

HORTICULTURE & PLANT SCIENCE PROGRAM REVIEW SELF-STUDY

2014-2015



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SELF-STUDY

1.1 Introduction. Introduce the program. Include the program's catalogue description, its mission, the degrees and certificates offered, and a brief history of the program. Include the number and names of full-time faculty, adjunct faculty, and classified staff. Discuss any recent changes to the program or degrees.

Horticulture Program at Solano Community College was originally titled "Ornamental Horticulture" and was taught under that program title from inception to 2008, a span of some 30 +/- years. During the early years of the program the staff consisted of full time faculty, adjunct faculty, and a lab technician. Sometime in the late 1980's (unsure of exact date) the full time faculty member was promoted to Dean of Career Technical Education, no full time faculty was hired as a replacement, and the program evolved around two adjunct faculty members and a part-time (20 hours a week) lab technician/custodian. At the end of Spring semester 2003 the part-time lab technician/custodian was reassigned to other custodial duties and was no longer involved with Horticulture; some of his duties were assumed by a Horticulture graduate volunteer. This Horticulture graduate volunteer has volunteered a minimum of 25 to 30 hours a week since June 2003. Custodial duties are still under the direction of the Facilities Department.

In 2006 the long time adjunct faculty member, Marsha Pouquet resigned her position, leaving the program with one adjunct faculty, Ken Williams, and the volunteer. Ken Williams reviewed the program offerings, student load, program completion rate, and determined that without a full time faculty member and the department not inclined at the time to hire an additional adjunct that the program needed to be streamlined to become more efficient and to more appropriately meet the students needs. At the urging of Ken Williams, the Dean of Career Technical Education accepted the recommendation to streamline the Associate of Science Degree and Certificate requirements to the current 23 units, and to retain the Landscape Worker Job Direct Certificate. This meant dropping 17 courses from the catalog and placing them in archives.

In the Spring of 2008 a student came to the Ken Williams and said she lived in an apartment and had no place to grow a garden. The Eastern land area of Horticulture had grown into a field of weeds, dead trees, and associated junk. Ken serving as the Horticulture Club Advisor, called a special meeting of club officers and they rewrote the Constitution and By-Laws of the club that would allow community residents to be club members without being students as well. This was done to increase the amount of participation in the club and also to get more volunteer help in the gardens. The summer of 2008 the club members and Ken cleared the Eastern area of all debris and installed hose bib irrigation to all newly established garden plots. Today there are 18 established garden plots that are maintained by students and Horticulture Club members at this time.

April of 2007 the Director of Disability Services Program and the Director of Dream Catchers of Napa, CA. approached Ken Williams and asked if he would be interested in a trial Summer class for DSP students. The Summer program was very successful and it was determined that there was a need for an Adaptive Horticulture Program where students could participate and succeed in a college campus course and setting. Ken had taught the Summer Program however, he would not be able to teach the Associate Degree Program and an Adaptive Program due to overload, it was decided to hire an additional adjunct faculty member to teach the Adaptive program. Sandra

Diehl was hired in August 2007. Sandra has since developed and administered a 10 unit Adaptive Horticulture Program that offers a Solano Community College Certificate of Completion. The program has been very successful fulfilling a need in Solano and Napa Counties and has been recognized by the Chancellor's office as a model program.

Spring semester of 2009 the Landscape Design Two (Hort 031) was assigned with developing and drawing a botanical garden that would fit into the Eastern area of Horticulture that currently encompasses the community garden area. This assignment was done to help students draw and design larger projects than they had designed in the Design One course. October of 2009 a fire sweep across the Northern area of Horticulture facility, completely destroying the Adaptive Horticulture pumpkin patch, most of the fruit orchard, and over half of the perimeter fencing and trees. Repairs were made to the damaged irrigation, burned trees and debris were removed, and perimeter fencing was replaced with monies received from an insurance claim. No culprit was discovered for causing the fire, however, everyone suspected a cigarette thrown from a passing car on the perimeter road.

