BIOLOGY (BIOL)

BIOL 1106 Biology for Science Majors I (lab) 1 Credit (0 Lec, 3 Lab)
In this lab course, the fundamental principles of living organisms will be studied, including physical and chemical properties of life, organization, function, evolutionary adaptation, and classification. Concepts of cytology, reproduction, genetics, and scientific reasoning are included. A student may not use both BIOL 1306 & BIOL 1106 and BIOL 1308 & BIOL 1108 to satisfy the core.
Prerequisite(s): Reading level 7

Co-requisite(s): BIOL 1306
Course Type: Academic

BIOL 1107 Biology for Science Majors II (lab) 1 Credit (0 Lec, 3 Lab)
In this lab course, the diversity and classification of life will be studied, including animals, plants, protists, fungi, and prokaryotes. Special emphasis will be given to anatomy, physiology, ecology, and evolution of plants and animals. A student may not use both BIOL 1307 & BIOL 1107 and BIOL 1309 & BIOL 1109 to satisfy the core.
Prerequisite(s): Reading level 7

Co-requisite(s): BIOL 1307
Course Type: Academic

BIOL 1108 Biology for Non-Science Majors I (lab) 1 Credit (0 Lec, 3 Lab)
This lab course provides a survey of biological principles with an emphasis on humans, including chemistry of life, cells, structure, function, and reproduction. This course will NOT count towards the Core Curriculum or transfer path if you are pursuing an AS in Natural Science. THIS COURSE IS DESIGNED FOR NON-SCIENCE MAJORS. A student may not use both BIOL 1306 & BIOL 1106 and BIOL 1308 & BIOL 1108 to satisfy the Core.
Prerequisite(s): Reading level 7

Co-requisite(s): BIOL 1308
Course Type: Academic

BIOL 1109 Biology for Non-Science Majors II (lab) 1 Credit (0 Lec, 3 Lab)
This lab course will provide a survey of biological principles with an emphasis on humans, including evolution, ecology, plant and animal diversity, and physiology. This course will NOT count towards the Core Curriculum or transfer path if you are pursuing an AS in Natural Science. THIS COURSE IS DESIGNED FOR NON-SCIENCE MAJORS. A student may not use both BIOL 1307 & BIOL 1107 and BIOL 1309 & BIOL 1109 to satisfy the Core.
Prerequisite(s): Reading level 7

Co-requisite(s): BIOL 1309
Course Type: Academic

BIOL 1306 Biology for Science Majors I (lecture) 3 Credits (3 Lec, 0 Lab)
In this lecture course, the fundamental principles of living organisms will be studied, including physical and chemical properties of life, organization, function, evolutionary adaptation, and classification. Concepts of cytology, reproduction, genetics, and scientific reasoning are included. A student may not use both BIOL 1306 & BIOL 1106 and BIOL 1308 & BIOL 1108 to satisfy the core.
Prerequisite(s): Reading level 7

Co-requisite(s): BIOL 1106
Course Type: Academic

BIOL 1307 Biology for Science Majors II (lecture) 3 Credits (3 Lec, 0 Lab)
In this lecture course, the diversity and classification of life will be studied, including animals, plants, protists, fungi, and prokaryotes. Special emphasis will be given to anatomy, physiology, ecology, and evolution of plants and animals. A student may not use both BIOL 1307 & BIOL 1107 and BIOL 1309 & BIOL 1109 to satisfy the core.
Prerequisite(s): Reading level 7

Co-requisite(s): BIOL 1107
Course Type: Academic

BIOL 1308 Biology for Non-Science Majors I (lecture) 3 Credits (3 Lec, 0 Lab)
This lecture course provides a survey of biological principles with an emphasis on humans, including chemistry of life, cells, structure, function, and reproduction. This course will NOT count towards the Core Curriculum or transfer path if you are pursuing an AS in Natural Science. THIS COURSE IS DESIGNED FOR NON-SCIENCE MAJORS. A student may not use both BIOL 1306 & BIOL 1106 and BIOL 1308 & BIOL 1108 to satisfy the Core.
Prerequisite(s): Reading level 7

