

## **Course Description**

## HOS1010 | Horticulture 1 | 3.00 credits

This is an introductory course on the principles of horticulture. Students will learn plant structure and function, plant propagation, plant nutrients and fertilizers, potting media, soils, pruning, and plant pests. A survey of various fields in ornamental horticulture will also be covered.

## Course Competencies:

**Competency 1:** The student will understand the different classification systems used to describe plants by:

- 1. Differentiating between scientific and common names
- 2. Classifying plants as angiosperms, gymnosperms, or ferns
- 3. Classifying angiosperms as monocots or dicots
- 4. Classifying plants as annuals, biennials, or perennials
- 5. Identifying the difference between woody and herbaceous plants

Competency 2: The student will identify the basics of plant structure and function by:

- 1. Understanding the morphological differences between leaves, stems, and roots
- 2. Stating the function of the roots, stem, leaves, flower, fruit, and seed
- 3. Identifying modifications to plant structure when necessary to horticultural application
- 4. Identify structures for transporting water and nutrients and describe the path through the plant

**Competency 3:** The student will demonstrate knowledge of plant growth and propagation methods by:

- 1. Stating the requirements for plant growth
- 2. Listing the environmental factors necessary for plant growth
- 3. Understanding the components of fertilizer and different application methods
- 4. Propagate plants from seeds and by asexual propagation

**Competency 4:** The student will learn the properties of soil by:

- 1. Explaining different soil pH values and how they affect plant health.
- 2. List the various components of a general-use media mix and the reasons for their inclusion.

**Competency 5:** The student will learn how to use essential horticultural equipment by:

- 1. Identifying the essential hand tools.
- 2. Listing safety requirements for tool use.

Competency 6: The student will learn basic horticultural skills appropriate for South Florida by:

- 1. Identifying pruning techniques
- 2. Recognizing common categories of pest and pest symptoms
- 3. Identifying the essential components of different types of fertilizers and reasons for their use.
- 4. Recognize environmental problems and their symptoms in plants.

## Learning Outcomes:

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