Fall of 2012, Dr. Laguerre brought a local community member, Debra Russo to the Horticulture facility to discuss possible support through the Solano Community College Foundation. Ms. Russo toured the facility and saw the devastation the fire had caused, the beautiful back lawn area of Horticulture, and the wonderful community gardens. While sitting on a bench in the back lawn area and discussing how she could benefit the Horticulture program, Ken brought out the botanical garden drawing done by one of his students. He shared his vision with her of having the only botanical garden in Solano County (there is a native garden in Benicia State Park). She embraced the idea of the botanical garden and wondered if we could develop a plan that would include a museum to highlight and showcase the Agriculture workers of Solano County. Ken and Sandra immediately went to work on a Horticulture Expansion plan. A plan was developed by Ken and Sandra that would include all the aspects that Ms. Russo wanted along with other elements to expand and enrich the program. Sandra drew up the plan using her landscape design and computer skills. Ken then proceed to develop an order of construction events and a preliminary budget. The project was presented to the Ms. Russo, Dr. Laguerre, and the Solano Community College Board of Trustees. The project was whole heartily welcomed by all. Subsequently on August 19, 2013 the Horticulture building 1000 was formally dedicated and renamed "Louise Wilbourn Yarbrough Horticulture and Plant Science Institute."

Spring 2014 Horticulture classes for Construction and Estimation (Hort 070) and Irrigation Principles (Hort 071) installed a new orchard consisting of 46 new fruit trees along with two complete irrigation systems, one for drip to the trees and one for cover crop irrigation. Solano Community College's new orchard was funded by a Cal-Fire Grant for "Urban Orchards." This new orchard was part of the Horticulture expansion project and was scheduled to be installed towards the end of the project, however, due to receiving the grant it was pushed to the forefront.

Horticulture and Plant Science 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 a Certificate of Achievement and Associate in Science Degree. The program also offers a Landscape Worker Job-Direct Certificate with the successful completion of

10 units in Identification and Ecology of Landscape Plant Materials, Introduction to Horticulture, Irrigation Principles, and 80 hours of cooperative supervised work experience. This 10 unit program is being offered in the Spring of 2016 as a special offering to everyone, however, it is also being targeted to all the local landscape businesses as a means to enrich the knowledge of their workers while only taking them away from the job two days a week for one semester. This accelerated approach has never been attempted before. Marketing will be the key to its success.

Since the Fall of 2007 the Adaptive students have maintained the facility, cared for nursery stock, and propagated new stock for plant sales. They have also planted and maintained a very successful vegetable garden that they have offered for sale at a once a month SCC farmer's market in the summer and they also use some of their produce to supplement their diet at home.

The Adaptive Horticulture program offers disabled student's study in Basic Skills and Practices of Horticulture, Greenhouse Management, Nursery and Landscape Management, Vegetable and Orchard Management, and Plant Propagation. Students who successfully pass the five courses are awarded a Solano Community College generated Certificate of Achievement. As stated previously the program is very popular with the different agencies and other facilities in Solano and Napa counties.

1.2 Relationship to College Mission and Strategic Goals. Describe the program's relationship to the overall mission of the college: "Solano Community College educates an ethnically and academically diverse student population drawn from our local communities and beyond. We are committed to help our students to achieve their educational, professional and personal goals centered on thoughtful curricula in basic skills education, workforce development and training, and transfer level education. The College accomplishes this three-fold mission through its dedicated teaching, innovative programs, broad curricula, and services that are responsive to the complex needs of all students."

The Horticulture department's mission closely aligns with that of the college's mission to educate a culturally and academically diverse student population. Over the years and today we continue to educate a student body of a wide range of ages and diversity. We provide workforce information and skills that are applicable to helping them get a job in the landscape industry and also to build life skills. The hands-on training is invaluable to their success in the classroom as well as their success in the work environment. The faculty are both landscape professionals with over 30+ combined years of experience in the industry which enables them to not only bring textbook information and theory to the students, but to also bring real life experience (good and bad) to the classroom.

Using the matrix provided in Table 1, describe which of SCC's Strategic Directions and Goals the program supports. Address only the goals relevant to the program. Limit evidence to one paragraph per objective.

Table 1. SCC's Strategic Directions and Goals

Goal 1: Foster Excellence in Learning	Program Evidence
<p>Obj. 1.1 Create an environment that is conducive to student learning.</p>	<p>The two Horticulture programs are very dissimilar as to what knowledge and skills are brought to the classroom. The Adaptive students' abilities range from cognitive, physical and behavioral challenges. They come from various types of agencies throughout Solano County. Many are referred by the Solano County Office of Education (SCOE) and others come from local mental/behavioral health agencies. In the Associate Degree/Certificate program students would be considered more of the main stream student population. Both groups of students are brought into their respective programs with the faculty goals to give them an education and feeling of worth and acceptance. Horticulture is known for its attitude of growing good students.</p>
<p>Obj. 1.2 Create an environment that supports quality teaching.</p>	<p>Perkins funding has been used judiciously to augment department funds for hands-on projects within the Horticulture facility. Projects such as a new paver patio, remodeled raised beds, and seat walls for outdoor classrooms all constructed by students. Test equipment for soil testing and hand tools for gardening all enable the faculty to offer a quality teaching environment. Continual SLO assessments and refinement improve the program on a routine basis.</p>
<p>Obj. 1.3 Optimize student performance on Institutional Core Competencies</p>	<p>Practical gardening skills involve the aspects of critical thinking at every level that faculty strive to instill in the students with each project. Building projects support gardening by bringing the values of collaboration, innovation, and accountability together. Mutual respect, cooperation and patience are topics of importance for the Adaptive students who sometimes come with under-developed social skills. Faculty and staff strive daily to help develop these skills and to use them effectively.</p>

