

## 2011-13 Cal Poly Catalog

### Horticulture and Crop Science Department

## EHS-ENVIRONMENTAL HORTICULTURAL SCIENCE

### EHS 123 Landscape Installation and Maintenance (4)

Planting and maintenance of trees, shrubs, ground covers, perennial plantings, color beds, specialty plantings, and small turf areas. Site selection, cultural requirements, scheduling of maintenance activities, pruning, landscape renovation and irrigation system repair. Equipment operation, maintenance, and safety. Speakers from industry. 3 lectures, 1 laboratory. Prerequisite: HCS 120.

### EHS 126 Landscape Construction (3)

Design, construction techniques and materials used in landscape and horticulture construction. Material quantity estimating, sustainable building practices, construction material substitutions, tools and equipment associated with landscape and horticulture construction. 2 lectures, 1 laboratory. Prerequisite: HCS 110 and HCS 120.

### EHS 127 Horticulture and Landscape Design (4)

Aesthetic aspects of environmental horticulture, introduction to computer aided design, drafting presentation techniques and garden history. Field trip required. 2 lectures, 2 laboratories.

### EHS 210 Enterprise Project I (1-4)

Selection and completion of a management/production project under faculty supervision. Project participation is voluntary and subject to approval by the department head and the Cal Poly Corporation. Degree credit limited to two units. Credit/No Credit grading only. Prerequisite: HSC 110 and consent of instructor.

### EHS 215 Floral Design I (3)

Fundamentals of theory, techniques and skills currently practiced in the floral industry. Intended as consumer education for non-majors as well as initial preparation for pre-professionals. Includes applied art principles, post-harvest care and handling practices, and proper use of florist tools and materials in developing basic designs. 1 lecture, 2 laboratories. *Formerly EHS 125.*

### EHS 225 Floral Design II (3)

Expanded exploration and application of design theory to commercial products and services in the retail floral industry. Appropriate utilization of current sales and business practices in a florist setting. Advanced techniques and skills for construction of designs for weddings, advanced arrangements, and designs for events. 1 lecture, 2 laboratories. Prerequisite: EHS 215.

### EHS 230 Environmental Horticulture (4)

Technical information and recommendations for the residential horticulturist. Propagation, pruning, planting, media, fertilizers, pest and weed control, landscaping, maintenance, identification and care of ornamental plants. Being a wise horticultural consumer. Not open to AEPS or EHS majors. 3 lectures, 1 laboratory.

### EHS 231, 232 Plant Materials I, II (4) (4)

Identification, habits of growth, cultural requirements, and use of ornamental plants in the landscape. 3 lectures, 1 laboratory.

### EHS 245 Horticultural Production Techniques (3)

Applied principles of plant growth in relation to the production horticulture industry. Emphasis on container media, fertilizing practices, irrigation, plant growth regulators, and sustainable practice. 2 activities, 1 laboratory. Prerequisite: HCS 120, HCS 124, SS 121, CHEM 110 or CHEM 111.

### EHS 301 Principles of Landscape Design (4)

Introduction to basic principles and elements of residential landscape design, design theory, plant composition, creative problem solving, functional and aesthetic uses of landscape materials, client and maintenance criteria, and sustainable design concepts. Intermediate computer aided design drafting and drawing skills. 2 lectures, 2 laboratories. Prerequisite: EHS 127, and EHS 231 or EHS 232.

### EHS 310 Enterprise Project II (2-4) (CR/NC)

Selection and completion of a management/production project under faculty supervision. Project participation is voluntary and subject to approval by the department head and the Cal Poly Corporation. Degree credit limited to two

units. Maximum degree credit for EHS 210 and EHS 310 limited to four units. Credit/No Credit grading only. Prerequisite: Consent of instructor.

### EHS 315 Herbaceous and Specialty Plant Production (4)

An in-depth view of three herbaceous and specialty plant groups (annuals, perennials, cacti/succulents) that are an important part of the wholesale and retail nursery industry. Plant identification, specific techniques of propagation, production, scheduling, growing media and forcing structures for these plants. 3 lectures, 1 laboratory. Prerequisite: EHS 245, HCS 327, SS 221.

### EHS 324 Interior Plant Management (4)

Plant materials used in the interior plantscape. Identification, production, utilization, placement. Interior plant specifics and maintenance. 3 lectures, 1 laboratory. Prerequisite: EHS 245 and HCS 120 and HCS 124.

### EHS 331 Landscape Contracting (4)

Practices in supervising personnel and applying standard techniques in landscape construction. Cost finding and estimating for landscape trades. 3 lectures, 1 laboratory. Prerequisite: EHS 126 and EHS 301.

### EHS 341 Cut Flower Production (4)

Production of cut flowers and other fresh florists' commodities in greenhouses and outdoors. Preparation and scheduling of such commodities for major markets. Field trip required. 3 lectures, 1 laboratory. Prerequisite: HCS 120.

