

Spring 18 Syllabus: Human Physiology (BIOL 2402 Lecture)

INSTRUCTOR: Ms. Volha Minich

Phone: 936.294.3244

Office Hours: MW 1-3

Office: Lee Drain Bldg. 147

Email: vxm050@shsu.edu

TR 9:30 – 12:00

Note: I am on-campus most days, so, if you need help outside of office hours, stop by my office or schedule an appointment.

COURSE LOCATION & TIME: Lee Drain Bldg. 220, TR 8:00 – 9:20

COURSE DESCRIPTION: This course will help students identify and understand the function of several important human organ systems and how these systems maintain homeostasis. Topics and the mechanisms involving circulation, digestion, metabolism, muscle action and respiration will receive the most emphasis. This course is designed to emphasize a clinical knowledge of physiology and techniques required by students studying nursing, physical therapy, and related health fields. Two-hour laboratory. This course may not be applied for biology major credit and is open only to students pursuing degrees in nursing, physical therapy, physical education, or other related health fields.

PREREQUISITES: A minimum grade of C or better in Human Anatomy (BIO 2401) and a course in introductory chemistry are required.

REQUIRED COURSE MATERIALS:

1. Connect Online Access for Vander's Human Physiology. By Eric Widmaier and Hershel Raff and Kevin Strang. 14th Edition. Publisher: McGraw-Hill. ISBN: 9781259620577. It has a 6-month access to the e-book and additional resources, including various assignments you will be required to complete. Connect offers a two-week free trial. If bought directly through the publisher, the cost is \$105. If bought through the campus book store, the price is \$150.

Note: you are **NOT** required to buy a hard copy of the book (the Access Code has an e-book already). However, if you really need it, you can always purchase the loose-leaf version of the text directly from the publisher's website for **\$60** (this includes shipping and handling). You can also buy a cheaper earlier edition.

2. Printed out Unit Notes (every one of 8 units in this course has a set of notes posted in the BlackBoard).

3. Laboratory Exercises in Human Physiology: A Clinical and Experimental Approach with PhILS by Lutterschmidt & Lutterschmidt. ISBN: 9781308918631

4. Scantrons 882-E

COURSE POLICIES:

Attendance and Expectations: Lecture attendance is required. You may not leave during the lecture without advance notice. As University students, I expect you to behave professionally (prompt attendance, respect to other students, etc). **No electronic devices are allowed in the class at ANY time.** Printed notes for each unit are required during class. Inappropriate behavior in the classroom shall result in a directive to leave class and may be reported to the Dean of Students for disciplinary action in accordance with university policy.

Make-up: You will have **5 business days** to make up your test (no make-up will be allowed after the finals). A valid documentation MUST be provided (a doctor's note, a legal notice, a note from the athletic director, etc...). Failure to abide by any one of these attendance policies will result in a zero for the missed exam without the opportunity to take a make-up. No bonus point make-up.

Grading: This course has two components, lecture and lab, combined into one overall course grade.

Exams will be on scantrons and consist of 25 multiple choice question with 30 minutes at the beginning of class. The rest of the class (50 minutes) will be dedicated to the next unit lecture. Should an error be made in scoring exams, I must be informed within a week of the posted grade.

LearnSmart reading assignments and H/Ws are completed through the McGraw Hill Connect system. Connect H/Ws and Reading assignments are time sensitive and must be completed **before the due date** in order to receive credit. LearnSmart reading assignments will have sections from the textbook to read and flashcards to complete – designed for about 45 minutes of activity. Connect H/Ws will consist of 10-15 items to assess understanding of material (two attempts, timed, bonus).

Note: 1. Use a desktop or laptop computer with a stable internet connection.

2. Always begin your assignments through the Blackboard.

3. To register: Just click on your first Connect assignment in Blackboard and you will be directed to the course registration page. After registering the first time, you will automatically be directed to Connect from the Blackboard page.

4. If you have any problems with Connect throughout the course, please contact the **McGraw Hill Customer Experience Group**: Phone: 800-331-5094 Hours: M-Th 7am – 3am, Fri 7am – 8pm, Sat 9am – 7pm, Sun 11am – 1am

Laboratory: Your Teaching Assistant will give you a complete description of lab policies on the first day of lab.

| Category | Weighted (%) |
|--|------------------------------|
| 8 Lecture Exams | 50 |
| Connect LearnSmart Reading Assignments | 20 |
| Connect H/Ws | Bonus points toward the test |
| Laboratory | 30 |
| Total | 100% |

The **OVERALL** grade formula= (Ave Exam x 0.5) + (Ave LearnSmart Reading x 0.20) + (Ave Lab x 0.3)
The **LETTER** grade will be determined: 90-100% (A), 80-89% (B), 70-79% (C), 60-69% (D), <60% (F)

ACADEMIC DISHONESTY:

All students are expected to engage in all academic pursuits in a manner that is above reproach. Students are expected to maintain honesty and integrity in the academic experiences both in and out of the classroom. Any student found guilty of dishonesty in any phase of academic work will be subject to disciplinary action. **Dishonesty on a test or major project will result in failure of the course.** The University and its official representatives may initiate further disciplinary proceedings against a student accused of any

form of academic dishonesty including but not limited to, cheating on an examination or other academic work which is to be submitted, plagiarism, collusion and the abuse of resource materials.

