

Horticulture

Degree: A.S. - Landscape Industry
A.S. - Nursery Industry
Certificates: Landscape Industry
Nursery Industry

Area: Technical Education
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The ARC horticulture program prepares students for self-employment or employment with nurseries, landscape contractors, arborists, park departments, fertilizer and insecticide companies, or as maintenance groundskeepers or horticulture consultants. Students receive a formal education in plant identification: their habits, growth, cultural requirements and landscape use in the climates of northern California as well as a basic knowledge of the tools and equipment used in the landscape and nursery industries. After completing the first year of training, students elect an option in either landscape or nursery practices. The Landscape Industry option builds skills and knowledge in the design and installation of landscape and turf grass systems, irrigation and sprinkler systems, fertilization, pruning, the use of power equipment and the law and regulations for pest control operations. The Nursery Industry option emphasizes plant propagation techniques, greenhouse management, plant merchandising and installation, maintenance and customer relations. Work experience is required.

Career Opportunities

The continued growth of suburban residential areas, the growth of gardening as a major leisure time activity, and the demand for park and recreational green-belt areas all provide challenging opportunities to those who choose careers in horticulture. With the growing interest in protecting and enhancing the environment and the increased demand for park and recreation green belts, employment opportunities for horticulturists look bright. Employment opportunities should grow in both industry and government agencies as environmental research leads to new laws and standards for protecting the environment.

Landscape Industry

Requirements for Degree Major: 33-37 units

Core Requirements	Units
HORT 100	3
HORT 105	2
HORT 300	3
HORT 302	3
HORT 305	3
HORT 306	3
HORT 322	3
HORT 326	3

Concentration Requirements Units

HORT 110	2
HORT 298	2-4
HORT 320	3
HORT 324	3

Recommended Electives:

ACCT 101; Art 370; BIOL 320; BUS 105; CISC 300; DESGN 100; ENGWR 342; IDES 300.

General Education Graduation Requirements:

Students must also complete the general education graduation requirements for an A.S. degree. See Graduation requirements.

Requirements for Certificate: 31 units

HORT 100	3
HORT 105	2
HORT 110	2
HORT 300	3
HORT 302	3
HORT 305	3
HORT 306	3
HORT 320	3
HORT 322	3
HORT 324	3
HORT 326	3

Nursery Industry

Requirements for Degree Major: 31-35 units

Core Requirements	Units
HORT 100	3
HORT 105	2
HORT 300	3
HORT 302	3
HORT 305	3
HORT 306	3
HORT 322	3
HORT 326	3

Horticulture

Concentration Requirements

	Units
HORT 298	2-4
HORT 310	3
HORT 312	3

Recommended Electives

ACCT 101; BIOL 320; BUS 105; CISC 300; DESGN 100; ENGWR 342; HORT 110; IDES 300.

General Education Graduation Requirements:

Students must also complete the general education graduation requirements for an A.S. degree. See Graduation requirements.

Requirements for Certificate:

29 units

HORT 100	3
HORT 105	2
HORT 300	3
HORT 302	3
HORT 305	3
HORT 306	3
HORT 310	3
HORT 312	3
HORT 322	3
HORT 326	3

HORT 100 Plant Diseases and Pests 3 Units

Formerly: HORT 55

Prerequisite: None

Corequisite: HORT 300.

Course Not Transferable UC or CSU

Hours: 36 hours LEC; 54 hours LAB

This course is a study of local plant diseases and pests including weed problems, recognition of symptoms and causes, learn life cycles, host and habitat relationships and methods of control.

HORT 105 Pest Control Licensing For Certification 2 Units

Formerly: HORT 79

Prerequisite: HORT 300 with a grade of "C" or better.

Course Not Transferable UC or CSU

Hours: 36 hours LEC

This course covers the laws and regulations for operators, applicators, and advisors including the study of different pests and recommended control.

HORT 110 Irrigation Design 2 Units

Formerly: HORT 78

Prerequisite: HORT 300 with a grade of "C" or better.

Course Not Transferable UC or CSU

Hours: 36 hours LEC

This course is a study of water hydraulics irrigation equipment inclusive of heads, pipes, pumps, clocks, valves and design which includes preparing plans dealing with measurement, head layout, pipe sizing and specifications.

HORT 140 Advanced Student Projects 2 Units

Formerly: HORT 83

Prerequisite: HORT 300 with a grade of "C" or better.

Course Not Transferable UC or CSU

Hours: 108 hours LAB

This course provides the student with an opportunity to pursue advanced projects which are selected by the department. May be taken twice for credit.

HORT 298 Work Experience in Horticulture 1-4 Units

Formerly: HORT 98

Prerequisite: Horticulture 300.

Course Not Transferable UC or CSU

Hours: 18 hours LEC; 60-225 hours LAB

This course provides the student with supervised work experience with nurseries, landscape contractors, parks, state, county, federal agencies, and other horticultural enterprises. It is designed to provide developmental experience in horticulture.

