BIOLOGY (BIOL)

BIOL 10100 Plagues & Peoples (LA)
This course focuses on the significant socio-economic, cultural, and political impacts of plagues and epidemics from historical through modern times. We explore the vectors of disease such as viruses, parasites, and bacteria. Although modern medical advances have improved disease control, inequities in access to these treatments is at the root of modern power struggles. This is a general education course intended for non-science majors. (IRR)
Attributes: AN2, SC, TIDE, TPJ
3 Credits

BIOL 10210 Biology of Sex (LA)
An evolutionary analysis of reproductive behavior, taking a comparative approach among animals, including humans, to better understand our own sexuality and behavior in a biological context. Topics include asexual and sexual reproduction; sex determination; genetic and environmental determinants of sexual behavior; male and female tactics; mating systems (monogamy, polyandry, polygyny); conflict of interests between the sexes; courtship displays; mate choice; assuring paternity; and parental care. This is a general education course intended for non-science majors. Lecture/discussion: Three hours. (S,O)
Attributes: 2A, NS, SC, TIDE, TIII, WGS, WGSI
3 Credits

BIOL 10310 New and Emerging Diseases (LA)
Examines the phenomenon of new and emerging diseases and their effects on humans. Topics include the history of emerging or reemerging diseases, epidemics and pandemics, the role of ecological factors in disease emergence, types of infectious agents, their mechanisms of action, and how our immune system responds to infection by these agents. We examine factors -- such as antibiotic resistance, population, environmental changes, global travel, and global warming -- that contribute to diseases in the 21st century. We also discuss how political, economic, social, and cultural factors contribute to the emergence of diseases and the response to those diseases. This is a general education course intended for non-science majors. (S,Y)
Attributes: 2A, AN2, NS
3 Credits

BIOL 10400 Environmental Biology (LA)
Blends general ecological concepts with evaluations of several environmental problems. Topics include the growth and regulation of natural populations compared to human populations; our use and future supplies of energy, from food to nuclear power; and the preservation of wildlife. The pollution of our environment by human activities is emphasized. This is a general education course intended for non-science majors. Lecture/discussion: Three hours. (F,S,Y)
Attributes: 2A, NS, SC, TQSF
3 Credits

BIOL 10600 Plants, People, and Food Production (LA)
Major emphasis is placed on the structure and function of plants; the use of plants in food production; the structure of agricultural technology; the relationship between world food supply and the population problem; scientific, social, and economic aspects of food production. This is a general education course intended for non-science majors. Lecture/discussion: Three hours. (IRR)
Attributes: 2A, AN2, NS, SC, TQSF, TWOS
3 Credits

BIOL 10700 Human Genetics (LA)
Heredity in human families and populations; genetic basis of normal and abnormal traits; chromosome behavior and sex determination. Emphasis is placed on the social, ethical, and political issues in genetics. This is a general education course intended for non-science majors. Lecture/discussion: Three hours. (F,E)
Attributes: 2A, AN2, NS, SC, TIDE, TIII
3 Credits

BIOL 10800 The Human Organism (LA)
Study of the structure and function of the human body. Primary emphasis is placed on normal body function, with a secondary emphasis placed on common diseases. For non-science majors; cannot be taken by students who have completed BIOL 11500, BIOL 11900, or BIOL 12100. Lecture/discussion: Three hours. (F,Y)
Attributes: 2A, NS, SC, TIDE, TWOS
3 Credits

BIOL 10900 Life in the Ocean (LA)
Study of the diversity of life found in the ocean with special attention to how ocean life impacts and is impacted by humans. Threats to ocean diversity will be looked at from the standpoint of their effects on both individual organisms and various ocean ecosystems. There will be one open lab during the semester. This is a general education course intended for non-science majors. Lecture: Three hours. (IRR)
Attributes: 2A, NS, SC, TIDE, TPJ
3 Credits

BIOL 11010 History of Life on Earth (LA)
This course will present what we know about the geologic past. Methodologies used to study the past history of our planet will be introduced. The course will also critically analyze topics that frequently appear in the popular media such as new paleontological discoveries, new views on dinosaur biology, mass extinctions, and processes of evolution. This is a general education course intended for non-science majors. Lecture/discussion: Three hours. (S,Y)
Attributes: 2A, NS, SC, TIII, TWOS
3 Credits

