

# Biology 5 (BIOL5) Human Biology

<i>Semester: Spring 2019</i>	<i>Reedley Community College</i>
Instructor: Andrew Strankman	<i>Class No. 57188, 57192</i>
Email: andrew.strankman@reedleycollege.edu	Lecture: Digital
Phone: 559-638-0300 ext. 3499	Lab Times (LFS 11):
Office: LFS 10	9:00AM - 11:50AM Mon #57192
Office Hours:	9:00AM - 11:50AM Wed #57188
Tu/Th: 4:00-5:00PM	
We: 12:00-12:50PM (in tutorial center)	
Fr: 11:00-11:50AM (digital via skype)	
<i>Date: 01/14/19 - 05/24/19</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 the human anatomy

### Required Course Materials

- This is a no cost textbook course. All materials are Open Educational Resources that will be no cost to the student. All materials will be provided by the instructor through Canvas.
- Scantrons: 882-E (4x lecture exams)

### 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.

### **NO FOOD, BEVERAGES, CELLULAR PHONES, PAGERS, OR PROFANITY AT ANY TIME!**

If you or your electronics become a disturbance to the class, points will be deducted from your scores on assignments and you may be asked to leave.

### **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:

- Web/Online requirements: The following tasks must be completed on Canvas by the end of the first week of instruction (1/18/18 @11:59PM)
  1. Complete the Syllabus Quiz
  2. Post a profile picture
  3. Participate in the Check-In: Meet & Greet Discussion Board
- 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 TEN hours of course time in the semester, your final grade will be lowered by one letter grade. For example, if you earned an A but missed 11 hours of class, your final grade will be a B. If you miss more than TWENTY hours of course time in the semester, your grade will be lowered by two letter grades. For example, if you earned an A but missed 21 hours of class, your final grade will be a C. If you miss more than THIRTY hours of course time in the semester you will fail the class, no questions asked.

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

1. Student does not attend the first lecture.
2. Student does not attend the first lab.
3. Student misses a cumulative 3 hours (lecture or lab) in the first week.

4. Student misses a cumulative 4 hours (lecture or lab) in the first three weeks.
5. Student misses 6 hours (lecture or lab) up to drop date without providing a valid excuse (determined by me).

### **LATE ASSIGNMENTS, CHEATING, AND MAKE-UP POLICY**

No late assignments will be accepted **EVER**. NO EXCEPTIONS. This includes all in person, and online assignments.

Lecture Exams will be taken during in person class meeting times and may only be made up due to extreme circumstances, at the discretion of the instructor, if arranged with the instructor before the scheduled exam period (at least 3 hrs prior).

**Lab practical exams can NOT be made up. Period. No makeups, no exceptions.**

### **TESTS AND EVALUATION**

Assignment Description	Points Possible
3 Lecture Exams (75) points each)	225
1 Case Study Presentation	50
15 Quizzes (8 points each)	120
Online Discussion Boards (8pts each)	80
8 Drawings (5 points each)	40
Lab Review Sheets/Activities	140
Writing Assignment	75
1 Lab Practical Quiz (20 points)	20
2 Lab Practical Exams (50 points each)	100
1 Lecture Final	150
Total Points Possible	1100
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 (1,100). **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. If I can't read it, I can't grade it! Write neatly! Lecture Exams will be given during scheduled face to face time for class meetings.

Lab exams will be practical based on the work done in the laboratory. They may include multiple choice, true-false, matching, 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.

### 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.

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 is 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 above under the College Policy section).

**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 a 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, etc.). 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 collected at the end of each laboratory period where a laboratory exercise was conducted. These must be complete before you leave the lab period. **Lab drawings** are due 1 week after being assigned.

**Writing Assignment** will be assigned in the 3<sup>rd</sup> week of class. No later than the end of the 6<sup>th</sup> 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.

**Case Study** will be assigned in the 5<sup>th</sup> 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 example disease. At the conclusion of the semester, 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](mailto: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

I hold regular office hours both digitally as virtual office hours and on campus in my office. During these hours, I am 100% guaranteed to be present in my office. My office is at Reedley College campus in room Life Science 11 (LFS-11). This room is located inside of the back of a classroom, so you will have to enter there, before coming to my office. If you would like to meet with me outside of these office hours, please

email me to arrange an appointment to meet. My virtual office hours are held through the canvas messaging function. You can expect an immediate response during this time frame if you message me.

## 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.

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. 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:** In order to promote a positive learning environment, please make arrangements for your child's care while class is in session. Do not bring children to class.

**Cell Phones:** Cell phones that are used or go off in class will be confiscated until the end of the class hour. No iPods are allowed in class.

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

**Dress code:** In order to participate in lab activities, wearing shoes with closed toes is required.

**Drops:** You have until the end of the 9<sup>th</sup> week to drop the class. If you elect to do so, drop yourself. Do not assume you have automatically been dropped. After the 9<sup>th</sup> 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 o 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.

