

Ornamental Horticulture Assessment Plan
Rev. 2/19/2021

Ornamental Horticulture	16-17	17-18	18-19	19-20	20-21	21-22
ORNHB1 - Introduction to Ornamental Horticulture						
• 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.		C				
• Upon completion the student will be able to: Identify various horticultural occupations and their employment requirements		C				
• Upon completion the student will be able to: Describe the local Horticulture Industry, including a list of the local Horticulture Careers available.		C				
• 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		C				
• 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.		C				
• Upon completion the student will be able to: Explain taxonomy and physiology of plants and identify regional plants using these methods.		C				
• 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		C				
ORNHB2 - Fundamentals of Nursery Management and Plant Production						
• Upon completion the student will be able to: List the skills and knowledge needed for the successful operation of a nursery					P	
• 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.					P	
• Upon completion the student will be able to: Plan and design a nursery layout given a set of parameters					P	
• Upon completion the student will be able to: Explain what licenses, permits, and certifications are required or available					P	
• Upon completion the student will be able to: Manipulate software useful to horticulture and nursery enterprises					P	
• Upon completion the student will be able to: Demonstrate skills in sales and services, both wholesale and retail					P	
• Upon completion the student will be able to: Utilize merchandising strategies that apply to horticultural enterprises					P	
• Upon completion the student will be able to: Demonstrate retail merchandising and display skills					P	
• Upon completion the student will be able to: Demonstrate how to maintain production records and financial accounts					P	
• Upon completion the student will be able to: Demonstrate skills in interpersonal relations					P	
• Upon completion the student will be able to: Describe the principles of plant reproduction, sexual and asexual					P	
ORNHB4 - Plant Propagation						
• Upon completion the student will be able to: LIST AND DESCRIBE SEXUAL AND NATURAL VEGETATIVE PROPAGATION PROCESSES IN PLANTS.						P
• Upon completion the student will be able to: IDENTIFY AND COMPARE THE MAJOR TYPES OF GREENHOUSE AND OTHER ARTIFICIAL PROPAGATION ENVIRONMENTS.						P
• Upon completion the student will be able to: DESIGN SEED GERMINATION TESTS AND USE COMMON SEED TREATMENTS TO ENHANCE GERMINATION.						P
• Upon completion the student will be able to: SUCCESSFULLY PROPAGATE COMMON HORTICULTURAL PLANTS FROM SEED IN THE GREENHOUSE.						P
• 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.						P
• Upon completion the student will be able to: DETERMINE THE MOST EFFICIENT TECHNIQUE TO SUCCESSFULLY PROPAGATE CLONAL SELECTIONS TO PRODUCE HORTICULTURAL CULTIVARS.						P
• Upon completion the student will be able to: USE CORRECT METHODOLOGY TO TAKE EXPLANTS FROM MOTHER PLANTS TO BE USED IN PLANT TISSUE CULTURE.						P

