

YOSEMITE REGIONAL OCCUPATIONAL PROGRAM

LANDSCAPING OCCUPATIONS

CBEDS Code: 4054

<u>JOB TITLES</u>	<u>DOT NO.</u>
Groundskeeper, Industrial/Commercial	406.684-014
Horticulture Worker I	405.684-014
Landscape Construction Apprentice	408.161-010
Landscape Gardener	408.161-010
Landscape Laborer	408.687-014
Landscape Maintenance Crew Manager	408.131-010
Landscape Maintenance Supervisor	408.131-010
Nursery Worker	405.684-014
Park Caretaker	408.687-010
Park Worker	408.687-010
Piper Fitter	862.281-022
Plant Care Worker (Interior)	408.364-010
Salesperson Horticultural & Nursery Products	272.357-022
Supervisor, Tree Trimming	408.137-014
Tree Crew Worker	408.664-010
Tree Planter	452.687-018
Tree Surgeon Helper I	408.667-018

Course Description:

This course is designed to prepare students for entry-level employment in landscape construction, landscape maintenance, retail and wholesale nursery management and nursery merchandising. Students will learn the care and propagation of plants, shrubs, trees, turf, and ground cover, as well as the use of related equipment and structures.

DURATION: 2 Semesters/360 total hours

CREDIT: 20 units

MEETS GRADUATION REQUIREMENTS IN: Elective

REQUIRED FOR GRADUATION: No

SCHOOLS OFFERED:

MEETS UNIVERSITY OF CALIFORNIA ENTRANCE REQUIREMENTS: No

MEETS CALIFORNIA STATE UNIVERSITY REQUIREMENTS: No

ARTICULATED WITH POSTSECONDARY INSTITUTIONS: No

Instructional Content Instruction will include:	Student Outcomes At the end of instruction, the Student will be able to:	Hours			
		Anchor/ CR	CTE	CL	L
1. Introduction. 1. Course Objective 2. General Overview 3. Grading	Goal: The student will understand the general principles of Greenhouse Operations and Management. A. Understand the operation of the Greenhouse B. Define & demonstrate Careers/Job Market/Employability. C. Participate in leadership/management. D. Understand the need for leadership & management in the field. E. Analyze systems within the field solve problems.	A1, A2, A3, A5, A9, A11 CR1 CR2 CR3 CR5 CR8	F8.1 F9.1	3	
2. Safety. 1. General greenhouse safety. 2. Proper clothing & grooming. 3. Safe use of hand & power tools. 4. Restraint systems. 5. Emergency fire & disaster procedures. 6. OSHA rules & regulations. 7. Waste & material disposal. 8. Safe operation of tractors and farm equipment. 9. Safe use of chemicals and pesticides	Goal: Student will understand the health hazards, safety practices, & environmental hazards related to their work in the greenhouse. A. Comply with greenhouse safety. B. Wear eye protection. C. Describe proper clothing & grooming. D. Use hand & power tools safely. E. Understand the relationship safety factors, seat belts, roll guard in cabs. F. Follow emergency fire & disaster procedures. G. Comply with OSHA rules & regulations. H. Handle & dispose of materials safely.	A1, A2 A6 A9 CR1 CR2 CR6	F9.2 F9.3	2	2
3. Horticulture Careers. 1. Explore career options in the horticulture industry	Goal: Understand career paths and employment opportunities in the horticulture industry. A. Explore careers B. Identify skills necessary to gain entry level employment. C. Practice interview skills	A1, A2 CR1 CR2 CR3 CR12		2	
4. Leadership 1. Practice team work 2. Community Service 3. Membership in an organization 4. Completion	Goal: The student will understand the role that leadership plays in the work environment. A. Participate in committee work. B. Be a member of a team. C. Learn skills that will lead to being a good citizen.	A2, A7, A9 CR1 CR2 CR7 CR8		2	5
5. Landscape Industry 1. Discuss landscape design/architecture. 2. Discuss/define landscape management. 3. Review landscape construction;/installation. 4. Discuss the nursery business 5. Review careers/job market/employability.	Goal: The student will understand the landscape industry. A. Understand landscape design/architecture. B. Understand landscape management. C. Define landscape maintenance. D. Describe landscape construction/installation. E. Understand the nursery business. F. Identify careers/job market/employability.	A1 A2 A3 CR1 CR3 CR4 CR11	F10.1 F10.2 F10.3	25	

