

Reedley College

Spring 2012

Class: Biology 5 – Human Biology 57003 (4 Units)
Lecture – Monday, Wednesday, Friday: 8:00am-8:50 in LFS C
Laboratory – Wednesday: 9:00am-10:50 in LFS C

This course is an introductory human biology course that examines science and societal issues. There is special emphasis on the following body systems: Circulatory, Digestive, Respiratory, Urinary, Skeletal, Muscular, Nervous, Sensory, Endocrine, Reproductive and Genetics.

Basic Advisories: English 1A and eligibility for Mathematics 101

Text: Human Biology (twelfth edition) by Sylvia Mader McGraw Hill
Lab Manual: Human Biology (twelfth edition) by Sylvia Mader McGraw Hill

Instructor: Vanessa Gonzales
Email: vanessa.gonzales@reedleycollege.edu or vane6gonz@gmail.com
Office Hours: by appointment

Attendance: Attendance will be taken during each class period (lecture and lab). Excessive absence is detrimental to your success, and is grounds for dismissal. There are No excused absences except as defined in the Reedley College Catalog. If you are absent more than FIVE hours during the semester, you MAY be dropped from the class. If you are absent more than TEN hours, you WILL be dropped from the class. If your ELEVENTH hour of absence occurs after the last day to drop, your final point total will be lowered by 25 points for each absence. You must attend the whole class period. Students leaving before the end of class will be counted as absent.

Tardiness: Arrive in class on time. If you are late it is your responsibility to make sure that you are not marked absent. To be sure you are not marked absent, give me a sheet of paper with your name, the date, and your section number, after class. A total of three tardies will equal one absence.

Important Dates:

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| Instruction begins | Monday, January 9 |
| Martin Luther King, Jr. Holiday | Monday, January 16 |
| Last day to drop a full-length class to avoid a "W" | Friday, January 27 |
| Lincoln's Day Holiday | Friday, February 17 |
| Washington's Day Holiday | Monday, February 20 |
| Last day to drop a semester length course (letter grade assigned after this date) | Friday, March 9 |
| Spring Recess | Monday-Thursday, April 2-6 |
| Good Friday Holiday | Friday, April 7 |
| Final Exam | Monday, May 14 |
| End of Spring Semester | Friday, May 18 |

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

Reading assignments: You are responsible for learning the material in the assigned readings regardless if it is discussed in lecture. Completing the reading assignments before class will help you to understand the lecture material as well as make you a more active participant during in class discussions. If you are having any problems understanding the reading material, please feel free to ask for my assistance.

Quizzes: Can be given at any time during the class. They will usually cover the material from the assigned reading. Lab quizzes cover material from the previous lab session.

Examinations: Exams are to be given at their designated times only. For unforeseen or special circumstances, the instructor must be notified, and approve of an alternate test date or time. It is the student's responsibility to notify the instructor **as soon as possible**, and to arrange for an alternate date/time. Make up exams will be given in **essay** form. All makeup exams must be taken **within one week of the missed exam**. Any student missing one exam must provide documentation as to why they missed an exam. Students will only be allowed to make-up one exam. Exams will cover material from reading assignments, lecture, and lab.

Lab Grades: **Completed lab assignments are due at the end of the lab period.** Lab quizzes will be given at the beginning of the lab period and will quiz the material covered in the previous lab session. You will also receive a lab technique grade. This is an evaluation of your work in the lab (such as laboratory participation and also **staying the complete laboratory period, which is required**) as well as your lab station technique (clean up) as an individual, and as a member of a group. Every lab period, students with satisfactory lab technique will receive a check mark next to their name. Students who do not have satisfactory lab technique will receive a zero. At the end of the semester, students who have more than five zeros will receive a "poor" lab technique grade. Students with less than five zeros will receive a "satisfactory" lab technique grade.

Late Work: Late work will automatically be deducted 30% from the total points possible and drops and additional 10% for each day after that. If you must be absent on the due date of an assignment, you must get the assignment to me before class begins on that day. **Assignments that are over one week late will not be accepted.**

Final Grade: Determined by the calculation of total points earned (by the combination of lecture and lab points) out of the total points possible for the entire class. Letter grades will be given based on the percentage of the total points earned out of the total points possible as follows:

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| A = 90% to 100% | Five (5) Exams- 75 points each |
| B = 80% to 89% | One (1) Final Exam- 150 points |
| C = 70% to 79% | Fifteen (15) Lab Assignments- 10 points each |
| D = 60% to 69% | Ten Lecture (5) and Lab (5) Quizzes- 10 points each |
| F = 59% & lower | Lecture and Laboratory Participation- 25 points |

**** The points given for each assignment may change, as may the number of assignments.**

However, the total point calculation for grades will be based on a percentage of the total points offered.

