

# Program Review/Follow-up Transmittal

## General Information

The attached report is (check one):  Program Review (published every 4<sup>th</sup> year)  
 Program Review Follow-up (submitted annually)

The report is submitted for the Academic Year (select one): 2009-10

The report contains information on the follow unit(s) (enter names of all units/programs):  
Horticulture

## Report Abstract:

The horticulture program has experienced a resurgence the last two years. This has been partially due to the adaptive horticulture program. This program was started in the summer of 2007. This has contributed to a doubling of the department enrollments since the 2006-07 academic year. The regular horticulture program has also improved its enrollments in the same period. The total number of degrees and certificates granted rose from three in 2006-07 to nine in 2008-09. FTES has tripled over the same period. The Horticulture Advisory Committee was reconstituted in 2009 which will allow the program to meet industry needs more effectively. Hand-in-hand with the curricular improvements has been the re-energized Horticulture Club which now counts over 70 members from the campus and the community. With increased student demand also comes challenges for the future. In particular, there should be full-time instructors hired. Facilities need to be remodeled, updated and maintained. More agricultural courses (in contrast to ornamental courses) should be developed and offered and more short-term workshops through the community education program should be offered.

Signature: Gene Thomas Date: 6/16/10  
Gene Thomas  
Faculty / Staff Representative

Signature: Joseph Conrad Date: 6/16/10  
Joseph Conrad  
Dean / Director

Signature: Thomas Watkins Date: 21 JUN 10  
Thomas Watkins  
President, Academic Senate

Signature: Robin Steinback Date: 7/1/10  
Robin Steinback  
Vice President  
Arturo Reyes, Exec. VP

Signature: Jowel Laguerre Date: 7-3-10  
Jowel Laguerre  
Superintendent / President

## Program Review and Analysis

### Part I: Outcomes

1. **What are the Student Learning Outcomes (SLOs) and Institutional-Level Outcomes (“Core Four”) of the program? List each along with descriptions of the appropriate indicators of program success (i.e., measures of outcomes). Include both quantitative and qualitative measures.**

Outcome(s)	Qualitative Measure(s)	Quantitative Measure(s)
To introduce students with intellectual disabilities to the basic horticultural concepts applied in a garden, nursery, and/or landscape setting	Students were able to demonstrate safe and proper use of hand pruners, shovels, rakes, hoses and nozzles, and hoes	Test scores: 24% earned As, 43% earned Bs, 17% earned Cs, 3% earned Ds, and 14% earned Fs.
To teach intellectually disabled students workplace skills of responsibility, productivity, self-management, self-awareness, and effective communication.	Most students have little or no problem completing the first step in a multi-step task.  Some of the students need visual and/or verbal prompts to complete the steps of the labs.	Notebook scores: 49% earned As, 7% earned Bs, 10% earned Cs, 10% earned Ds, and 24% failed
Students successfully complete the degree/certificate requirements for Horticultural Science.	Not applicable.	Nine students obtained degrees or certificates for 2008-09, which was more than the previous four years combined.

2. **The specific SCC Strategic Direction and Goal(s) supported by this program:**

**Goal 1/Objective 1.3: Develop new and expand existing curricular offerings.** The Adaptive Horticulture program (see description below) was offered for the first time in the Summer of 2007 to meet the needs of students with intellectual abilities.

**Goal 2/Objective 2.2: Access and success of under-served populations.** Students with intellectual abilities wanted to take courses at Solano, and they did enroll in classes in which they were not successful. The Adaptive Horticulture program was designed to match their needs with their abilities so they could be employed.

**Goal 7/Objective 7.1: Workforce training and economic development.** There is renewed interest in the Horticulture Science program as Solano County seeks to expand its agricultural industry. The newly reconstituted Horticulture Advisory Committee (described below) is evidence of community interest and support in meeting the county’s economic needs.

### Part II: Analysis

1. **Identify and explain the trends in:**

**Enrollment—** The Horticulture Department more than doubled its enrollment since 2006-07: it grew 156 percent (or more than doubled) from 2006-07 to 2007-08 and then increased another 17 percent from 2007-08 to 2008-09. These increases are due to: (1) the success of

the Adaptive Horticulture program (see description under “Major Accomplishments” below), which was initiated in 2007 and (2) renewed interest in the Horticulture Science program.