<p>Goal 2: Maximize Student Access & Success</p>	<p>Program Evidence</p>
<p>Obj. 2.1 Identify and provide appropriate support for underprepared students</p>	<p>The following are the methods we use to support under prepared students who enter the Horticulture programs:</p> <ul style="list-style-type: none"> - Many of the Adaptive students go through the DSP office and their needs for the classroom environment are forwarded to faculty - Adaptive faculty (Sandra Diehl) has developed her own interview program for new students so she can adequately access their needs for the outdoor classroom environment - Both faculty maintain office hours on a regular basis - Volunteers from the Solano County Master Gardener Program are in both programs to help with students who need extra help <p>Students from SCC’s Human Services Program are in the Adaptive program as interns. As part of their graduation requirements, they must complete 100 hours of working with special populations.</p>
<p>Obj. 2.2 Update and strengthen career/technical curricula</p>	<p>Both faculty for the Horticulture program have gone above and beyond the call of duty for bettering their Horticulture skills and knowledge:</p> <ul style="list-style-type: none"> - Both are graduates of the Horticulture Therapy Institute. - Both are graduates of the Bay Friendly Landscape Professional program. - Both have taken Sustainable Landscaping courses from Sonoma State University. - Ken Williams is a Landscape Design Consultant for the National Garden Clubs of America. - Sandra Diehl has recently taken classes for Sustainable Agriculture and Organic Gardening at Santa Rosa Junior College. - Both are Solano County Master Gardeners with over a combined membership and service time of 40 years. <p>SLO’s are continually updated and revised to provide the students with the best program based on their direct feedback.</p>

<p>Obj. 2.3 Identify and provide appropriate support for transfer students</p>	<p>The Horticulture Associate Degree and Certificate program is intended for students who plan on a career in the landscape industry. Over the years there have been very few students who seem inclined to pursue a higher degree, however, when this type of student is identified we have given them our full support and helped them to set the proper course of action to attain their goals.</p>
<p>Obj. 2.4 Improve student access to college facilities and services to students</p>	<p>The Associate Degree and Certificate program rotates the classes through the day and night sessions so even a person working a full time job has access to the classes. The AS class for Introduction to Horticulture has been taught at the Vacaville Center and is currently being taught at the Vallejo Center. The AS program classes are taught on a cycle so that a student entering the program could achieve their certificate or degree in a reasonable amount of time.</p>
<p>Obj. 2.5 Develop and implement an effective Enrollment Management Plan</p>	<p>Enrollment in the Adaptive Horticulture program and the Associate Degree /Certificate program is enhanced by faculty putting forth the program to the community and the college as a whole. Horticulture information booths are regularly featured at local farms: Morningsun Herb Farm and Erickson Ranch. Outreach activities include: Kaiser Wellness Day, Earth Day, Tomato Festival Day, Club Promo Day, Solano Mall Outreach Event, local garden shows, and Orientation Day at SCC. Through our twice yearly plant sales we promote our program to the general public, SCC faculty and staff, and SCC students. Faculty also host departmental and campus committee meetings in the Horticulture facility. We have also offered Vista classes that have brought in students to the regular classroom.</p>
<p>Goal 3: Strengthen Community Connections Program Evidence</p>	
<p>Obj. 3.1 Respond to community needs</p>	<p>Horticulture faculty have direct ties to the community through their association with landscape professionals from past years of being in the landscape industry themselves, through their Horticulture Advisory Committee, and through the large Horticulture Club of 85 or more members who are from all areas of the Solano County and represent all age groups. Through these associations the faculty have responded to their needs by; adjusting curriculum to the changing environment and industry demands, referring students to business owners for employment, and to offering expert speakers to the club</p>

