ENVIRONMENTAL HORTICULTURE

Program Description

The Environmental Horticulture Program teaches the basic skills and provides state-of-the-art information required to develop a strong foundation for the ornamental horticulture and ecological restoration industries. The program encourages professional standards, a strong work ethic and environmentally sound management practices.

Horticulture industry professionals from throughout the community serve as members of the college’s Environmental Horticulture Advisory Committee. These “hands-on” professionals provide guidance, expertise and leadership in enhancing the program’s response to community and industry needs. They meet yearly with program staff members, college administrators and student representatives to review program goals and objectives. Course offerings and content have been determined through this participation and are geared to meet the needs of the landscape, ornamental horticulture and ecological restoration trades.

On the college’s East Campus, practical lab classes utilize two outdoor classroom gardens, the SBCC Lifescape and Chumash Point Ethnobotanical Preserve. The gardens are also the site of the nursery/greenhouse unit.

The Environmental Horticulture (EH) Program is designed to provide the student with the necessary skills at the apprentice level to begin work in a wide range of landscape trades. There are three vocational approaches within the Environmental Horticulture program:

1. Skills Competency Award (1 semester)
2. Certificate of Achievement (2 semesters)
3. A. S. Degree with four degree-emphasis options:
   a. Landscape Contracting, C-27 License (satisfying one or more years of State apprenticeship requirements)
   b. Environmental Landscape Design
   c. Nursery and Greenhouse Technology
   d. Ecological Restoration and Management

The program cannot guarantee job placement; however, many landscape industry employers, in search of energetic and skilled apprentices, contact the college to request referral of program students and graduates. The EH Program Skills Competency Award, EH Certificate and Certified Green Gardener, and Associate Degrees often expose students to potential employers and job opportunities.

Planning a Program of Study

Many students of this program enter with some horticulture experience, working in the department’s horticulture garden on campus, in the landscape contracting industry, the nursery/greenhouse industry, in landscape maintenance, design or ecological restoration. However, some students enter the program with no background in horticulture and enroll to gain such experience. The classes are open to anyone, home gardener, professional landscaper, designer, or farmer. There are no pre-requisites for any courses and students can start the program with any class.

Typically, more advanced students in the program enroll in EH 290 Work Experience In Environmental Horticulture. This course is considered a vital aspect of the program—generating two to four units of credit each semester for enrollees and giving the student real-world experience in the horticulture field, before they graduate. The college, the student and job supervisor work together to develop meaningful work experience situations and projects. Often, the professional relationships forged during this course lead to longer-term employment for the student or at least exposure to successful professionals in the horticultural field.

Units earned under the one-year Certificate of Achievement program can be applied toward the Associate Degree; many articulate toward the Horticulture degree program offered by California Polytechnic State University and other California State Universities.

Program Cost and Outcome

For planning purposes, the website below provides information on the cost of attendance, program length (assuming a student attends full-time), financing options and historical student completion rates:

http://www.sbcc.edu/financialaid/gainfulemployment

Programs of Study

- Environmental Horticulture, Associate in Science (AS), Ecological Restoration and Management Emphasis
- Environmental Horticulture, Associate in Science (AS), Landscape Contracting C-27 License Emphasis
- Environmental Horticulture, Associate in Science (AS), Landscape Design Emphasis
- Environmental Horticulture, Certificate of Achievement
- Environmental Horticulture, Associate in Science (AS), Nursery and Greenhouse Technology Emphasis
- Environmental Horticulture, Certificate of Achievement (C)
- Landscape Operations, Skills Competency Award (SCA)
- Sustainable Horticulture, Skills Competency Award (SCA)

Credit Courses

Environmental Horticulture (EH)

EH 101 Plant Identification And Culture (3 Units)
Hours: 90 (36 lecture, 54 lab)
Designed to acquaint the student with woody ornamental plants and selected accent plants used in the Santa Barbara region. Approximately 150 trees, shrubs, vines and herbaceous ornamentals are presented for identification and close scrutiny.
Transfer Information: CSU Transferable, UC Transferable
C-ID: AG - EH 108L
EH 102 Soils And Plant Nutrients (3 Units)
Skills Advisories: Eligibility for ENG 98 and proficiency in MATH 1 or MATH 41.
Hours: 90 (36 lecture, 54 lab)
Covers soils as related to sustainable plant care. Emphasis on soil analysis, problem identification, soil remediation, soil enhancement and the soil food web.
Transfer Information: CSUGE Area B2, IGETC Area 5B, CSU Transferable, UC Transferable
C-ID: AG - PS104

