

# Anatomy and Physiology Syllabus

## Spring 2015

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## Textbook

*Essentials of Human Anatomy & Physiology, Martini, Bartholomew*

## Overview

It is the goal of Anatomy and Physiology to help students understand the systems of the body as God created them. Students who are interested in a career in the health field are encouraged to take this course

## Description

Anatomy and Physiology explores the structure and functions of systems in the human body. The course has a hands-on, laboratory-based curriculum where students explore structure and organ systems through discussion, dissection, modeling, role-playing, identification, and investigation. The two main goals are to provide students with fundamental concepts in both anatomy and physiology and to gain experience and appreciation of the special design of human anatomy and physiology through experimentation and inquiry. Classroom content surveys the basics of anatomical parts and physiological processes that participate within some of the systems of the human body. Students are expected to read each chapter, answer assigned questions, increase their medical terminology, be prepared for anatomy quizzes, and complete a project for each unit of study. Each unit also consists of a final Test. Units are completed every three weeks. One other unique aspect to this class is the use of an online discussion forum. Each week, you are expected to participate in this discussion.

## Coarse Standards/Goals

- A. Science will encourage students to take joy and delight in exploring and coming to understand God's world
  - (-Unifying Concepts and Processes)
    - a. Systems, order, and organization
    - b. Evidence, models, and explanation
    - c. Change, consistency, and measurements
    - d. Evolution and equilibrium
    - e. Form and Function
- B. Students are involved in designing experiments, making observations and contributing to existing knowledge in science
  - (-Science as Inquiry)
    - a. Identify questions and concepts that guide scientific investigation

- b. Design and conduct scientific investigations
- c. Use technology and mathematics to improve scientific investigations
- d. Formulate and revise scientific explanations and models using logic and evidence
- e. Recognize and analyze alternative explanations and models
- f. Communicate and defend a scientific argument
- g. Understand scientific inquiry

C. Students will learn that physical and living things are created by God and not merely nature, environmental or natural resources

(-Physical Science)

- a. Structure of the atom
- b. Structure and properties of matter
- c. Chemical reactions
- d. Conservation of energy and the increase of disorder
- e. Interactions of energy and matter

D. Science is a human cultural activity through which God can be glorified and human life enhanced or used in life distorting ways

(-Science and Technology)

- a. Identify a problem or design an opportunity
- b. Propose designs and choose between alternative solutions
- c. Implement a proposed solution
- d. Evaluate the solution and its consequences
- e. Communicate the problem, process, and solution
- f. Understand science and technology

E. Through the study of science, students gain a deepened understanding of how they are the care-takers of creation and responsible to God for maintaining, developing and restoring it

(-Science in Personal and Social Perspectives)

- a. Personal and community health
- b. Population growth
- c. Natural resources
- d. Environmental quality
- e. Natural and human-induced hazards
- f. Science and technology in local, national, and global challenges

F. Students will study science in the context of human history and develop a Biblical perspective in personal and communal decision making

(-History and the Nature of Science)

- a. Science as a human endeavor
- b. Nature of scientific knowledge
- c. Historical perspective

## Evaluation and Assessments

Rubrics will be provided for projects, laboratory reports, and discussion forums. Both anatomical and terms quizzes are given each week. Tests are given every three weeks. Grading is based upon point values. The point values and due dates are listed below:

	Date	Points
<b>Projects (total of 60pts)</b>		
PROJECT 1	01/23/2014	10
PROJECT 2	02/13/2014	10
PROJECT 3	03/06/2014	10
PROJECT 4	03/27/2014	10
PROJECT 5	04/10/2014	10
PROJECT 6	05/01/2014	10
<b>Test (total of 60pts)</b>		
TEST 1	01/24/2014	10
TEST 2	02/14/2014	10
TEST 3	03/07/2014	10
TEST 4	03/28/2014	10
TEST 5	04/11/2014	10
TEST 6	05/02/2014	10
<b>Discussion Forum (total of 54pts)</b>		
Forum 1	01/12/2014	3
Forum 2	01/19/2014	3
Forum 3	01/26/2014	3
Forum 4	02/02/2014	3
Forum 5	02/09/2014	3
Forum 6	02/16/2014	3
Forum 7	02/23/2014	3
Forum 8	03/02/2014	3
Forum 9	03/09/2014	3
Forum 10	03/16/2014	3
Forum 11	03/23/2014	3
Forum 12	03/30/2014	3
Forum 13	04/06/2014	3
Forum 14	04/13/2014	3
Forum 15	04/20/2014	3
Forum 16	04/27/2014	3
Forum 17	05/04/2014	3
Forum 18	05/11/2014	3
<b>On-line Assignments (total of 35pts)</b>		
UNIT 1 Work	01/23/2014	5
UNIT 2 Work	02/13/2014	5
UNIT 3 Work	03/06/2014	5
UNIT 4 Work	03/27/2014	5
UNIT 5 Work	04/10/2014	5
UNIT 6 Work	05/01/2014	5
UNIT 7 Work	05/22/2014	5
<b>Terms (total of 30pts)</b>		
Terms 1	01/17/2014	5
Terms 2	02/07/2014	5
Terms 3	02/28/2014	5

Terms 4 03/21/2014 5  
Terms 5 04/04/2014 5  
Terms 6 04/25/2014 5

**Workbook (total of 42pts)**

WKBK Unit 1 01/23/2014 7  
WKBK Unit 2 02/13/2014 7  
WKBK Unit 3 03/06/2014 7  
WKBK Unit 4 03/27/2014 7  
WKBK Unit 5 04/10/2014 7  
WKBK Unit 6 05/01/2014 7

**Diagrams (total of 30pts)**

DIAGRAM UNIT 1 01/17/2014 5  
DIAGRAM UNIT 2 02/07/2014 5  
DIAGRAM UNIT 3 02/28/2014 5  
DIAGRAM UNIT 4 03/21/2014 5  
DIAGRAM UNIT 5 04/04/2014 5  
DIAGRAM UNIT 6 04/25/2014 5

**EXAM PROJECT 05/16/2014 20**

**EXAM TERMS 05/16/2014 20**

**EXAM DIAGRAM 05/16/2014 20**

**OVERALL TOTAL = 371pts**

## **Materials**

The following materials are required for Anatomy & Physiology:

1. Spiral and composition notebooks.
2. Pens, pencils, and colored pencils.
3. Computer access- preferably a laptop

## **Attendance Policy and Homework Policy**

*Attendance Policy and Homework Policy* are in accordance to Southwest's written policies. Good attendance and punctuality are necessary for academic excellence. All work that is missed is the responsibility of the student, regardless of the reason.

THANKS FOR TAKING THIS COURSE AND HAVE A WONDERFUL SPRING SEMESTER!