	members 10 out of 12 months each year.
<p>Obj. 3.2 Expand ties to the community</p>	<p>The Horticulture program and the faculty have many ties to the community and are always looking for more ways to reach out and develop more contacts/ties. Examples of current ties are: information table at Morningsun Herb Farms Spring Event and their Tomato Festival, information table at Earth Day, Coastal and Creek Clean-Up day, SCC's Business Connection Expo, and Benicia Arbor Day. Recently the Horticulture facility became the "Food Hub" for Solano Grown. Solano Grown is a non-profit group fostered to help the small farmers of Solano County by giving them another venue to sell their products by way of an on-line Farmers Market. Ken Williams has managed the "Food Hub" since its inception as a volunteer and additionally took on the volunteer position of CFO for the non profit group. The "Food Hub" has brought a lot of new faces to the facility and has put the name "SCC Horticulture" in many local publications. See appendix for example. Ken Williams is also a Solano County Master Gardener with 20 years of volunteer service to the program. As a member he teaches two of the yearly training classes to new Master Gardener students, this brings recognition of the Horticulture program to more members of the community. This association has become a wonderful symbiotic relationship, with many Master Gardeners taking horticulture classes, joining the Hort Club, volunteering on work days, and volunteering to work as assistants in the Adaptive Horticulture Program.</p>
<p>Goal 4: Optimize Resources</p>	<p>Program Evidence</p>
<p>Obj. 4.1 Develop and manage resources to support institutional effectiveness</p>	<p>Horticulture Program utilized funds furnished by Perkins for the majority of the day to day activities with the Adaptive Program and the Associate Degree Program. The Program also uses funds from the Foundation that have been donated by members of the public. The Program also runs two very successful plant sales each year and those funds augment the funds needed to maintain planting supplies, tools, and periodicals.</p>
<p>Obj. 4.2 Maximize organization efficiency and effectiveness</p>	<p>Horticulture's two instructors communicate on a daily basis and also have a regular sit down meeting once a month to discuss goals, problems, and solutions to achieve their goals and to overcome problems with facility equipment and growing apparatus'.</p>

Obj. 4.3
Maintain up-to-date technology to support the curriculum and business functions.

The Associate Degree Program uses the latest industry technology for as references for their teaching material as well as up-to-date textbooks or textbooks that are considered “historical”.

1.3 Enrollment. Utilizing data from Institutional Research and Planning, analyze enrollment data. Include the number of sections offered, the full-time equivalent enrollment (FTES) for each semester since the last program review cycle, and the number of declared degree seekers in the program. Compare the enrollment pattern to that of the college as a whole, and explain some of the possible causal reasons for any identified trends.

Data for Horticulture and Plant Science and Adaptive Horticulture will be based on data from Fall 2010 through Fall 2014.

Section Counts

Table below shows the count of number of sections offered of a particular course within Horticulture. Any courses that are part of a cross-list group are marked with an "x". Further information on scheduling patterns of cross listed courses can be found in section 2.9 "Fill Rates, Class Size and Efficiency".

	Fall 2010	Spring 2011	Summer 2011	Fall 2011	Spring 2012	Fall 2012	Spring 2013	Summer 2013	Fall 2013	Spring 2014	Summer 2014	Fall 2014
Total	10	11	1	10	10	7	10	1	11	10	1	10

Headcounts

Table below shows the count of number of students enrolled in a particular course within Horticulture. The total shows the number of students within the entire discipline.

	Fall 2010	Spring 2011	Summer 2011	Fall 2011	Spring 2012	Fall 2012	Spring 2013	Summer 2013	Fall 2013	Spring 2014	Summer 2014	Fall 2014
Total	70	60	26	65	62	67	73	15	77	45	15	51

FTES

Table below shows the count of number Full Time Equivalent Students (FTES) generated in a particular course within Horticulture. The total shows the total FTES for the entire discipline. 1 FTES is equivalent to 525 hours of instruction.

	Fall 2010	Spring 2011	Summer 2011	Fall 2011	Spring 2012	Fall 2012	Spring 2013	Summer 2013	Fall 2013	Spring 2014	Summer 2014	Fall 2014
Total	14.4	15.5	4.0	15.4	16.1	14.0	16.9	2.3	16.7	10.7	2.3	11.7

Hort – WSCH

Fall 2010	Spring 2011	Summer 2011	Fall 2011	Spring 2012	Fall 2012	Spring 2013	Summer 2013	Fall 2013	Spring 2014	Summer 2014	Fall 2014
NA	NA	119	477	489	419	508	69	506	320	70	319

Enrollment in Horticulture and Plant Science had been steady until the Fall of 2013. Faculty believe that the drop in enrollment can be attributed to several factors:

