**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 5625 Plant Geography 2 Credits**  
Grading Scheme: Letter Grade  
Geography of the floras and types of vegetation throughout the world, with emphasis on problems in the distribution of taxa, and the main factors influencing types of vegetation. Offered fall term in even-numbered years.  
Prerequisite: BOT 3151C or BOT 5725C.

**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 6508C Proteomics Theory and Practice 3 Credits**  
Grading Scheme: Letter Grade  
Fundamentals and new developments in plant proteomics and mass spectrometry. Practice through scientific reasoning and hands-on laboratory sessions.

**BOT 6516 Plant Metabolism 3 Credits**  
Grading Scheme: Letter Grade  
Metabolism of carbohydrates, fats, and nitrogen compounds in higher plants; cell structures as related to metabolism; metabolic control mechanisms. Offered fall term.  
Prerequisite: BOT 5505C, BCH 4024.

**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 and taxonomic practice. Laboratory experience in taxonomic procedures and techniques, including computer methods. Offered spring term in even-numbered years.

**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.