



# Environmental Horticulture and Urban Forestry

College of Agricultural and Environmental Sciences

## Careers in Environmental Horticulture and Urban Forestry

### Floriculture

- Greenhouse Grower
- Greenhouse Manager
- Field Flower Grower
- Custom Plant Propagator
- Greenhouse Consultant
- Pest Control Advisor

### Nursery Production

- Nursery Manager
- Nursery Marketing Manager
- Nursery Consultant
- Horticultural Advisor
- Garden Center Operator

### Landscape Management

- Arborist
- Golf Course Manager
- Irrigation Specialist
- Landscape Designer
- Landscape Contractor
- Site Analyst
- Park Supervisor
- Park Planner
- Tree Damage Assessor
- Landscape Inspector

### Restoration

- Revegetation Consultant
- Restoration Ecologist
- Land Appraiser
- Land Development Consultant

### Urban Forester

- Flower Seed Producer
- Plant Breeder
- Turf Sod Producer
- Urban Ecologist
- Curator of Botanic Garden
- Arboretum Director
- Community College Instructor
- Expert Witness
- Graduate Studies

Students majoring in Environmental Horticulture and Urban Forestry learn how plants improve the environment and the quality of our lives. The focus of the major is on the biological and physical concepts and horticultural principles of plant production, management of plants and plant ecosystems in landscape settings and sociological aspects of plant/people interactions in the urban environment. Plants are used to revegetate and restore disturbed landscapes, control erosion and reduce energy and water consumption. The ornamental use of plants to improve the aesthetic quality of urban and rural landscapes, recreational areas, interiorscapes and commercial sites is an important aspect of this major. Areas of Specialization within the major include: Urban Forestry, Floriculture/Nursery, Landscape Management/Turf or Plant Biodiversity/Restoration.

Environmental Horticulture and Urban Forestry is a diverse field including Ornamental Horticulture, Landscape Horticulture, Floriculture, Nursery Management, Plant Biodiversity and Urban Forestry. Students can study greenhouse and nursery crop production, postharvest handling of cut flowers and foliage plants, landscape tree maintenance, turf management and plant propagation. Courses are also offered in other departments on campus (Landscape Architecture, Plant Pathology and Entomology) to complete and broaden the student's education. The field offers career opportunities for students who have sophisticated training in the development and management of landscape resources that range from production nurseries to arboreta, private resorts, and public parks. Graduates from this program are considered to be highly qualified and are valued in the industry for their broad background and flexibility to adapt to a changing environment.

The Department of Plant Sciences has excellent facilities for teaching and research. In addition to providing students with access to our research laboratories, our teaching facilities include a herbarium, a computer laboratory, computer-controlled greenhouses, an outdoor nursery and extensive landscape plantings. The Department has close ties to the UC Davis Arboretum, which serves as an outdoor laboratory for plant identification and landscape usage of ornamental plants.

The Bachelor of Science Degree from UC Davis provides the student with the necessary background to understand and apply the concepts, principles, and methods of plant biology, ecology, and genetics. The "principles" approach to our courses prepares the student to understand, investigate and solve challenging problems.

### For more information:

Contact the Department of Plant Sciences at 530-752-7738 or 530-752-4361 (FAX)  
[http://www.plantsciences.ucdavis.edu/plantsciences/Undergrad\\_studies/ehuf.htm](http://www.plantsciences.ucdavis.edu/plantsciences/Undergrad_studies/ehuf.htm)

## B.S. MAJOR REQUIREMENTS

### English Composition and General Education Requirements (See College Requirements)

#### Preparatory Subject Matter

Environmental Horticulture I and 6

Landscape Architecture 30

Biological Sciences IA, IB, and IC

Environmental Science & Policy I or 10

Physical Sciences: Chemistry 2A, Chemistry 2B, Physics IA, Physics IB

Quantitative Skills: Agricultural Management and Rangeland Resources 21 and either Mathematics 16A or Statistics 13