## TENTATIVE SCHEDULE

Please bring your textbook to lecture and your textbook and lab manual to every lab. This is very important!

LR means lab review sheets (Required)

Week	Dates	Lecture (Book Chapter)	Lab (Manual Chapter) **Lab Day Will Vary by Section Number**
1	Week of (1/14)	Introduction/Syllabus Chapter 1: Introduction to Science Chapter 2: Introduction to Human Biology <b>Syllabus Quiz</b> <b>Discussion Board 1</b>	<b>Laboratory Safety</b> <b>Lab 1 : Light Microscopy</b> <b>LR 1</b> <b><u>Drawing 1: Cheek/Cell Structure</u></b>
2	Week of (1/21)	Chapter 3: Chemistry <b>Quiz 1</b> <b>Discussion Board 2</b>	<b>Lab 2: Chemical Composition of Cells</b> <b>LR 2</b> MONDAY LAB DIGITAL OPTION OR ATTEND WEDNESDAY
3	Week of (1/28)	Chapter 4: Cells <b>Quiz 2</b> <b>Discussion Board 3</b>	<b>Lab 3: Cells</b> <b>LR 3</b> <b><u>Drawing 2: Epithelial/Connective Tissue</u></b>
4	Week of (2/4)	Chapter 5: Genetics <b>Quiz 3</b> <b>Discussion Board 4</b>	<b>Lab 4: DNA</b> <b>LR 4</b> <b><u>Drawing 3: DNA/RNA Molecule</u></b>
5	Week of (2/11)	Chapter 6: Biological Evolution <b>Lecture Exam 1</b>	<b>Lab 5: Mitosis and Meiosis</b> <b>LR 5</b> <b><u>Drawing 4: Mitosis/Meiosis</u></b> <b>Lab Practical Quiz</b>
6	Week of (2/18)	Chapter 7: Human Evolution Chapter 8: Human Variation <b>Quiz 4</b> <b>Discussion Board 5</b>	<b>Lab 6: Patterns of Genetic Inheritance</b> <b>LR 6</b>
7	Week of (2/25)	Chapter 9: Introduction to the Human Body Chapter 12: Integumentary System <b>Quiz 5</b> <b>Discussion Board 6</b>	<b>Lab 7 : Body Tissues</b> <b>LR 7</b>
8	Week of (3/4)	Chapter 16: Cardiovascular System Chapter 17: Digestive System <b>Quiz 6</b> <b>Discussion Board 7</b>	<b>Lab 8: Cardiovascular System</b> <b>LR 8</b> <b><u>Drawing 5: Heart Structure (Internal and External)</u></b>
9	Week of (3/11)	Chapter 18: Excretory System Chapter 15: Respiratory System <b>Quiz 7</b> <b>Discussion Board 8</b>	<b>Lab 9: Homeostasis</b> <b>LR 9</b> <b><u>Drawing 6: Nephron and Tubules</u></b>
10	Week of (3/18)	Chapter 13: Skeletal System <b>Lecture Exam 2</b>	<b>Lab Exam 1</b>
11	Week of (3/25)	Chapter 13: Muscular System <b>Quiz 8</b> <b>Discussion Board 9</b>	<b>Lab 10: Musculoskeletal System</b> <b>LR 10</b> <b><u>Drawing 7: Muscle fiber/tissue</u></b>

12	Week of (4/1)	Chapter 10: Nervous System <b>Quiz 9</b> <b>Discussion Board 10</b>	<b>Lab 11:</b> Nervous System and Senses <u><b>LR 11</b></u> <u><b>Drawing 8: Eye/Ear</b></u>
13	Week of (4/8)	Chapter 11: Endocrine System Chapter 20: Reproductive System <b>Quiz 10</b> <b>Discussion Board 11</b>	<b>Lab 12:</b> Organization of the Body <u><b>LR 12</b></u>
14	Week of (4/15)	Spring Break No Class	
15	Week of (4/22)	Chapter 21: Human Growth and Development <b>Lecture Exam 3</b>	<b>Lab 13:</b> Reproduction and Development <u><b>LR 13</b></u>
16	Week of (4/29)	Chapter 19: Immune System Chapter 22: Disease <b>Quiz 11</b> <b>Discussion Board 12</b>	<b>Lab Exam 2</b>
17	Week of (5/6)	Chapter 23: Nutrition Chapter 24: Ecology <b>Quiz 12</b> <b>Discussion Board 13</b>	<b>Lab 14:</b> Human Evolution <u><b>LR 14</b></u>
18	Week of (5/13)	Chapter 25: Human Populations	<b>Case Study Presentations</b>
18	Week of (5/20)	<b>Final Exam (Cumulative)</b>	

#### Important Dates

- January 25: Last day to drop with full refund
- February 1: Last day to add/drop a class (no "W" on transcript)
- February 8: Last day to declare pass/no pass (P/NP) grade option
- March 8: Last day to be dropped with a "W"