Imperial Valley Regional Occupational Program
687 State Street, El Centro CA 92243
Telephone: (760) 482-2600 • Fax: (760) 482-2750 • Website: <a href="www.ivrop.org">www.ivrop.org</a> • Email: <a href="mailto:info@ivrop.org">info@ivrop.org</a>

# LANDSCAPE DESIGN, INSTALLATION & MAINTENANCE COURSE OUTLINE - 540 hours

Major Units of Instruction (Employability Skills, Content Area Skills, and Expected Student Proficiencies) Ag/Natural Resources Sector – Ornamental Horticulture Pathway (F)	Expected Student Learning Results (ESLRs)	Methods of Assessment & Materials Used	Class Hours	CC/ CVE Hours	Academic Standards Reinforced
<ul> <li>A. ESSENTIAL EMPLOYABILITY</li> <li>SKILLS/CAREER PREPARATION STANDARDS</li> <li>1. Understand how personal skill development affects employability (positive attitude, honesty, self-confidence, time management). Understand principles of effective interpersonal skills (group dynamics, conflict resolution, negotiations).8.3</li> <li>2. Understand the importance of good academic skills, critical thinking, and problem-solving in the workplace. 1.0, 5.0</li> <li>3. Understand principles of effective communication. 2.0</li> <li>4. Understand occupational safety issues and observe all safety rules. 6.0</li> <li>5. Understand career awareness, paths, and strategies for obtaining employment. 3.0</li> <li>6. Understand and adapt to changing technology. 4.0</li> <li>7. Understand and prepare for employment (resume, job application, job interview, portfolio development). 3.6</li> </ul>	Technological Producers Interpersonal Learners Problem Solvers Responsible Individuals Effective Communicators	-Lecture -Demonstration -Group & individual activities -Quizzes -Guest Speakers	30	15	Language Arts (8) R 1.3, 2.6 W1.3, 2.5. LC 1.4,1.5, 1.6 LS1.2, 1.3, 1.7 (9/10) R2.1,2.3,2.6; W2.5; LC1.4; LS 1.1, 2.3 (11/12) R2.3; W2.5; LC1.2 Math (7) NS1.2, 1.3, 1.7 MR 1.1,1.3,2.1, 2.7,2.8, 3.1 CAHSEE Lang. Arts R 8.2.1 (9/10) R 2.1, 2.3; W2.5 Math (7) NS 1.2, 1.3, 1.7 MR 1.1, 2.1, 3.1
B. ORIENTATION - General purposes which Influence landscape design  1. Environment conditions  2. Materials  3. Aesthetics  4. Types of construction  5. Basic topography (F1.0: F1.5)  a. Plant types b. Tree types c. Shrub types d. Turf types (F7.0)	Responsible Individual Technological Producer Interpersonal Learner	* Discussion * Tests * Lecture * Demonstration * Group Activities * Projects	20	15	
C. SAFETY OSHA (10.0: 10.4, F4.0, F5.0, F6.0, f9.2)  1. Hand tools 2. Power tools 3. Pesticides F4.0 4. Herbicides F5.0. F6.0 5. Fertilizer F5.0, F6.0 6. Proper positioning of ladders and street cones	Responsible Individual Problem Solver	* Discussion  * Tests  * Lecture  * Demonstration  * Group Activities  * Projects	20	20	
D. ORNAMENTAL HORTICULTURE  1. Identify: (F1.0: F1.5)     a. 20 Shrubs     b. 20 Trees     c. 30 Plants     d. 10 Groundcovers     e. 10 Annuals     f. 10 Grass plants  2. Identify: (F1.0: F1.5)     a. Leaf shapes     b. Margins     c. Plant color	Technological Producer Problem Solver	* Discussion  * Tests  * Lecture  * Demonstration  * Group Activities  * Projects	70	20	

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d. Landscape applications of cool season, warm season trees, shrubs, plants grass					
E. LANDSCAPE DESIGN F10.0 all  1. Purposes 2. Applications 3. Plans 4. Drawings, drafting, and reading 5. Terrain 6. Level 7. Drainage 8. Irrigation 9. Soil 10. Pests 11. Pruning 12. Fertilizer 13. Pesticides 14. Zeroscape design	Responsible Individual	* Discussion * Tests * Lecture * Demonstration * Group Activities * Projects	70	20	2.1 Reading 1.1 Math (from Bldg foundation standards – 2.1, 2.2, 2.8)
F. CONSTRUCTION F10.0 all  1. Masonry  a. Stake b. Form c. Mix d. Pour e. Rough f. Finish  2. Carpentry a. Build boxes b. Decking c. Decorative structures d. Walkways  3. Plumbing a. Design b. Plan c. Install e. Watering systems f. Drip systems g. Sprinkler systems  4. Electricity F9.4 a. Review fundamental of wiring b. Hook-up lights c. Timers d. Pumps e. Sensors f. Operate electrical power tools	Responsible Individual Technological Producer Problem Solver Effective Communicator	* Discussion * Tests * Lecture * Demonstration * Group Activities * Projects	40	20	1.1 Math (from Bldg foundation standards – 2.1, 2.2, 2.8)

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G. LANDSCAPE MAINTENANCE 1. Cut 2. Trim 3. Edge 4. Prune F10.4 5. Fertilize F6.3 6. Water F5.1 7. Irrigate 8. Graft F3.0 9. Pest control F4.0	Technological Producer Problem Solver	* Discussion * Tests * Lecture * Demonstration * Group Activities * Projects	100	35	
H. PLANTING AND/OR TRANSPLANTING TECHNIQUES  1. Prepare and analyze soils F5.0  a. Define ph, n, p k, fe, 4s  b. Soil texture  c. Soil mulch  d. Soil type  2. Treat soil with F5.0  a. Salts  b. Organic amendments  c. Inorganic amendments	Technological Producer Problem Solver	* Discussion  * Tests  * Lecture  * Demonstration  * Group Activities  * Projects	30	15	
d. Fertilizers 3. Plant trees and shrubs a. Bare root b. Container c. Ground cover d. Bulb e. Bedding 4. Grasses F7.0 a. Seed b. Stolon seed					
TOTAL HOURS			380 54	160 10	

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