

# COURSES

## BIOLOGY

### BIOL 1322 NUTRITION AND DIET THERAPY

3 lec (3 Cr.) 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. (Cross-listed as HECO 1322)

Credits

3

Distribution

BIOL

Course Fee

Internet course fee (if applicable): \$38 Lab fee \$18

### BIOL 1406 BIOLOGY FOR SCIENCE MAJORS I

3 lec/3 lab (4 Cr.) 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. Laboratory activities will reinforce the fundamental principles of living organisms, including physical and chemical properties of life, organization, function, evolutionary adaptation, and classification. Study and examination of the concepts of cytology, reproduction, genetics, and scientific reasoning are included. Recommended prerequisite: MATH 1314. Successful completion of College Algebra or concurrent enrollment in higher-level mathematics is recommended.

Credits

4

Distribution

BIOL

Course Fee

Internet course fee (if applicable): \$38, Lab fee: \$18

### BIOL 1407 BIOLOGY FOR SCIENCE MAJORS II

3 lec/3 lab (4 Cr.) 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. Laboratory activities will reinforce study of the diversity and classification of life, including animals, plants, protists, fungi, and prokaryotes. Special emphasis will be given to anatomy, physiology, ecology, and evolution of plants and animals. Recommended prerequisite: Successful completion of College Algebra or concurrent enrollment in higher-level mathematics is recommended. Note: It is recommended that BIOL 1406 Biology for Science Majors I (Lecture and Laboratory) be taken before BIOL 1407.

Credits

4

Distribution

BIOL

Course Fee

Internet fee (if applicable): \$38 Lab fee: \$18

### BIOL 1408 BIOLOGY FOR NON-SCIENCE MAJORS I

3 lec/3 lab (4 Cr.) Provides a survey of biological principles with an emphasis on humans including chemistry of life, and cell's structure, function, and reproduction. Laboratory activities will reinforce a survey of biological principles with an emphasis on humans including chemistry of life, and a cell's structure, function, and reproduction.

Credits

4

Distribution

BIOL

Course Fee

Internet course fee (if applicable): \$38, Lab fee: \$18

## BIOL 1409 BIOLOGY FOR NON-SCIENCE MAJORS II

3 lec/3 lab (4 Cr.) This course will provide a survey of biological principles with an emphasis on humans including evolution, ecology, plant and animal diversity, and physiology. Laboratory activities will reinforce a survey of biological principles with an emphasis on humans including evolution, ecology, plant and animal diversity, and physiology. Note: It is recommended that BIOL 1408 Biology for Non-Science Majors I be taken before BIOL 1409.

Credits

4

Distribution

BIOL

Course Fee

Internet course fee (if applicable): \$38, Lab fee: \$18

## BIOL 2401 ANATOMY & PHYSIOLOGY I

3 lec/3 lab (4 Cr.) 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. 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.

Credits

4

Distribution

BIOL

Course Fee

Internet course fee (if applicable) \$38, Lab fee \$18

## BIOL 2402 ANATOMY & PHYSIOLOGY II

3 lec/3 lab (4 Cr.) 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. 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:** BIOL 2401 must be completed with a grade of C or better before attempting BIOL 2402.

Credits

4

Distribution

BIOL

Course Fee

Internet course fee (if applicable) \$38, Lab fee \$18

## BIOL 2404 ANATOMY & PHYSIOLOGY

3 lec/3 lab (4 Cr.) 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.

Credits

4

Distribution

BIOL

Course Fee

Internet course fee (if applicable): \$38, Lab fee: \$18

## BIOL 2406 ENVIRONMENTAL BIOLOGY

3 lec/3 lab (4 Cr.) Principles of environmental systems and ecology including biogeochemical cycles, energy transformations, abiotic interactions, symbiotic relationships, natural resources and their management, lifestyle analysis, evolutionary trends, hazards and risks, and approaches to ecological research. Laboratory activities will reinforce principles of environmental systems and ecology including biogeochemical cycles, energy transformations, abiotic interactions, symbiotic relationships, natural resources and their management, lifestyle analysis, evolutionary trends, hazards and risks, and approaches to ecological research. Recommended prerequisite: MATH 1314 - Successful completion of College Algebra or concurrent enrollment in higher-level mathematics is recommended.

Credits

4

Distribution

BIOL

Course Fee

Internet course fee (if applicable): \$38, Lab fee: \$18

## BIOL 2420 MICROBIOLOGY FOR NON-SCIENCE MAJORS

3 lec/3 lab (4 Cr.) This 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. This 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.

Credits

4

Distribution

BIOL

Course Fee

Internet fee (if applicable): \$38, Lab fee: \$18