

# BIOL 2404 HUMAN ANATOMY AND PHYSIOLOGY I

## Fall 2016

Textbook: Saladin, K. S. Anatomy and Physiology. 6<sup>th</sup> Edition or another comparable A&P textbook.  
Instructor: Julia Green, Rm 314A, Email: [jgre9203@sulross.edu](mailto:jgre9203@sulross.edu)  
Office Hours: T 9-12, 1-5, Th 9-12, 1-5 or by appointment.  
Classroom: Rm 201, Warrnock Science Building  
Time: Section 001 Tuesday and Thursday 9:30– 10:45 pm

### Course Description:

The purpose of this course is to introduce students to the importance of the human body and its various organ systems. This is designed as the first semester of a two semester course, and will cover basic internal life processes, as well as emphasizing the skeletal, muscular, nervous, and endocrine systems. Combined with the laboratory, students should come away with an understanding of the above systems, mitosis, protein synthesis, and basic cellular functionality.

### Program Learning Outcomes

The graduating biology student graduating with a BS in Biology should be able to:

- 1) Demonstrate a mastery of aerobic respiration and its significance for living organisms.
- 2) Be able to identify evolution and the processes that influence it.
- 3) Be able to identify the components of cell structure and their functions.
- 4) Compare the fundamental concepts of Mendelian genetics.
- 5) Compare and contrast the process of photosynthesis to other cellular processes.
- 6) Be able to identify the processes of molecular biology.

### Course Objectives:

- 1) Students will define the cellular aspects of human organ systems, and identify the part of the cell.
- 2) Students will illustrate knowledge of the central nervous system.
- 3) Students will diagram the location of muscles and bones within the body, and explain their use and function.
- 4) Students will demonstrate an understanding of the mechanics of muscle movement
- 5) Students will apply the genetic code to solving protein synthesis questions
- 6) Students will compare and contrast the use and effectiveness of the various senses.

### Grading:

Students are expected to attend all lectures and exams. There are to be four exams during the course of the semester to test if concepts are being retained. These exams will be lumped together to make up 75% of the final lecture grade. The Final Exam is a comprehensive with the same value as the other four exams. Missing one of the first 4 exams without written excuse will result in a 25% deduction in grade. Missing the final without an excuse will result in failing the course. Periodic attendance quizzes may be offered for extra-credit on exams. Points acquired in lab will account for the remaining 25% of your total grade for the course.

### Suggestion:

As per SRSU policy, students shall be dropped from the class with an F if they miss 20% (6 lectures) over the course of the semester. If you are unable to attend lecture, please notify me by either e-mail, phone, or in person so that you will not be unnecessarily dropped from the course. Although supplemental material for this course will be provided on-line, previous experience indicates that periodic attendance tends to hurt grades. Some material is only presented during the lecture, with this material typically included on exams to add depth to the tests. It is also encouraged that students spend a couple of hours after each class reviewing the notes and slides covered that day. This course covers a lot of information, and only through continuous efforts can one succeed in learning Anatomy and Physiology.

**Lecture courtesy:** The general rules of classroom etiquette are below.

- 1) Please do not talk to others in class while the instructor is lecturing. If you have a question, ASK THE INSTRUCTOR! That's what I'm here for.
- 2) No eating, chewing, dipping, etc.
- 3) If you are going to attend class, please do so. Leaving and returning to class repeatedly is disruptive, as well as showing up after half the period is over.
- 4) Please turn cell phones and pagers to silent while in class. They are disruptive to the entire class, and distract others as well.

**Students with disabilities will be provided reasonable accommodations. If you would like to request such accommodations because of physical, mental, or learning disability, please contact the ADA Coordinator for Program Accessibility at 837-8203, FH 112.**

### Tentative Lecture Outline

<u>Date</u>	<u>Lecture topic</u>	<u>Chapter</u>
Aug 23	Introduction	Ch 1
Aug 25	Chemistry	Ch 2
Aug 30	Organic Molecules	Ch 2
Sept 1	Metabolism	Ch 3 (part)
Sept 6	Membranes	Ch 3 & 4
Sept 8	Tissues	Ch 5 (part)
Sept 13	<b>Exam I</b>	
Sept 15	Cell Respiration	Ch 26 (part)
Sept 20	Cell Respiration continued	Ch 26 (part)
Sept 22	Genome	Ch 4 (part)
Sept 27	Protein Synthesis	Ch 4 (part)
Sept 29	<b>Exam II</b>	
Oct 4	Nervous System Basics	Ch 12
Oct 6	Membrane Potentials	Ch 12
Oct 11	Neurons	Ch 12
Oct 13	Synapses	Ch 12
Oct 18	Neurotransmitters	Ch 12
Oct 20	<b>Exam III</b>	
Oct 25	Central Nervous System	Ch 14
Oct 27	Brain Functions	Ch 14 & 15(part)
Nov 1	Brain Functions continued	Ch 14 & 15(part)
Nov 3	Sensory Perception	Ch 16 (part)
Nov 8	Chemoreceptors	Ch 16 (part)
Nov 10	Vision	Ch 16 (part)
Nov 15	<b>Exam IV</b>	
Nov 17	Skeletal Muscle	Ch 7 & 8
Nov 22	Regulation of Contraction and Design of Muscles	Ch 11 (part)
Nov 24	Nov 23-25 – Thanksgiving Holidays – No Class	
Nov 29	Regulation of Contraction and Design of Muscles	Ch 11 (part)
Dec 1	Dead Day	
Dec 6 - 8:00am	<b>Final Exam for TR 9:30-10:45</b>	

Note - This outline is subject to change for reasons of course interest, time constraint, or instructor whim. The exams will be administered on the dates given, unless material relevant for a given exam has not been covered. Under such cases, an exam may be moved a class period or two to aid in the clarity and understanding of the material.