1. Solano College administration cancelled all its summer classes for 2012, this would be a major factor for the lower enrollment in Adaptive Horticulture (AH) because Introduction to Adaptive Horticulture (AH) is only offered in the summer. As a result it had to be offered in the fall 2012 semester so students could complete the AH program in a reasonable time. Many of the adaptive students could not wait for the Intro AH class to cycle around again as they would age out of their respective programs elsewhere. It can also be said this program cycling affected the matriculation of the other four AH courses which are offered each spring and fall semester. Another factor that has taken its toll on the AH program is not allowing students to repeat these courses. They were originally set up to allow AH students to repeat any (AH) course up to two times. Historically students with learning disabilities typically need more than one attempt when taking college classes. The AS program has traditionally not taught classes during the summer, however, faculty feel that the overall school closure had some effect on the AS program as well.
2. A non-horticulture instructor with background in Ornamental Horticulture was assigned to teach the Introduction to Horticulture class in the Fall of 2013. This class is traditionally a class that faculty uses to inspire students to take other horticulture classes and to pursue a certificate or degree in Horticulture. Of the 13 students listed in this class at census, none took a continuing class in horticulture. Faculty has observed over the past decade that quite a few students generally continue with other horticulture classes after having finished the Introduction class. Introduction to Horticulture is considered by faculty to be “The Bottom Feed” for the program, and when “The Bottom Feed” students do not continue, enrollment suffers greatly as can be seen by enrollment for Spring and Fall of 2014.
3. Tuition costs have risen 28% from 2010 to 2012. This additional cost makes community college less affordable for many students. However, student enrollment remained steady even after the rise in tuition. The Faculty with funds from their Foundation Account purchased 24 text books for the Introduction course and uses them as “library type” check out books during the semester to help the students cover some of the cost of going to school.
4. Fall of 2014 the two adjunct faculty members were promoted to fill one full time faculty spot. With this change in allowable activity points for both instructors a third section for Horticulture and Plant Science was added. This addition “could” have decreased the number of students in all three sections.
5. Fall of 2013 and Spring of 2014 we had a number of students who attained their certificate of completion in Horticulture and Plant Science. These students having finished the program coupled with no students coming over from the Spring of 2013 Introduction to Horticulture class could be contributing factors to the low enrollments of Spring of 2014 and Fall of 2014. This program review is based on data until the end of fall 2014, however, it is good to point out at this time that the two Horticulture and Plant

Science classes in session for Spring of 2015 have a head count of 38, this is right back to the “normal” head count for the AS program.

- Enrollment in the Adaptive Horticulture Program has been steady for every semester since its inception in 2007, with the exception of Fall of 2012, which faculty contribute to the closure of the college for the Summer of 2012. The Fall of 2014 also had a low enrollment that faculty attribute to the ‘No Repeat’ policy. This has since changed. Sandra with the help of DSP and Math/Science administrative assistant researched Title V regarding repeatability for students with disabilities and found that it is allowable for these students to repeat if they so choose. The Adaptive Horticulture Program enrollment is steadily building again.

1.3 Population Served. Student population in the two different Horticulture programs average out over the program review period as 49% female, 46% male, and 5% not reported. Enrollment by gender in the two different disciplines seems to follow this pattern, with neither discipline having a greater percentage.

% Enrollment by Gender

	Fall 2010	Spring 2011	Summer 2011	Fall 2011	Spring 2012	Fall 2012	Spring 2013	Summer 2013	Fall 2013	Spring 2014	Summer 2014	Fall 2014
Female	40%	48%	46%	37%	34%	42%	48%	53%	57%	56%	60%	59%
Male	56%	48%	46%	57%	60%	51%	49%	40%	38%	38%	40%	33%
Not Reported	4%	3%	8%	6%	6%	7%	3%	7%	5%	7%		8%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