**Retention—** Retention rates have varied somewhat over the last five years from a low of 74 percent in 2005-06 to a high of 92 percent the following year. The 104 percent of 2008-09 is probably an error. However, the vast majority of students are being successful within the Department.

**Fill rate—** Fill rates have also increased considerably in the last two years (the low rate of 34 percent for 2007-08 would seem to be an error when considering the FTES generated (an increase of 228 percent over the previous year) and enrollment (an increase of 156 percent in the same time period)). The fill rates have increased in both the Horticulture Science and Adaptive Horticulture programs, which indicates that residents of the county are interested and supportive of the Department.

**Other Factors—**

**FTES:** The Horticulture Department is meeting community needs as evidenced by significant increases in FTES over the last two years. FTES tripled from 11.15 in 2006-07 to 36.59 in 2007-08. Even though FTES declined last year from the previous year, the FTES of 26.29 represents an increase of 136 percent from the 2006-07 year.

**Degrees/Certificates Awarded:** Under the leadership of adjunct instructor, Ken Williams, the Department has dramatically increased the number of degrees/certificates awarded in the last five years as shown in the following table.

	2008-09	2007-08	2006-07	2005-06	2004-05
Number of degrees granted	3	0	0	2	0
Number of certificates granted	6	0	3	0	1

Note that more degrees and certificates were awarded last year (a total of nine) than it did in the previous four years combined. This increase is due to the increased interest in the Horticulture Science program. No degrees or certificates were awarded in 2007-08 as that was the year that faculty instituted a two-year schedule so that Horticulture Science majors could earn a certificate or degree by completing 23 units within four semesters. (This two-year schedule can be found on page 7.)

**Expense and Annual Cost/FTES:** While “Expense” has not been calculated for any department for academic years 2007-08 and 2008-09, we calculated that salary costs for the 2007-08 year were \$53,367 and \$53,899 for 2008-09. (These figures are based on salaries of two adjunct faculty working their maximum hours possible and using adjunct salary schedules of 2007-08 and 2008-09.) The materials for the courses are estimated at about \$4500 (the average of materials for 2007-08 and 2008-09.) The income generated for 2007-08 was \$159,789 and \$120,014 for 2008-09. Clearly the Horticulture Department has generated far more revenues than it consumes in salaries and materials. These figures are summarized below:

	2004-05	2005-06	2006-07	2007-08	2008-09
<b>FTES Generated</b>	23.94	16.09	11.15	36.59	26.29
<b>Apportionment Income</b>	\$83,407	\$67,932	\$48,692	\$159,789	\$120,014

<b>Expense: Salaries</b>	\$37,698	\$36,902	\$17,634	\$53,367	\$53,899
<b>Expense: Materials</b>	\$2,822	\$4,717	\$4,166	\$4,500	\$4,500
<b>Total Expense: Direct and Indirect</b>	\$56,728	\$58,266	\$30,520	\$81,014	\$81,758
<b>Annual Cost/FTES (Annual Factor)</b>	\$2,370 (\$3,484)	\$3,621 (\$4,222)	\$2,737 (\$4,367)	\$2,215 (\$4,367)	\$3,110 (\$4,565)

**Outcome Data—**

**2. How do the above trends relate to the factors and outcomes identified during the last review?**

The last program review for Horticulture was conducted last year when it was part of the Career/Technical Education Division. So in the last year, enrollment and FTES generated have remained strong. The number of degrees/certificates awarded through the Horticulture Science program has jumped dramatically. The cost per FTES remains well below the reimbursement that the state provides us per FTES.

The Horticulture program continues to expand and respond to community needs.

