Biology (BIDI)

BIDI 1220 Biology Core Concepts: Ecology, Evolution, and Behavior (3 Credits)
Explores the core concepts of ecology, evolution, and behavior of organisms through a combination of laboratory, discussion, reading, and lecture. Topics include speciation, natural selection, adaptation, competition, predation, and the mechanics and ecology of behavior. Unity and diversity of life are emerging themes. Not open to students who have earned credit for BIDI 1020. Additional course fee required. Falls. (SIDI)

BIDI 1320 Biology Core Concepts: Cells, Genes, and Biotechnology (3 Credits)
Provides an understanding of the basis of the scientific method and the kinds of questions that science can and cannot address, while exploring topics in photosynthesis and cellular respiration, cellular structure and processes, the structure and function of genes, DNA, and select topics in biotechnology. Regularly involves discussions of the bioethical implications of our growing knowledge and application of technologies involving manipulation of cellular and genetic processes. Provides hands-on experiences in a laboratory setting to conduct basic experiments that elucidate the structure of cells and the function of genes. Not open to students who have earned credit for BIDI 1010. Additional course fee required. Springs. (SIDI)

BIDI 1400 Plagues and Peoples (3 Credits)
One of the important influences on the course of human history has been the outbreak of infectious diseases. From the Plague of Athens during the Peloponnesian War, to the Bubonic Plague of the European Middles Ages, to Yellow Fever during Napoleon’s campaign to control his new world possessions, infectious diseases have often been a major factor in determining the outcome of human events. Focuses on infectious disease outbreaks through history, including modern outbreaks such as AIDS. The emphasis is on the diseases and the way in which they enter the human experience, as well as their direct impact on human populations to influence the course of history. Political, social and cultural forces are considered. Not open to students who have earned credit for BI 1350. Falls and Spring. (PPDI)

BIDI 1500 Insects and Society (3 Credits)
An exploration of human interactions with and attitudes toward insects from different perspectives. Investigates roles of insects in areas including agriculture, artistic expression, commercial products, and health, and how and why societies have responded to varying interactions with insects in different ways. Through this exploration, students consider how our concept of self is shaped by interactions with other species. Falls and Springs. (SSDI)

BIDI 1999 Biology (1-20 Credits)
BIDI 2010 Human Biology I (4 Credits)
Focuses on human anatomy and physiology with emphases on ethics, the environment and related health and wellness issues. Starts with an overview of basic cell chemistry and biology including DNA, cell division and cancer. Explores the 4 major types of tissue type, followed by the integument, the skeletomuscular system and its interaction with the nervous system. Addresses developmental processes throughout. The lab component examines the structure and function of the human body by studying anatomical structure, virtual and inquiry based physiological experiments and continues emphasis on ethics, the environment and related health and wellness issues. Topics studied include cell biology, cell reproduction, tissues, the skeleton, articulations, muscle tissue and muscles. Human Biology I and II can be taken in any sequence. Additional course fee required. Falls. (SIDI)(WECO)

BIDI 2020 Human Biology II (4 Credits)
Focuses on human anatomy and physiology with continuing emphasis on ethics, the environment and related health and wellness issues. Starts with a detailed exploration of nervous tissue and the nervous system. Examines the structural and functional relationships between the different components of the endocrine, respiratory, cardiovascular, immune, lymphatic, digestive, reproductive and excretory systems. Addresses developmental processes throughout. Covers human evolution and ecology with a focus on local and global environments. The lab component examines the structure and function of the human body by studying anatomical structure, virtual and inquiry based physiological experiments and continues emphasis on ethics, the environment and related health and wellness issues. Topics studied include neurons, nervous tissue, the central nervous system, and the endocrine, respiratory, cardiovascular, digestive, reproductive and excretory systems. Human Biology I and II can be taken in any sequence. Additional course fee required. Springs. (SIDI)(WECO)

BIDI 2050 Plants and Society (3 Credits)
Students discuss how human interactions with plants have influenced human perception and impacted the development of human societies from pre-historic to modern times. The biology of plants (how they grow, reproduce, and function) and human cultivation and use of plants for food, fiber, medicine and recreation are explored in the context of their consequences in shaping human perception of self, culture and society. Springs. (SSDI)

BIDI 2999 Biology (1-20 Credits)