

BIOLOGY

Course Search

Not all courses are offered every semester. Refer to the schedule of courses for each term's specific offerings.

[More Info](#)

Courses at the University of Florida, with the exception of specific foreign language courses and courses in the online Master of Arts in Mass Communication program, are taught in English.

Courses

BOT 4650 Plant Symbiosis

3 Credits

Examines the crucial role of symbioses in shaping the diversity of life. Topics include generalities among symbioses, origins and establishment of symbioses, and coevolution and cospeciation, as well as specifics of well-studied exemplars of bacterial, fungal, animal, and plant symbioses with plants.

Prereq: BSC 2010/2010L and BSC 2011/2011L with minimum grades of C

BSC 1920 First Year Introduction: Biology at UF

1 Credit

Introduces the field of biology and the academic resources specific to this discipline at UF. Discussions of the nature and practice of scientific research, laboratory safety, advising and career resources for biologists. Developments in the instructor's area of expertise are used to illustrate key subjects. (S-U)

Prereq: biology, botany, zoology or exploring science and engineering majors only

BSC 2005 Biological Sciences

3 Credits

A comprehensive introduction to living systems, including the scientific basis of biology, cell structure and function, genetic mechanisms, animal and plant anatomy and physiology, and ecology and evolutionary processes. Recommended for students not majoring in the natural sciences. (B)

General Education - Biological Science

BSC 2005L Laboratory in Biological Sciences

1 Credit

A laboratory for students who need experience in a nonprofessionally oriented laboratory or for those who need laboratory experience to satisfy requirements for graduation. (B)

General Education - Biological Science

BSC 2010 Integrated Principles of Biology 1

3 Credits

General Biology Core: the first of a two-semester sequence that prepares students for advanced biological sciences courses and allied fields. Studies the origin of life systems; of biological molecules and organization of living things at the subcellular, cellular and organismic levels; and of the activities of living forms in obtaining and utilizing energy and materials in growth, maintenance and reproduction. (B)

Prereq: Degree-seeking students only

General Education - Biological Science

BSC 2010L Integrated Principles of Biology Laboratory 1

1 Credit

Laboratory experiments designed to accompany BSC 2010. Students should register for BSC 2010 and 2010L concurrently. (B)

Prereq: Degree-seeking students only

Coreq: BSC 2010 or the equivalent

General Education - Biological Science

BSC 2011 Integrated Principles of Biology 2

3 Credits

General Biology Core: the second of a two-semester sequence that prepares students for advanced biological sciences courses and allied fields. Examination in living things of the principles of information storage, transmission and utilization at the cell, organism and population levels; of the mechanisms of evolutionary change in the diversification of living things and their life styles; of population growth and regulation; and of energy flow and biogeochemical cycling in the biosphere. (B)

Prereq: BSC 2010 or the equivalent

General Education - Biological Science

BSC 2011L Integrated Principles of Biology Laboratory 2

1 Credit

Laboratory experiments designed to accompany BSC 2011. Students should register for BSC 2011 and 2011L concurrently. (B)

Prereq: Degree-seeking students only

Coreq: BSC 2011 or the equivalent

General Education - Biological Science

BSC 2044L Accelerated, Integrated Principles of Biology Laboratory

2 Credits

A cross-disciplinary, inquiry-based curriculum that focuses on major themes and concepts in biology with an emphasis on their physical and chemical foundations and applications in quantitative research. Equivalent to BSC 2010L and BSC 2011L.

Coreq: BSC 2010 or the equivalent

BSC 2862 Global Change Ecology and Sustainability

3 Credits

Examines key issues in sustainability and global environmental change from an ecological perspective. Major themes include impacts of climate change on terrestrial ecological communities; feedback between the terrestrial biosphere and the atmosphere; and implications of climate change for the sustainability of natural and managed ecosystems. (B)

General Education - Biological Science

BSC 2930 Special Topics

1-4 Credits

Special topics in general biology. (B)

BSC 3096 Human Physiology

3 Credits

The functioning of human tissues, organs and organ systems, emphasizing the physical, chemical and mechanistic bases of normal physiology and the integrated function of the human body. Also introduces pathophysiological changes associated with human diseases.

Prereq: CHM 1031, CHM 2046, or CHM 2047 and BSC 2011

BSC 3307C Climate Change Biology

4 Credits

Climate change and its impacts on biological communities, feedbacks from the biosphere to the climate system and human impacts on the carbon cycle. Emphasis on the response of vegetation to climate change and rising atmospheric CO₂ concentrations and the role of terrestrial ecosystems in regulating climate via the carbon cycle.

