Florida CTE

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 (OHSA) Regulations. 2.3
	4 Environmental Protection Agency (EPA), Worker Protection Standard and Occupational Safety and Health Agency (OHSA) 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