Miami Dade College

Course Description
BOT2150C | Native Plant Identification and Usage in South Florida | 3.00 credits
Plants native to south Florida are identified and presented by their typical ecological community. Emphasis is primarily upon pineland, tropical hammock, mangrove and costal, Everglades marsh, and cypress swamp communities. Plants appropriate for use in urban landscapes as well as in ecological restorations are covered. A combination lecture and lab course.

Course Competencies:

Competency 1: The student will demonstrate knowledge of the native plants of South Florida by:
1. Outlining the key field characters of native plant species.
2. Identifying native species with the aid of a plant key.
3. Identifying immature plants of major woody species in the field.
4. Identifying native species by the use of herbarium specimens.

Competency 2: The student will demonstrate knowledge of the appropriate plant species characteristic to a particular community by:
1. Identifying perennial native species in each major plant community of South Florida.
2. Listing typical native species located from the ecotone/edge and into the major plant community.
3. Distinguishing the major groundcovers, shrubs, trees, and vines in each major plant community.

Competency 3: The student will demonstrate knowledge of the proper use of native plant species in urban landscapes by:
1. Listing native species for ecologically correct uses in urban wetlands and upland landscapes.
2. Listing native species that can be used as groundcover, shrubs (informal & clipped), and trees.

Competency 4: The student will demonstrate knowledge of the influence of abiotic factors in South Florida ecosystems by:
1. Discussing how abiotic factors influence the native plant species' habitat, including such major factors as substrate, topography, hydroperiod, and light.
2. Discussing how geology and hydrology are the major influences on plant community structure in the South Florida ecosystem.

Competency 5: The student will demonstrate knowledge of the appropriate methods of plant collection and preservation by:
1. Collecting and numbering at least ten quality plant specimens from each major plant community for a herbarium collection.
2. Correctly pressing and drying plant herbarium specimens.
3. Constructing proper labels for each herbarium specimen.

Competency 6: The student will demonstrate knowledge of the major plant communities of South Florida by:
1. Discussing/identifying the predominant plant species from each of the following major plant communities: Keys hammock, Miami Dade hammock, Pineland Cypress swamp, Everglades marsh, Mangrove Coastal dune.
2. Identifying threatened and endangered species by habitat: John Pennicamp Park, Key Largo: mangrove, hammock, coastal Everglades National Park: pineland, bayhead, spikerush marsh, sparse sawgrass marsh, tall sawgrass marsh, Big Cypress Park: cypress swamp, wet prairie, pineland, Card Sound Road: mangrove, roadside swales, MDCC native plantings: Native Plant Preserve, restoration areas, pinelands.

Learning Outcomes:
- Communicate effectively using listening, speaking, reading, and writing skills
- Solve problems using critical and creative thinking and scientific reasoning

Updated: Fall 2025

- Describe how natural systems function and recognize the impact of humans on the environment