

Biology 22: Human Physiology #56062
Course Description and Tentative Schedule Fall 2015

Instructor: Joseph Yen Lin

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I. COURSE DESCRIPTION

A. Course Number: 56062; 5 Units 4 Lecture hours, 3 Lab hours
Lecture: Tuesday, Thursday 05:30PM - 07:20PM, Life Science, Room 11
Lab: Tuesday, Thursday 07:30PM - 08:45PM, Life Science, Room 11

Office hours in LFS #13

Monday: Virtual office hours at 1:30-2:30

Tues 3:30-5:30

Thurs 4:30-5:30

Wed/Fri 12:00-1:30

Extension: 3407

B. Prerequisites: BIOL 20 and CHEM 3A or CHEM 1A, taken in the last five years.
Eligibility for ENGL 125, 126, or 153; or ESL 67 and 68 recommended.

C. Description: students completing the course will have a basic understanding of human structure and function of each major organ system. "This is a course providing a basic understanding and working knowledge of the human body with emphasis on the structure of each major system. The interrelationship between human systems and the relationship between structure and function of each system will be studied at several levels: cellular, tissue, organ, system, and organismal." It is especially useful for those students planning a career as a nurse, physician's assistant, nurse practitioner, laboratory technician, radiologist, nuclear medicine technologist, inhalation therapist, medical office assistant, medical record keeper, dental hygienist, physical therapist, surgical assistant, and also students in premedical, pre-dental, physical education, sports medicine, nutrition, and pre-chiropractic programs.

D. Objectives:

In the process of completing this course, students will:

- A. Assess the basic structure and function of each system in the human body.
- B. Assess the results of laboratory experiments and demonstrations.
- C. Illustrate the cell membrane, its electrical activity and the conduction of action potentials.
- D. Compare the autonomic system and the endocrine system.
- E. Analyze the cardiovascular system by performing an EKG and monitoring blood pressure.
- F. Evaluate lung and kidney function using computer simulations.

II. REQUIRED MATERIALS

Text: Human Physiology by Stuart Ira Fox, 13th Edition. ISBN: 978-0073403625 or Connect Human Physiology by Stuart Ira Fox Online (includes eBook)

<http://connect.mheducation.com/class/j-lin-fall-2015---biol-22>

Laboratory Manual: PhysioEx 9.0. ISBN: 978-0321-81140-0

Scantrons: 882E, 886E

III. NO FOOD, OPEN LID BEVERAGES, CELLULAR PHONES, PAGERS, OR PROFANITY AT ANY TIME! Please respect other students. Professional behavior is expected at all times. I am aware that emergencies arise, but place your electronics on silent or "manner" mode.

IV. ATTENDANCE AND DROP/ADD POLICY

Your success in this course requires that you be ***on time and here*** for each lecture and lab. Excuses for absences will be honored at my discretion. Most announcements will be placed on Blackboard, but find a "buddy" in class to inform you of any announcements that might be made during your absence. I will drop students (both enrolled and waitlisted) based on the following policy:

- Student does not attend the first lecture.
- Student does not attend the first lab.
- Student misses a cumulative 7 hours (lecture or lab) in the first two weeks.
- Student misses 8 hours (lecture or lab) up to drop date without providing an excuse.

HOWEVER, you are responsible for dropping yourself from the class if you wish to do so. Do not rely on my paperwork skills should you decide to no longer attend the course, and I will be forced to give you a grade (usually an "F") if you stop attending after the 9 week drop date.

Participation in class, especially laboratory activities, is critical for maximizing learning and successful completion of the course. Regular **sign in sheet** will be taken and excessive absences may result in you being dropped from the course. A student not present at time of roll sign in will be considered absent. If several different but important activities occur during a class session, multiple roll calls may be recorded to document who was present during the important activity.

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

Any assignment turned in late may receive a penalty. **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 your instructor.

Any student caught cheating or plagiarizing will receive a zero for the test/assignment and 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

Exams can NOT be made up. Period. If you miss a Lab Exam, you forfeit those points. You may, at my discretion, make up ONE Lecture Exam if you miss it due to extreme circumstances. You **MUST** email me your explanation, and any other missed exam will receive a score of 0. Pop quizzes, if given, may not be made up.

Late assignments will not be accepted. At the instructor's discretion only, for any work (labs, assignment, exams, and papers) turned in late, 50% of the total points possible will automatically be deducted. Lab assignments will be due during the beginning of each lab class section.

VI. TESTS AND EVALUATION

A. Grades

<u>Description</u>	<u>Possible Points</u>
4 Lecture Exams (100 points each)	400
9 Lab Reports (20 points each)	180
12 Connect Online (10 points)	120
8 Lab Quiz (20 points each)	160
Case Studies Presentation	100
Lecture Final	200
Summary Presentation	30
<u>Attendance/participation</u>	<u>40</u>

Total points

1,230

The grade you receive for the course will be based on the following scale:

90% + = A 80-89% = B 70-79% = C 60-69% = D 59% and Below = F

Lecture exams (5) will be multiple-choice with approximately 1-2 short-answer or essay questions based on the main objectives of each chapter. **Variable amounts of extra credit will be given on lecture exams.** Please note that I require correct spelling and grammar. If I can't read it, I can't grade it! Write neatly!

