



Course Outline

Anatomy and Physiology 12

Overview

Anatomy and Physiology 12 is a course which studies cell structure, function and processes as well as the human body. It focuses on big ideas related to homeostasis, DNA and cells, and organization of organ systems.

Course Content and Suggested Timelines

The suggested timeline is for students aiming to complete the course in one semester (5 months). Double the time frames for two semesters (10 months).

Introductory Unit- Cell Structure (Suggested time: 0.5-1 week)

You will review the organelles and their inter-relationships.

Unit 1- Biochemistry (Suggested time: 1.5 weeks)

Examination of the structures and functions of cell compounds and biological molecules.

Unit 2- Cell Membranes and their Functions (Suggested time: 1.5 weeks)

You will examine how the cell membrane works as well as its structure. Structure of the plasma membrane, selective permeability, diffusion, osmosis, facilitated transport, active transport, endocytosis, exocytosis.

Unit 3- DNA, RNA and Enzymes (Suggested time: 2 weeks)

You will learn about how DNA is structured and replicates. Structure and functions of proteins are also covered, as well as how they are synthesized. The role that enzymes play in biochemical reactions is also covered. Gene expression, through protein synthesis, is an interaction between genes and the environment. Homeostasis is maintained through physiological processes.

Unit 4- Digestive System (Suggested time: 1.5 weeks)

A review of the structures of each system will be covered. You will also learn about the layers of the digestive tract wall and the various hormones and enzymes used in the digestive process.

Unit 5- Respiratory System (Suggested time: 1.5 weeks)

Our lungs are our central organs for exchanging gases. Structure of organs and the mechanism of breathing is covered, along with the process of gas exchange.

MIDTERM 1

Unit 6- Circulatory and Lymphatic Systems (Suggested time: 2 weeks)

Structure and function of the different blood vessels are covered. You will examine the parts of the heart and how it beats. Composition of blood and disorders of the circulatory system are also examined. The connection to the lymphatic system is discussed. When looking at the respiratory system, the mechanism of breathing is covered, along with the process of gas exchange.

Unit 7 - The Nervous System (Suggested time: 1.5 weeks)

Nervous tissue and nerve impulses are covered in this unit. We also look at the central nervous system, the limbic system, and the peripheral nervous system.

Unit 8 - The Urinary System (Suggested time: 1.5 weeks)

After extracting energy, the body must remove the waste. The urinary system material covers how blood is filtered, how our water-salt and pH balances are achieved, and the roles of hormones in this system.

Unit 9 - The Reproductive System (Suggested time 1.5 weeks)

The male and female reproductive systems are reviewed. You will also learn about how homeostasis is achieved through many different hormone.

FINAL EXAM

Course Materials/Resources

The course includes all necessary information. This is presented in text, video and readings.

The prescribed learning outcomes for this course are available at: [Anatomy and Physiology 12](#)

Assessment Information

	Total value
Assignments and Quizzes	65%
Midterm 1 and Final	35%

Some of the assignments require you to take pictures of your work, so you will need to be able to do that - preferably as jpegs that are not too large in size. A few assignments are online activities and are done right on the computer. Some assignments are WORD documents or form fill-able PDFs. You can simply type into them and save onto your computer and then upload into the assignment section. My suggestion is that you create a file called Anatomy and Physiology 12 on your computer so you know where to save them and find them when uploading. If you do not have Adobe Pro, you may not be able to save your working file. S

The course has been divided into 9 units and a case study. Within each unit are assignments to complete. There are two exams. Midterm 1 covers units 1-5 and Final Exam covers course but focuses on units 6-9.

You are required to read through the section's information BEFORE accessing the assignment. The assignment will not be shown to you until this has been met.

Invigilated Exams

Midterm 1 and Final exam are to be invigilated.

Invigilated exams need to be invigilated by an EBUS approved invigilators.

Please contact your course teacher if you have questions or concerns about invigilated exams.

When students are not meeting the learning outcomes/ falling behind

When students fall behind the expected pace or plan, they will be contacted via email or phone and if there is no improvement or response, parents will also be contacted. If deemed necessary, contact with the student's home school may also occur to help determine a solution.

Students are expected to let the course teacher know when they are struggling with course content. In response, the course teacher will provide appropriate help or strategies to support learning. The course teacher will also provide feedback on course work to support learning and help students improve. Parents will be made aware if their child is actively working but struggling to meet the learning outcomes of the course.

Students falling behind in a manner where it does not appear that they will complete the course within a year will be sent reminder emails. Without a response or renewed efforts in the course, the student may be assigned an F or withdrawn. Should they begin actively working in the course, the student may be given an alternate completion date.

Expectations

- Adhere to the EBUS Academic Integrity Policy
- Contact your teacher when help is needed
- Review feedback from assignments and tests, where applicable
- Work to complete the course in a timely manner
- Communicate respectfully
- Review weekly progress reports

Reporting to Parents:

There are 3 term report cards that can be downloaded from the student dashboard. A notice will go out when these report cards are available.

Biweekly the teacher will send out a progress report showing the student's progress.

Contacting Your Teacher:

Your teacher will be available Monday to Friday during regular school hours. If you are having trouble with any concepts, please contact your teacher right away! TEAMS meetings can also be set up for help.

****Contact your teacher using Bright Space messaging (envelope found in the top of your course screen), or their email provided in the course.**