

Biology 5 (BIOL5) Human Biology

Class Section 55088

<i>Semester: Spring 2021 Reedley Community College</i>	
Lecture Instructor: Darin Peterson darin.peterson@reedleycollege.edu	Lecture = Asynchronous
Lab Instructor: Karen Marks karen.marks@reedleycollege.edu	Lab = Asynchronous

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 Materials:

1. Mader, Sylvia S. and Michael Windelspecht, *Human Biology*, 16th edition. 2018 with [Connect Access](#)
2. Reedley College Biol 5 - Human Biology Lab manual

Attendance and Late Work

Attendance will be based on submitting work. Weekly assignments, labs, quizzes, and discussions will determine your level of participation. If you miss graded work it will be considered as a lack of participation/attendance.

Late work is not accepted for points. It is still important to turn in all work as it reflects your attendance as well as your work ethic. A late assignment will be given 1 point which shows it was completed. A zero on any given graded assignment is regarded as lack of participation.

If a circumstance prevents you from submitting work, it is important that you contact me before the due date. An explanation will be required. Documentation may be required to verify your request when possible. Extended time for a particular assignment will be at my discretion.

Drop Policy

If any of the first week's assignments are not completed you will be dropped.

If an entire week goes by without submitting work during the first 3 weeks you will be dropped.

During the remainder of the course, if any 2 week period goes by without submitting work you will be dropped.

Communication Policy

Email: darin.peterson@reedleycollege.edu (lecture)

Email: karen.marks@reedleycollege.edu (lab)

The best way to reach me is through email. I will be checking it daily Monday - Friday. If you do NOT hear a response within 24 hours please resend the message. I usually respond on weekends but that will not be consistent.

Discussion Board: I will be checking the Q and A class discussion board weekly and responding if needed. The discussion board is a place for you to chat with classmates and ask questions that relate to the class. Examples include clarification on how an assignment is done, how work is submitted, what works best for you, etc. Check there often as others in the class may have similar questions or questions you didn't even think to ask.

College Policies

- "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." RC Catalog pg. 45
- 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.

EXAMS AND EVALUATION

Assignment Description	Points Possible
4 Lecture Exams (~75 points each)	300
Case Study Presentation	50
Discussions / Assignments	50
Quizzes	50
Connect Readings / Checkpoints	150
Lab Review Sheets/Activities	140
3 Lab Practical Exams	120
1 Lecture Final	140
Total Points Possible	1000
Extra Credit (See below for details)	Maximum of 20

To calculate your grade, total all points earned and divide that number by the total points available. **Course grades are non-negotiable; Instructor reserves the right to curve individual tests and/or assignments.** 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.

Lab exams will be practical based on the work done in the laboratory. They may include multiple choice, true-false, matching, fill in / labeling, and short answer questions.

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.

Quizzes will be announced. Material may include any combination of multiple-choice, true-false, matching, and short answer questions.

Case Study

Each group of students will be assigned a 'patient' with an example disease. At the conclusion of the semester, each group will give a 10-15 minute presentation to the class describing their patient's disease, and the appropriate courses of treatment. Specific directions will be given.

Extra Credit Options (20 points max; 1 per week; 2-3 points each)

1. Write notes in an outline format using roman numerals, capital letters, numbers, indenting, etc. on the entire lecture for a particular chapter/system
2. Write a summary of an interesting article that is related to Human Biology from a respected journal or publication such as Scientific American, New England Journal of Medicine, Discover Magazine. Must be typed, 12pt font, 1 page or more.

Final Grade: If your grade is a borderline grade (i.e. 89%, 79%, 69%, 59%) I will move your grade up if there are no missing assignments, your attendance was good, and your final exam was not your lowest exam score.

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

CANVAS

All lectures, powerpoints used during lectures, lab instructions, lab handouts, and all course materials will be organized into Weekly Modules.

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.

Cheating and Plagiarism:

I DO NOT TOLERATE CHEATING. The University policy reads, "Cheating is the actual or attempted practice of fraudulent or deceptive acts for the purpose of improving one's grade or obtaining course credit; such acts also include assisting another student to do so. Typically, such acts occur in relation to examinations. However, it is the intent of this definition that the term 'cheating' not be limited to examination situations only, but that it include any and all actions by a student that are intended to gain an unearned academic advantage by fraudulent or deceptive means.

Any student caught cheating or plagiarizing will be subject to the Reedley College disciplinary procedures (review the Reedley College catalog section on academic dishonesty).

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 during the 1st week of class. 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

Week	Lecture (Book Chapter)	Lab (Manual Chapter)
1	Introduction/Syllabus Exploring Life and Science (1) Chemistry of Life (2)	Lab 1: Light Microscopy
2	Chemistry of Life (2) Cell Structure and Function (3)	Lab 2: Biological Molecules
3	Cell Structure and Function (3) Organization and Regulation of Body Systems Organ Systems (4)	Lab 3: Cell Structure and Function
4	DNA and Biotechnology (22)	Lab 4: DNA: Transcription and Translation
5	Lecture Exam 1 Chromosome Inheritance (19) Cancer (20)	Lab 5: Mitosis and Meiosis
6	Genetic Inheritance (21)	Lab 6: Genetics and Inheritance Lab Practical #1
7	Organization and Regulation of Body System Organ Systems (4) Cardiovascular: Heart and Blood Vessels (5)	Lab 7: Histology
8	Cardiovascular System: Blood (6) Biology of Infectious Disease (8) Lymphatic System and Immunity (7)	Lab 8: Cardiovascular System
9	Lecture Exam 2 Digestive System (9)	Lab 9: Homeostasis; Digestive; Respiratory; Urinary System
10	Respiratory System (10) Urinary System (11)	Lab Practical #2

11	Skeletal System (12) Muscular System (13)	Lab 10: Musculoskeletal System
12	Lecture Exam 3 Nervous System (14)	Lab 11: Nervous System and Senses
13	Nervous System (14) Senses (15)	Lab 12: Reproduction and Development
14	Endocrine System (16)	Lab 13: Virtual Dissection
15	Reproductive System (17) Development and Aging (18)	Lab Practical #3
16	Lecture Exam 4 Human Evolution (23)	Lab 14: Human Evolution Case Study Presentations
17	Biodiversity and Ecology (24) Exam Review	Case Study Presentations
18	Final Exam (Cumulative) May 18	

Important Dates

- January 22: Last day to drop with full refund
- January 31: Last day to drop a class (no "W" on transcript)
- February 12: Last day to declare pass/no pass (P/NP) grade option
- March 12: Last day to drop a full term class
- Mar 29 - Apr 2: Spring Break
- FINAL EXAMINATION: May 18