VII. BLACKBOARD

All lecture and lab handouts, lecture notes, course schedules, and announcements are available under <http://blackboard.reedleycollege.edu> and use your. Use your student ID number as both the user name and password to enter your account. I strongly recommend that you change your password immediately for security reasons by clicking on 'Personal Information' (left hand column) and following the directions. I will have interactive PowerPoint slides on blackboard that may be used in your exams.

VIII. HOW TO BE SUCCESSFUL IN THIS COURSE

A. There is a massive amount of memorization that must be done in this course! College students are expected to spend **2-3 hours per class hour outside the classroom studying: that translates to**

12-18 hours per week for this course, excluding test study time. Some of this time, especially for the labs, should be completed prior to the class. Get rid of distracting elements such as TV, iPods, MP3s, friends, roommates, spouses, and children. Log your time (don't count breaks)...you'll be surprised.

- B. **Listen in lecture and take good notes using my outlines from blackboard** (you may use a tape recorder during lecture if you wish). Organize your notes and redo them if necessary. You may want to take notes in your text during the lecture. **Review your notes frequently, not just before a test.** Please feel free to contact me if you are having difficulties.
- C. Do your reading assignments **prior to the lecture** on that particular topic. Read your labs **prior to the lab** period, partially complete the lab report, and then verify your answers during the lab.
- D. Keep a **vocabulary list of all terms** mentioned in lecture, in bold print in the text, or listed at the end of each chapter. Know the **meaning** of each of these terms and the **correct spelling**.
- E. **Spend some time studying each day.** Review notes for 15-30 minutes at one time. Reading assignments are best done by spending an hour or two at one time. Don't try to complete your study hours all in one sitting or on the same day, as your efficiency will drop dramatically. Review an additional 3-5 hours prior to examinations
- F. Form study groups to work together. Make your own review sheet or, if you work in a study group, have each person make a review sheet for a chapter and then teach each other.

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.

Per Title V Regulation 58170(e) the tutorial center has to have a recommendation from an instructor or counselor for every student they serve.

X. TENTATIVE SCHEDULE

Please bring your textbook to lecture and your textbook and lab manual (Physio-ex) to every lab. Required assignments or tests are in bold. Additions or changes will be announced in class and posted on blackboard. Quizzes *** will be due during the 2nd class meeting of each week (ex. **Week 2 Quiz #1 due 8/27**). Physio-ex virtual lab will be due during the 2nd lab period.

Week	Dates	Lecture (Book Chapter)	Lab (Manual Chapter)
1	8/18-8/20	Syllabus Study of Body Function (1) Chemical Composition of Body (2) Connect 1	Lab 1: Introduction to Anatomy & Physiology and Microscopes
2	8/25-8/27	Cell structure and Genetic Control (3) Connect 2	Lab 2: Cell Biology and Feedback Worksheet Cell Transport Quiz #1****
3	9/1-9/3	Enzymes and Energy (4) Connect 3	Lab 3: Physio-ex 1 (Due 9/3)
4	9/8-9/10	Cell Respiration and Metabolism (5) Exam #1 (1-4) Connect 4	Lab 3: Physio-ex 3 (Due 9/10)
5	9/15-9/17	Cells and Extracellular Environment (6) Endocrine (11) Connect 5	Lab 4: Physio-ex 3 (Due 9/17) Quiz #2****
6	9/22-9/24	The Central Nervous System (9) Exam #2 (4,5,6,11) Connect 6	Lab 4: Physio-ex 4 (Due 9/24)
7	9/29-10/1	Neurons and Synapses (8) The Central Nervous System (9) Connect 7	Lab 5: Sensory Physiology (Eyeball Dissection)
8	10/6-10/8	Sensory Physiology (10) Neurons and Synapses (8) Connect 8	Dissection lab Eyeball Quiz #3****
9	10/13-10/15	Muscle (12) Blood, Heart, and Circulation (13) Exam #3 (7,8,9,10)	Lab 6: Physio-ex 2 (Due 10/15), Muscle Worksheet
10	10/20-10/22	Muscle (12) Blood, Heart, and Circulation (13) Connect 9	Lab 7: Blood type Worksheet Physio-ex 11 (Due 10/22)
11	10/27-10/29	CO, BF, and BP (14) Blood, Heart, and Circulation (13) Connect 10	Lab 8: Physio-ex 12 + 7 (Due 10/29), EKG Worksheet Quiz #4****
12	11/3-11/5	Immune System (15) Respiratory (16) Exam #4 (12-14)	Respiratory Worksheet
13	11/10-11/12	Respiratory (16) Physiology of Kidney (17) Connect 11	Lab 9: Physio-ex 9 (Due 11/12) Quiz #5****
14	11/17-11/19	Physiology of Kidney (17) Connect 12	Dissection Lab Kidney
15	11/24 11/26 NO CLASS	Digestive System (18) Metabolism (19)	Lab 10: Physio-ex 8 (Due 12/1), Worksheet Chemical Digestion
16	12/1-12/3	Metabolism (19) Reproduction (20)	Lab 11: Models Quiz #6****
17	12/8-12/10	Reproduction (20) Case Study Presentation	Case Study Presentation
Finals	12/15	Final Exam: Tuesday, 5:30 PM (Cumulative)	