Instructional Content Instruction will include:	Student Outcomes At the end of instruction, the Student will be able to:	Hours CL= Classroom CC=ComClass			
<p>6. Basic Horticultural Concepts</p> <ol style="list-style-type: none"> 1. Discuss plant growth and development. 2. Review plant/soil relationships. 3. Define plant nutrition. 4. Define climatic factors. 5. Describe soil types. 6. Demonstrate a landscape plan with binomial plant naming systems. 7. Define the use of plant resource materials. 8. Review plant propagation. 	<p>Goal: The student will understand basic horticultural concepts.</p> <ol style="list-style-type: none"> A. Recognize plant growth and development. B. Explain plant/soil relationships. C. Define plant nutrition. D. Understand climatic factors. E. Describe soil types. F. Identify & label landscape plan with binomial plant naming systems. G. Identify & use plant resource materials. H. Understand plant propagation 	<p>Anchor/ CR</p> <p>A1, A2, A5, A11</p> <p>CR1 CR3 CR4 CR5 CR11</p>	<p>CTE</p> <p>F2.4 F3.1 F3.2 F4.1 F4.2 F5.1 F5.5 F6.1 F6.2 F6.3 F9.1 F10.1 G3.2</p>	<p>CL</p> <p>20</p>	<p>CC</p> <p>10</p>
<p>7. Tools and Equipment</p> <p>Hand Tools</p> <ol style="list-style-type: none"> 1. Identify hand tools. 2. Discuss the storage of hand tools. 3. Demonstrate safe practice with hand tools following OSHA guidelines. <p>Power machinery/equipment</p> <ol style="list-style-type: none"> 1. Define power tool equipment. 2. Discuss the storage of power tool equipment. 3. Review the maintenance of power tool equipment. 4. Demonstrate safe practice with power tool equipment following OSHA guidelines. <p>Maintenance Supplies</p> <ol style="list-style-type: none"> 1. Review how to store and use supplies. 2. Discuss the maintenance of supplies. 3. Demonstrate safety following OSHA guidelines. 	<p>Goal: Student will demonstrate knowledge and understanding of tools and equipment/materials.</p> <ol style="list-style-type: none"> A. Hand Tools <ol style="list-style-type: none"> a. Identify and describe hand tools b. Use and storage hand tools. c. Safely practice with hand tools, follow OSHA. B. Power machinery/equipment <ol style="list-style-type: none"> a. Identify and describe power tool equipment. b. Use and storage power tool equipment. c. Maintain power tools & equipment. d. Safely practice/follow OSHA with tools. C. Identify maintenance supplies <ol style="list-style-type: none"> a. Store & use supplies. b. Maintain supplies. c. Practice safety OSHA. 	<p>A6 A11</p> <p>CR1 CR3 CR4 CR7</p>	<p>F9.2 F9.3 F9.0 F9.1</p> <p>B1.1 B1.2 B1.3</p>	<p>20</p>	<p>40</p>