BIOL 11300 Insects and People (LA)
Why insects are the most successful animals on earth, and their negative and positive effects on people. Topics include insect structure, function, reproduction, development, and behavior; insects as pollinators and producers of useful products; insects as scavengers and applications in forensic science; insects as vectors of disease; agricultural, forestry, and household pests; chemical and biological control of insect pests. This is a general education course intended for non-science majors. Lecture/discussion: Three hours. (F,O)
Attributes: 2A, NS, SC, TIII, TQSF
3 Credits

BIOL 11400 Exploring the World Through Evolutionary Biology (LA)
Examination of the mechanisms that have resulted in the rich diversity of life on our planet. Emphasis on how evolutionary biology helps us to understand current issues in ecology, conservation biology, global climate change, agriculture, human health and medicine, and human behavior. Topics include: the fossil record, biodiversity, mass extinctions, human evolution, infectious diseases and antibiotic resistance. (IRR)
Attributes: 2A, AN2, NS, SC, TIII
3 Credits

BIOL 11500 Essentials of Biology (LA)
A one-semester general biology course for nonmajors covering basic physiology, genetics, and development. Evolutionary trends and ecological relationships are discussed. The influence of biology on the lives of humans is emphasized. This is a general education course intended for non-science majors. Lecture/discussion: Three hours. (IRR)
Attributes: 2A, NS
3 Credits

BIOL 11800 Island Biology (LA)
An introduction to the biology of islands and the impacts of human activity on island ecosystems. Focuses on flora and fauna of islands and considers evolution on islands, island endemics, adaptive radiation, as well as the impacts of human activities including climate change, introduced species and tourism. This course is intended for non-science majors; students who have already taken the ICSM Island Life or BIOL 22300 (Biology of Oceanic Islands) cannot take this course for credit. (IRR)
Attributes: SC, TQSF, TWOS
3 Credits

BIOL 11900 Fundamentals of Biology: Cells and Bodies (LA)
A survey of biology for physical and occupational therapy, exercise science, and other health-related majors. Covers cell structure, cellular respiration, mitosis and meiosis, genetics, DNA structure and function, and animal physiology. Lecture: Three hours. Laboratory: Three hours. (F,Y)
Attributes: 2A, NS
4 Credits

BIOL 12000 Fundamentals of Biology: Ecology and Evolution (LA)
A survey of biology for physical and occupational therapy, exercise science, and other health-related majors. Meets the biology requirement for environmental studies majors. Covers microevolution, macroevolution (patterns of evolution of the kingdoms, of phyla of plants and animals, and of classes of vertebrates), and ecology (general and human) at the level of populations, communities, and ecosystems. Lecture: Three hours. Laboratory: Three hours. (S,Y)
Attributes: 2A, NS
4 Credits

BIOL 12100 Principles of Biology, Cell and Molecular (LA)
One of two core introductory lecture-laboratory courses for biology and other science majors that surveys the field of biology. Major emphasis is placed on biochemistry, cellular biology, and genetics, and their impact on organismal structure and function. Lecture/discussion: Three hours. Laboratory: Three hours. (F, Y)
Attributes: ENRE
4 Credits

BIOL 12200 Principles of Biology, Ecology and Evolution (LA)
One of two core introductory lecture-laboratory courses for biology and other science majors that surveys the field of biology. Concentrates on the origins and maintenance of biodiversity through evolutionary and ecological processes. Lecture/discussion: Three hours. Laboratory: Three hours. (S,Y)
Attributes: 2A, NS
4 Credits

BIOL 16000 Natural World by the Numbers (LA)
Practical application of precollege level mathematics to natural phenomena. Practice evaluating the interpretation and presentation of data. Cross-listed with CHEM 16000. Prerequisites: Passing score on math competency exam. (IRR)
Attributes: NS
3 Credits

BIOL 19702 The Biology of Cancer (LA)
Investigates how cancer cells function and how genetic and environmental factors lead to the transformation of cells. Examines the cellular systems, including the immune system, designed to protect normal cells from becoming cancerous, the growth and behavior of tumors, the phenomena of invasion and metastasis, and the treatment and statistics of cancers. (S,Y)
Attributes: 2A, NS, SC, TWOS
3 Credits

BIOL 20000 Independent Study: Biology (LA)
For students pursuing special laboratory projects or literature research and for teaching interns (working within the department). Discussion and/or laboratory to fit the student's needs. Course level determined by the intended degree of independence and originality of the student's work, and the extent of the student's background courses. Course may be repeated for different projects. Offered on demand only. Prerequisites: Permission of instructor.
Attributes: UND
1-3 Credits