% Enrollment by Student Age

	Fall 2010	Spring 2011	Summer 2011	Fall 2011	Spring 2012	Fall 2012	Spring 2013	Summer 2013	Fall 2013	Spring 2014	Summer 2014	Fall 2014
0-17							3%	7%	1%			4%
18-25	46%	43%	46%	51%	50%	58%	56%	53%	43%	47%	33%	29%
26-30	11%	7%	12%	5%	11%	6%	3%		1%	2%	20%	12%
31-35	1%	5%	4%	8%	3%	1%	4%	13%	6%	13%	13%	16%
36-40	6%	5%	4%	3%	5%	6%	1%		3%	2%		2%
41-45	6%	8%	19%	11%	6%	4%	10%	13%	8%	9%		6%
46+	30%	32%	15%	23%	24%	24%	23%	13%	38%	27%	33%	31%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Horticulture and Plant Science, and Adaptive Horticulture have differing ranges of ages that is not fully depicted by the preceding chart. If you look at the percentages by age for Summer sessions 2011, 2013, and 2014 you will notice that the predominate age is the 18-25 year old bracket, this is also indicative of the ages for the regular semesters as well. Adaptive Horticulture serves a population of students that come from the various agencies in the county and they seem to send students to us that always fall in this age bracket. Horticulture and Plant

Science students have traditionally fallen into the upper age brackets: 41-45 and 46+. These older students are returning students who have recently retired from their jobs or are looking to further their education in horticulture. As an example the Solano County Master Gardener Program members account for 90+% of the 46+ age bracket. The Master Gardener Program requires continuing education hours every year to remain certified and the AS Degree program has supplied this education.

% Enrollment by Ethnicity

	Fall 2010	Spring 2011	Summer 2011	Fall 2011	Spring 2012	Fall 2012	Spring 2013	Summer 2013	Fall 2013	Spring 2014	Summer 2014	Fall 2014
	0%	0%	0%	2%	2%	1%	0%	0%	0%	0%	0%	0%
Am. Indian or Alaskan Native	0%	0%	0%	0%	2%	0%	1%	0%	3%	4%	7%	2%
Asian or Pacific Islander	13%	8%	12%	6%	15%	13%	14%	7%	9%	20%	13%	18%
Black Non-Hispanic	14%	20%	27%	12%	13%	13%	12%	20%	12%	16%	27%	14%
Hispanic	6%	5%	0%	15%	10%	13%	19%	20%	16%	9%	7%	10%
	Fall 2010	Spring 2011	Summer 2011	Fall 2011	Spring 2012	Fall 2012	Spring 2013	Summer 2013	Fall 2013	Spring 2014	Summer 2014	Fall 2014
Other	29%	28%	27%	23%	18%	12%	8%	0%	1%	0%	0%	2%
White Non-Hispanic	39%	38%	35%	42%	42%	46%	45%	53%	60%	51%	47%	55%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

The preceding percentage enrollment by ethnicity chart seems to faculty to reflect students who were unsure of their ethnicity from 2010 to 2013 and therefore classified themselves as “other”, however, starting with Summer 2013, most everyone knew their ethnicity. Faculty believe this could be attributed to administration helping or guiding students to mark a specific ethnicity instead of “other”. Another way to look at this chart is to combine all the sessions and come up with a percentage and compare that to the college as a whole. See chart below.

Hort and Solano Community College Percentage Enrollment by Ethnicity 2010 to 2014

Hort Students		Solano Community College	
Ethnicity	%	Ethnicity	%
White	46	White	32
Black	17	Black	18
Hispanic	11	Hispanic	21
Asian	12	Asian	18
Native Am.	1	Native Am.	2
Other	13	Other	9

Note: Percentages rounded off to nearest whole number

This chart seems to more accurately reflect the Horticulture student ethnic population as compared to the college as a whole. Horticulture students are predominately White, Black students are basically equal, Hispanic population is quite a bit lower, Asian population is close to the same as is Native American population, and finally Other population is lower than the college as a whole. Faculty believe the larger population of White students could be attributed to the older population take the AS degree program as continuing education.

Faculty believe the smaller percentage of Hispanic students could be attributed to the Hispanic community seeing Horticulture as something parents do not want to see their children pursue or conversely Hispanic children not wanting to work in Horticulture field, due to stereotyping that most landscape professionals seem to be Hispanic in our area.

% Enrollment by Student Type

	Fall 2010	Spring 2011	Summer 2011	Fall 2011	Spring 2012	Fall 2012	Spring 2013	Summer 2013	Fall 2013	Spring 2014	Summer 2014	Fall 2014
Continuing	64%	78%	88%	65%	71%	60%	71%	67%	68%	67%	53%	51%
First Time Student	14%	5%	8%	11%	10%	21%	8%	7%	8%	18%	20%	12%
First Time Transfer	6%	7%	4%	9%	5%	9%	4%	20%	12%	9%	13%	14%
Returning	16%	10%	0%	15%	15%	10%	15%	7%	13%	7%	13%	24%
Special Admit Student K-12	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

From the chart above we can see First Time Student population is low when Continuing Students are high and conversely when Continuing Student population is low, First Time and Transfer student population is high. Faculty believe the drop in Returning Students in Spring of 2014 can be attributed to no students from the Fall 2013 Introduction to Horticulture class continued with other Horticulture classes. The drop in Continuing Students in Fall 2014 can be attributed to the completion of the program for a large number of students (7), however, the increase in Returning and First Time Students helped to keep the number of students at an acceptable level, but not at the level the programs usually ran prior to the problem with the lack of continuing students from Fall 2013.