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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					P	
• Upon completion the student will be able to: Identify and classify landscape plants using physical features of leaf, bark, flower, fruit, and growth habit					P	
• 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.					P	
ORNHB7 - Ornamental Plant Identification - Large Shrubs, Small Trees, Large Trees, and Palms						
• 1. Upon successful completion of the course, the student will explain the binomial method of plant nomenclature, botanical terminology and taxonomy classification.						P
• 2. Upon successful completion of the course, the student will identify and classify landscape plants using physical features of leaf, bark, flower, fruit, and growth habit.						P
• 3. Upon successful completion of the course, the student will explain growth habits, environmental requirements and landscape applications of plants.						P
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						P
• Upon completion the student will be able to: Demonstrate the proper use of drafting tools and graphic material						P
• Upon completion the student will be able to: Apply the design process to solve landscape situations and meet client needs						P
• Upon completion the student will be able to: Present a landscape plan to a client						P
• Upon completion the student will be able to: Identify and describe architectural, historical, and environmental influences on landscape design						P
• Upon completion the student will be able to: Identify and select plant materials according to proper environmental considerations and design principles						P
• Upon completion the student will be able to: Summarize the qualifications of landscape Architects and others who design or plan landscape installations						P
• Upon completion the student will be able to: Demonstrate the ability to accurately measure the physical characteristics of a landscape site						P
• Upon completion the student will be able to: Identify the basic elements of landscape site analysis and evaluation						P
• Upon completion the student will be able to: Explain how computer design software programs can be used in landscape design						P
• Upon completion the student will be able to: Compare various computer resources that apply to landscape design						P
ORNHB9 - Introduction to Tree Care and Urban Forestry						
• 1. Upon successful completion of the course, the student will discuss urban forestry and the environmental, economic, aesthetic, and social benefits of trees as well as the various costs that accompany them and how value can be placed on the urban forest as a resource.						P
• 2. Upon successful completion of the course, the student will describe the basic composition of a tree's vascular system and explain how water, minerals, and nutrients are necessary for tree health and growth.						P
• 3. Upon successful completion of the course, the student will explain the classification of plants and how plant characteristics such as growth habit, texture, and color can be used in tree identification.						P
• 4. Upon successful completion of the course, the student will describe the procedures and techniques used in tree pruning and tree care.						P
• 5. Upon successful completion of the course, the student will describe the various physiological disorders and injuries caused by living and nonliving disorders that can affect trees, and explain what treatments are appropriate.						P
ORNHB10 - Landscape Irrigation						
• 1. Upon successful completion of the course, the student will describe water sources, delivery systems and how water moves through soil in an irrigation system.						P
• 2. Upon successful completion of the course, the student will identify sprinkler irrigation system components, their use, spacing and relationship to the irrigated location.						P
• 3. Upon successful completion of the course, the student will be able to assemble an irrigation system.						P
• 4. Upon successful completion of the course, the student will be able to perform a water audit and program an irrigation controller.						P
• 5. Upon successful completion of the course, the student will design a landscape irrigation system from a given landscape or plot plan.						P

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ORNHB11 - Landscape Construction and Installation						
• 1. Upon successful completion, the student will be able to: Identify landscape professions, organizations and summarize licensing requirements.						P
• 2. Upon successful completion, the student will be able to: Identify landscape tools and equipment and demonstrate their safe operation.						P
• 3. Upon successful completion, the student will be able to: demonstrate installation methods of various plant materials and hardscapes.						P
• 4. Upon successful completion, the student will be able to: Interpret a landscape plan to identify hardscape and softscape components. Using landscape plans, prepare bid documents which include material quantities and costs.						P
ORNHB12 - Landscape Maintenance						
• 1. Upon successful completion of the course, the student will be able to examine landscape maintenance careers, employment opportunities and state license requirements.					P	
• 2. Upon successful completion of the course, the student will be able to identify and demonstrate landscape tools and their safe use in the landscape setting.					P	
• 3. Upon successful completion of the course, the student will be able to demonstrate irrigation parts identification, analyze system operations, and evaluate trouble shooting solutions.					P	
• 4. Upon successful completion of the course, the student will be able to demonstrate proper plant installation and maintenance.					P	
• 5. Upon successful completion of the course, the student will be able to analyze and evaluate sustainable landscape practices.					P	
ORNHB36 - Beginning Floral Design						
• 1. Upon successful completion of the course, the student will be able to demonstrate an understanding of floral design theory, design principles and the use of color in floral arrangements.						P
• 2. Upon successful completion of the course, the student will be able to describe floral designs and styles from different historical periods and their influences of the use of flowers and floral designs upon society today.						P
• 3. Upon successful completion of the course, the student will be able to construct different kinds of floral arrangements and be able to identify the flowers, greens, and foliage plants used in the arrangements.						P
ORNHB48WE - Occupational Work Experience Education/Internship						
• Upon completion the student will be able to: Articulate the specific work experience objectives in Environmental Horticulture as described by employer and identify the various skills, knowledge and attitudes necessary to the accomplishment of those objectives.					P	
• Upon completion the student will be able to: Demonstrate the acquisition of the various skills, knowledge and attitudes necessary to the completion of the work experience objectives in Environmental Horticulture and the ability to effectively meet employer's job expectations.					P	
• Upon completion the student will be able to: Identify and analyze the application of acquired skills, knowledge and attitudes to career opportunities in Environmental Horticulture.					P	