BIOL 20400 Selected Topics: Biology (LA)
Intermediate course with a specialized focus chosen by faculty members or resulting from student requests. May be repeated for credit when topics vary. Prerequisites: BIOL 11900 or BIOL 12100; BIOL 12000 or BIOL 12200. (IRR)
Attributes: BIEL
2-4 Credits

BIOL 20500 Biology of Aging (LA)
Study of theoretical and measured aspects of the aging phenomenon as it influences human biology. Topics range from the subcellular to whole populations. Course may not be used to fulfill requirements in the biology major or minor. Prerequisites: Sophomore standing. (S,Y)
Attributes: 2A, NS, SC, TMBS
3 Credits

BIOL 20600 Primary Human Anatomy (LA)
A one-semester introduction to human anatomy designed for physical and occupational therapy majors in preparation for cadaver dissection. Lecture topics include anatomical terminology; tissues types; skeletal, muscular, and nervous systems; and regional anatomy. Emphasis in laboratory is placed on bones, muscle attachments, actions and innervations, and dissection skills. Prerequisites: BIOL 11900 or BIOL 12100 and sophomore standing. (S,Y)
Attributes: BIEL, ENRE
3 Credits

BIOL 20700 Communicating Biology (LA)
Develop best practices for presenting biological research findings orally and in writing. Prerequisites: BIOL 11900 or BIOL 12100; BIOL 12000 or BIOL 12200; WRTG 10600 or equivalent. Enrollment limited to Biology majors. (F-S,Y)
Attributes: BIEL, WI
3 Credits

BIOL 20900 Experiences in Biology (NLA)
Supervised, hands-on, group experience in the biological sciences that is connected to a course that provides the background and preparation for the experience. Experiences often involve travel that is typically scheduled during winter, May, or summer terms. Experiences may encompass a range of activities, but emphasize immersion in a particular topic or activity in a non-traditional setting. This course may be repeated. Prerequisites: permission of instructor. (IRR)
0-1 Credits

BIOL 21000 Research in Biology (LA)
For students who desire research work but have not yet completed BIOL 30200. Prerequisites: One introductory biology course; permission of instructor. May be repeated once for credit. (F-S,Y)
Attributes: UND
1-3 Credits

BIOL 21200 Conservation Biology (LA)
Introduction to principles of conservation biology issues used to understand and reverse the current worldwide species loss. Examination of case studies of local and global conservation efforts to combat this species loss. Lab exercises include field trips. Lecture: Three hours. Laboratory: Three hours. This course is cross-listed with ENVS 21200; students cannot receive credit for this course and ENVS 21200. Prerequisites: Any 10000-level ENVS or BIOL course. (IRR)
Attributes: BIEL, ENRE
4 Credits

BIOL 21400 Animal Physiology (LA)
The study of physiological mechanisms, from the molecular and cellular to the organismic level, with an emphasis placed on unique adaptations to environmental stresses. Specific topics include the mechanisms underlying nerve function, movement, circulation, respiration, and endocrine regulation. Lecture: Three hours. Laboratory: Three hours. Prerequisites: BIOL 11900 or BIOL 12100. (F,Y)
Attributes: BIEL, ENRE
4 Credits

BIOL 22300 Biology of Oceanic Islands (LA)
The mechanisms of evolution and the factors that drive speciation on island systems are covered in detail. Topics include: island biogeography, global and island climate, ecological niches, natural selection, adaptive radiation, invasive species, conservation biology, and the impacts of anthropogenic activities on island habitats. Prerequisites: BIOL 12000 or BIOL 12200. (IRR)
Attributes: BIEL
3 Credits

BIOL 22500 The Power of Plants: Plants in Medicine and Agriculture (LA)
Explores the important roles of plants in modern society and indigenous cultures, with specific focus on plants as sources of medicines and food. Other topics include plant classification; the mechanisms of bioactive plant compounds in humans; the evolution, domestication, and genetic modification of crop plants; plant conservation; and ownership of nature. Lectures include discussions based on readings as well as lectures. Prerequisites: BIOL 11900 or BIOL 12100; BIOL 12000 or BIOL 12200. (F,O)
Attributes: BIEL
4 Credits