1.5 Status of Progress toward Goals and Recommendations. Report on the status of goals or recommendations identified in the previous educational master plan and program review.

Table 2. Educational Master Plan

Educational Master Plan	Status
1. Work more closely with counseling and advertise throughout the county targeting businesses, high schools, professional organizations; and develop mentoring at all stages (orientation to graduation) to increase	Faculty have been serving on the Academic Senate, this association has helped to make other senators more aware of the Horticulture program. Faculty has worked directly with counselors to promote classes. Faculty

<p>student awareness about transfer opportunities and support students as they work toward transfer. This is an on-going goal.</p>	<p>participates in Kaiser Wellness Day, Orientation Day, Career Tech Day, Earth Day, and many other events on and off campus. These participations have helped tremendously to support and promote both programs (AS and Adaptive).</p>
<p>2. Develop plans for a botanical garden and museum/event center, which will connect the college with the community and possible, generate revenue to support the program. This is a long term goal.</p>	<p>Generalized plan has been developed for some time now. A more detailed plan will be developed with the aid of Measure Q funds. Preliminary plans have been developed and with the aid of the Foundation we hope to start promoting this project to get additional funding from the public.</p>
<p>3. Develop a community garden and K-12 garden area. This has become a short term goal.</p>	<p>The community garden area is being considered to be the first area to be developed after the infrastructure is assessed and work in that area has started. This project is underway and should be completed by late fall of 2016.</p>
<p>4. Develop an Adaptive Horticulture farmer's market. This has become a short term goal.</p>	<p>The farmer's market as shown on the renovation project plan will be installed this Summer of 2016 and we hope to have it up and running by the end of the year 2016.</p>
<p>5. Develop coordinated curriculum for sustainable agriculture with UC and CSU programs and develop/implement transfer routes. This is an on-going goal.</p>	<p>Curriculum development is underway. First course was slated to be offered for the Spring 2016, along with a scholarship from Suisun Valley Vinters Association. We hope to be in a position to offer courses by Spring of 2017 after the hiring of an Adjunct Agriculture instructor.</p>
<p>6. Assess need to hire a full time Horticulture and Plant Science instructor.</p>	<p>Sandra Diehl and Ken Williams were hired to share one full time position starting in August 2014. Therefore this goal has been achieved in a round about way.</p>
<p>7. Establish funding for the continued development of the Horticulture Renovation Project by acquiring grants from a variety of sources. On going goal.</p>	<p>Measure Q funds have been allocated by vote of the Board of Trustees. Grant funding and other sources are continually being investigated. Measure Q funds are being spent as we speak for the Horticulture Renovation Project. Additional funding is being looked into.</p>
<p>8. Investigate adding shared curriculum with the Nutrition program to develop cross-disciplinary approaches to teaching students the benefits of growing their own food. This is a long term goal.</p>	<p>This goal has not been pursued by Horticulture faculty and (we) are not sure if the Nutrition faculty even know of this Horticulture goal. Attention to this goal will become a priority.</p>