Student Expectations: Students are expected to be punctual and respectful of other students and the instructor. If cell phones, etc. become a disruption to the instructor or other students, you will be asked to leave the class immediately. Talking during lecture sessions is not acceptable, and students will be asked politely to refrain. If disruptive behavior continues, you will be asked to leave the class. Students are however, encouraged to ask pertinent questions of the instructor, and at times, class discussions during lecture are encouraged. **THE USE OF CELL PHONES AND OTHER ELECTRONIC DEVICES WILL NOT BE ALLOWED IN CLASS!** Make sure they are turned off before class starts. **NO FOOD OR DRINK IS ALLOWED IN ANY CLASSROOMS.** Do not bring food and drinks to class because you will be asked to throw them away. Please do not bring guests to class (this includes children).

Laboratory sessions **require active participation**, and this is the opportunity to talk and discuss concepts with fellow students and to get guidance from the instructor. Generally you will be working in pairs or in groups with lab partners. Students are encouraged to engage fully in laboratory activities.

As this course covers an extensive amount of information, it is **essential** to put in extra study time **outside of class** in order to succeed. It is imperative that you keep up with assignments and review the material **every week** as there is a lot of material covered in this course. The easiest way to do poorly in this course is to put off studying until the last minute.

NOTE: This class will be taught as a *web-enhanced* course using **Blackboard** system. This is **not** an online course; rather the Blackboard web site will be used for announcements, posting of lecture outlines, assignments, and presentations, as well as other things relevant to the course. **IT IS YOUR RESPONSIBILITY TO CHECK BLACKBOARD REGULARLY FOR ANY ANNOUNCEMENTS OR CHANGES.**

Special Needs Requests:

“If you have a verified 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.”

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.

Cheating is the act or attempted act of taking an examination or performing an assigned, evaluated task in a fraudulent or deceptive manner, such as having improper access to answers, in an attempt to gain an unearned academic advantage. Cheating may include, but is not limited to, copying from another's work, supplying one's work to another, giving or receiving copies of examinations without an instructor's permission, using or displaying notes or devices inappropriate to the conditions of the examination, allowing someone other than the officially enrolled student to represent the student, or failing to disclose research results completely.

Plagiarism is a specific form of cheating: the use of another's words or ideas without identifying them as such or giving credit to the source. Plagiarism may include, but is not limited to, failing to provide complete citations and references for all work that draws on the ideas, words, or work of others, failing to identify the contributors to work done in collaboration, submitting duplicate work to be evaluated in different courses without the knowledge and consent of the instructors involved, or failing to observe computer security systems and software copyrights. Incidents of cheating and plagiarism may result in any of a variety of sanctions and penalties, which may range from a failing grade on a particular examination, paper, project, or assignment in question to a failing grade in the course, at the discretion of the instructor and depending on the severity and frequency of the incidents."

Course Objectives:

Upon completion of this course, students will:

- A. demonstrate knowledge regarding the process of science and society, microscopy, and the cell
- B. identify human body levels of organization and homeostatic mechanisms
- C. demonstrate knowledge of the chemical basis of life
- D. evaluate scientific literature and current biological achievements
- E. apply the principles of genetics to humans and understand the outcome of normal and abnormal DNA
- F. demonstrate knowledge regarding the structure and function of the following systems: circulation, digestive, respiratory, urinary, skeletal, muscular, nervous, sensory, endocrine, reproduction, and genetics and evolution

Student Learning Outcomes:

In the process of completing this course, students will:

- A. read, analyze, evaluate, and discuss scientific method, the cell, and human levels of organization
- B. learn the periodic table of the elements, the chemistry of the carbon atom, and the chemical structure of humans
- C. analyze and interpret data on the homeostatic mechanisms within the human body
- D. learn the cell's structure, function, and the cell cycle in relation to the multicellular human body
- E. 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
- F. review classical and molecular genetics and learn the processes of replication, transcription, and translation
- G. perform experiments, observe, and record data
- H. study evolution
- I. discuss social issues between humans and science

