ANATOMY & PHYSIOLOGY COURSE SYLLABUS

South Texas Christian Academy

Teacher: David Peña
Semester: Fall 2015
Room: Science Classroom
Time: MWF(a) – 2:00-3:30

Voicemail Number: 956-688-7669
Email: dgpena@stca.ws
Tutorial Days: Monday-Friday
Tutorial Hours: 3:30-4:00

Textbook: *Essentials of Human Anatomy & Physiology (Pearson, Marieb, 11th E, 2015, ISBN: 9780321957115)*

Department Philosophy: Nurture a sense of wonder and empower every individual to connect their knowledge of science to everyday experience. God is the creator of all things and through Him all things were made, both visible and invisible (Colossians 1:16). Adventist education in science provides an atmosphere of learning that is conducive to a unique appreciation for the created universe. It places a high estimate on the infinite worth of every individual and seeks to provide a climate in which a positive self-image may be developed. This provides opportunities for students to accept Jesus as their personal Friend and Savior.

Course Description: Anatomy and Physiology is an elective course that studies the structure and function of the human body. Emphasis is placed on homeostatic mechanisms, the role of chemistry, levels of organization, cytology, histology, organ systems, disease and dysfunction. It is a laboratory course designed for students interested in health careers.

Course Goals: Demonstrate an understanding of the fundamentals of anatomy and physiology and its importance in society. Conduct quality scientific research and communicate findings. Understand the processes, concepts, classifications, generalizations, and unifying principles which lead to an awareness of God and His creation.

Course Prerequisites: Biology and Algebra I

Course Outline (Fall Semester):

Week 1:	The Human Body: An Orientation		**Wks 8-10:**	The Skeletal System
Wks 2-3:	Basic Chemistry		**Wks 11-13:**	The Muscular System
Wks 4-6:	Cells and Tissues		**Wks 14-16:**	The Nervous System
Week 7:	Skin and Body Membranes		**Wks 17-18:**	Special Senses

You can keep track of your homework assignments and additional documents by logging into https://www.renweb.com/.

Grading Percentages

Area	Percentage	Area	Percentage
Homework / Classwork	10%	Midterm and Final Exam	15%
Science Fair Project	10%	Lab	25%
Tests	35%	Lab Performance	5%

Required Materials: Each student is to have a three ring binder, paper, pen/pencil, textbook, Agenda Book, ruler, graph paper, scientific calculator with exponential notation ability *(example: TI-30)* every day in class. You will need gloves, colored pencils, scissors, and hand sanitizer. In addition, a log book (bound/sewn composition book - no spiral bound notebooks allowed) is needed on lab days and a separate one for the science fair project.

Tardy Policy: 1st tardy – warning; 2nd - 3th tardies – parent contact, 20 minute detention; 4th – 6th tardies – parent contact; 30 minute detention, 7th plus tardies – referral

Classroom Expectations:

1. Respect your fellow students and your teacher.
2. Follow directions the first time they are given.
3. Be prepared for class - bring all required materials.
4. Leave food, candy, and drink at home. Water is OK for class.
5. Be in your seat before the tardy bell stops ringing.
6. Use lab equipment, sinks, and gas when in the lab only.
7. Turn off and put away all electronic devices while in the classroom.

Consequences:

1st Offense:	verbal warning
2nd Offense:	20 min. detention
	Parent contact
3rdOffense:	30 min. detention
	Parent contact
4th Offense:	Referral to AP

Late Assignments: Lab and homework assignments will be accepted late. Late means after the period has started. Ten points will be taken off for each late school day. After 10 days, only a zero will be given regardless of effort. After the third lab is turned in late, no more late labs will be received from that student. The science fair project paper (final draft) will not be accepted late except under extenuating circumstances and Mr. Peña has been contacted in advance. Other drafts may be turned in late, but due date points will be lost.

Make-up Policy: It is your responsibility to get make-up work from me upon your return to school with an excused absence. The calendar in the room indicates the topic and homework missed. The guidelines for make-up work are as follows:

1. All tests and quizzes must be made up. You have the same number of days to make this up as days absent. If you were present for the review and miss the day of the test, you should be prepared to take the test the day you return. If you miss the review before the test, you will be given one additional day upon your return to review before taking the test, at your request.
2. All homework missed must be made up upon your return. You have the same number of days to make this up as days absent. Any homework assigned before you were absent is due immediately upon return from the absence in order not to be considered late.
3. All missed labs will be made up. I will post the date (by the whiteboard) when it must be turned in. It is your duty to schedule an afternoon to come in and make-up a lab within the time posted, which is usually 5-7 days after your return. The days for lab make-up are Tuesday and Thursday afternoons.

