

# ENVIRONMENTAL HORTICULTURE & URBAN FORESTRY, BACHELOR OF SCIENCE

## College of Agricultural & Environmental Sciences

As of Fall 2022, the Environmental Horticulture & Urban Forestry major is no longer accepting new students. It has been absorbed into the Plant Sciences major (<https://catalog.ucdavis.edu/departments-programs-degrees/plant-sciences/plant-science-bs/>) as an area of specialization.

## The Major Program

Students majoring in Environmental Horticulture & Urban Forestry learn how plants improve the environment and the quality of our lives. The major focuses 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. Students may select one or more of the following three areas of specialization: Floriculture/Nursery, Plant Biodiversity/Restoration, or Urban Landscape Management.

## Internships & Career Opportunities

Students are encouraged to develop internships on or off campus to augment their activities in the classroom and laboratory. Internships are available with the department's greenhouse facility, the UC Davis Arboretum, landscape designers, local nurseries, government agencies, regional non-profits, and restoration firms. Career opportunities in this field include growing and/or managing plants in a variety of settings, including nurseries & arboreta, consulting as an arborist, or as an urban, landscape, or restoration horticulturist; business ownership; park management and landscape contracting; working in the public or private sector, or for non-profit organizations.

## Major Advisor

**Advising Center** for the major is located in 1220 Plant & Environmental Sciences; [plsadvising@ucdavis.edu](mailto:plsadvising@ucdavis.edu).

The major requirements below are in addition to meeting University Degree Requirements (<https://catalog.ucdavis.edu/undergraduate-education/university-degree-requirements/>) & College Degree Requirements (<https://catalog.ucdavis.edu/undergraduate-education/college-degree-requirements/>); unless otherwise noted. The minimum number of units required for the Environmental Horticulture & Urban Forestry Bachelor of Science is 114.

Code	Title	Units
<b>Preparatory Subject Matter</b>		
Recommended as part of the College English Composition Requirement or the Words & Images Core Literacy Component:		
CMN 001	Introduction to Public Speaking	
<i>Environmental Horticulture</i>		

ENH 001	(Discontinued)	3
ENH 006	Introduction to Environmental Plants	4
<i>Landscape Architecture</i>		
LDA 030	History of Environmental Design	4
<i>Biological Science</i>		
BIS 002A	Introduction to Biology: Essentials of Life on Earth	5
BIS 002B	Introduction to Biology: Principles of Ecology & Evolution	5
<i>Plant Science</i>		
PLS 002	Botany & Physiology of Cultivated Plants	4
PLS 021	Application of Computers in Technology	3
or PLS 021V	Application of Computers in Technology	
<i>Chemistry</i>		
CHE 002A	General Chemistry	5
CHE 002B	General Chemistry	5
<i>Environmental Science &amp; Policy</i>		
ESP 001	Environmental Analysis	3-4
or ESP 010	Current Issues in the Environment	
<i>Physics</i>		
PHY 001A	Principles of Physics	3
PHY 001B	Principles of Physics	3
Choose one:		3-4
MAT 016A	Short Calculus	
or STA 013	Elementary Statistics	
or STA 013Y	Elementary Statistics	
Choose one:		3-4
UWP 102B	Writing in the Disciplines: Biology	
UWP 102G	Writing in the Disciplines: Environmental Writing	
UWP 104E	Writing in the Professions: Science	
Other upper division composition course. May overlap with college composition requirement; may be satisfied by passing the English Composition Exam.		
<i>Lower Division Restricted Electives</i>		
Choose one lower division resource science course and one lower division social science/humanities course in consultation with advisor; minimum 6 units.		6
Sample List of Lower Division Restricted Electives PDF ( <a href="https://www.plantsciences.ucdavis.edu/sites/g/files/dgvnsk1736/files/files/page/EHUFRestElec.pdf">https://www.plantsciences.ucdavis.edu/sites/g/files/dgvnsk1736/files/files/page/EHUFRestElec.pdf</a> )		
Preparatory Subject Matter Subtotal		59-62
<b>Depth Subject Matter</b>		
ENH 102	(Discontinued)	3-4
or PLS 100A	Metabolic Processes of Cultivated Plants	
Choose one:		4-5
ENH 105	Taxonomy & Ecology of Environmental Plant Families	
PLS/PLB 102	(Discontinued)	
PLS/EVE 108	(Discontinued)	
PLB/EVE 117	Plant Ecology	4
or PLS 150	Sustainability & Agroecosystem Management	
<i>Plant Science</i>		
PLS 171	Principles & Practices of Plant Propagation	4