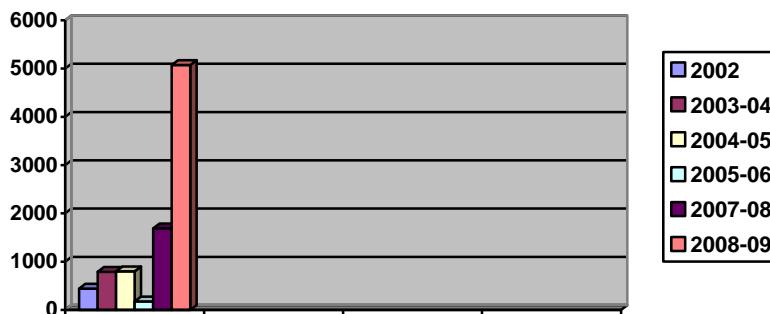
However, the program still does not have a full-time instructor when two are needed. Our Facilities/Maintenance office restored heating and repaired the restroom, but does not provide the care that is needed as building 1000 ages.

**Part III: Conclusions and Recommendations**

**1. What are the major accomplishments of the program during the past four years?**

1. As described above, the Horticulture Department has dramatically increased enrollment, FTES, and degrees/certificates awarded in the last two years.
2. The course and program Student Learning Outcomes are all up-to-date, which is a significant accomplishment, given that the program is run by two adjunct faculty.
3. Creation of the Adaptive Horticulture Program in 2007.
  - a) The Adaptive Horticulture program was created by retired counselor Ron Nelson and local agencies (see page 8 for a list of these collaborating partners) for two main reasons: (1) students with developmental and/or intellectual disabilities were not capable of succeeding in college-level classes and (2) these students needed to develop skills so they could find employment. The first course (HORT 301A) in the Adaptive Horticulture program was offered in the Summer of 2007 and was immediately filled as were the subsequent courses (HORT 301B, 301C, 301D, and 301E) in Fall 2007 and Spring 2008. These five courses have been filled or overenrolled for every semester since their initial offerings.
  - b) The Adaptive Horticulture program has been recognized by the Chancellor's office (see page 10) as a model program for people with intellectual disabilities.

- c) Under the leadership of faculty member Sandra Diehl, the Adaptive Horticulture students raise organic fruits and vegetables that are sold at Solano's Farmers' Market. Proceeds are used to buy seeds, soil mixes, transplants, and a set of walkie-talkies so faculty, staff, and students can communicate even if they are on opposite sides of the Horticulture grounds.
- d) Adaptive Horticulture students propagate plants for two plant sales that provide three scholarships: one for new students, one for continuing students, and one for an adaptive student. These plant sales also enable the purchase of periodicals, minor tool replacement, and facility/infrastructure/equipment upgrades. The sales also provide the opportunity for county residents to become more familiar with and support the programs. The revenues from the plant sales have increased dramatically as seen below (the plant sales now provide more funds for materials than the District provides the Department):



- e) In conjunction with the Adaptive Horticulture program: (1) Solano County Master Gardeners can earn continuing education credits and volunteer hours (Master Gardeners are required to donate 20 hours of their time per year for community service) and (2) Human Service students can earn field work/internship hours, which is a requirement for their degrees. For the Spring 2010 semester, eight students majoring in Human Service are completing their field work/internships in the program. As fewer classes are offered to DSP students at Solano, we find more students who are not affiliated with area agencies are interested in the Adaptive program; and the Human Service students fill a gap in terms of meeting the needs of this student population. Also, area agencies are experiencing cut-backs so the agencies provide fewer support staff for students.
4. The Horticulture Advisory Committee (HAC) was reconstituted in 2009 to guide the Department in its mission to fulfill the needs of Solano county agriculture and horticultural businesses. (See page 9 for members of the HAC.) The recommendations from the HAC are listed in the following section regarding changes for the program.
  5. The Horticulture Club has also been reenergized. It now has 78 members (60 of whom are county residents who do not necessarily take classes) and is recognized by the California Garden Clubs and the National Garden Club. It 2009 it made available 20' X 20' community garden plots that SCC employees and Solano County residents can rent on a yearly basis. The Horticulture Club recently decided to replace the vineyards on the horticulture grounds and has provided the funding to do so.