BIOL 22700 Genetics (LA)
Principles of heredity; survey of classical genetics, human genetics, modern molecular and microbiological genetics; studies of confidence of analysis of genetic data; and interrelating transcription and translation at the cellular and organismal level. Lecture: Three hours. Laboratory: Three hours. Prerequisites: BIOL 11900 or BIOL 12100; BIOL 12000 or BIOL 12200; CHEM 12100 or CHEM 12300. (F,S,Y)
Attributes: BIEL, ENRE
4 Credits

BIOL 22800 The Evolution of Adaptations (LA)
Utilizes a comparative approach to analyze some of the most significant adaptations in organismal biology, highlighting fundamental processes and common patterns in evolution. Anatomical, paleontological, developmental, molecular and functional evidence will be considered. Lecture: Three hours. Prerequisites: BIOL 11900 or BIOL 12100; BIOL 12000 or BIOL 12200. (IRR)
Attributes: BIEL
3 Credits

BIOL 27100 General Ecology (LA)
Presents the basic concepts of ecology with balanced treatment of plant and animal examples. Topics include the interactions among individuals of a population, interactions in their abiotic environment, and interactions with other species. Also discussed are growth, regulation, diversity, and stability of populations, and the interactions among populations at the community and ecosystems levels. Laboratories include field and laboratory work and statistical analyses of data. Lecture: Three hours. Laboratory: Three hours. Prerequisites: BIOL 12000 or BIOL 12200. (F,Y)
Attributes: BIEL, ENRE
4 Credits

BIOL 27500 Field Biology (LA)
Survey of the ecosystems of central New York. Areas of emphasis are direct experience of the diversity of ecosystems and their structure and function; adaptations of organisms to specific ecosystems; recognition of dominant and indicator species; human impact on ecosystem function and species diversity; and the methods used to measure these parameters. Lectures emphasize the unique attributes of different ecosystems and the techniques of data gathering and analysis. Analyses of societal impact and management of ecosystems are included. Lecture: Two hours. Laboratory: Six hours. Prerequisites: Two of the following: BIOL 12100, BIOL 12200, BIOL 12000, ENVS 12100. (F,O)
Attributes: BIEL, ENRE, ESTS
4 Credits

BIOL 28400 Field Ornithology (LA)
Relation between climate, habitat, and regional bird species. Lecture and laboratory in bird anatomy, territoriality, migration, and song. Fieldwork: Saturday morning trips and bird banding. Lecture: Three hours. Laboratory: Three hours. Prerequisites: BIOL 11500, BIOL 11900, BIOL 12000, BIOL 12100, or BIOL 12200. (F,E)
Attributes: BIEL, ENRE, ESTS
4 Credits

BIOL 30000 Independent Study: Biology (LA)
For teaching interns (working within the department) and for students pursuing special laboratory projects or literature research. Discussion and/or laboratory to fit the student's needs. Course level determined by the intended degree of independence and originality of the student's work and the extent of the student's background courses. Course may be repeated. Offered on demand only. Prerequisites: Permission of instructor.
Attributes: UND
1-3 Credits

BIOL 30200 Research in Biology (LA)
Research for biology majors. It is recommended that projects be performed during the junior year. Research areas must be selected by midterm of the semester prior to enrollment. Prerequisites: BIOL 11900 or BIOL 12100; BIOL 12000 or BIOL 12200; BIOL 20700 (may be taken concurrently); permission of instructor. (F,S,Y)
Attributes: NS
3 Credits

BIOL 30400 Selected Topics: Biology (LA)
Advanced course with a specialized focus chosen by faculty members or resulting from student requests. May be repeated for credit when topics vary. Prerequisites: One 200-level BIOL course; Permission of instructor. (IRR)
Attributes: BIEL
2-4 Credits

BIOL 30500 Invasive Species (LA)
Examines the ecology and evolution of invasive species through discussion of current literature and field cases. Considers community vulnerability to invasion, characteristics of invaders, and the process, impact, and potential management responses for biological invasion. Prerequisites: BIOL 27100. (IRR)
Attributes: BIEL
4 Credits

