

Biology 5: Human Biology
Course Description and Tentative Schedule Summer 2015

Instructor: Joseph Lin

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A. Course Number: 78046

Units: 4 Units, 8 hours of lectures and 4 hours of lab per week

Time & Location: Lectures: Life Science, Room 17

Monday-Thursday

08:15AM - 10:20AM lecture in Life Science, Room 17

10:20AM – 11:35AM lab in Life Science, Room 17

Date: 06/22/2015-07/31/2015

Lecturer: Joseph Yen Lin, M.S.

Office Phone: 206-288-9264

Office hours: Upon Request, will be available during Friday after 1:50PM

E-mail: joseph.lin@reedleycollege.edu

B. Prerequisites: None, eligibility for ENGL 125, 126, or 153; or ESL 67 and 68 recommended.

C. 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).

D. Objectives: To expose the student to the field of Biology and the general principles of scientific study as they relate to humans. Students completing the course will have a basic understanding of the cellular and chemical basis of life, genetics, evolution and ecology. Human structure and function will be the major focus of the class. Students will also be able to analyze and critically evaluate scientific literature, will have an introductory knowledge of laboratory procedures, and will have an awareness and appreciation for some of the career choices the field of biology has to offer.

Your ID code (Lab section #) must be on all papers, exams, assignments, and extra credit.

Examples: Jane Doe 22758; John Student 22759; Ima Student 22760.

II. REQUIRED MATERIALS

Mader, Sylvia S. and Michael Windelspecht, *Human Biology*, 13th edition. 2013 with Connect LearnSmart Access

Website Link: <http://connect.mheducation.com/class/j-lin-summer-of-biol-5-reedley>

Mader, Sylvia S., *Human Biology Lab Manual*, 13th edition, 2013.

Your attention and your brain!

Optional (but highly recommended) materials:

Biology drawing paper; one 2H and one 4h pencil (required if doing extra credit drawings)

Metric ruler (15 cm, clear plastic)

Rubber gloves, protective clothing (for dissection labs)

Scantron #886-E for lecture tests (x5) and Scantron #882(x1) for final exam.

III. NO FOOD, BEVERAGES, CELLULAR PHONES, PAGERS, OR PROFANITY AT ANY TIME! If your electronics become a disturbance to the class, points will be deducted from your scores on assignments. Silent or “manner” mode is O.K.

IV. ATTENDANCE AND DROP/ADD POLICY

Your success in this course requires that you be on time for each lecture and lab. Written excuses for absences prior to the missed session will be honored at my discretion. Tardiness (and leaving early) will be construed as an absence for that session. It is your responsibility to see me after the class to ensure that an absence has been changed to a tardy. Please be aware that 3 tardies = 1 absence. Each absence will represent 6 points.

I will 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 an excuse. Written excuses for absences will be honored at my discretion.

V. LATE ASSIGNMENTS, CHEATING, AND MAKE-UP POLICY

Any assignment turned in late will not be graded. After one week any missed grade may not be made up unless prior written arrangements have been made. This is to ensure fairness both to the other students and to me. Abstracts (see “Tests and Evaluation” below) can NOT be turned in late. Any student caught cheating will be subject to the Reedley College disciplinary procedures (see the catalog). Be aware that the procedures require a written notification to the dean that will become a part of your permanent record.

Lab practical exams can NOT be made up. Period. Lecture exams can not be made up, unless extreme circumstances, documented in writing, are provided to me AND it is the **ONLY** lecture exam that you have missed.

VI. TESTS AND EVALUATION

| <u>Description</u> | <u>Possible Points</u> |
|---|------------------------|
| 3 Lecture Exams (100 points each) | 300 |
| 1 Case Study Presentation | 100 |
| 10 Connect Quiz (15 points each) | 150 |
| 8 Lab Review Sheets (10 points each) | 80 |
| 10 Drawings (5 points each) | 50 |
| 2 Lab Practical Exams (100 points each) | 200 |
| 10 Learn Smart Reading (5 points each) | 50 |
| Lecture Final | <u>200</u> |
| Total points | 1,130 |
| Extra Credit (see VII below) | Maximum of: 40 |

To calculate your grade, total all points earned and divide that number by the total points available (1,000). **Course grades are non-negotiable; because extra credit points and exam curves are offered the grading scale will not be adjusted; I DO NOT round up your grades to the next letter grade.** The final course grade is based on:

90 - 100%; A 80 – 89.99%; B 70 – 79.99%; C 60 – 69.99%; D < 59.99%; F

B. Lecture exams will be multiple-choice, true-false, matching, and possible short-answer or 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!

C. Lab exams will be practical based on the work done in the laboratory. They may include multiple choice and short answer questions. Please see B above for spelling, grammar, and neatness!

D. Abstract reports will come from library periodicals. See the handout for more information. Please see B above for spelling and grammar!

