

Ornamental Horticulture Assessment Plan Rev. 6/15/2018

<b>Ornamental Horticulture</b>	<b>14-15</b>	<b>15-16</b>	<b>16-17</b>	<b>17-18</b>	<b>18-19</b>	<b>19-20</b>
<b>ORNHB1 - Introduction to Ornamental Horticulture</b>						
• Upon completion the student will be able to: Name and explain how the major markets of the environmental horticulture industry function in their county and California.				X		
• Upon completion the student will be able to: Identify various horticultural occupations and their employment requirements				X		
• Upon completion the student will be able to: Describe the local Horticulture Industry, including a list of the local Horticulture Careers available.	X			X		
• Upon completion the student will be able to: Demonstrate how to propagate plants from both seed and from cuttings given planting media, flats, seed, a variety of plant material for cuttings, and rooting hormones	X			X		
• Upon completion the student will be able to: Describe different structures of the plant, how they function and relate this to different landscape management practices relating to plant care.	X			X		
• Upon completion the student will be able to: Explain taxonomy and physiology of plants and identify regional plants using these methods.	X			X		
• Upon completion the student will be able to: Explain the plant's need and use of the 17 required essential chemical elements, their relationship in the soil horizons, soil textures, fertilizer analysis, ratios, and fertilizer applications following label directions	X			X		
<b>ORNHB2 - Fundamentals of Nursery Management and Plant Production</b>						
• Upon completion the student will be able to: List the skills and knowledge needed for the successful operation of a nursery					X	
• Upon completion the student will be able to: Demonstrate the ability to grow plants from propagation to salable size by showing a mastery of the following skills: including: 1. Demonstrating plant propagating methods including seed, cuttings, budding, grafting, layering, division, micro-propagation (tissue culture); 2. Determine the proper timing for the various propagation and production techniques appropriate to the plant specie and propagation method; 3. Formulating planting and propagating media as specified in a recipe; 4. Measuring and mixing fertilizers and applying them following label directions; 5. Planting and transplanting a variety of plants into appropriate containers					X	
• Upon completion the student will be able to: Plan and design a nursery layout given a set of parameters					X	
• Upon completion the student will be able to: Explain what licenses, permits, and certifications are required or available					X	
• Upon completion the student will be able to: Manipulate software useful to horticulture and nursery enterprises					X	
• Upon completion the student will be able to: Demonstrate skills in sales and services, both wholesale and retail					X	
• Upon completion the student will be able to: Utilize merchandising strategies that apply to horticultural enterprises					X	
• Upon completion the student will be able to: Demonstrate retail merchandising and display skills					X	
• Upon completion the student will be able to: Demonstrate how to maintain production records and financial accounts					X	
• Upon completion the student will be able to: Demonstrate skills in interpersonal relations					X	
• Upon completion the student will be able to: Describe the principles of plant reproduction, sexual and asexual					X	

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**ORNHB3 - Landscape Installation and Maintenance**

• Upon completion the student will be able to: Describe landscape maintenance careers and employment opportunities.		X				
• Upon completion the student will be able to: Identify common turf grasses for the region and recommend proper care		X				
• Upon completion the student will be able to: Plant container, balled and burlapped, and bare root plants; ground covers and bedding plants		X				
• Upon completion the student will be able to: Recognize symptoms of plant damage by common pests and diseases		X				
• Upon completion the student will be able to: Describe integrated pest management methods for controlling selected pests and diseases		X				
• Upon completion the student will be able to: Create an annual maintenance calendar for a selected landscape		X				
• Upon completion the student will be able to: Demonstrate safety-consciousness in dress/apparel, tool use, job site demeanor, and personal safety equipment		X				
• Upon completion the student will be able to: Identify, maintain, and describe the use of various hand tools		X				
• Upon completion the student will be able to: Select and safely use appropriate hand tools for a variety of landscape operations		X				
• Upon completion the student will be able to: Identify, select and safely operate various types of landscape power equipment		X				
• Upon completion the student will be able to: Describe basic pruning systems applied to shade trees, shrubs, vines, perennials, roses and fruit trees		X				
• Upon completion the student will be able to: Demonstrate pruning techniques on a variety of landscape plants		X				
• Upon completion the student will be able to: Identify the parts of an irrigation system and make basic repairs and adjustments		X				
• Upon completion the student will be able to: Describe sustainable landscape practices		X				

**ORNHB4 - Plant Propagation**

• Upon completion the student will be able to: LIST AND DESCRIBE SEXUAL AND NATURAL VEGETATIVE PROPAGATION PROCESSES IN PLANTS.				X		
• Upon completion the student will be able to: IDENTIFY AND COMPARE THE MAJOR TYPES OF GREENHOUSE AND OTHER ARTIFICIAL PROPAGATION ENVIRONMENTS.				X		
• Upon completion the student will be able to: DESIGN SEED GERMINATION TESTS AND USE COMMON SEED TREATMENTS TO ENHANCE GERMINATION.				X		
• Upon completion the student will be able to: SUCCESSFULLY PROPAGATE COMMON HORTICULTURAL PLANTS FROM SEED IN THE GREENHOUSE.				X		
• Upon completion the student will be able to: VEGETATIVELY PROPAGATE A VARIETY OF PLANTS USING ROOT, STEM, AND LEAF CUTTINGS, LAYERING, OR SPECIALIZED PLANT ORGANS IN THE GREENHOUSE.				X		
• Upon completion the student will be able to: DETERMINE THE MOST EFFICIENT TECHNIQUE TO SUCCESSFULLY PROPAGATE CLONAL SELECTIONS TO PRODUCE HORTICULTURAL CULTIVARS.				X		
• Upon completion the student will be able to: USE CORRECT METHODOLOGY TO TAKE EXPLANTS FROM MOTHER PLANTS TO BE USED IN PLANT TISSUE CULTURE.					X	

