

Horticulture

Horticulture and Plant Science

Program Description

This program is designed to provide theory and practical experience needed to enter the horticulture field or prepare for advancement or certification. It also offers some of the basic courses required of horticulture majors transferring to four-year institutions. This program offers certificates and degrees in six Ornamental Horticulture areas.

Certificate of Achievement and Associate in Science Degree

A Certificate of Achievement can be obtained by completing all courses in the major with a grade of C or better or a P if the course is taken on a Pass/No Pass basis. The Associate in Science Degree can be obtained by completing a total of 60 units, including the required courses in the major, the general education requirements, and electives. All courses for this major must be completed with a grade of C or better or a P if the course is taken on a Pass/No Pass basis.

Program Outcomes

Students who complete the Horticulture Science Certificate of Achievement/ Associate Degree will be able to:

1. Design a landscape.
2. Lay out a landscape.
3. Estimate the cost of a landscape.

REQUIRED COURSES Units

HORT 006 Identification and Ecology of Landscape Plant Materials.....	4
HORT 030 Landscape Design I	3
HORT 050 Introduction to Horticulture	3
HORT 055 Soils and Fertilizers.	3
HORT 056 Landscape Pest Control and Management	4
HORT 070 Landscape Construction and Estimation	3
HORT 071 Irrigation Principles.....	3
Total Units	23

This is a Gainful Employment Program. For additional information, please visit http://www.solano.edu/gainful_employment/ and select "Horticulture Science."

Landscape Worker Job-Direct Certificate

The required courses must be completed with a grade of "C" or better.

REQUIRED COURSES Units

HORT 006 Identification and Ecology of Landscape Plant Materials.....	4
HORT 050 Introduction to Horticulture	3
HORT 071 Irrigation Principles.....	3
Total Units	10

**Students will be required to complete 80 hours of cooperative supervised work experience to receive credit.*

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HORT 006 **4.0 Units**
Identification and Ecology of Landscape Plant Materials

Course Advisory: HORT 050 recommended and SCC minimum English and Math standards. Study of the identification, growth habits, cultural requirements, and evaluation of landscape plant materials used for ornamental purposes in Western landscapes. Laboratory experience will emphasize the identification and use of the plant materials in various landscape settings. A collection will be required. *Three hours lecture, three hours lab.*

HORT 030 **3.0 Units**
Landscape Design I

Prerequisite: HORT 006 with a minimum grade of C. Course Advisory: HORT 050; SCC minimum English and Math standards. Introduction to the skills and techniques of landscape design principles and practices. Laboratories will stress drafting techniques through design projects. *Field trips required. Two hours lecture, three hours lab.*

HORT 031 **3.0 Units**
Landscape Design II

Prerequisite: HORT 030 with a minimum grade of C. Course Advisory: HORT 050; SCC minimum English and Math standards. Presents the association of plant materials according to design principles and their environmental requirements with attention to groupings, arrangements and planting about buildings and other landscape structures. Landscape drafting will be stressed in the laboratory projects culminating in a term design project. *Mandatory field trips. Two hours lecture, three hours lab.*

HORT 050 **3.0 Units**
Introduction to Horticulture

Course Advisory: SCC minimum English and Math standards. Introduction and preview of the nursery, florist, and landscaping industries including elemental landscape design, flower arranging, plant identification, plant propagation, landscape tools, turf care, pest control, soil testing and basic botany. Laboratory experience will develop beginning techniques in propagation, soil testing, and turf and shrub maintenance. *Mandatory field trips will be taken to various phases of the industry. Two hours lecture, three hours lab.*

HORT 055 **3.0 Units**
Soils and Fertilizers

Course Advisory: SCC minimum English and Math standards. Study of the relationships of soils and fertilizers to proper plant growth and emphasizes analysis of soils and fertilizers. Field laboratories will develop management techniques in testing and application through exercises and field trip observations. *Two hours lecture, three hours lab.*

