# Biology (BIO)

## BIO 001A Cell and Molecular Biology (4)

***Class Hours:*** *54 Lecture | 54 Laboratory*
***Prerequisite(s):*** *CHEM 001A*
***Prerequisite(s):*** *MATH 063 or MATH 064*
***Transfers to:*** *UC/CSU*
***C-ID:*** *BIOL 190/135S*

Cell and Molecular Biology

BIO 001A cover principles and applications of prokaryotic and eukaryotic cell structure and function, biological molecules, homeostasis, cell reproduction and its controls, molecular genetics, classical/Mendelian genetics, cell metabolism including photosynthesis and respiration, and cellular communication. The philosophy of science, methods of scientific inquiry and experimental design are foundational to the course.

## BIO 001B Organismal Biology (4)

***Class Hours:*** *54 Lecture | 54 Laboratory*
***Prerequisite(s):*** *MATH 063 or MATH 064*
***Advisory(s):*** *BIO 001A and ENG 051A*
***Transfers to:*** *UC/CSU*
***C-ID:*** *BIOL 140/135S*

Organismal Biology

BIO 001B is intended for biology majors. It is a survey of the basic biology and diversity of unicellular and multicellular organisms. It emphasized general biological principles, classification, structure, function and evolutionary adaptations of organisms (including plants, fungi, animals, and unicellular organisms) to their environments.

## BIO 010 Fundamentals of Biology (3)

***Class Hours:*** *36 Lecture | 54 Laboratory*
***Advisory(s):*** *ENG 051A*
***Transfers to:*** *UC/CSU*

Fundamentals of Biology

BIO 010 is recommended for the non-science major. The primary objective of this course is to teach basic biological concepts as they relate to cells and organisms. Consideration will be given to the cellular and chemical basis of life, genetics, evolution, and ecology.

## BIO 015 Biology for Education (3)

***Class Hours:*** *36 Lecture | 54 Laboratory*
***Advisory(s):*** *ENG 051A*
***Transfers to:*** *UC/CSU*

Biology for Education

BIO 015 is required for Liberal Studies students seeking a Multiple Subject Teaching Credential and transferring to the California State University system. The primary objective of this course is to teach biological concepts as they relate to the cell and the organism as a whole. Consideration will be given to the cellular and chemical basis of life, genetics, evolution, and ecology.

**BIO 032 Human Anatomy (4)**

***Class Hours:*** *54 Lecture | 54 Laboratory*
***Prerequisite(s):*** *ENG 051A*
***Prerequisite(s):*** *Math 063 or Math 064*
***Advisory(s):*** *BIO 010 and HS 005*
***Transfers to:*** *UC/CSU*
***C-ID:*** *BIOL 110B*

Human Anatomy

BIO 032 examines the structural organization of the human body: gross and microscopic structure of the integumentary, skeletal, muscular, nervous, sensory, endocrine, cardiovascular, lymphatic, respiratory, digestive, excretory, and reproductive systems, from cellular to organ system levels of organization. This course is primarily intended for nursing, allied health, kinesiology, and other health related majors.

**BIO 035 Human Physiology (4)**

***Class Hours:*** *54 Lecture | 54 Laboratory*
***Prerequisite(s):*** *ENG 051A*
***Prerequisite(s):*** *MATH 063 or MATH 064*
***Advisory(s):*** *BIO 010 and CHEM 002A*
***Transfers to:*** *UC/CSU*
***C-ID:*** *BIOL 120B*

Human Physiology

BIO 035 examines the physiological principles, function, integration and homeostasis of the human body at the cellular, tissue, organ, organ system and organism level: integumentary system, bone, skeletal, smooth and cardiac muscles, nervous system, sensory organs, cardiovascular system, lymphatic and immune systems, respiratory system, urinary system, digestive system, endocrine system, and reproductive system. This course is primarily intended for Nursing, Allied Health, Kinesiology, and other health related majors.

**BIO 038 Microbiology (4)**

***Class Hours:*** *54 Lecture | 54 Laboratory*
***Prerequisite(s):*** *CHEM 002A*
***Advisory(s):*** *ENG 051A and BIO 010*
***Transfers to:*** *UC/CSU*

Microbiology

BIO 038 is a consideration of the morphology, anatomy, physiology, and taxonomy of microorganisms with an emphasis on the methods of isolation, identification, and the diseases they cause.