**ORNHB6 - Ornamental Plant Identification - Ground Covers, Vines, and Dwarf Shrubs**

• Upon completion of the course, the student will be able to explain the binomial method of plant nomenclature and the taxonomy of plants					X	
• Upon completion the student will be able to: Identify and classify landscape plants using physical features of leaf, bark, flower, fruit, and growth habit					X	
• Upon completion the student will be able to: Describe the importance of understanding plant growth habits, growing zones, soil requirements, disease and pest problems, and the ecology of different plants in the urban environment.					X	

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**ORNHB7 - Ornamental Plant Identification - Large Shrubs, Small Trees, Large Trees, and Palms**

• Upon completion the student will be able to: Explain the binomial method of plant nomenclature		X		X		
• Upon completion the student will be able to: Identify botanical terms (plant identification terminology) as related to various plant parts and structures		X		X		
• Upon completion the student will be able to: Identify and classify landscape plants using physical features of leaf, bark, flower, fruit, and growth habit		X		X		
• Upon completion the student will be able to: Describe the importance of understanding soil requirements and ecology of different plants		X		X		
• Upon completion the student will be able to: Summarize the various uses of plants as related to landscape and garden applications		X		X		
• Upon completion the student will be able to: Explain growth habits and requirements		X		X		
• Upon completion the student will be able to: Select plants with requirements that conform to selected landscape use criteria		X		X		
• Upon completion the student will be able to: Use plant keys to identify plants		X		X		
• Upon completion the student will be able to: Collect and preserve plant materials		X		X		
• Upon completion the student will be able to: Demonstrate the use of computerized plant selection programs		X		X		
• Upon completion the student will be able to: Create a plant characteristics key for future design work				X		

**ORNHB8 - Introduction to Landscape Design**

• Upon completion the student will be able to: Create a functional landscape plan applying the principles and elements of design		X				
• Upon completion the student will be able to: Demonstrate the proper use of drafting tools and graphic material		X				
• Upon completion the student will be able to: Apply the design process to solve landscape situations and meet client needs		X				
• Upon completion the student will be able to: Present a landscape plan to a client		X				
• Upon completion the student will be able to: Identify and describe architectural, historical, and environmental influences on landscape design		X				
• Upon completion the student will be able to: Identify and select plant materials according to proper environmental considerations and design principles		X				
• Upon completion the student will be able to: Summarize the qualifications of landscape Architects and others who design or plan landscape installations		X				
• Upon completion the student will be able to: Demonstrate the ability to accurately measure the physical characteristics of a landscape site		X				
• Upon completion the student will be able to: Identify the basic elements of landscape site analysis and evaluation		X				
• Upon completion the student will be able to: Explain how computer design software programs can be used in landscape design		X				
• Upon completion the student will be able to: Compare various computer resources that apply to landscape design		X				

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<b>ORNHB36 - Beginning Floral Design</b>						
• Upon completion the student will be able to: Correctly condition and handle cut flowers, greens, and foliage plants used in the floral industry					X	
• Upon completion the student will be able to: Select containers appropriate for flowers and floral design					X	
• Upon completion the student will be able to: Decorate foliage plants in a manner that meet industry standards					X	
• Upon completion the student will be able to: Demonstrate the correct care and handling of foliage plants					X	
• Upon completion the student will be able to: Select materials and construct a terrarium/dish garden					X	
• Upon completion the student will be able to: Calculate the cost of a floral design and apply appropriate mark-up to determine its sale price					X	
• Upon completion the student will be able to: Successfully complete a telephone, wire, or walk-in customer					X	
• Upon completion the student will be able to: Demonstrate the correct uses of business machines and wire services used in the floral industry					X	
• Upon completion the student will be able to: Select and correctly use florist tools, equipment and materials					X	
• Upon completion the student will be able to: Identify flowers, greens, and foliage plants used in the floral industry					X	
• Upon completion the student will be able to: Demonstrate an understanding of basic floral design theory					X	
• Upon completion the student will be able to: Construct basic floral products for display or resale					X	
• Upon completion the student will be able to: Construct a minimum of five different kinds of floral arrangements					X	
• Upon completion the student will be able to: Construct a minimum of five different kinds of corsages					X	
• Upon completion the student will be able to: Describe floral designs and styles from different historical periods					X	
• Upon completion the student will be able to: Describe influences of the use of flowers and floral designs upon society					X	