

# ENVIRONMENTAL HORTICULTURE (ENH)

College of Agricultural & Environmental Sciences

## ENH 006 – Introduction to Environmental Plants (4 units)

*Course Description:* Classification, nomenclature and variation of environmental plants. The use of floral and vegetative characteristics and terminology to key unknown plants. Characteristics of plant groups and basics of climate, soils and plant selection. Identification of 150 common landscape plants.

*Learning Activities:* Lecture 1 hour(s), Discussion 2 hour(s), Laboratory 3 hour(s).

*Grade Mode:* Letter.

*General Education:* Science & Engineering (SE); Visual Literacy (VL).

## ENH 100 – Urban Forestry (4 units)

This version has ended; see updated course, below.

*Course Description:* Principles and practices of planning and managing urban vegetation. Basics of tree appraisal, natural resource inventory, and development of long term urban forest management plans.

*Prerequisite(s):* ENH 001 or PLS 002 or BIS 002B.

*Learning Activities:* Lecture 2 hour(s), Laboratory 3 hour(s), Term Paper.

*Grade Mode:* Letter.

*General Education:* Science & Engineering (SE).

## ENH 100 – Urban Forests are Nature-Based Solutions (4 units)

*Course Description:* Principles and practices of planning and managing urban vegetation, forests, green infrastructures and nature-based solutions. Basics of tree/site monitoring, natural resource inventory, and development of long term urban forest management plans at both local and landscape scales.

*Prerequisite(s):* PLS 002 or BIS 002B or LDA 001.

*Learning Activities:* Lecture 2 hour(s), Laboratory 3 hour(s).

*Grade Mode:* Letter.

*General Education:* Science & Engineering (SE).

This course version is effective from, and including: Winter Quarter 2024.

## ENH 101 – Trees of the Urban Forest (2 units)

*Course Description:* Identification and evaluation of 200 tree species of the urban forest on campus, in the Arboretum, and in the city of Davis; appraised and aesthetic values, condition, and branch structure; contribution of trees to this ecosystem. Bicycle required.

*Prerequisite(s):* ENH 006; or consent of instructor.

*Learning Activities:* Lecture 1 hour(s), Laboratory 2 hour(s).

*Grade Mode:* Letter.

*General Education:* Science & Engineering (SE); Visual Literacy (VL).

## ENH 102 – Physiological Principles in Environmental Horticulture (4 units)

Starting Fall Quarter 2023, this course is no longer offered.

*Course Description:* Physiological principles and processes essential to floriculture, nursery crop production, turf culture and landscape horticulture. Emphasis on the control of vegetative and reproductive development for a broad species range in greenhouse and extensive landscape environments.

*Prerequisite(s):* BIS 001C.

*Learning Activities:* Lecture 3 hour(s), Discussion 1 hour(s).

*Grade Mode:* Letter.

*General Education:* Science & Engineering (SE).

## ENH 105 – Taxonomy & Ecology of Environmental Plant Families (4 units)

*Course Description:* Classification and identification of introduced and native species used in urban forests, with emphasis on floral and vegetative characteristics of the prominent families of angiosperms and gymnosperms, adaptations to environmental variations in western landscapes, and horticultural classification.

*Prerequisite(s):* ENH 006; or consent of instructor.

*Learning Activities:* Lecture 2 hour(s), Laboratory 6 hour(s).

*Grade Mode:* Letter.

*General Education:* Science & Engineering (SE); Visual Literacy (VL).

## ENH 120 – Management of Container Media (3 units)

*Course Description:* Principles of soil science and practices related to management of container media are taught, emphasizing appropriate use of soils and amendments, irrigation, and fertilizers. Physical and chemical properties are tested and effects of management on crops are evaluated in the laboratory.

*Prerequisite(s):* SSC 010 or SSC 100.

*Learning Activities:* Lecture 2 hour(s), Laboratory 3 hour(s).

*Grade Mode:* Letter.