E. The 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.

VII. EXTRA CREDIT

I strongly recommend doing extra credit if you feel you have a borderline grade. You may earn up to a **maximum of 40 points** by doing one or more of the following items:

- A. Participating in the lecture summaries.
- B. Outstanding case study presentation.
- C. Attendance quiz

VIII. BLACKBOARD

All lecture and lab handouts, lecture notes, course schedules, and announcements are available at <http://blackboard.reedleycollege.edu>. Your user name and password will be discussed in class.

IX. 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.

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. 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. 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). 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.

IX. TENTATIVE SCHEDULE

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

***Means Online Quiz via Connect.

LR means lab review sheets (Required)

WRK means worksheet

| Week | Dates | Lecture (Book Chapter) | Lab (Manual Chapter) |
|-------------|--------------|---|--|
| 1 | 6/22 | Introduction, Chemistry (1,2) | Lab 1: Metric Measurement and Light Microscopy Lab 2. Go over Abstract and drawing/ Scientific Method |
| 1 | 6/23 | Introduction, Chemistry (2) | Lab 2 Drawing 1 –Cell/Cheek Structure Quiz 1*** |
| 1 | 6/24 | Cell Structure and Function (3) LS Chapter 3 | Lab 3 : Composition of Cells <u>LR 4 – pg. 48</u> |
| 1 | 6/25 | Organization and Regulation of Body System Organ Systems (4) LS Chapter 4 | Lab 4: Cell Structure and Function (<u>Sheep Blood Activity</u>) Quiz 2*** |
| 2 | 6/29 | Organization and Regulation of Body System Organ Systems (4) | Lab 5: Human Body Tissues Drawing 2 – (Epithelial/Connective) <u>LR 6 –pg. 74</u> |
| 2 | 6/30 | Cardiovascular : Heart and Blood Vessel (5) LS Chapter 5 | Lab 5: Human Body Tissues Drawing 3 – (Nervous/Muscular) Quiz 3*** |
| 2 | 7/1 | Cardiovascular System: Blood (6) | Lab 6: Cardiovascular System Drawing 4 – (External and Internal Heart Structure) |
| 2 | 7/2 | Lecture Exam 1 (1-6)*** Lymphatic System and Immunity (7) LS Chapter 7 | Lab 7: Organization of Body “PowerPoint Pig Dissection” <u>LR 7 – pg. 90</u> Quiz 4*** |
| 3 | 7/6 | Digestive System (8) LS Chapter 8 Sensory Mechanisms, Endocrine System (12, 13) | Lab Practical #1 |
| 3 | 7/7 | Respiratory System (9) LS Chapter 9 | Lab 8: Chemical Aspect of Digestion (<u>Macromolecules Test Activity</u>) |
| 3 | 7/8 | Renal System (10) | Lab 9: Respiratory System Quiz 5*** Lab 10: Urinary System and Excretion Drawing 5 – (Nephron and Tubules) <u>LR 9 – pg. 114</u> |
| 3 | 7/9 | Renal System (10) LS Chapter 10 | Lab 11: Musculoskeletal System <u>LR 12 – pg. 165</u> Quiz 6*** |
| 4 | 7/13 | Lecture Exam 2 (7-10,12,13)*** Skeletal and Muscular System (11-12) | Lab 12: Homeostasis (Printed Handout) |

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| 4 | 7/14 | Skeletal and Muscular System (11-12) | Lab 13: Nervous System Quiz 7*** WRK 6 |
| 4 | 7/15 | Skeletal and Muscular System (11-12) LS Chapter 11 and 12 | Lab 14: Senses |
| 4 | 7/16 | Senses (14) Endocrine System (15) LS Chapter 14 Nervous System (13) | Lab 15: Reproductive and Development / Sense LR 14 – pg. 198 Quiz 8*** |
| 5 | 7/20 | Senses (14) Endocrine System (15) Genetic Inheritance (20) | Lab 16: Mitosis and Meiosis LR 13 |
| 5 | 7/21 | Reproductive System (16) Development and Aging (17) | Lab 16: Mitosis and Meiosis Drawing 6 – (Eye/Ear Model) Quiz 9*** |
| 5 | 7/22 | Lecture Exam 3 (11-17,20)*** Chromosome Inheritance (18) | Lab 17: DNA biology Drawing 7 – (Mitosis/Meiosis) |
| 5 | 7/23 | Chromosome Inheritance (18) Genetic Inheritance (20) | Lab 18: Isolation of DNA (Pea or Onion Extraction) Drawing 8 – (DNA/RNA molecule) Quiz 10*** |
| 6 | 7/27 | Human Evolution (22) Human Population and Conservation (24) | Lab Practical #2 |
| 6 | 7/28 | Case Study Presentation | |
| 6 | 7/29 | Case Study Presentation | |
| 6 | 7/30 | Final (Cumulative)*** | |