STUDENT ABSENCES ON RELIGIOUS HOLY DAYS POLICY:

Section 51.911(b) of the Texas Education Code requires that an institution of higher education excuse a student from attending classes or other required activities, including examinations, for the observance of a religious holy day, including travel for that purpose. Section 51.911 (a) (2) defines a religious holy day as: "a holy day observed by a religion whose places of worship are exempt from property taxation under Section 11.20...." A student whose absence is excused under this subsection may not be penalized for that absence and shall be allowed to take an examination or complete an assignment from which the student is excused within a reasonable time after the absence. University policy 861001 provides the procedures to be followed by the student and instructor. A student desiring to absent himself/herself from a scheduled class in order to observe (a) religious holy day(s) shall present to each instructor involved a written statement concerning the religious holy day(s). The instructor will complete a form notifying the student of a reasonable timeframe in which the missed assignments and/or examinations are to be completed. For a complete listing of the university policy, see: http://www.shsu.edu/~vaf_www/aps/documents/861001.pdf

STUDENTS WITH DISABILITIES POLICY:

It is the policy of Sam Houston State University that individuals otherwise qualified shall not be excluded, solely by reason of their disability, from participation in any academic program of the university. Further, they shall not be denied the benefits of these programs nor shall they be subjected to discrimination. Students with disabilities that might affect their academic performance are expected to visit with the Office of Services for Students with Disabilities located in the Counseling Center. They should then make arrangements with their individual instructors so that appropriate strategies can be considered and helpful procedures can be developed to ensure that participation and achievement opportunities are not impaired. SHSU adheres to all applicable federal, state, and local laws, regulations, and guidelines with respect to providing reasonable accommodations for students with disabilities. If you have a disability that may affect adversely your work in this class, then I encourage you to register with the SHSU Counseling Center and to talk with me about how I can best help you. All disclosures of disabilities will be kept strictly confidential. NOTE: No accommodation can be made until you register with the Counseling Center. For a complete listing of the university policy, see:

http://www.shsu.edu/~vaf_www/aps/811006.pdf

VISITORS IN THE CLASSROOM:

Only registered students may attend class. Exceptions can be made on a case-by-case basis by the professor. In all cases, visitors must not present a disruption to the class by their attendance. Students wishing to audit a class must apply to do so through the Registrar's Office.

| | Week | Lecture Tentative Schedule: | Tests | Lab |
|----|------------------|--|--------------|--|
| 1 | Jan 18 | Homeostasis | | No Lab |
| 2 | Jan 23 Jan 25 | General Chem General Chem | | L1: Scientific Investigation |
| 3 | Jan 30 Feb 01 | Organic Chem: Intro, C, L Organic Chem: P, NA, Intro to Enzymes | T1 | L2: Homeostasis |
| 4 | Feb 6 Feb 8 | Enzymes; Metabolism overview Cell membrane: Structure and Functions | T2 | L3: Diffusion/Osmosis |
| 5 | Feb 13 Feb 15 | Membrane tr-t: Diff, Facilit. Diff, Osmosis Active tr-t. Organelles. Nucleus. Protein synthesis Overview. | | L4: Enzymes |
| 6 | Feb 20 Feb 22 | NS Str-re. Neuron parts and properties. Neuron Physiology | T3 | L5: Action Potentials |
| 7 | Feb 27 Mar 1 | Brain. Spinal cord. ANS Muscle Physiology: Intro | T4 | L6: Reflexes |
| 8 | Mar 6 Mar 8 | Muscle Physiology: Muscle contraction Muscle Physiology: Muscle (organ) | | L7: Sensory Physiology |
| 9 | Mar 12-16 | Spring Break | | |
| 10 | Mar 20 Mar 22 | Endocrine S: General functioning Endocrine S: Specific hormones | | L8: Mechanics of Muscle Contraction |
| 11 | Mar 27 Mar 29 | Circulatory S: Blood P1. Blood P2. Heart Structure. Conductive Sys. | T5 | L10: Endocrinology |
| 12 | Apr 3 Apr 5 | Cardiac cycle. Cardiac output. Blood vessels. Circulation. Blood Pressure | | L12: Physiology of Blood Apr 6 Last day to drop |
| 13 | Apr 10 Apr 12 | Respiratory S: Intro+ Pulmonary Vent Respiratory S: Gas exchange+gas tr-t | T6 | L11: Cardiovascular Physiology |
| 14 | Apr 17 Apr 19 | Excretory S: Intro + Filtration Excretory S: Reabsorption + Regulation | | L13: Respiratory Physiology |
| 15 | Apr 24 Apr 26 | Digestive S: Overview Digestive S: Chemistry | T7 | L14: Renal Physiology |
| 16 | May 1 May 3 | Reproductive S: Female Reproductive S: Male | | Metabolic Rate PhILS |
| 17 | Finals Week | Tue, May 8, 2018 – Test 8 | T8 | No Lab |