Co-requisite(s): BIOL 1108
Course Type: Academic

BIOL 1309 Biology for Non-Science Majors II (lecture) 3 Credits (3 Lec, 0 Lab)
This lecture course will provide a survey of biological principles with an emphasis on humans, including evolution, ecology, plant and animal diversity, and physiology. This course will NOT count towards the Core Curriculum or transfer path if you are pursuing an AS in Natural Science. THIS COURSE IS DESIGNED FOR NON-SCIENCE MAJORS. A student may not use both BIOL 1307 & BIOL 1107 and BIOL 1309 & BIOL 1109 to satisfy the Core.
Prerequisite(s): Reading level 7

Co-requisite(s): BIOL 1109
Course Type: Academic

BIOL 1322 Nutrition and Diet Therapy 3 Credits (3 Lec, 0 Lab)
This course introduces general nutritional concepts in health and disease and includes practical applications of that knowledge. Special emphasis is given to nutrients and nutritional processes including functions, food sources, digestion, absorption, and metabolism. Food safety, availability, and nutritional information including food labels, advertising, and nationally established guidelines are addressed. This course will NOT count towards the Core Curriculum or transfer path if you are pursuing an AS in Natural Science. THIS COURSE IS DESIGNED FOR NON-SCIENCE MAJORS. Cross-listed as HECO 1322. Credit will only be issued for BIOL 1322 or HECO 1322, not both.
Prerequisite(s): Reading level 7

Course Type: Academic

BIOL 2101 Anatomy and Physiology I (Lab) 1 Credit (0 Lec, 3 Lab)
The lab provides a hands-on learning experience for exploration of human system components and basic physiology. Systems to be studied include integumentary, skeletal, muscular, nervous, and special senses. BIOL 1306 and BIOL 1106 is highly recommended for success in BIOL 2101, but it is not required.
Prerequisite(s): Reading level 7, Writing level 7, Math level 8

Co-requisite(s): BIOL 2301
Course Type: Academic

BIOL 2102 Anatomy and Physiology II (Lab) 1 Credit (0 Lec, 3 Lab)
The lab provides a hands-on learning experience for exploration of human system components and basic physiology. Systems to be studied include endocrine, cardiovascular, immune, lymphatic, respiratory, digestive (including nutrition), urinary (including fluid and electrolyte balance), and reproductive (including human development and genetics).
Prerequisite(s): BIOL 2301 and BIOL 2101(final grade of C or better recommended), Reading level 7

Co-requisite(s): BIOL 2302
Course Type: Academic

BIOL 2120 Microbiology for Health Science Majors (lab) 1 Credit (0 Lec, 3 Lab)
This lab course covers basics of culture and identification of bacteria and microbial ecology. This course is primarily directed at pre-nursing and other pre-allied health majors and covers basics of microbiology. Emphasis is on medical microbiology, infectious diseases, and public health. (A student may not receive credit for both BIOL 2320 and BIOL 2120 or BIOL 2321 and BIOL 2121).
Prerequisite(s): BIOL 2301 and BIOL 2101 or BIOL 2302 and BIOL 2102 (recommended to be met with a C or better) or Department Chair approval, Reading level 7

Co-requisite(s): BIOL 2320
Course Type: Academic

BIOL 2121 Microbiology for Science Majors (lab) 1 Credit (0 Lec, 3 Lab)
This lab course focuses on laboratory activities that will reinforce principles of microbiology, including metabolism, structure, function, genetics, and phylogeny of microbes. The course will also examine the interactions of microbes with each other, hosts, and the environment. (A student may not receive credit for both BIOL 2320 & BIOL 2120 and BIOL 2321 & BIOL 2121.) Some prerequisites may be waived with permission of Department Chair.
Prerequisite(s): BIOL 1306, BIOL 1106 and BIOL 1307, BIOL 1107; CHEM 1311, CHEM 1111 and CHEM 1312, CHEM 1112, and sophomore standing, Reading level 7