### EHS 342 Potted Plant Production (4)

Production of major commercial flowering potted plants in greenhouses and outdoors. Preparation and scheduling of potted flowering greenhouse crops for major markets. Field trip required. 3 lectures, 1 laboratory. Prerequisite: EHS 245.

### EHS 343 Turfgrass Management (4)

Turfgrass species and uses. Principles of turfgrass physiology and communities under different environments. Overview of procedures and equipment for propagation, mowing, irrigation, fertilization, aerification, and pest control. 3 lectures, 1 laboratory. Prerequisite: EHS 123 and SS 121.

### EHS 381 Native Plants for California Landscapes (4)

Horticultural investigation of the California flora with emphasis on landscape use and potential. Plant recognition, identification, propagation and culture. Utilization of native plants in landscape design and habitat restoration. Field trips required. 3 lectures, 1 laboratory. Prerequisite: BOT 121 and junior standing.

### EHS 382 Restoration Horticulture (4)

Role of horticulture in the successful implementation of restoration projects, including mitigation, revegetation, and erosion control. Practical application of restoration methods and guidelines for specific California plant communities including site-specific plant production. 3 lectures, 1 laboratory. Prerequisite: HCS 124, EHS 381, SS 121.

### EHS 402 Retailing Horticultural Products (4)

Economics of operating and managing retail horticulture outlets. Location, selection, layout, and demographic studies. Personnel management, merchandising, advertising, pricing strategies and selling techniques, cooperative buying and industry contributions. 3 lectures, 1 laboratory. Field trip required. Prerequisite: HCS 124.

### EHS 421 Arboriculture (4)

Theory and practice for the care and management of ornamental trees. Selection, planting, establishment, maintenance of specimen trees. Professional use of ropes and safety equipment. Tree evaluation, scheduling cultural practices, bracing, cabling, specialty hand and power equipment operation, safety regulations. 2 lectures, 2 laboratories. Prerequisite: EHS 123, EHS 231, and EHS 232 or NR 208 for FNR majors.

### EHS 424 Nursery Crop Production (4)

Comprehensive and historical overview of the nursery industry. Types of wholesale nurseries and their products. Plant production systems, scheduling, and marketing. Emphasis on medium to large woody plants and deciduous field-grown ornamental trees and shrubs in the western U.S. Field trips required. 3 lectures, 1 laboratory. Prerequisite: HCS 124.

### EHS 427 Advanced Landscape Design (4)

Advanced principles of landscape design for residential properties. Design process, form, and space composition emphasized. Application of sustainable design concepts. Computer aided design applications, including three-dimensional design, emphasized. Required field trips. 2 lectures, 2 laboratories.

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Prerequisite: EHS 231, EHS 232, EHS 301. Recommended: EHS 381. *Formerly EHS 321.*

**EHS 430 Sports Field Construction and Management (4)**

Construction and maintenance of sports fields. Basic agronomics including sports field construction, sports turf establishment and maintenance, environmental issues, and personnel management. 3 lectures, 1 laboratory. Prerequisite: EHS 343, and junior standing. *Crosslisted as EHS/RPTA 430.*

**EHS 433 Golf Course Management Operations (4)**

Advanced maintenance and operation of golf course facilities. Systems of management, maintenance, business and finance. 3 lectures, 1 laboratory. Prerequisite: EHS 343.

**EHS 434 Landscape Management (4)**

Maintenance procedures and operations. Operating a landscape management business. Estimating, scheduling, recordkeeping and implementation of landscape maintenance projects. Interior landscape maintenance. 3 lectures, 1 laboratory. Prerequisite: EHS 123 and EHS 126 and junior standing.

**EHS 437 Park and Public Space Management (4)**

Management and maintenance of private and public parks, arboreta, botanical gardens and recreational areas. Maintenance personnel management, safety and liability issues. Field trips required. 3 lectures, 1 laboratory. Prerequisite: Junior standing. *Formerly EHS 337.*

**EHS 438 Teaching Methods in Environmental Horticulture (4)**

Use of horticulture as a context for teaching core academic subjects in science, mathematics, English and history/social science. Daily and unit lesson plans that adopt horticultural content, teaching methods and assessment for English language learners and students with special needs. Class demonstrations, analysis, assessment and reflection. 2 lectures, 2 activities. Prerequisite: Completion of GE B2 and EHS 230 and AGED 102 and junior standing.

**EHS 581 Graduate Seminar in Ornamental Horticulture (3)**

Group study of current problems of the ornamental horticulture industry; current experimental and research findings as applied to production and management. Total credit limited to 9 units. 3 seminars. Prerequisite: Graduate standing.

**EHS 599 Thesis in Environmental Horticultural Science (1-9)**

Systematic research of a significant problem in environmental horticulture. Thesis will include problem identification, significance, methods, data analysis and conclusion. Students must enroll every quarter in which facilities are used or advisement is received. Degree credit limited to 6 units. Prerequisite: Graduate standing and consent of instructor.