**2. Based on the analysis above, are there any changes needed in order to meet program goals or to improve program effectiveness? Explain.**

- The Horticulture Advisory Committee has recommended that: (1) more agriculture courses (compared to ornamental courses) be offered to meet the needs of Solano County and (2) create more short-term workshops to help local businesses and residents who want to garden. In response, six workshops were/are being offered on Saturdays starting in February and running through May in irrigation, propagation, pest control, vegetable gardening, pruning, and landscape lighting.
- Hire two full-time instructors: one for Adaptive Horticulture and one for Horticulture Science.
- Increase the number of aides for Adaptive Horticulture as student needs are greater than can be met by one instructor. Members of the Horticulture Club have been volunteering as aides.
- Increase funding for remodeling/updating facilities.
- Encourage facilities to help with maintenance and repair of the building and equipment.
- Incorporate sustainable practices (going “green”) into the program and coordinate such efforts with local businesses
- Develop “Gardening Day” at SCC.

**Horticulture and Applied Plant Sciences Class Schedule**

<b>SPRING 2010</b>	DAY CLASS 8:00 AM TO 10:30 AM Plant Pest Control & Management	HORT 56
	EVENING CLASS 6:00 PM TO 8:30 PM Irrigation Principles and Water Saving Devices	HORT 71
<b>FALL 2010</b>	DAY CLASS 8:00 AM TO 10:30 AM Landscape Construction & Estimation	HORT 70
	EVENING CLASS 6:00 PM TO 8:30 PM Introduction to Horticulture & Plant Sciences	HORT 50
<b>SPRING 2011</b>	DAY CLASS 8:00 AM TO 10:30 AM Identification & Ecology of Landscape Plant Materials	HORT 6
	EVENING CLASS 6:00 PM TO 8:30PM Landscape Design One or Two	HORT 30 & 31
<b>FALL 2011</b>	DAY CLASS 8:00 AM TO 10:30 AM Introduction to Horticulture & Plant Sciences	HORT 50
	EVENING CLASS 6:00 PM TO 8:30 PM Soils & Fertilizers	HORT 55
<b>SPRING 2012</b>	DAY CLASS 8:00 AM TO 10:30 AM Irrigation Principles and Water Saving Devices	HORT 71
	EVENING CLASS 6:00 PM TO 8:30 PM Plant Pest Control & Management	HORT 56
<b>FALL 2012</b>	DAY CLASS 8:00 AM TO 10:30 AM Introduction to Horticulture & Plant Sciences	HORT 50

	EVENING CLASS 6:00 PM TO 8:30 PM Landscape Construction & Estimation	HORT 70
<b>SPRING 2013</b>	DAY CLASS 8:00 AM TO 10:30 AM Landscape Design One and Two	HORT 30 & 31
	EVENING CLASS 6:00 PM TO 8:30 PM Identification & Ecology of Landscape Plant Materials	HORT 06
<b>FALL 2013</b>	DAY CLASS 8:00 AM TO 10:30 AM Soils and Fertilizers	HORT 55
	EVENING CLASS 6:00 PM TO 8:30 PM Introduction to Horticulture & Plant Sciences	HORT 50

### **Local Agencies Serving the Adaptive Horticulture Program**

Crestwood Behavioral Health Wellness Recovery Program  
2201 Tuolumne Street  
Vallejo, CA 94589-2524  
558-1457

Department of Rehabilitation  
450 Chadbourne Road, Suite A  
Fairfield, CA 94534-9612  
428-2080

Dreamcatchers Empowerment Network  
1320 Second Street  
Napa, CA 94559  
226-6245

Golden Hills Education Center  
2460 Clay Bank Road  
Fairfield, CA 94533  
399-4867

Neighborhood of Dreams  
1945 Kidder Avenue  
Fairfield, CA 94533  
421-8242

No Barriers  
72 Peabody Road  
Vacaville, CA 95687  
451-1947

North Bay Regional Center - Napa/Solano County Office  
10 Executive Court, Suite A  
Napa, CA 94558  
256-1100

Solano County Health & Social Services Department: Mental Health Services  
275 Beck Avenue  
Fairfield, CA 94533  
399-4900

Solano County Office of Education – Transition Partnership Project  
5100 Business Center Drive  
Fairfield, CA 94534  
399-4400