HORT 300 Introduction to Horticulture 3 Units

Formerly: HORT 1

Prerequisite: None

Course Transferable to CSU

Hours: 54 hours LEC

This course is a survey of principles and practices of horticulture designed to improve the knowledge of the home gardener as well as those seeking a career. Basic plant structure and function, general knowledge of plant usage, landscape planning and maintenance. AA/AS area A.

HORT 302 Soils and Plant Nutrition 3 Units

Formerly: HORT 2

Prerequisite: None

Corequisite: HORT 300.

Course Transferable to CSU

Hours: 36 hours LEC; 54 hours LAB

This course is a study of the nature and properties of soils and their relationship to plant needs; water and irrigation problems and erosion control, composition, value and use of fertilizer materials, conditioners and agricultural minerals. (CAN REC 8)

HORT 305 Plant Materials I 3 Units

Formerly: HORT 51

Prerequisite: None

Corequisite: HORT 300.

Course Transferable to UC/CSU

Hours: 36 hours LEC; 54 hours LAB

This course is a study of the identification, habits of growth, cultural requirements and uses of ornamental woods and herbaceous plants used in the California landscape. Emphasis will be concentrated on those plants best seen in the fall and winter months and frequently used in the nursery and landscape trade.

HORT 306 Plant Materials II 3 Units

Formerly: HORT 52

Prerequisite: None

Corequisite: HORT 300.

Course Transferable to UC/CSU

Hours: 36 hours LEC; 54 hours LAB

This course is the study of the identification, habits of growth, cultural requirements and uses of ornamental woody and herbaceous plants used in the California landscape. Emphasis will be concentrated on those plants best seen in the spring and summer months and frequently in the nursery and landscape trade.

HORT 310 Nursery Practices 3 Units

Formerly: HORT 60

Prerequisite: HORT 300 with a grade of "C" or better.

Course Transferable to CSU

Hours: 36 hours LEC; 54 hours LAB

This course is an overview of the practices involved in commercial nursery operations, including basic garden practices.

HORT 312 Plant Propagation 3 Units

Formerly: HORT 70

Prerequisite: HORT 300 with a grade of "C" or better.

Course Transferable to CSU

Hours: 36 hours LEC; 54 hours LAB

This course is a study of the fundamental principles involved in propagating plants including identification of facilities, equipment and techniques utilized in plant production.

HORT 314 Greenhouse Operations 3 Units

Formerly: HORT 80

Prerequisite: Horticulture 300 with a grade of "C" or better.

Course Transferable to CSU

Hours: 36 hours LEC; 54 hours LAB

This course is a study of the problems and practices in the management of greenhouses, including the production of specific greenhouse crops.

HORT 320 Landscape Construction 3 Units

Formerly: HORT 75

Prerequisite: HORT 300 with a grade of "C" or better.

Course Transferable to CSU

Hours: 36 hours LEC; 54 hours LAB

This course develops the skill and knowledge needed in carpentry, masonry, concrete, and irrigation; plan reading, estimating and bidding in the landscape trades.

HORT 322 Landscape Graphics 3 Units

Formerly: HORT 76

Prerequisite: HORT 300 with a grade of "C" or better.

Course Transferable to CSU

Hours: 36 hours LEC; 54 hours LAB

This course is the study of technical drafting skills and freehand graphics including line quality, lettering and organization as it relates to landscape design. The use of a variety of graphic skills and media will be developed along with an introduction to three-dimensional sketching.

HORT 324 Landscape Maintenance 3 Units

Formerly: HORT 81

Prerequisite: HORT 300 with a grade of "C" or better.

Course Transferable to CSU

Hours: 36 hours LEC; 54 hours LAB

This course is a study of landscape maintenance of residential and commercial landscapes, parks, highways and public buildings. Development of skills including planting, pruning, watering, fertilizing, pest control and power equipment operation and maintenance.

HORT 326 Landscape Design 3 Units

Formerly: HORT 86

Prerequisite: HORT 322 with a grade of "C" or better.

Course Transferable to CSU

Hours: 36 hours LEC; 54 hours LAB

This course is a study of the basic principles and elements of landscape design related to the problem solving process, design theory and composition, functional and design uses of landscape materials, and client and maintenance criteria.

HORT 328 Turf Grass Management 3 Units

Formerly: HORT 85

Prerequisite: Horticulture 300 with a grade of "C" or better.

Course Transferable to CSU

Hours: 36 hours LEC; 54 hours LAB

This course is a study of the maintenance and management of turf grass areas including golf greens, athletic fields, parks, as well as for home lawns.

HORT 330 Small Gas Engines 1 Unit

Formerly: HORT 77

Prerequisite: None

Corequisite: HORT 300.

Course Transferable to CSU

Hours: 9 hours LEC; 27 hours LAB

This course covers trouble shooting, adjusting and maintaining small gas engines.