*Soil Science*

SSC 100	Principles of Soil Science	5
Choose two		7-9
ENT 110	Arthropod Pest Management	
NEM 100	Plant Nematology	
PLP 120	Introduction to Plant Pathology	
PLS 105	Concepts in Pest Management	
PLS 176	Introduction to Weed Science	
Internship or research; must be approved by major advisor.		3
<i>Upper Division Restricted Electives</i>		
In consultation with an advisor, choose three upper division courses in the areas of resource sciences and social sciences/humanities; at least one course must come from each of these two areas; minimum 9 units.		9
Sample List of Upper Division Restricted Electives PDF ( <a href="https://www.plantsciences.ucdavis.edu/sites/g/files/dgvnsk1736/files/files/page/EHUFRestElec.pdf">https://www.plantsciences.ucdavis.edu/sites/g/files/dgvnsk1736/files/files/page/EHUFRestElec.pdf</a> )		
Depth Subject Matter Subtotal		39-43
<b>Areas of Specialization</b>		
Choose one:		16-24
No course may be used to satisfy more than one requirement.		
Floriculture/Nursery Option (p. 2)		
Plant Biodiversity/Restoration Option (p. 2)		
Urban Landscape Management Option (p. 2)		
Areas of Specialization Subtotal		16-24
<b>Total Units</b>		<b>114-129</b>

**Floriculture/Nursery Option**

Code	Title	Units
ENH 120	Management of Container Media	3
ENH 125	Greenhouse & Nursery Crop Production	5
ABT/SAF 165	Irrigation Practices for an Urban Environment	3
ENT 135	Introduction to Biological Control	4
Choose one:		3-4
PLS 100C	Environmental Interactions of Cultivated Plants	
PLS 158	Mineral Nutrition of Plants	
SSC 109	Sustainable Nutrient Management	
<b>Total Units</b>		<b>18-19</b>

**Plant Biodiversity/Restoration Option**

Code	Title	Units
ENH 160	Restoration Ecology	4
ENH 160L	Restoration Ecology Laboratory	1
Choose one:		3-5
ENH 150	Genetics & Plant Conservation: The Biodiversity Crisis	
EVE 100	Introduction to Evolution	
PLB/PLS 116	Plant Morphology & Evolution	
(a) Choose one:		3-4
ESM 141	Role of Fire in Natural Ecosystems	
ESP 127	Plant Conservation Biology	

ESP 155L	Wetland Ecology Laboratory	
PLS 130	Grassland Ecology	
PLS 150	Sustainability & Agroecosystem Management	
WFC 155	Wildlife Space Use & Habitat Conservation	
(b) Choose one:		3-5
ESP 155	Wetland Ecology	
PLB/EVE 108	(Discontinued)	
PLB/EVE 117	Plant Ecology	
PLB/EVE 119	Population Biology of Invasive Plants & Weeds	
PLS 102	(Discontinued)	
PLS/ESM 144	Trees & Forests	
PLS 147 & 147L	California Plant Communities and California Plant Communities Field Study	
PLS 163	Ecosystem & Landscape Ecology	
PLS 176	Introduction to Weed Science	
WFC 156	Plant Geography	
WFC 157	Coastal Ecosystems	
Choose one additional class from section a or b.		3-5
<b>Total Units</b>		<b>17-24</b>

**Urban Landscape Management Option**

Code	Title	Units
ENH 100	Urban Forests are Nature-Based Solutions	4
ENH 133	Woody Plants in the Landscape: Growth, Ecology & Management	4
ABT/SAF 165	Irrigation Practices for an Urban Environment	3
PLS 162	Urban Ecology	3
SAS 018	GIS & Society	3-4
or LDA 150	Introduction to Geographic Information Systems	
or ABT 150	Introduction to Geographic Information Systems	
<b>Total Units</b>		<b>17-18</b>