Department Information
The Department of Biology studies life at all levels from molecules to the biosphere to understand the evolution, structure, maintenance and dynamics of biological systems. Our teaching and research provide the integrative and conceptual foundations of the life sciences. Website (https://biology.ufl.edu/)

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Curriculum
- Biology UF Online
- Biology | CALS
- Biology | CLAS
- Botany Minor
- Botany | CALS
- Botany | CLAS
- Combination Degrees
- Zoology
- Zoology Minor

Courses
Please note that a complete list of all courses offered by the Department of Biology can be found here (http://catalog.ufl.edu/UGRD/courses/biological_sciences/).

AST 2037 Life in the Universe 3 Credits
Grading Scheme: Letter Grade
The origin of life on Earth and the possibility of life elsewhere. A multidisciplinary approach is followed. Conditions for life to form and the likelihood that such conditions may exist elsewhere in the universe are discussed. Also considered are schemes proposed for the search for extraterrestrial intelligence (SETI). (P)
Attributes: General Education - Physical Science

BSC 3402 Theory and Practice in the Biological Sciences 2 Credits
Grading Scheme: Letter Grade
Presents the scientific method, in its many formulations, from historical, philosophical and sociological perspectives. Explores generation and presentation of data, formulation of hypotheses and theories and dissemination of results. Also examines the ethical implication of biological research.

GLY 3603C Paleontology 4 Credits
Grading Scheme: Letter Grade
Investigation of the history of life on earth, including aspects of invertebrate and vertebrate paleontology, micropaleontology and paleobotany.
Prerequisite: refer to the department.

PCB 3063 Genetics 4 Credits
Grading Scheme: Letter Grade
The fundamental properties of inheritance in eukaryotic organisms emphasizing examples in man. Basic concepts are developed for the nature, organization, transmission, expression, recombination and function of genetic materials and principles are derived for genetically characterizing populations.
Prerequisite: BSC 2011 and BSC 2011L, or equivalent, with minimum grades of C and general chemistry.

PCB 3713C Cellular and Systems Physiology 4 Credits
Grading Scheme: Letter Grade
How cells, organs, and higher level systems are integrated and coordinated in the functions of humans and other animals. Emphasizes the use of model organisms, mathematical models, and the physical sciences to understand the mechanistic basis of normal physiology and dysfunction.
Prerequisite: BSC 2010 and (CHM 2046 or CHM 2047 or CHM 2051 or CHM 2096) and (PHY 2048 or PHY 2060), all with minimum grades of C.
Corequisite: PHY 2049 or PHY 2061.

PCB 4043C General Ecology 4 Credits
Grading Scheme: Letter Grade
Ecological processes and organization in terrestrial and aquatic habitats. Laboratory and field exercises emphasize techniques of ecological analysis.
Prerequisite: BSC 2011 and 2011L, or equivalent, with minimum grades of C.

PCB 4674 Evolution 4 Credits
Grading Scheme: Letter Grade
Processes and mechanisms of evolution, including population genetics, speciation, patterns of evolution and molecular evolution.
Prerequisite: BSC 2011 and BSC 2011L, or equivalent, with minimum grades of C;
Corequisite: one semester of calculus; PCB 3063 recommended.

PCB 4712 Comparative Biomechanics 3 Credits
Grading Scheme: Letter Grade
Reviews physical principles governing the form and function of organisms.
Prerequisite: (BSC 2011 and BSC 2011L or equivalent with minimum grades of C) and PHY 2048 and PHY 2053L and PCB 4674 and ZOO 3713C.

