questions. This is not necessary in Canvas since the program adds this automatically.)

Communicate with your classmates:

Try to keep in regular contact with your classmates. The easiest way to do this is through the Discussion Boards where you can keep on track with each other and ask questions that you think other students might know the answers to.

If the discussion boards get too busy or you miss something, use the search bar to see if you can find an answer before adding another topic.

Course Policies

Add/Drop: If you do not complete the Introduction discussion contribution before the first Friday of the semester, you may be dropped as a no-show. Additionally, if you miss more than 6 assignments in the first 8 weeks, you may be dropped. The drop deadline for this class is August 29, after this date I must assign a grade to you in this course!

Attendance: Completing the weekly assignments and quizzes on time is what counts towards attendance in this course.

Late Work: Late work will be accepted for assignments and quizzes BUT will result in a 10% reduction per day late. If you have extenuating circumstances, PLEASE communicate with me so we can work together to help you pass this course. Exams will NOT be given late. If you miss one, you will receive a zero.

College Policies

The college 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.

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 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 entire honest effort in all academic endeavors. Academic dishonesty in any form is a very serious offense and will incur serious consequences. See college catalog for details.

Subject to Change: This syllabus and schedule are subject to change in the event of extenuating circumstances. If you are absent from class, it is your responsibility to check on announcements made while you were absent.

Diversity Statement

It is my intent that students from all diverse backgrounds and perspectives feel welcomed and be well-served in this course. The backgrounds and identities that each of you bring to this class are resources, strengths, and benefits. It is my intent to present materials and activities that are respectful of diversity: gender, sexuality, disability, age, socioeconomic status, ethnicity, race, and culture. If at any point in the term you notice something that could be improved, I would appreciate your suggestions. In addition, if any of our class meetings conflict with your religious events, please let me know so that we can make arrangements for you.

Tentative Course Schedule

Week	Dates	Lecture Topic (Chapter)	Lab Topic (Chapter)
1	9/8 – 13/8	Introduction, Exploring Life and Science (1) SmartBook + IRAT (15/8)	Laboratory Safety Lab 1: Introduction to Microscopy
2	16/8 – 20/8	Chemistry of Life (2) Cell Structure and Function (3) SmartBook + IRAT (22/8)	Lab 2: Biological Macromolecules
3	23/8 – 27/8	DNA Biology and Technology (22) Chromosome Inheritance (19) SmartBook + IRAT (29/8)	Lab 3: Cell Structure and Function
4	30/8 – 3/9	Exam 1 (30/8) Organization and Regulation of Body Systems Organ Systems (4) SmartBook + IRAT (5/9)	Lab 4: DNA Transcription and Translation Lab Practical 1 (3/9)
5	6/9 – 10/9	Cardiovascular System (5) SmartBook + IRAT (12/9)	Lab 5: Mitosis and Meiosis
6	13/9 – 17/9	Lymphatic System and Immunity (7) SmartBook + IRAT (19/9)	Lab 6: Genetics and Inheritance
7	20/9 – 24/9	Digestive System (9) SmartBook + IRAT (26/9) Exam 2 (24/9)	Lab 7: Histology
8	27/9 – 1/10	Respiratory System (10) SmartBook + IRAT (3/10)	Lab 8: Cardiovascular System
9	4/10 – 8/10	Urinary System (11) SmartBook + IRAT 10/10	Lab 9: Homeostasis
10	11/10 – 15/10	Skeletal System (12) SmartBook + IRAT (17/10)	Lab Practical 2 (15/10)
11	18/10 – 22/10	Muscular System (13) SmartBook + IRAT (24/10) Exam 3 (22/10)	Lab 10: Musculoskeletal System
12	25/10 – 29/10	Nervous System (14) Senses (15) SmartBook + IRAT (due 31/10)	Lab 11: Nervous System and Senses
13	1/11 – 5/11	Endocrine System (16) SmartBook + IRAT (due 7/11)	Lab 12: Reproduction and Development
14	8/11 – 12/11	Reproductive System (17) SmartBook + IRAT (due 14/11) Exam 4 (12/11)	Lab 13: Fetal Pig Dissection
15	15/11 – 19/11	Development and Aging (18) SmartBook + IRAT (due 21/11)	Lab 14: Human Evolution
16	22/11 – 26/11	Biology of Infectious Disease (8) SmartBook + IRAT (due 28/11)	Lab Practical 3 (22/11)
17	29/11 – 3/12	Ecology and Nature of Ecosystems (24) SmartBook + IRAT (due 5/12)	Case Study Submissions
18	6/12 – 10/12	Final Exam	