

# Horticulture

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## Horticulture 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 the 23-unit major. The Associate in Science Degree can be obtained by completing the 23-unit major, general education requirements, and electives. All courses for this major must be completed with a minimum grade of C 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 and draft landscape plan.
2. Design an Integrated Pest Management (IPM) plan.
3. Estimate the cost of a landscape construction project.

### 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
<b>Required Major Total Units .....</b>	<b>23</b>

<b>Solano General Education.....</b>	<b>21</b>
<b>Electives (as needed to reach 60 units).....</b>	<b>21</b>
<b>Total Degree Units Solano GE.....</b>	<b>60</b>

This is a Gainful Employment Program. For additional information, please visit [http://www.solano.edu/gainful\\_employment/](http://www.solano.edu/gainful_employment/) and select "Horticulture Science."

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### Landscape Worker Job-Direct Low Unit Certificate

The required courses must be completed with a minimum grade of C.

### REQUIRED COURSES ..... Units

HORT 006 Identification and Ecology of Landscape Plant Materials.....	4
HORT 050 Introduction to Horticulture .....	3
HORT 071 Irrigation Principles.....	3
OCED 090 Occupational Work Experience .....	1
<b>Total Units .....</b>	<b>11</b>

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## **HORT 006**

**4.0 Units**

### **Identification and Ecology of Landscape Plant Materials**

*Course Advisory: HORT 050; SCC minimum English and Math standards.*

*Transferable to UC/CSU*

*Hours: 48-54 lecture, 48-54 lab.*

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.

## **HORT 030 Landscape Design I**

**3.0 Units**

*Course Advisory: HORT 006; HORT 050; SCC minimum English and Math standards.*

*Transferable to UC/CSU*

*Hours: 32-36 lecture, 48-54 lab.*

Introduction to the skills and techniques of landscape design principles and practices. Laboratories will stress drafting techniques through design projects. Field trips required.

## **HORT 031 Landscape Design II**

**3.0 Units**

*Prerequisite: HORT 030 with a minimum grade of C.*

*Course Advisory: HORT 050*

*Transferable to UC/CSU*

*Hours: 32-36 lecture, 48-54 lab.*

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.

## **HORT 050 Introduction to Horticulture**

**3.0 Units**

*Course Advisory: SCC minimum English and Math standards.*

*General Education: Option A: Area A*

*Transferable to CSU*

*Hours: 32-36 lecture, 48-54 lab.*

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.

## **HORT 055 Soils and Fertilizers**

**3.0 Units**

*Course Advisory: SCC minimum English and Math standards.*

*Transferable to CSU*

*Hours: 32-36 lecture, 48-54 lab.*

Study of the relationships of soils and fertilizers to proper plant growth and emphasizing analysis of soils and fertilizers. Field laboratories will develop management techniques in testing and application through exercises and field trip observations.

## **HORT 056**

**4.0 Units**

### **Landscape Pest Control and Management**

*Course Advisory: SCC minimum English and Math standards.*

*Transferable to CSU*

*Hours: 48-54 lecture, 48-54 lab.*

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.

## **HORT 070**

**3.0 Units**

### **Landscape Construction and Estimation**

*Course Advisory: SCC minimum English and Math standards; HORT 050.*

*Transferable to CSU*

*Hours: 32-36 lecture, 48-54 lab.*

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.

## **HORT 071 Irrigation Principles**

**3.0 Units**

*Course Advisory: HORT 055; SCC minimum English and Math standards.*

*Transferable to CSU*

*Hours: 32-36 lecture, 48-54 lab.*

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.

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

*Course Advisory: HORT 050; SCC minimum English standard.*

*Hours: 16-18 lecture, 48-54 lab.*

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.

## **HORT 301A 2.0 Units**

### **Adaptive Horticulture - Basic Skills and Practices**

*Hours: 16-18 lecture, 64-72 lab.*

A horticulture pre-vocational training course adapted for, but not limited to, students with developmental, intellectual and/or physical disabilities. Students will learn basic horticultural skills in a garden, nursery, greenhouse, and landscape setting. Students will develop an understanding of the cultural requirements of plants and how to care for them. Appropriate workplace skills will be emphasized, safety training and proper tool usage will be incorporated throughout the course. Field trips may be required.

## **HORT 301B 2.0 Units**

### **Adaptive Greenhouse Management**

*Hours: 16-18 lecture, 64-72 lab.*

A greenhouse skills pre-vocational training course adapted for, but not limited to, students with developmental, intellectual and/or physical disabilities. Students will learn greenhouse management skills for employment preparation. Field trips may be required.

## **HORT 301C 2.0 Units**

### **Adaptive Nursery and Landscape Management**

*Hours: 16-18 lecture, 64-72 lab.*

A nursery and landscape skills pre-vocational training course adapted for, but not limited to, students with developmental, intellectual and/or physical disabilities. Students will learn nursery and landscape management skills for employment preparation. Field trips may be required.

## **HORT 301D 2.0 Units**

### **Adaptive Vegetable and Orchard Management**

*Hours: 16-18 lecture, 64-72 lab.*

A vegetable and orchard skills pre-vocational training course adapted for, but not limited to, students with developmental, intellectual and/or physical disabilities. Students will learn vegetable and orchard management skills for employment preparation. Field trips may be required.

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

*Hours: 16-18 lecture, 64-72 lab.*

A Plant propagation skills pre-vocational training course adapted for, but not limited to, students with developmental, intellectual and/or physical disabilities. Students will learn propagation management skills for employment preparation. Field trips may be required.