WorkAbility I  
2490 Hilborn Road  
Fairfield, CA 94534  
438-3051

## Members of the Horticulture Advisory Committee

Dr. Joe Conrad	Interim Dean of Math and Science <a href="mailto:Joseph.Conrad@solano.edu">Joseph.Conrad@solano.edu</a>
Ken Williams	Horticulture Adjunct Instructor and HAC Coordinator, Landscape Contractor <a href="mailto:Ken.Williams@solano.edu">Ken.Williams@solano.edu</a> , <a href="mailto:kennav27@aol.com">kennav27@aol.com</a>
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Trisha Rose	Horticulture Club at SCC, President <a href="mailto:trishaerose@aol.com">trishaerose@aol.com</a>
Rhett Richardson	Solano Shade, Arborist <a href="mailto:solanoshadetree@yahoo.com">solanoshadetree@yahoo.com</a>
Pete and Eric Fink	LeMuria Nursery, Wholesale Nursery <a href="mailto:lemuriamen@msn.com">lemuriamen@msn.com</a>
Susie Gilley	Ace Hardware Dixon, Retail Nursery <a href="mailto:sgilley95688@yahoo.com">sgilley95688@yahoo.com</a>
Ted Mendenhall	Mendenhall Lawn Service, Landscape Maintenance <a href="mailto:mendenhalllawnsvc@comcast.net">mendenhalllawnsvc@comcast.net</a>
EJ Hullani	Dream Catchers Empowerment Network <a href="mailto:dreamcatcher@dreamcatch.us">dreamcatcher@dreamcatch.us</a>
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Rose Loveall-Sale	Morning Sun Herb Farm, Retail Nursery <a href="mailto:roseloveall@morningsunherbfarm.com">roseloveall@morningsunherbfarm.com</a>
Bob Hansen	<a href="mailto:rhhfarmer@suisunvalley.us">rhhfarmer@suisunvalley.us</a> Suisun Valley Fruit Growers



**From:** Campisi, Catherine [ccampisi@CCCCO.edu]  
**Sent:** Monday, February 01, 2010 4:23 PM  
**To:** Ron Nelson  
**Subject:** Program for Students with Intellectual Disabilities

I understand that Solano College will soon be undergoing a Program Review of DSPS, including its Adaptive Horticulture and Life Skills program. This program is an innovative model which focuses on vocational and pre-vocational skills training for students with intellectual disabilities and others. Thus, it fits well into one of the core missions of the Community Colleges, even in these daunting times, which is workforce preparation. Increasing numbers of students with intellectual disabilities are seeking to access public postsecondary education in a campus setting. Since the colleges remain "Open Door" institutions, it is a challenge to the colleges and the system to find appropriate programming to meet the needs of these students. It is clear this need to accommodate students with intellectual disabilities in public postsecondary education is growing and becoming more integrated into public policy. To this end, a milestone event was the inclusion in the recent re-authorization of the Higher Education Act of the ability of students with intellectual disabilities to receive federal financial aid if they are enrolled in a comprehensive transition program. Programs such as that at Solano are models for the development of effective on-campus programs for several reasons. First, the adapted programming is designed to assist students to develop work related skills. Second, the offerings are in integrated on-campus settings so students may interact with ALL students as they move around campus, go to the cafeteria, and/or take other optional classes that match their abilities and interests. Third, the potential exists to develop other adapted career modules in "high demand" vocational areas which may meet the abilities and interests of groups of students with intellectual disabilities.

While such special classes are not required at the colleges, as indicated, the presence of students with intellectual disabilities seeking an on-campus higher education experience is here and growing. Thus, colleges can either develop programs such as the one at Solano which seek to provide appropriate instruction or will be faced with students enrolling in a myriad of classes which may not meet their overall needs and abilities and which will not prepare them for the world of work. Many students with intellectual disabilities seek to work and live independently as do their peers without disabilities. Their desire to utilize public postsecondary education to attain this goal is a trend which is growing. The development of programs such as the one at Solano will help meet this need in ways that are productive for the students and their families and which will fit well within the mission of the Colleges.

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