Re-do Policy: Each student will be given the opportunity to redo two laboratory write-ups each semester. The labs must be rewritten so that all sections are complete and correct when the new and old are combined. An 85 will be assigned to the redone lab minus any incorrect information points and will replace the original lab grade. Which labs you make up is up to you. The lab must be redone within 10 days following the receipt of the graded lab from the teacher. The lab must be redone before or after school in one sitting in the Science room. Check with me before scheduling to do this.

Homework: Completing your homework assignments will greatly increase your opportunities for success in this class. I expect each student to complete all homework assigned. Homework will typically not be graded, but homework quizzes will be given frequently over the work assigned to determine that you are mastering the content. If there is a homework quiz, it is given the day the homework is due. Come in for help prior to that.

Laboratory Reports: More than half of laboratory reports that you will do in class this semester will be turned in as a written report. The written report has the following parts: Title page, hypothesis, discussion, safety precautions, materials, procedure, data and observations, results (all calculations), and conclusions (includes all questions). You will be given several days to complete a written report before turning it in for a grade. Each day we have lab, you must have your logbook (bound composition book). In this logbook, all data and observations are recorded. This is an official record. You must have your logbook on the days we perform labs, or you will not be able to do the lab and will have to make it up on your own time (and still turn it in on time!). Watch the posted calendar for the days we will do labs.

Agenda Book: Each student should possess an *Agenda* book or comparable organizer. This book is to be brought to class every day. This book should be used as a calendar for you to track homework, tests, etc.

Free Passes: You get two free passes a semester from me. You may use them to go to the bathroom or your locker. There are no actual paper passes – I keep track of them on the seating chart.

Project: There will be two projects this semester. The first, the science fair project, will be a six month long endeavor. The packet of information about this project will be given out this week. This project is done in collaboration with your English teacher and the grade received for the project will count in both classes. All forms and information can be accessed at the STCA website. Choose the link that applies to the science fair deadlines and paperwork. The second project will coincide with the chapters on nutrition and body metabolism. It will count as two lab grades and more information about this project will be forthcoming.

Important Dates:

Aug 18	Open House	Oct. 20	No School (Fall Break)
Aug 29	Early Dismissal	Oct. 21-22	Parent-Teacher Conferences, 3:45pm
Sept. 1	No school (Labor Day)	Oct. 26	Fall Festival
Sept. 12	1st Quarter Mid-Terms	Oct. 27-31	Red Ribbon Week
Sept. 18-21	Leadership Retreat	Nov 14	2nd Quarter Mid-Terms
Oct. 3-6	SWAU University Days	Nov. 21	Early Dismissal
Oct. 6-10	ITBS/ITED Test	Nov. 24-28	Thanksgiving Break
Oct. 10	End of 1st Quarter	Dec 19	Early Dismissal
Oct. 16-19	Freshman Bible Camp	Dec 19	End of 2nd Quarter
Oct. 17	Early Dismissal	Dec 22-Jan 6	Christmas Break

Anatomy & Physiology - Essential Learning	
Atomic structure	Homeostasis
Atoms and molecules	Irreducible complexity
Biogeochemical cycles	Life cycles
Characteristics of organisms	Matter, forms, and transfer of energy
Chemical reactions	Natural resource management
Classification of organisms	Natural selection and biological change
Diversity and unity among organisms	Order of magnitude
Earth's atmosphere	Organ systems
Earth's origins and history	People in science
Electricity and magnetism	Populations and ecosystems
Entropy	Properties of substances
Ethics, technology and society	Relationship between structure and function
Forces and motion	Reproduction
Genetics	The sun and other stars
God – Designer, Creator, Sustainer and Redeemer/faith	Wave characteristics and interaction
Gravity	

Student name: _____

Student Signature: _____ Date: _____

Parent/Guardian Signature: _____ Date: _____

Worth two points extra credit on first test.
Present this page at time of test.