Biology (BIOL)

BIOL& 100 Survey of Biology
5 credits , NSL
Quarter(s): F, W, Sp

Examines major concepts in biology -- the science of life -- and the nature of science itself and includes survey of fundamental life processes by which organisms live, grow, reproduce, and interact with their environment. This course is recommended for students interested in a brief overview of biology. Laboratory is included. Lab hours are required for this course.

Prerequisite: None

BIOL& 160 General Biology with Lab: Cell/Molecular
5 credits , NSL
Quarter(s): F, W, Sp

Introduces cell biology including the chemistry of life, the structure, reproduction, and metabolism of cells, genetics, and evolutionary biology. Includes inquiry based lab. Prerequisite course for BIOL& 241 (Human Anatomy and Physiology I) and BIOL& 260 (Microbiology). A grade of C or higher is required in order to advance to BIOL& 241 or BIOL& 260. Lab hours are required for this course.

Prerequisites: None Corequisites: None

BIOL& 221 Majors Ecology/Evolution: w/ Lab
5 credits , NSL
Quarter(s): F

Examines evolution, Mendelian genetics, biodiversity, and ecology. First of a three course series. Laboratory included. Lab hours are required for this course.

Prerequisites: None Corequisites: None

BIOL& 222 Majors Cell/Molecular: w/Lab
5 credits , NSL
Quarter(s): W

Examines structure and function of biomolecules, cell structure and function, metabolism and energetics, current applications of biotechnology and molecular biology. Second of a three course series. Laboratory included. Lab hours are required for this course.

Prerequisite: None Corequisite: None

BIOL& 223 Majors Organismal Phys: w/ Lab
5 credits , NSL
Quarter(s): Sp

Examines organismal (animal and plant) development and physiology. Final course of a three course series. Laboratory included. Lab hours are required for this course.

Prerequisites: None

BIOL& 241 Human A & P 1
5 credits , NSL
Quarter(s): S, F, W, Sp

Provides a study of structure and function of the human body. Topics include the cell, tissues, skeletal system, articulations, muscular system, and nervous system. This is the first of a two-course sequence. This course may not be transferable unless the entire sequence (BIOL& 241 and 242) is taken at LCC. Lab hours are required for this course.

Prerequisite: BIOL& 160 OR BIOL& 260 OR BIOL& 222 with a grade of C or above. Prerequisite waiver may be granted with appropriate documentation to the instructor.

BIOL& 242 Human A & P 2
5 credits , NSL
Quarter(s): S, F, W, Sp

Continues the study of structure and function of the human body. Topics include endocrine, circulatory, lymphatic, respiratory, digestive, urinary, and reproductive systems; and fluid and electrolyte balance. This is the second part of a two-course sequence. This course may not be transferable unless the entire sequence (BIOL& 241 and 242) is taken at LCC. Laboratory is included. Lab hours are required for this course.

Prerequisites: BIOL& 241 with a C or better. Prerequisite waiver may be granted with appropriate documentation to the instructor.

BIOL& 260 Microbiology
5 credits , NSL
Quarter(s): S, F, W, Sp

Introduces the fundamentals of microbiology, including: evolution, microbial structures and functions, metabolism, growth, genetics, classification and pathogenesis; virology; principles of infectious disease; host defenses and antimicrobial drugs. Laboratory includes techniques for isolation, cultivation and identification of microbes. Lab hours are required for this course.

Prerequisites: BIOL& 160 or BIOL& 222 with a grade of C or better or instructor permission.

BIOL 109 Energy and Life: Biological Sciences
5 credits , NSL
Quarter(s): S

Explores energy and life on earth through the study of biodiversity, metabolism, cell structure, genetics, evolution, and ecosystems. Students will gain an understanding of the natural world, science as a field of study, and develop skills to apply and teach scientific principles in everyday life. Intended for elementary education and early childhood education majors. Part of a three quarter sequence; students are not required to take entire sequence. Includes laboratory. Lab hours are required for this course.

Prerequisite: None.

BIOL 127 Natural Science of Selected Global Regions
5 credits , NSCI
Quarter(s): W

Focuses on the ecology of selected regions, including ecosystems and human impact on ecosystems. Investigates the biodiversity, characteristics, and interactions of the flora and fauna within various habitats and ecosystems. Involves field observations and experiences. Does not include a lab component.

Prerequisites: Enrollment in Study Abroad Program and eligible for ENGL& 101 OR instructor permission.

BIOL 130 Biodiversity of the Pacific Northwest
5 credits , NSL

Introduces biological diversity of the major ecosystems of the Pacific Northwest (e.g. forest, riparian, wetland, estuary, and marine intertidal). Surveys common organisms of these ecosystems and students will learn fundamental biological principles as they relate to biodiversity (e.g. ecology, evolution, genetics) and the importance to human well-being, as well as the intrinsic value of biodiversity at three levels: genetic, species, and ecosystems. Students will learn methods in the lab and field for surveying, identifying, and measuring biodiversity. Students will complete original research on a group and/or ecosystem of their choice. Class will meet often outdoors and three day-long Saturday field trip(s) are required. Lab hours are required for this course.

Prerequisite: ENGL& 101 or instructor permission.

BIOL 150 Genetics and Society
5 credits , NSL
Quarter(s): W

Introduces the discipline of genetics by interweaving classical genetics concepts with current issues including genetic diversity, the human genome, biotechnology, and genetic disorders. Presents the tools necessary for making informed decisions regarding the impact of genetic advances on individual lives and society, Laboratory includes exploration of DNA structure, DNA, gene, and protein identification, and problem solving using activities and biotechnology equipment. Lab hours are required for this course.

Prerequisites: None

BIOL 179 Human Biology & Exercise
5 credits , NSL
Quarter(s): W, Sp

Introduces fundamental biological principles from cells to human organ systems. Provides comprehensive coverage of the physiology of exercise and its role in successful integration of exercise principles into exercise programs. Laboratory is included. Lab hours are required for this course.

Prerequisites: None

BIOL 288 Cooperative Work Experience
1 – 15 credits

Provides work-based learning experience in a specific program of study. Individualized student outcomes are developed, focusing on behaviors that contribute to workplace success.

Prerequisites: Instructor or Cooperative Education Coordinator permission
Concurrent requirements: COLL 289 or BUS 294 must be taken prior to or concurrent with this course.

BIOL 297 Special Topics in Microbiology
1 credit , NSCI
Quarter(s): F, W, Sp

Discusses selected advanced topics in microbiology. May be repeated for credit as topics change each time course is offered.

Prerequisites: BIOL& 260 or concurrent enrollment

BIOL 298 Special Topics in Human Physiology
1 credit , NSCI
Quarter(s): F, W, Sp

Discusses selected advanced topics in human physiology. May be repeated for credit as topics change each time course is offered.

Prerequisites: BIOL& 241 or concurrent enrollment.

BIOL 299 Independent Study
1 – 10 credits

Offers individualized learning opportunities for knowledge or skill development. Content and expectations are established between the student and instructor, and documented in an Independent Study contract.

Prerequisites: By instructor permission only.