

BOTANY

BOT 5225C Plant Anatomy 4 Credits

Grading Scheme: Letter Grade

Origin, structure, and function of principal cells, tissues, and vegetative and reproductive organs of seed plants. Offered fall term.

Prerequisite: BOT 2011C or 3303C; or consent of instructor.

BOT 5305 Paleobotany 3 Credits

Grading Scheme: Letter Grade

Comparative study of plants through geologic time with attention to morphology and evolution of major groups of land plants, based on the fossil record. Offered spring term in odd-numbered years.

Prerequisite: upper-level course in botany or geology; or consent of instructor.

BOT 5505C Intermediate Plant Physiology 3 Credits

Grading Scheme: Letter Grade

Fundamental processes underlying water relations, metabolism, growth, and reproduction of plants. Overview of plant physiological and biochemical processes for plant science students. Basic information about plant processes integrated with agronomical and environmental considerations.

Prerequisite: BOT 3503/3503L and CHM 2200/2200L or equivalent.

BOT 5655C Physiological Plant Ecology 3 Credits

Grading Scheme: Letter Grade

Traits affecting success in different environments (emphasizing energy balance, carbon balance, water relations, and nutrient relations).

Introduction to ecophysiological methods and instrumentation. Offered fall term in even-numbered years.

Prerequisite: basic plant physiology or consent of instructor.

BOT 5685C Tropical Botany 5 Credits

Grading Scheme: Letter Grade

Study of tropical plants using the diverse habitats of South Florida (emphasizing uses, anatomy and morphology, physiology and ecology, and systematics of these plants). Field trips and the Fairchild Tropical Garden supplement laboratory experiences. Offered summer term.

Prerequisite: elementary biology/botany; consent of instructor.

BOT 5695C Ecosystems of Florida 3 Credits

Grading Scheme: Letter Grade

Major ecosystems of Florida in relation to environmental factors and human effects.

Prerequisite: basic ecology; and consent of instructor.

BOT 5725C Taxonomy of Vascular Plants 4 Credits

Grading Scheme: Letter Grade

Introduction to systematic principles and techniques used in classification; field and herbarium methods. Survey of vascular plants, their classification, morphology, and evolutionary relationships. Offered spring term in odd-numbered years.

Prerequisite: BOT 2011C and 3303C or equivalent.

BOT 6566 Plant Growth and Development 3 Credits

Grading Scheme: Letter Grade

Fundamental concepts of plant growth and development with emphasis on the molecular biological approach. Offered fall term in even-numbered years.

Prerequisite: BOT 5505C.

BOT 6716C Advanced Taxonomy 2 Credits

Grading Scheme: Letter Grade

Survey of vascular plant families of limited distribution and/or of phylogenetic significance not covered in BOT 5725C. Discuss their classification, morphology, and evolutionary relationships. Review published studies to demonstrate principles and methods involved in classification. Offered on demand.

Prerequisite: BOT 5725C or equivalent.

BOT 6726C Principles of Systematic Biology 4 Credits

Grading Scheme: Letter Grade

Theory of biological classification, taxonomy, nomenclature, and phylogenetics. Discussion of issues in systematic biology including species concepts and reticulate evolution. Laboratory experience in phylogenetic methods, including parsimony, maximum likelihood, Bayesian inference, divergence time estimation, and ancestral state reconstruction.

BOT 6905 Individual Studies in Botany 1-3 Credits, Max 9 Credits

Grading Scheme: Letter Grade

All credits in excess of 3 must be approved by department chair or graduate coordinator. Individual nonthesis, research problem in one of the following areas of botany: ecology, physiology and biochemistry, cryptogamic botany, morphology and anatomy of vascular plants, systematics, cytology, genetics, and ultrastructure. Topics selected to meet the interests and needs of students.

BOT 6910 Supervised Research 1-5 Credits, Max 5 Credits

Grading Scheme: S/U

Supervised Research

BOT 6927 Advances in Botany 1-3 Credits, Max 9 Credits

Grading Scheme: Letter Grade

Supervised study in specific areas.

BOT 6935 Special Topics 1-4 Credits, Max 9 Credits

Grading Scheme: Letter Grade

Special Topics

BOT 6936 Graduate Student Seminar 1-2 Credits, Max 9 Credits

Grading Scheme: S/U

Readings and oral presentation on general topics in botany.

BOT 6971 Research for Master's Thesis 1-15 Credits

Grading Scheme: S/U

Research for Master's Thesis

BOT 7979 Advanced Research 1-12 Credits

Grading Scheme: S/U

Research for doctoral students before admission to candidacy. Designed for students with master's degree in the field of study or for students who have been accepted for a doctoral program. Not appropriate for students who have been admitted to candidacy.

BOT 7980 Research for Doctoral Dissertation 1-15 Credits

Grading Scheme: S/U

Research for Doctoral Dissertation

PCB 5046C Advanced Ecology 3 Credits

Grading Scheme: Letter Grade

Ecological research skills, emphasizing design of field studies and data analysis. Offered fall term in odd-numbered years.

Prerequisite: basic ecology and one course in statistics; physics, chemistry, and physiology desirable.

PCB 5338 Principles of Ecosystem Ecology 3 Credits

Grading Scheme: Letter Grade

Examines principles that govern the structure and function of terrestrial ecosystems. Ecosystem Ecology is the study of flows of energy and materials between organisms and their environment.

Prerequisite: BSC 2010 or BSC 2011, and PCB 3034C or PCB 4044C.

PCB 5356 Tropical Ecology 3 Credits

Grading Scheme: Letter Grade

Global overview of tropical environments, natural history, biological communities, and their structure and function. Addresses basic and applied ecological issues in the tropics.

Prerequisite: elementary biology or consent of instructor.

PLP 6656C Fungal Biology 4 Credits

Grading Scheme: Letter Grade

Introducing groups of fungi and fungi-like organisms. Discussion of the structure, development, physiology, genetics, ecology and systematics of fungi.

Prerequisite: BSC 2010 and BSC 2011 or PLP 3002C/PLP 5005C.