

Common Course Number: BSC-2150-C

Course Title: Native Plant Usage in South Florida

Catalog Course Description:

Plants native to south Florida are identified and presented by their typical ecological community. Emphasis is primarily upon pineland, tropical hammock, mangrove and coastal, 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 (2 lecture hrs. and 2 lab hrs. per week).

Credit Hours: 3

Prerequisites: None

Corequisite: None

Course competencies:

Competency 1: The student will comprehend and apply methods for identifying native plants of South Florida.

Upon successful completion of this course, the student will be able to identify the native plants of South Florida by:

- A. Demonstrating knowledge of the key field characters of native plant species.
- B. Identifying native species with the aid of a plant key.
- C. Identifying immature plants of major woody species in the field.
- D. Identifying native species by the use of herbarium specimens.

Competency 2: The student will match native plant species to their appropriate plant community

Upon successful completion of this course, the student will be able to describe the appropriate plant species characteristic to particular community by:

- E. Identifying perennial native species in each major plant community of south Florida.
- F. Listing typical native species located from the ecotone/edge and into the major plant community.
- G. Distinguishing the major groundcovers, shrubs, trees, and vines in each major plant community.

Competency 3: Use of native species in urban landscaping.

Upon successful completion of this course, the student will be able to determine native plant species for usage in urban landscapes by:

- A. Listing native species for ecologically correct uses in urban wetland and upland landscapes.
- B. Listing native species that can be used as groundcover, shrubs (informal & clipped), and trees.

Competency 4: The student will comprehend the primary abiotic factors that control native species within the south Florida ecosystems.

Upon successful completion of this course, the student will be able to describe the influence of abiotic factors in South Florida ecosystems by:

- A. Discussing how abiotic factors influence the native plant species habitat including such major factors as substrate, topography, hydroperiod, and light.
- B. Discussing how geology and hydrology are the major influences of plant community structure in the South Florida ecosystem.

Competency 5: Appropriate collection and preservation methods for native plant specimens.

Upon successful completion of this course, the student will be able to demonstrate knowledge of the appropriate methods of plant collection and preservation by:

- A. Collecting and numbering at least ten quality plant specimens from each major plant community for a herbarium collection.
- B. Correctly pressing and drying plant herbarium specimens.
- C. Constructing proper labels for each herbarium specimen.

Competency 6: The dominant plant communities of South Florida and their species.

Upon successful completion of this course, the student will be able to demonstrate knowledge of the major plant communities of South Florida by:

- A. 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
- B. Identifying threatened and endangered species by habitat.

Suggested field sites with communities present to study:

1. John Pennicamp Park, Key Largo: mangrove, hammock, coastal
2. Everglades National Park: pineland, bayhead, spikerush marsh, sparse sawgrass marsh, tall sawgrass marsh
3. Big Cypress Park: cypress swamp, wet prairie, pineland
4. Card Sound Road: mangrove, roadside swales
5. MDCC native plantings: Native Plant Preserve, restoration areas, pinelands