BIOL 30800 Animal Behavior (LA)
Explores the proximate causes and ultimate evolutionary explanations for the behavior of animals. Introduces the study of behavioral ecology by examining basic ecological problems and evaluating the behavioral solutions animals use to solve them. Lecture topics include the development of behavior, control of behavior, communication, adaptive response to predators, adaptive feeding behavior, male and female reproductive tactics, the evolution of mating systems, adaptive tactics of parents, and social behavior. Emphasis in the laboratory is placed on observation and an experimental approach to animal behavior. Lecture: Three hours. Laboratory: Three hours. Prerequisites: BIOL 11900 or BIOL 12100; BIOL 12000 or BIOL 12200; one other course in biology at 200-level or above (excluding BIOL 20500). (F,E)
Attributes: BIEL, ENRE
4 Credits

BIOL 31500 Neurobiology (LA)
Study of the biology of the nervous system with an emphasis placed on the molecular and cellular mechanisms underlying nerve function. Also considers the function of the nervous system on an organismic level and the underlying causes of nervous system disease. Topics include ion channel function; neurotransmitters in the nervous system; sensory systems; motor systems and response to injury; and learning and memory. Lecture and discussion, with an emphasis placed on reading and analyzing the scientific literature. Prerequisites: BIOL 11900 or BIOL 12100; PSYC 31100 or one additional biology course at 200-level or above (excluding BIOL 20500). (S,Y)
Attributes: BIEL
4 Credits

BIOL 32400 Wonderful Life: Genes, Evolution, and Biodiversity (LA)
An overview of evolutionary biology that includes the study of both microevolutionary and macroevolutionary change, as well as the mechanisms of such change, using examples from many types of organisms. Topics include the studies of Charles Darwin, the modern synthesis, natural selection, population and quantitative genetics, analysis of adaptation, and mechanisms of speciation. Lectures are supplemented with outside readings and videos. Prerequisites: BIOL 22700 or BIOL 27100. (F,E)
Attributes: AN2, BIEL
3 Credits

BIOL 33000 Genomics, Bioinformatics, and Computational Biology (LA)
This course focuses on the genome, how it is used to build functional organisms, and how it can be compared within and between species to gain insight on biological processes and patterns of evolution. Emphasis will be on computational tools required by biologists for extracting and interpreting the vast amounts of data generated by emerging technologies. Prerequisites: BIOL 22700. (F,IRR)
Attributes: BIEL
4 Credits

BIOL 34500 Developmental Biology (LA)
Biology of embryonic development. The course covers the major unifying features of vertebrate and invertebrate development and focuses on the molecules that control these processes. Topics include regulation of gene expression, cell fate determination, fertilization, embryonic pattern formation, cell signaling, stem cells, and the relationships between development and disease. Lecture/lab: Four hours. Prerequisites: BIOL 22700. (F,O)
Attributes: BIEL, ENRE
4 Credits

BIOL 35200 Microbiology (LA)
Examines the structure, physiology, and genetics of microorganisms. Emphasis placed on understanding microbial growth, ecology, use of microogranisms in research and commerce, how microorganisms impact food and water quality, and the immune response to pathogens. Lecture: Three hours. Laboratory: Three hours. Prerequisites: BIOL 22700. (S,O)
Attributes: BIEL, ENRE
4 Credits

BIOL 35400 Cell Biology (LA)
Study of the relationship and unity of structure and function in living cells and cell populations. Emphasis is placed on cell organelles, cell membrane systems, and the functions of cells in cell recognition, cell signaling, regeneration, and malignancy. Prerequisites: BIOL 22700 and CHEM 22100. (F,Y)
Attributes: BIEL, ENRE
4 Credits

BIOL 37300 Plant Physiology (LA)
Intensive study of the basic physiological and biochemical processes of plants. Emphasis is placed in interaction between cellular structure and function, as well as coordination of the various physiological processes throughout the organism. Lecture: Three hours. Laboratory: Three hours. Prerequisites: BIOL 11900 or BIOL 12100; BIOL 12000 or BIOL 12200; CHEM 12100 or CHEM 12300; CHEM 22100. (IRR)
Attributes: BIEL, ENRE
4 Credits

BIOL 37900 Aquatic Ecology (LA)
Explores the biological, chemical, and physical features of lakes and other inland aquatic habitats. Focuses on interactions among organisms, interactions between organisms and their environment, and on the physiological adaptations of species to the aquatic environment. Lecture/discussion: Three hours. Laboratory: Three hours. Prerequisites: BIOL 12200; CHEM 12100 or CHEM 12300; junior standing. (IRR)
Attributes: BIEL, ENRE
4 Credits