HORT 056 **4.0 Units**
Landscape Pest Control and Management

Course Advisory: SCC minimum English and Math standards. Study of horticultural pests, insects, weeds, diseases and other non-pathogenic causes common to the Solano County area emphasizing identification, cultural, rotational, natural and chemical control methods. Mandatory field trips and laboratory experiences will provide experiences in detection, identification and techniques necessary to manage and control various species of plant pests. A collection is required. *Three hours lecture, three hours lab.*

HORT 070 **3.0 Units**
Landscape Construction and Estimation

Course Advisory: SCC minimum English and Math standards; HORT 050. Study of the construction of patios, decks, walks, retaining walls, raised planters, mowstrips, fences, overhead structures, masonry work, sprinkler layout and other landscape features with emphasis on building code specifications. Previews contractor's licensing. Site development and construction skills will be developed during the laboratory. *Two hours lecture, three hours lab.*

HORT 071 **3.0 Units**
Irrigation Principles

Course Advisory: SCC minimum English and Math standards; HORT 055. Study of the principles and management of water development and use in agricultural and horticultural production with special emphasis on water supplies, measurement, movement through soils, application methods, amounts needed and problems of distribution. The field laboratories will develop management techniques through exercises and field trip observations. *Two hours lecture, three hours lab.*

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HORT 101 **2.0 Units**
Plant Propagation and Production

Course Advisory: HORT 050; SCC minimum English standard with a minimum grade of C. Plant propagation and production practices with emphasis on vegetable crops, greenhouse and nursery operations including sexual and asexual reproduction, planting, transplanting, fertilizing, plant pest and disease control; structures and site layout; preparation and use of propagating and planting mediums; use and maintenance of common tools and equipment; regulations pertaining to plant production. *Two hours lecture, six hours lab. (8 week course)*

HORT 301A **2.0 Units**
Adaptive Horticulture - Basic Skills and Practices

Course Advisory: This course is for students with learning difficulties. A horticulture and vocational training class adapted for students with special learning needs. Students will learn basic horticulture skills in a garden, nursery, and landscape setting. Safety training will be incorporated throughout the course. Students will receive a letter grade for this course. *There will be 1 or more field trips for this course. Two hours lecture, four hours lab, four hours activity (8-week course).*

HORT 301B **2.0 Units**
Adaptive Greenhouse Management

Course Advisory: This course is primarily for students with special learning needs. This is a greenhouse skills vocational training course adapted for but not limited to students with intellectual and/or physical disabilities. Students will learn greenhouse management skills for employment preparation. *Two hours lecture, four hours lab, four hours activity (8-week course).*

HORT 301C **2.0 Units**
Adaptive Nursery and Landscape Management

Course Advisory: This course is primarily for students with disabilities. This is a nursery and landscape skills vocational training course adapted for but not limited to students with intellectual and/or physical disabilities. Students will learn nursery and landscape management skills for employment preparation. Students will be given a letter grade for this course. *Two hours lecture, four hours lab, four hours activity (8-week course).*

HORT 301D **2.0 Units**
Adaptive Vegetable and Orchard Management

Course Advisory: This course is primarily for students with disabilities. This is a vegetable and orchard skills vocational training course adapted for but not limited to students with intellectual and/or physical disabilities. Students will learn vegetable and orchard management skills for employment preparation. Students will receive a letter grade for this course. There are one or more field trips required for this course. *Two hours lecture, four hours lab, four hours activity (8-week course).*

HORT 301E **2.0 Units**
Adaptive Plant Propagation

Course Advisory: This course is primarily for students with disabilities. This is a plant propagation skills vocational training course adapted but not limited to students with intellectual and/or physical disabilities. Students will learn propagation management skills for employment preparation. Students will receive a letter grade for this course. There will be one or more field trips required for this course. *Two hours lecture, four hours lab, four hours activity (8-week course).*