

La Costa Canyon Course Profile

Anatomy & Physiology

➤ **10 credits (lab science or elective)**

➤ **Meets UC/CSU “d” Laboratory Science**

Course at a Glance

Level of Difficulty	Time Required Outside of the Classroom	Recommended Prerequisites
<input type="checkbox"/> Moderate <input checked="" type="checkbox"/> Difficult <input type="checkbox"/> Very Difficult	2-3 hours per week of instruction* * This is a general guideline for planning and scheduling purposes. A student’s ability level may affect the actual preparation time needed to be successful.	Successful completion of Biology with a C or better , Chemistry or AP Chemistry with a C or Better , Physics or AP Physics B with a C or better

Course Description

Anatomy-Physiology is a UC approved life science lab elective course that is designed to expand the students’ knowledge of the structure and function of mammalian systems. The course will explore anatomical structures in various body systems as they relate to the physiology, or inner workings, of that system. The course will require students to complete multiple day laboratory activities including dissections of preserved specimens and preserved organs. Emphasis will be placed on the interactions of organs as they work together to maintain balance or homeostasis. Topics include: Body organization and tissues, muscles/bones/skin, respiratory, circulatory, digestive, urinary, immune, endocrine, nervous/senses, and the reproductive system.

Student Background Skills

Anatomy and physiology is a course that involves in-depth laboratory activities, complex problem solving, and synthesis of science concepts from biology, chemistry, and physics. Students should have a good foundation in study skills, observation skills, and the Scientific Method. To make sure you are prepared for Anatomy and physiology at La Costa Canyon High School there are three recommended areas in which you should be competent:

- Sciences
- Study Skills
- Technology

Sciences

In order to increase success in Anatomy and physiology it is **strongly recommended** each student be familiar with the following science topics:

- Biology: Cells, Genetics, Homeostasis, Biochemistry
- Chemistry: Atomic structure, pH, Molarity, Biochemistry, Thermodynamics, Gas Laws, Nuclear chemistry
- Physics: Forces, Energy, Thermodynamics

Study Skills

Along with these science skills, students are assumed to be able to perform the following study skills:

- The ability to read and comprehend information from a textbook.
- The ability to organize and use a notebook for referencing notes and laboratory reports.
- The ability to record notes from a science textbook, research articles, laboratory activities, and information presented in a discussion/lecture.
- The ability to use other resources to assist in gathering content information, such as the Internet, other textbooks, tutoring, etc.
- The ability to seek help when unable to understand content or materials presented or read in class, without prompting from the instructor.

Technology

To further enhance the experience in Anatomy and physiology, technology is used. Students should be able to perform the following tasks:

- The ability to use a word processing program (Microsoft Word, Microsoft Works, WordPerfect, etc.) to type an assignment.
- The ability to embed graphs and tables into a word processing program.
- The ability to use the Internet to read, compose, and send e-mails.
- The ability to attach a document to an e-mail.
- The ability to scan a document using a document scanner.
- The ability to use an Internet Browser (Internet Explorer, Mozilla, Opera, etc.) to navigate the World Wide Web.