Prereq: BSC 2011 and BSC 2011L with minimum grades of C

BSC 3422C Principles of the Biotechnology Industry

2 Credits

Introduces practices, skills, and careers in the biotechnology industry; provides an applied understanding of regulatory compliance, product development, process development, manufacture, testing, and release-for-sale of biomedical products. Learn the profiles of major departments and participate in simulated departmental roles through lecture and hands-on laboratory applications.

Prereq: BSC 2011, BSC 2011L, CHM 2046 and CHM2046L

BSC 3911 Entering Research in Biology

1 Credit

A seminar course to complement a students mentored research experience. Must be taken concurrently with research credits. Students meet weekly to share their research experiences and to get feedback on the progress of their research projects.

<p>BSC 4821C Evolutionary Biogeography 3 Credits How to interpret biological data sets in a biogeographical context. Topics and methods in historical and ecological biogeography are discussed. Prereq: BSC 2011 and BSC 2011L with minimum grades of C</p>	<p>PCB 4553 Population Genetics 4 Credits Population and quantitative genetics, including the theory of gene frequency dynamics within and between populations, and deterministic and stochastic processes in evolution. Prereq: BSC 2011 and 2011L with minimum grades of C</p>
<p>BSC 4910 Individual Mentored Research in Biology 3 Credits Qualified students work with a supervising instructor on a research project in biology. Prereq: BSC 2010, BSC 2010L, BSC 2011 and BSC 2011L with minimum grades of C Coreq: BSC 3911</p>	<p>PCB 4917 Molecular Biology Lab Immersion 4 Credits Perform authentic research employing techniques of molecular biology in an intensive 5 week format. Each semester the instructor chooses a general area of research and set of techniques for projects. Design hypotheses, plan and carry out experiments, and analyze data. Prereq: BSC 2010, BSC 2010L, BSC 2011 and 2011L with minimum grades of B</p>
<p>BSC 4912 Advanced Mentored Research in Biology 4 Credits Advanced students work with a supervising instructor on a research project in biology. May be repeated for full credit. Prereq: BSC 3911 and BSC 4910 with minimum grades of C</p>	<p>ZOO 4405 Sea Turtle Biology and Conservation 3 Credits Biology of sea turtles and their roles in marine ecosystems, current major issues in sea turtle biology, and challenges in their conservation and management. Prereq: BSC 2010 and BSC 2011 with a minimum grade of C</p>
<p>BSC 4936 Critical Analysis of Biological Research 2 Credits Critical analysis of current life sciences research through online discussions of research seminars and peer reviewed scientific publications. Prereq: senior standing in biology, botany or zoology</p>	
<p>BSC 4956 Overseas Studies 1-15 Credits Overseas Studies.</p>	
<p>ISC 2400L Cross-Disciplinary Laboratory 1 3 Credits First course in a two-semester inquiry-based laboratory focusing on major themes and concepts in biology, chemistry and physics with an emphasis on their integrated applications in modern, quantitative research. Satisfies course requirements for BSC 2010L, CHM 2045L and PHY 2053L. Prereq: high school algebra or equivalent</p>	
<p>ISC 2401L Cross-Disciplinary Laboratory 2 3 Credits Second course in a two-semester inquiry-based laboratory focusing on major themes and concepts in biology, chemistry and physics with an emphasis on their integrated applications in modern, quantitative research. Satisfies course requirements for BSC 2011L, CHM 2046L and PHY 2054L. Prereq: ISC 2400L and MAC 1147 or equivalent Coreq: BSC 2010 and CHM 2045 or CHM 2047 or CHM 2095</p>	
<p>ISC 3523 Integrative Biomedical Science 3 Credits Introduces biomedical science as the application of the natural sciences to medicine. Focuses on integration of biological and biochemical sciences, chemical and physical sciences, and social and behavioral sciences in the context of health. Activities promote skills in problem-solving, critical analysis, and quantitative reasoning. Prereq: BSC 2011, and CHM 2211 or CHM 2213 or CHM 3217, and PHY 2048 or PHY 2053 or PHY 2060, and MAC 2311 or STA 2023, and PSY 2012 or SYG 2000</p>	
<p>PCB 4085 Genetical Ethics 1 Credit Presentation and critical discussion of new genetic discoveries and discoveries in the context of society. Includes policy, historical, and legal perspectives. Covers responsible conduct of research. Prereq: PCB 3063 or AGR 3303</p>	
<p>PCB 4460 Biodiversity and Ecology Field Immersion 4 Credits Five-week intensive study of the earth's rich biodiversity. Emphasizes comparative study of form and function, and of complexity and diversity in phylogenetic and environmental contexts. Focuses on the study of living organisms in the laboratory and field in diverse habitats. Focal organisms and settings rotate according to instructor and semester. Prereq: BSC 2010, BSC 2010L, BSC 2011 and 2011L</p>	