Lecture and Lab Schedule **I reserve the right to make changes in the schedule with notification**

| Week | Monday Lecture | Wednesday Lecture | Wednesday Lab | Friday Lecture |
|------|--|---|---|--|
| 1 | Jan. 9 Ch. 1- Exploring Life & Science | Jan. 11 Ch. 2- Chemistry of Life | Jan. 11 Lab 2- Light Microscopy | Jan. 13 Ch. 3- Cell Structure & Function |
| 2 | Jan. 16 Martin Luther King, Jr. Day | Jan. 18 Lecture Quiz 1 Ch. 3- Cell Structure & Function | Jan. 18 Lab Quiz 1 Lab 3- Chemical Composition of Cells | Jan 20. Ch. 4- Organization & Regulation of Body Systems |
| 3 | Jan. 23 Ch. 5- Cardiovascular System: Heart & Blood Vessels | Jan. 25 Cardiovascular System: Heart & Blood Vessels Cont. | Jan. 25 Lab 4- Cell Structure & Function | Jan. 27 Exam 1 Review |
| 4 | Jan. 30 Exam 1 (Chapters 1-4) | Feb. 1 Ch. 6- Cardiovascular System: Blood | Feb. 1 Lab 7- Cardiovascular System | Feb. 3 Ch. 7- Lymphatic System & Immunity |
| 5 | Feb. 6 Ch. 8- Digestive System & Nutrition | Feb. 8 Digestive System & Nutrition Cont. | Feb. 8 Lab Quiz 2 Lab 8- Chemical Aspects of Digestion | Feb. 10 Exam 2 Review |
| 6 | Feb. 13 Exam 2 (Chapters 5-8) | Feb. 15 Ch. 9- Respiratory System | Feb. 15 Lab 9- Energy Requirements & Ideal Weight | Feb. 17 Lincoln's Day |
| 7 | Feb. 20 Washington's Day | Feb. 22 Ch. 10- Urinary System & Excretion | Feb. 22 Lab 10- Homeostasis | Feb. 24 Lecture Quiz 2 Urinary System & Excretion Cont |
| 8 | Feb. 27 Ch. 11- Skeletal System | Feb. 29 Ch. 12- Muscular System | Feb. 29 Lab Quiz 3 Lab 11- Musculoskeletal System | Mar. 2 Exam 3 Review |
| 9 | Mar. 5 Exam 3 (Chapters 9-12) | Mar. 7 Ch. 13- Nervous System | Mar. 7 Lab 12- Nervous System & Senses | Mar. 9 Nervous System Cont. |
| 10 | Mar. 12 Lecture Quiz 3 Ch. 14- Senses | Mar. 14 Ch. 15- Endocrine System | Mar. 14 Lab 13- Development | Mar. 16 Ch. 16- Reproductive System |
| 11 | Mar. 19 Ch. 17- Development & Aging | Mar. 21 Ch. 18- Patterns of Chromosome Inheritance | Mar. 21 Lab Quiz 4 Lab 14- Mitosis and Meiosis | Mar. 23 Exam 4 Review |
| 12 | Mar. 26 Exam 4 (Chapters 13-17) | Mar. 28 Patterns of Chromosome Inheritance Cont. | Mar. 28 Lab | Mar. 30 Patterns of Chromosome Inheritance Cont. |

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| 13 | Apr. 2 Spring | Apr. 4 Break | Apr. 4 Holiday | Apr. 6 Week |
| 14 | Apr. 9 Ch. 20- Patterns of Genetic Inheritance | Apr. 11 Patterns of Genetic Inheritance Cont. | Apr. 11 Lab 15- Patterns of Inheritance | Apr. 13 Lecture Quiz 4 Ch. 21- DNA Biology & Technology |
| 15 | Apr. 16 DNA Biology & Technology Cont. | Apr. 18 Ch. 19- Cancer | Apr. 18 Lab Quiz 5 Lab 16- DNA & Biotechnology | Apr. 20 Exam 5 Review |
| 16 | Apr. 23 Exam 5 (Chapters 18-21) | Apr. 25 Ch. 22- Human Evolution | Apr. 25 Lab | Apr. 27 Human Evolution Cont. |
| 17 | Apr. 30 Ch. 23- Global Ecology | May 2 Global Ecology Cont. | May 2 Lab 17- Evolution | May 4 Ch. 24- Human Population, Planetary Resources, & Conservation |
| 18 | May 7 Lecture Quiz 5 Human Population, Planetary Resources, & Conservation Cont. | May 9 Human Population, Planetary Resources, & Conservation Cont. | May 9 Lab 18- Effects of Pollution on Ecosystems | May 11 Final Exam Review |

Final Exam: Monday May 14, 2012 8:00-9:50am