Instructional Content: Instruction will include:	Student Outcomes At the end of instruction, the student will be able to:	Hours			
		Anchor/ CR	CTE	CL 10	CC 10
10. Soil Preparation 1. Demonstrate how to add soil amendments and organic matter. 2. Demonstrate how to apply pre-plant fertilizers. 3. Demonstrate how to till soil. 4. Demonstrate how to grade soil. 5. Discuss how to assess drainage considerations. 6. Demonstrate how to treat problem soil. 7. Demonstrate how to test soil.	Goal: Students will demonstrate knowledge and understanding of soil preparation. A. Add soil amendments and organic matter B. Apply pre-plant fertilizers C. Till soil D. Grade soil E. Assess drainage considerations F. Treat problem soils G. Test soil	A1 A2 A5 A11 CR1 CR2 CR4 CR5	G6.2 G6.1 C10.1 C10.2 C10.3 C10.4	10	10
11. Landscape Design 1. Discuss basic design elements.. 2. Review the planning process. 3. Discuss the usage of shrubs and trees. 4. Discuss the usage of lawn and ground covers. 5. Discuss the usage of drought tolerant plants. 6. Discuss the usage of annuals and perennials. 7. Discuss the usage of native plants. 8. Define how to evaluate and include permanent structures/landscape. 9. Review planning for irrigation. 10. Review assess, design utilities 11. Review how to analyze problem areas. 12. Demonstrate how to measure and layout the plan. 13. Demonstrate how to draw the plan to scale. 14. Demonstrate how to create a computer-assisted design.	Goal: The students will demonstrate knowledge and understanding of landscape design. A. Understand basic design elements: <ul style="list-style-type: none"> • Continuity, • Texture, • Proportion, • Theme B. Recognize the planning process C. Use shrubs and trees D. Use lawns and ground covers E. Use drought tolerant plants F. Use annuals and perennials G. Use native plants H. Evaluate & include permanent structures/landscape I. Plan irrigation J. Assess, design utilities K. Analyze problem areas L. Measure and layout plan M. Draw plan to scale N. Create computer-assisted design	A1 A4 A5 A11 A2 A3 A10 CR1 CR2 CR4 CR5 CR11 CR12	B12.1 B12.2 B4.1- B4.3 B3.1- B3.5 B2.1- B2.3 B6.1 B6.2 E8.2- E8.4 F10.1- F10.5 F7.0- F7.3 F1.5 G8.2 G8.4 F5.1 – F5.5	10	50
12. Landscape Installation 1. Discuss assessment of site inventory. 2. Demonstrate plan and sequence installation. 3. Demonstrate soil preparation technique. 4. Demonstrate how to install an irrigation system. 5. Demonstrate how to install a drainage system. 6. Discuss how to plan landscape planning. 7. Discuss the implementation of planting practices. 8. Discuss the maintenance and aftercare of plantings.	Goal: The student will demonstrate knowledge and understanding of landscape installation. A. Assess site inventory B. Plan and sequence installation C. Demonstrate soil preparation technique D. Grade and level E. Install irrigation systems F. Install drainage systems G. Plan landscape planning H. Implement planting practices I. Maintain aftercare of plantings	A1, A5, A9, A11, A2, A4 CR1 CR2 CR4 CR5 CR12	F7.0- F7.3 B4.1- B4.4 F10.1 F10.2 F10.3 B3.1- B3.6 B12.2 B12.6 B6.1- B6.3	10	20

Instructional Content: Instruction will include:	Student Outcomes At the end of instruction, the student will be able to:	Hours			
		Anchor/CR	CTE	CL	CC
13. Landscape Construction 1. Demonstrate how to build and pour garden borders. 2. Demonstrate how to construct raised beds. 3. Demonstrate how to build wood structures. 4. Demonstrate how to complete brick work. 5. Discuss and demonstrate how to form fences, walls and gates. 6. Discuss how to apply stepping stones and pavers. 7. Demonstrate concrete work.	Goal: The student will demonstrate knowledge and understanding of landscape construction. A. Build or pour garden borders B. Construct raised beds C. Build outdoor wood structures D. Complete brick work E. Describe & form fences, walls, and gates F. Apply stepping stones and pavers G. Demonstrate concrete work	A1 A2 A9 A11 CR1 CR2 CR4 CR5 CR9	B2.1- B2.4 B3.1- B3.6 B4.1- B4.4 B6.1- B6.3 B12.2 B12.6 B12.5	5	10
14. The Nursery/Landscape Business 1. Identify basic business practices. 2. Discuss how to plan a business. 3. Discuss retail garden centers/nurseries. 4. Identify wholesale nurseries. 5. Discuss landscape contracting. 6. Discuss leadership/management/organizations.	Goal: The student will demonstrate knowledge and understanding of the nursery/landscape business. A. Understand basic business practices B. Plan a business C. Describe retail garden centers/nurseries D. Define wholesale nurseries E. Institute landscape contracting F. Demonstrate leadership/management/organizations	A1, A2, A3, A4, A5, A8, A9, A11 CR1 CR5 CR3 CR4 CR5 CR6 CR6 CR8 CR9 CR10 CR11 CR12	F10.0- F10.5 F8.0- F8.4 A1.0- A9.5 BF B1.0- B9.8 C1.0- C8.6	10	20