EH 103 Irrigation And Garden Waterworks (3 Units)
Hours: 90 (36 lecture, 54 lab)
Introduction to the materials and methods used in landscape irrigation system design, maintenance and repair. Trouble-shooting and retrofitting systems for water conservation are also highlighted including drip and underground systems. Simple plan reading, system scheduling and controller use are reviewed.
Transfer Information: CSU Transferable
EH 104 Landscape Maintenance (3 Units)
Hours: 90 (36 lecture, 54 lab)
Covers basic landscape maintenance topics emphasizing sustainable methods of enriching soil health, composting, mulching, water efficient irrigation systems, pruning, fertilization, plant selection, turf management, insect control, and weed control. Personal health and safety emphasized. Student groups develop and implement sustainable landscape projects.
Transfer Information: CSU Transferable
EH 105 Landscape Construction (3 Units)
Skills Advisories: Proficiency in MATH 1 or MATH 41.
Hours: 90 (36 lecture, 54 lab)
Designed to familiarize students with basic landscape construction work, equipment and materials. Explores plan reading, grading, drainage, concrete, masonry, carpentry, electrical and plumbing, as well as C-27 landscape contractor's license requirements, business practices and legalities of this specialty.
Transfer Information: CSU Transferable
EH 106 Greenhouse/Nursery Operations And Practices, Plant Propagation And Plant Recognition (3 Units)
Skills Advisories: Eligibility for ENG 98 and proficiency in MATH 1 or MATH 41.
Hours: 90 (36 lecture, 54 lab)
Introduces students to the greenhouse/nursery. Plant recognition is required for indoor plants, turf/groundcovers, bedding plants and herbaceous perennials. Greenhouse management includes maintenance, management and structure development.
Transfer Information: CSU Transferable
EH 109 Permaculture Design (5 Units)
Hours: 90 (90 lecture)
Application of ecological and environmental principles to designing human systems that are locally sustainable and require reduced inputs. The successful student receives Permaculture Design certification, recognized worldwide.
Transfer Information: CSU Transferable
EH 109B Advanced Permaculture Design (3 Units)
Hours: 90 (36 lecture, 54 lab)
Provides hands-on opportunities to gain skills in permaculture design, while reviewing and adding depth of knowledge to basic permaculture design concepts.
Transfer Information: CSU Transferable
EH 110 Introduction To Horticulture (3 Units)
Hours: 54 (54 lecture)
Introduction to central concepts of environmental horticulture, covering horticultural practices and methods, with focus on long-term sustainability and local ecological issues.
Transfer Information: CSUGE Area B2, IGETC Area 5B, CSU Transferable, UC Transferable
C-ID: AG - PS128L

EH 112 Ecological Restoration I (3 Units)
Hours: 90 (36 lecture, 54 lab)
Examines the principles and techniques of regional habitat restoration. Class work emphasizes the identification, collection, propagation and care of native plants.
Transfer Information: CSUGE Area B2, IGETC Area 5B, CSU Transferable, UC Transferable
EH 113 Ecological Restoration II (3 Units)
Hours: 90 (36 lecture, 54 lab)
Review of the concepts and implementation of habitat restoration. Santa Barbara region habitats studied include chaparral, coastal sage scrub, oak woodland, and riparian Eco-niches. Emphasis on watersheds and riparian restoration. Principles of ecological recreation and restoration techniques include seed collection, propagation and project evaluation.
Transfer Information: CSU Transferable, UC Transferable
EH 126 Landscape Drafting I (3 Units)
Same as: DRFT 126
Skills Advisories: Eligibility for ENG 103 and proficiency in MATH 1 or MATH 41.
Hours: 72 (45 lecture, 27 lab)
Principles of drafting and plan reading for landscape architecture and ornamental horticulture. Style research, drafting of plans, elevations and details.
Transfer Information: CSU Transferable, UC Transferable
EH 127 Landscape Drafting II (3 Units)
Same as: DRFT 127
Prerequisites: DRFT 126 or EH 126.
Skills Advisories: Eligibility for ENG 103 and proficiency in MATH 1 or MATH 41.
Hours: 72 (45 lecture, 27 lab)
Advanced Drafting and plan reading course using manual and computer drafting tools. For landscape architecture and ornamental horticulture fields. Includes site plans, elevations and details.
Transfer Information: CSU Transferable, UC Transferable
EH 201 Arboriculture (3 Units)
Hours: 54 (54 lecture)
Introduction to the care of woody plants, including trees, shrubs, vines and palms. Covers function, structure, taxonomy, anatomy and physiology of woody plants; the effects of soil, water and fertilizer, pruning, safety, planting, early care, and diagnostics of pests and disease.
Transfer Information: CSU Transferable, UC Transferable
EH 202 Residential Landscape Design (3 Units)
Skills Advisories: Proficiency in MATH 1 or MATH 41.
Hours: 54 (54 lecture)
Foundational course for basic skills in design and implementation of residential landscaping. Theory and practical development of skills and artforms associated with hardscape and softscape elements and plans examined.
Transfer Information: CSU Transferable
EH 207 Small Scale Food Production (3 Units)
Hours: 90 (36 lecture, 54 lab)
Explores the natural and sustainable techniques and skills used to produce healthy organic produce. Soil development, composting, mulching, suitable vegetables, fruit trees and herb cultivation covered.
Transfer Information: CSU Transferable

EH 290 Work Experience In Environmental Horticulture (2-4 Units)
Prerequisites: Any 100 level EH class.
Skills Advisories: Eligibility for ENG 98 and proficiency in MATH 1 or MATH 41.
Hours: 300 (300 lab)
Exploration of elements essential to success in the fields of horticulture, including proper work ethic, job searching and job preparation. Outside of class, students work to earn credit. Time sheets are done monthly, supervisor evaluation is required, and a three-way semester contract is developed between the student, the student’s supervisor and the instructor. Course restricted to 3 repetitions
Transfer Information: CSU Transferable

EH 299 Independent Study In Environmental Horticulture (1-4 Units)
Limitations on Enrollment: Completion of a minimum of 12 units at SBCC, with a 2.5 G.P.A., and a minimum of 6 units, with a 3.0 G.P.A. within the department.
Hours: 192 (192 lab)
For complete information, see "Independent Study" in the Catalog Index.
Transfer Information: CSU Transferable