*General Education:* Science & Engineering (SE); Quantitative Literacy (QL); Writing Experience (WE).

## ENH 125 – Greenhouse & Nursery Crop Production (5 units)

*Course Description:* Principles and techniques for the production of ornamental greenhouse and nursery crops. Hands-on experience producing greenhouse crops. Optional weekend field trip.

*Prerequisite(s):* PLS 002.

*Learning Activities:* Lecture 3 hour(s), Discussion 1 hour(s), Laboratory 3 hour(s).

*Grade Mode:* Letter.

*General Education:* Science & Engineering (SE); Writing Experience (WE).

## ENH 133 – Woody Plants in the Landscape: Growth, Ecology & Management (4 units)

*Course Description:* Principles and practices of managing trees and shrubs in the urban landscape and other managed environments. Topics include woody plant form; growth response and adaptation; tree management in relation to soil, moisture, climate; plant problems.

*Prerequisite(s):* PLS 002 or BIS 002C.

*Learning Activities:* Lecture 3 hour(s), Laboratory 2 hour(s), Discussion 1 hour(s).

*Grade Mode:* Letter.

*General Education:* Science & Engineering (SE).

## **ENH 150 – Genetics & Plant Conservation: The Biodiversity Crisis (3 units)**

*Course Description:* Conservation of genic diversity, measurement of diversity, threats to diversity and reasons for protection, the process of extinction, distribution of diversity, determination of what to conserve and means of conservation. Examples drawn largely from forest tree species.

*Prerequisite(s):* BIS 001C; or the equivalent.

*Learning Activities:* Lecture/Discussion 3 hour(s).

*Grade Mode:* Letter.

*General Education:* Science & Engineering (SE); Scientific Literacy (SL).

## **ENH 160 – Restoration Ecology (4 units)**

*Course Description:* Broad, interdisciplinary approach to effective restoration. Design and implementation of restoration projects based on principles of physiology, population, community, ecosystem and landscape ecology.

*Prerequisite(s):* SSC 112 C or better or ESP 100 C or better or ESM 144 C or better or PLS 162 C or better or PLS 163 C or better or PLS 130 C or better or PLS 144 C or better or PLS 147 C or better or PLS 160 C or better or ESP 121 C or better or ESP 127 C or better or ESP 155 C or better or EVE 101 C or better or EVE 104 C or better or EVE 117 C or better or EVE 119 C or better or EVE 181 C or better or PLB 117 C or better or ECL 200AN C or better or ECL 200BN C or better; or consent of instructor; or equivalent course in ecology/plant ecology.

*Learning Activities:* Lecture/Discussion 3 hour(s), Project.

*Grade Mode:* Letter.

*General Education:* Science & Engineering (SE); Scientific Literacy (SL).

## **ENH 160L – Restoration Ecology Laboratory (1 unit)**

This version has ended; see updated course, below.

*Course Description:* Companion field course to ENH 160. Series of part-day and all day visits to various field sites, involving site evaluations, guest field presentations by local restorationists, and actual restoration activities.

*Prerequisite(s):* ENH 160 (can be concurrent); consent of instructor.

*Learning Activities:* Discussion/Laboratory 3 hour(s).

*Credit Limitation(s):* Not open for credit to students who completed ENH 160 prior to spring 2004.

*Grade Mode:* Letter.

*General Education:* Science & Engineering (SE); Scientific Literacy (SL).

## **ENH 160L – Restoration Ecology Laboratory (1 units)**

*Course Description:* Companion field course to ENH 160. Design, implementation, and analysis of ecological monitoring of a site, followed by design of a restoration project for the site through work in ENH 160. Weekly field trips and classroom training on monitoring design and analysis.

*Prerequisite(s):* ENH 160 (can be concurrent); consent of instructor.

*Learning Activities:* Discussion/Laboratory 3 hour(s).

*Grade Mode:* Letter.

*General Education:* Science & Engineering (SE); Scientific Literacy (SL).

This course version is effective from, and including: Winter Quarter 2024.