PCB 4723C Physiology and Molecular Biology of Animals 4 Credits
Grading Scheme: Letter Grade
Processes and mechanisms of maintenance, activity, and integration in animals with emphasis on vertebrates. Laboratory experience in quantitative methods and techniques of physiological investigation.
Prerequisite: BSC 2011 and (CHM 2046 or CHM 2047) with a minimum grades of C. Recommended: (PHY 2053 and PHY 2054) or (PHY 2060 and PHY 2061)) and PCB 3063 and PCB 4674.
ZOO 3513C Animal Behavior 4 Credits
Grading Scheme: Letter Grade
The causes, origins and evolution of animal behavior emphasizing field observations and experiments on the behavior of a variety of animal groups.
Prerequisite: BSC 2011 and BSC 2011L, or equivalent, with minimum grades of C, and PCB 4674.

ZOO 3603C Evolutionary Developmental Biology 4 Credits
Grading Scheme: Letter Grade
Analysis of embryonic development, underlying genetic mechanisms and how these processes have driven the evolutionary diversification of animal body plans.
Prerequisite: BSC 2011 and BSC 2011L, or equivalent, with minimum grades of C.

ZOO 3713C Functional Vertebrate Anatomy 4 Credits
Grading Scheme: Letter Grade
The form and function of chordates accompanied by laboratory work dealing with a selected series of chordates.
Prerequisite: BSC 2011 and BSC 2011L, or equivalent, with minimum grades of C.

ZOO 4205C Invertebrate Biodiversity 4 Credits
Grading Scheme: Letter Grade
Comparative biology of invertebrates, emphasizing morphology, evolution, ecology and life history.
Prerequisite: BSC 2011 and BSC 2011L with minimum grades of C.

ZOO 4307C Vertebrate Biodiversity 4 Credits
Grading Scheme: Letter Grade
Comparative biology of vertebrates, emphasizing morphology, evolution, ecology and behavior.
Prerequisite: BSC 2011 and (BSC 2011L or ISC 2401L) with minimum grades of C.

ZOO 4403C Marine Biology 4 Credits
Grading Scheme: Letter Grade
Survey of major marine taxa, systematics of local marine fauna and flora, with familiarization of the marine environment. Laboratory emphasizes field work and independent projects.
Prerequisite: BSC 2011 and BSC 2011L, or equivalent, with minimum grades of C.

ZOO 4472C Avian Biology 4 Credits
Grading Scheme: Letter Grade
The basic biological characteristics of birds, which, as exceptionally unique flying vertebrates, are confronted with a spectrum of problems in terms of anatomy, physiology, behavior, migration and population ecology.
Prerequisite: BSC 2011 and BSC 2011L, or equivalent, with minimum grades of C, and PCB 4674 (recommended).

ZOO 4905 Individual Studies in Zoology 1-4 Credits
Grading Scheme: Letter Grade
Qualified students and the instructor concerned may choose a particular topic or problem for study.
Prerequisite: BSC 2011 and BSC 2011L, or equivalent, with minimum grades of C, and instructor permission.

ZOO 4911 Undergraduate Research in Zoology 0-3 Credits
Grading Scheme: Letter Grade
Provides firsthand, supervised research. Projects may involve inquiry, design, investigation, scholarship, discovery, or application.

ZOO 4926 Special Topics in Zoology 1-4 Credits
Grading Scheme: Letter Grade
Lectures, conferences or laboratory sessions covering selected topics of current interest in zoology.
Prerequisite: BSC 2011 and BSC 2011L, or equivalent, with minimum grades of C, and instructor permission.

ZOO 4940 Practical Experience in Teaching Zoology 2 Credits
Grading Scheme: S/U
Participation in teaching approved zoology courses with practical experience in instructional procedures, testing and grading, course and laboratory preparation and laboratory assistance. Cannot be used to satisfy minimum hour requirement for zoology major. (S-U)
Prerequisite: BSC 2011 and BSC 2011L, or equivalent, with minimum grades of C, one zoology laboratory-based course, senior status and instructor permission.

ZOO 4956 Overseas Studies 1-18 Credits
Grading Scheme: Letter Grade
Provides a mechanism by which coursework taken as part of an approved study abroad program can be recorded on the UF transcript and counted toward graduation.
Prerequisite: BSC 2011 and BSC 2011L with minimum grades of C and undergraduate advisor permission.