Co-requisite(s): BIOL 2321
Course Type: Academic

BIOL 2301 Anatomy and Physiology I (Lecture) 3 Credits (3 Lec, 0 Lab)
Anatomy and Physiology I is the first part of a two course sequence. It is a study of the structure and function of the human body including cells, tissues and organs of the following systems: integumentary, skeletal, muscular, nervous and special senses. Emphasis is on interrelationships among systems and regulation of physiological functions involved in maintaining homeostasis. BIOL 1306 and BIOL 1106 is highly recommended for success in BIOL 2301, but it is not required.
Prerequisite(s): Reading level 7, Writing level 7, Math level 8

Co-requisite(s): BIOL 2101
Course Type: Academic

BIOL 2302 Anatomy and Physiology II (Lecture) 3 Credits (3 Lec, 0 Lab)
Anatomy and Physiology II is the second part of a two-course sequence. It is a study of the structure and function of the human body, including the following systems: endocrine, cardiovascular, immune, lymphatic, respiratory, digestive (including nutrition), urinary (including fluid and electrolyte balance), and reproductive (including human development and genetics). Emphasis is on interrelationships among systems and regulation of physiological functions involved in maintaining homeostasis. Including the digestive, urinary, reproductive, respiratory, and circulatory systems.
Prerequisite(s): BIOL 2301 and BIOL 2101(recommended with a final grade of C or better), Reading level 7

Co-requisite(s): BIOL 2102
Course Type: Academic

BIOL 2320 Microbiology for Health Science Majors (lecture) 3 Credits (3 Lec, 0 Lab)
This lecture course covers basic microbiology and immunology and is primarily directed at pre-nursing, pre-allied health, and non-science majors. It provides an introduction to historical concepts of the nature of microorganisms, microbial diversity, the importance of microorganisms and acellular agents in the biosphere, and their roles in human and animal diseases. Major topics include bacterial structure as well as growth, physiology, genetics, and biochemistry of microorganisms. Emphasis is on medical microbiology, infectious diseases, and public health. (A student may not receive credit for both BIOL 2320/2120 and BIOL 2321/2121).
Prerequisite(s): BIOL 2301 and BIOL 2101 or BIOL 2302 and BIOL 2102 (recommended to be met with a C or better) or Department Chair approval, Reading level 7

Co-requisite(s): BIOL 2120
Course Type: Academic

BIOL 2321 Microbiology for Science Majors (lecture) 3 Credits (3 Lec, 0 Lab)
This course focuses on the principles of microbiology, including metabolism, structure, function, genetics, and phylogeny of microbes. The course will also examine the interactions of microbes with each other, hosts, and the environment. (A student may not receive credit for both BIOL 2320 & BIOL 2120 and BIOL 2321 & BIOL 2121.) Some prerequisites may be waived with permission of Department Chair.
Prerequisite(s): BIOL 1306, BIOL 1106 and BIOL 1307, BIOL 1107; CHEM 1311, CHEM 1111 and CHEM 1312, CHEM 1112; and sophomore standing, Reading level 7

Co-requisite(s): BIOL 2121
Course Type: Academic

BIOL 2389 Academic Cooperative 3 Credits (1 Lec, 8 Lab)
This is an instructional program designed to integrate on-campus study with practical hands-on work experience in the biological sciences/life sciences. In conjunction with class seminars, the individual student will set specific goals and objectives of study of living organisms and their systems.
Prerequisite(s): Eight hours of biology and/or environment science, Reading level 7, Writing level 7, Math level 8

Course Type: Academic

BIOL 2404 Introduction to Anatomy and Physiology (lecture & lab) 4 Credits (3 Lec, 3 Lab)
This course is a study of the structure and function of human anatomy, including the neuroendocrine, integumentary, musculoskeletal, digestive, urinary, reproductive, respiratory, and circulatory systems. Content may be either integrated or specialized. Program Note: This course will NOT count towards the Core Curriculum or transfer path if you are pursuing an AS in Natural Science. THIS COURSE IS DESIGNED FOR NON-SCIENCE MAJORS. This course is designed specifically for Non-Nursing Allied Health Programs - Health Information Technology, Medical Imaging, Respiratory Care, and Surgical Technology programs. Students seeking a nursing degree must take BIOL 2301, BIOL 2101 and BIOL 2302, BIOL 2102 (formerly BIOL 2401 and 2402).
Prerequisite(s): Reading level 7

Course Type: Academic