Restricted Lower Division Electives: Select two lower division Resource Science classes and two lower division Social Science/Humanities classes in consultation with adviser

#### Depth Subject Matter

Physiological Principles in Environmental Horticulture (Environmental Horticulture 102)

Principles of Soil Science (Soil Science 100)

Plant Propagation (Plant Biology 171)

Internship: Environmental Horticulture 192 (minimum of three units)

Plant Systematics (take one of the following): Environmental Horticulture 105, Plant Biology 102, 108

Restricted Upper Division Electives: Select two upper division Resource Science classes and two upper division Social Science/Humanities classes in consultation with adviser

#### Areas of Specialization (Choose One)

(No class may be used to satisfy more than one requirement)

##### Floriculture / Nursery Option

Management of Container Media

(Environmental Horticulture 120)

Greenhouse and Nursery Crop Production

(Environmental Horticulture 125)

Irrigation Practices for an Urban Environment

(Applied Biological Systems Technology 165)

Arthropod Pest Management (Entomology 110)

Introduction to Biological Control (Entomology 135)

Ecology of Crop Systems (Plant Biology 142)

Introduction to Plant Pathology (Plant Pathology 120)

##### Urban Forestry Option

Urban Forestry (Environmental Horticulture 100)

Trees of the Urban Forest (Env Horticulture 101)

Turfgrass Culture (Environmental Horticulture 130)

Woody Plants in the Landscape

(Environmental Horticulture 133)

Arthropod Pest Management (Entomology 110)

Survey of Plant Communities of California

(Plant Biology 147)

Intro to Plant Pathology (Plant Pathology 120)

##### Landscape Management / Turf Option

Analysis of Horticultural Problems

(Environmental Horticulture 129)

Turfgrass Culture (Environmental Horticulture 130)

Woody Plants in the Landscape

(Environmental Horticulture 133)

Irrigation Practices for an Urban Environment

(Applied Biological Systems Technology 165)

Arthropod Pest Management (Entomology 110)

Plant Ecology (Evolution and Ecology 117)

Introduction to Plant Pathology (Plant Pathology 120)

##### Plant Biodiversity / Restoration Option

*Restoration and Management* (take two):

Rangelands: Ecology, Conservation and Restoration  
(Agricultural Mngmt & Rangeland Resources 130)

Cropping Systems of the World

(Agricultural Mngmt & Rangeland Resources 150)

Fire Ecology (Env & Resource Sci 141)

Restoration Ecology (Environmental Hort 160/160L)

Applied Conservation Biology (Env Sci & Policy 125C)

Wetland Ecology Lab (Env Sci & Policy 155L)

Landscape Ecology (Landscape Architecture 180F)

Soil Ecology (Soil Science 112)

Habitat Conservation & Restoration

(Wildlife, Fish and Conservation Biology 155)

*Plant Systematics and Ecology* (take three):

Humans and Vegetation Change

(Environmental & Resource Sciences 173)

Trees & Forests (Environmental Horticulture 144)

Wetland Ecology (Env Sci & Policy 155)

Plant Ecology (Evolution and Ecology 117)

Survey of Plant Communities of California

(Plant Biology 147)

California Floristics (Plant Biology 102)

Systematics and Evolution of Angiosperms

(Plant Biology 108)

Population Biology of Weeds (Plant Biology 119)

Intro to Weed Science (Plant Biology 176)

Plant Geography and Conservation

(Wildlife, Fish and Conservation Biology 156)

Coastal Ecosystems (Wildlife, Fish and Cons Bio 157)

*Plant Evolution* (take one):

Genetics and Plant Conservation: The Biodiversity  
Crisis (Environmental Horticulture 150)

Introduction to Evolution

(Evolution and Ecology 100)

Plant Morphology and Evolution (Plant Biology 116)

*Biotic Diversity* (take one):

Insect Systematics (Entomology 103)

California Insect Diversity (Entomology 107)

Arthropod Pest Management (Entomology 110)

Intro to Plant Pathology (Plant Pathology 120)

Soil Ecology (Soil Science 112)