

BIOLOGY (BIOL)

This is a list of the Biology courses available at Kwantlen.

BIOL 1110 CR-4

Introductory Biology I

Students will study the diversity of life on Earth, the classification of organisms, and the interactions of organisms with their environments. They will examine the structure and function of body systems in a variety of organisms.

Transferable (refer to transfer guide)

BIOL 1112 CR-4

Biology Today

Students will focus on current advances in human heredity and evolution and will examine some of the most exciting and controversial topics in current day Biology, including cloning, stem cell research and genetically modified foods. In the labs students will make a DNA fingerprint, isolate and amplify their own DNA and have a chance to use equipment found in high-tech facilities.

NOTE: This course may not be used for credit towards a science degree or as a prerequisite for further science courses. This course may be used to partially fulfill quantitative requirements for a Bachelor of Arts degree, science requirements for an elementary teacher education program, lab science requirements for an Associate of arts degree, and liberal education/breadth credits for Kwantlen degrees.

Transferable (refer to transfer guide)

BIOL 1160 CR-4

Anatomy and Physiology I

Students will study the major organ systems of the human body responsible for support, movement, circulation, respiration and digestion. They will also overview nervous and endocrine control, microbiology, and examples of drug actions and effects. Students will study these topics using a self-directed modular format.

Prerequisites: BIOL 1110 or [(CHEM 1094 or CHEQ 1094 or Chemistry 11 with a grade of C+)] and (ABEB 0012 or BIOP 1012 or BIOQ 1099 or Biology 12 with a grade of C+)]

Transferable (refer to transfer guide)

BIOL 1210 CR-4

Introductory Biology II

Students will study concepts of inheritance and biological evolution. They will examine the major classes of biological chemicals, the structure and function of cells, and the processes of cellular respiration and photosynthesis. They will study the patterns and mechanisms of embryological development.

Prerequisites: BIOL 1110

Transferable (refer to transfer guide)

BIOL 1260 CR-4

Anatomy and Physiology II

Students will continue to study the major organ systems of the human body, focusing on the excretory, nervous, immune and reproductive systems. Examination of these systems will include related, basic concepts in microbiology, and examples of drug actions and effects. Students will study these topics using a self-directed modular format.

Prerequisites: BIOL 1160

Transferable (refer to transfer guide)

BIOL 2320 CR-4

Genetics

Students will examine the principles of heredity, transmission of traits, exchange of genetic information, mutation, linkage, gene action and recombinant DNA technology, with emphasis on problem solving. They will acquire a variety of laboratory skills including sterile techniques, isolation of DNA, electrophoresis and photo microscopy.

Prerequisites: BIOL 1110 and BIOL 1210

Transferable (refer to transfer guide)

BIOL 2321 CR-4

Cell Biology

Students will examine the ultrastructure of the eukaryotic and prokaryotic cell along with molecular activities associated with these structures. They will also identify and understand the experimental techniques and data that support the current view of cell structure and function. Students will develop considerable skill in the preparation of materials for microscopic examination.

Prerequisites: BIOL 1110 and BIOL 1210 and CHEM 1110

Transferable (refer to transfer guide)

BIOL 2322 CR-4

Ecology

Students will learn the basic properties of ecosystem, community and population ecology, including energy transfer, mineral cycling, community structure and dynamics, competition, predation, evolution and population dynamics. They will also perform lab and field work.

Prerequisites: BIOL 1110 and BIOL 1210

Transferable (refer to transfer guide)

BIOL 2330 CR-4

Microbiology

Students will study a variety of microorganisms including bacteria, fungi, algae, protozoa, and viruses. They will examine several aspects of microorganisms, including diversity, structure and function, metabolism, growth, reproduction and genetics.

Prerequisites: BIOL 1210

Co-requisites: CHEM 1110 or ENVI 1106 CHEM 1110 or ENVI 1106

Transferable (refer to transfer guide)

BIOL 2421 CR-3**Cellular Biochemistry**

Students will learn the patterns and reactions of cellular metabolism with particular attention to the structure and function of proteins, the mechanisms of reactions, and the interrelationships and control of catabolism and anabolism.

Prerequisites: BIOL 1110, BIOL 1210, BIOL 2321 and CHEM 2320

Co-requisites: CHEM 2420 CHEM 2420

Transferable (refer to transfer guide)