BIOL 40000 Research in Biology (LA)
For students desiring further research work beyond level 3. This course may be taken twice for credit. Prerequisites: Permission of instructor. (F-S,Y)
Attributes: UND
1-3 Credits

BIOL 40100 Biology Honors Program (LA)
Research and thesis for biology majors pursuing the honors program. It is recommended that the research program begin before the start of the fall of the senior year and continue to the end of the senior year. Prerequisites: Acceptance into the honors program. (F-S,Y)
Attributes: NS
2-3 Credits

BIOL 40200 Biology: Honors Program (LA)
Research and thesis for biology majors pursuing the honors program. It is recommended that the research program begin before the start of the fall of the senior year and continue to the end of the senior year. Prerequisites: Acceptance into the honors program. (F-S,Y)
Attributes: NS
2-3 Credits

BIOL 40400 Selected Topics: Biology (LA)
Advanced research methods course with a specialized focus chosen by faculty members or resulting from student requests. May be repeated for credit when topics vary. Prerequisites: BIOL 30200 or BIOC 39000 or BIOC 41000; Permission of instructor. (IRR)
Attributes: BIEL
2-4 Credits

BIOL 41100 Biology Seminar (LA)
Seminars, discussion, and readings in the biological sciences. Required of all biology majors. Prerequisites: BIOL 20700 (may be taken concurrently) and junior standing. Pass/fail only. (F-S, Y)
0.5 Credit

BIOL 41200 Biology: Seminar (LA)
Seminars, discussion, and readings in the biological sciences. Required of all biology majors. Prerequisites: BIOL 41100 and junior standing. Pass/fail only. (F-S,Y)
0.5 Credit

BIOL 41400 Capstone in Biology (NLA)
Students will explore connections between the integrative core curriculum, their biology major, other learning experiences while at Ithaca College or abroad, and future goals. Students will create a written reflection that integrates their various learning experiences and how their experience at Ithaca College has prepared them to achieve their future goals. Students will also prepare a cover letter, curriculum vitae, and personal statement; identify career opportunities, and develop a showcase electronic portfolio. (F,Y)
Attributes: CP
1 Credit

BIOL 44000 Inquiry and the Nature of Science for the Science Teacher (LA)
Considers issues pertaining to the nature and practice of science, especially as they relate to science education. Explores aspects that distinguish scientific inquiry from other forms of inquiry. Examines safety issues of teaching science in a classroom, and teaching science in the context of the community. Cross-listed with CHEM 44000 and PHYS 44000. Students can receive credit for only one of: BIOL 44000, PHYS 44000, CHEM 44000. Prerequisites: EDUC 34000 and junior standing. (IRR)
Attributes: NS
3 Credits

BIOL 46100 Ecophysiology (LA)
Examines the function and performance of animals and plants in their environment. This course integrates information from molecular biology through organismal physiology to understand the mechanisms that allow organisms to survive in their physical, chemical, and biological environments. This information is analyzed to understand how these small-scale processes affect higher levels of organization, from biotic communities up to global-level issues. Topics include adaptations to extremes in temperature, energy availability, moisture, and nutrients. Examples will be taken from organisms living in a wide variety of environments, including deserts, the Arctic, temperate forests, marine environments, and rain forests. Lecture and discussion, with an emphasis on reading and analyzing the scientific literature. Prerequisites: BIOL 27100; BIOL 21400 or BIOL 37300. (S,E)
Attributes: BIEL
4 Credits

BIOL 47600 Endocrinology (LA)
Introduces the mechanisms by which hormones control their targets and provides background on the major vertebrate hormones. The course then covers current research in endocrinology, analyzing topics such as weight control, growth, gender differentiation, reproduction, the stress response, and environmental endocrine disrupters. Lecture and discussion, with an emphasis placed on reading and analyzing the scientific literature. Prerequisites: BIOL 21400; BIOC 35300 or BIOL 20700, (may be taken concurrently). (S,O)
Attributes: BIEL
4 Credits

BIOL 47800 Evolution (LA)
An overview of the field of evolutionary biology that includes the study of both microevolutionary and macroevolutionary change and the mechanisms of change. Specific topics of focus will include the nature of natural selection, population genetics, molecular evolution, adaptation, mechanisms of speciation, phylogenetic analysis, sexual selection, and the evolution of social behavior. Lecture: Three hours. Discussion: One hour. Prerequisites: BIOL 22700; Junior standing. (IRR)
Attributes: AN2, BIEL
4 Credits