

Agriculture, Food, and Natural Resources: Introductory Horticulture 2 (2015-2016)

Describe the horticulture industry – the student will be able to: 1.0

- 1 Describe the importance of horticulture to the American and global economies. 1.1
- 2 Identify career opportunities in horticulture and educational requirements and continuing education opportunities for horticulture careers. 1.2
- 3 Describe Florida laws and regulation as they apply to the horticulture industry. 1.3
- 4 Describe the importance of horticulture to the environment, including sustainability practices 1.4

Identify safety procedures in the workplace – the student will be able to: 2.0

- 1 Identify the common causes of accidents in the horticulture industry. 2.1
- 2 Demonstrate proper safety precautions and use of personal protective equipment specific to the horticulture industry. 2.2
- 3 Explain, identify and utilize pertinent information from a container label and/or Material Safety Data Sheet (MSDS) according to Environmental Protection Agency (EPA), Worker Protection Standard and Occupational Safety and Health Agency (OSHA) Regulations. 2.3
- 4 Environmental Protection Agency (EPA), Worker Protection Standard and Occupational Safety and Health Agency (OSHA) Regulations. 2.4

Identify and classify plants – the student will be able to: 3.0

- 1 Identify plants by botanical and common names. 3.1
- 2 Classify plants botanically. 3.2
- 3 Write botanical names for plants. 3.3

Demonstrate plant propagation techniques – the student will be able to: 4.0

- 1 Identify propagating and growing facilities and structures. 4.1
- 2 Prepare propagation media. 4.2

3 Select and collect propagation materials. 4.3

4 Demonstrate propagation by sexual and asexual methods. 4.4

5 Demonstrate environmental controls for propagation materials. 4.5

6 Identify and select proper rooting hormones based on plant characteristics. 4.6

Identify growing media and fertilizers – the student will be able to: 5.0

1 Identify soil and media materials and appropriate containers. 5.1

2 Identify nutritional needs of plants. 5.2

3 Identify symptoms of nutritional deficiencies and toxicities of plants. 5.3

4 Identify types and kinds of fertilizers. 5.4

5 Identify methods of distributing fertilizers. 5.5

6 Interpret information on a label of fertilizer used in Florida. 5.6

Explain irrigation techniques for plants and turf – the student will be able to: 6.0

1 Identify water needs of plants. 6.1

2 Irrigate plants at recommended rates. 6.2

3 Identify the symptoms of excessive water and water stress in plants. 6.3

4 Describe the basic irrigation systems and principles used in the landscape and nursery. 6.4

Describe Integrated Pest Management approaches – the student will be able to: 7.0

1 Identify common pests and pathogens of plants. 7.1

2 Describe life cycles of common pests and pathogens of plants. 7.2

3 Recognize signs of damage from pests and pathogens. 7.3

Describe the principles and requirements of plant growth – the student will be able to: 8.0

1 Explain how the energy of sunlight is converted to chemical energy through the process of photosynthesis and respiration. 8.1

2 Explain how photosynthesis in plants is directly affected by various environmental factors such as light and temperature. 8.2

3 Explain the process of respiration and transpiration and describe the flow of energy in plants. 8.3

4 Describe the influence of light and temperature on plant growth including phototropism. 8.4

Apply best management practices in the horticulture industry – the student will be able to: 9.0

- 1 Identify and apply Best Management Practices to reduce pollution and conserve water.** 9.1
- 2 Identify and apply Best Management Practices on fertilizer recommendations for Florida plants including turf.** 9.2
- 3 Explain the concept of nonpoint source pollution, and the watershed environment.** 9.3

Identify principles of landscape design – the student will be able to: 10.0

- 1 Conduct a customer interview to determine needs and personal tastes of client.** 10.1
- 2 Compare and contrast the use of line, form, texture and color in designing landscapes.** 10.2
- 3 Identify the principles of design (unity, repetition, balance, emphasis and scale) as they apply to landscapes.** 10.3
- 4 Identify points of emphasis and major design areas in the residential landscape.** 10.4
- 5 Identify plant selection for a residential landscape using Florida Friendly Landscape Principles.** 10.5
- 6 Read and interpret a landscape plan.** 10.6
- 7 Develop skills for drawing and identifying symbols.** 10.7
- 8 Draw and design a landscape plan for a small garden.** 10.8
- 9 Construct a landscape display.** 10.9

Describe varieties and care of indoor plants – the students should be able to: 11.0

- 1 Identify common indoor plants** 11.1
- 2 Describe the lighting and environmental needs of indoor plants.** 11.2
- 3 Describe water, cleaning, and fertilizations needs for plants used indoors.** 11.3
- 4 Describe the most common problems with indoor foliage including pathogens, pests, and cultural damage.** 11.4
- 5 Analyze the air quality benefits of indoor plants.** 11.5