Table 3. Program Review Recommendations

Program Review Recommendations (Previous Cycle)	Status
1. Continue to work closely with Counseling and DSP. Develop more ways and avenues to enlighten the students of SCC and the members of the community about the Horticulture and Agriculture programs.	1. This is and will continue to be an on-going commitment from Horticulture faculty.
2. Work closely with the Measure Q Bond Manager to further develop the plan of attack for instituting the Horticulture Renovation Project.	2. Awaiting Board of Trustees final approval of Renovation Project and then faculty will work closely with Bond Manager and associates to develop sequence of project.
3. Secure funding for community garden project through Measure Q, investigate funding for school gardens through grants, and reach out to community and regional businesses for support.	3. Faculty will work with SCC Grant Manager, and with other community members to research and submit grant proposals. Faculty will reach out to major landscape suppliers for material donations for the Renovation Project.
4. Develop plan for a robust Adaptive Farmer’s Market for the summer and fall sessions. Look into interns from UC Davis, Solano County Master Gardener Program, and SCC student population.	4. Faculty will reach out to identified entities to acquire interns and/or volunteers.
5. Continue to work and develop Sustainable Agriculture curriculum. Reach out to Solano County Farm Bureau members who would be interested in collaborating with SCC faculty to create a program that is tailored to their needs if possible.	5. Faculty will continue to work on curriculum development and reach out to local farmers for input and advice. Work with SCC Foundation on the awarding of the AG scholarship.
6. Reach out to Nutrition faculty and develop a plan to formulate a cross-discipline curriculum.	6. This will be a summer time goal.
7. Facilities is not a program issue for most programs, however, Horticulture facilities are an integral part of the curriculum. Investigate the problems associated with the facility and develop long range plans to correct.	7. This has been on-going and faculty will continue to push for repair or replacement of broken facilities.
8. In light of current drought and no end in sight, faculty recommends the existing greenhouse drainage system be by-passed and redirected to an underground storage tank for use in the gardens. This would entail a complete remodel of front landscape area and could be part of the Horticulture Renovation Project.	8. Develop a plan for this project. Water savings could be very monetarily beneficial and in keeping with sustainability ideas and guidelines.
9. For the Adaptive Horticulture Program to continue to grow it needs to have a permanent teacher’s aide or student worker in place. Faculty recruits new Human Services Interns and volunteers each semester. This means for the first 3 to 4 weeks of class the instructor is working alone in	9. Faculty will continue to work with DSP, OCED, and source grants for embedded tutors or aides.

class and training new interns as they come onboard. The AH classes require aides to successfully, efficiently, and safely run the program.

1.6 Future Outlook. Describe both internal and external conditions expected to affect the future of the program in the coming years. Include labor market data as relevant for CTE programs (limit to one page or less).

The future for the Horticulture and Plant Science Program, the Adaptive Horticulture Program and the planned Sustainable Agriculture Program has never looked better. The increase in graduates and certificates issued for the AS program is indicative for the popularity and need for classes in the realm of gardening and landscaping. The current drought while not good for California or Solano County, faculty believes its effects will continue to bring new students to the program in search of career development and/or advancement, better ways to irrigate, design water efficient landscapes, find new varieties of plants that use less water, and other ideas for sustainable gardening and landscape techniques.

The Adaptive Horticulture program continues to thrive. Plans are underway to work more closely with the Fairfield Suisun Unified School District and other Solano County school districts to acquaint them with our facility and program which should in turn increase its enrollment. Enrollment has not been a problem in the past with the exception of the short term problem of not allowing students to repeat and cancellation of 2012 summer classes. However, as students “age out”, it is always good to keep the avenues of communication open.

The Sustainable Agriculture Program will bring a new and diverse crop of students into the Horticulture and Plant Science facility. Not just the student looking for a career in landscaping, but rather students interested in becoming farmers and students looking to transfer to the UC or CSU schools for a higher degree. We want to be the leaders in teaching and training students interested in tapping into the growing local agricultural and food economy. With the renovation project in full swing and the curriculum approved and in the system the program should be very successful.

Solano County’s growth rate is expected to remain steady through 2035. With jobs in the farming industry to not decline but rather stay the same due to retirements and attrition.

Following is projected employment data and information from Solano County Office of Education with data from Vacaville High School and Dixon High School.

SAMPLE CAREERS & AVERAGE WAGES

ENTRY LEVEL (High School Diploma)

- Laborer (\$20,321 - \$41,704)
- Pest Control Technician (\$22,490 - \$33,840)

TECHNICAL (Associate's Degree)

- Groundskeeper /Landscaper (\$17,888 - \$50,158)
- Park Ranger (\$38,532 - \$50,244)
- Equipment Technician (\$35,340 - \$49,488)

PROFESSIONAL (College/University Degree)

- Farm Foreman (\$47,808 - \$82,752)
- Animal/Plant Inspector (\$45,923 - \$59,704)
- Maintenance Engineer (\$80,000 - \$120,000)
- Soil Scientist (\$44,898 - \$105,580)

AGRICULTURE AND NATURAL RESOURCES

ABOUT AGRICULTURE AND NATURAL RESOURCES

Dixon High School

LABOR MARKET DEMAND

The Agriculture and Natural Resources sector is designed to provide a foundation in agriculture for all agriculture students in California. Students engage in an instructional program that integrates academic and technical preparation and focuses on career awareness, career exploration, and skill preparation. The courses emphasize real-world, occupationally relevant experiences of significant scope and depth in Agricultural Business, Agricultural Mechanics, Agriscience, Animal Science, Forestry and Natural Resources, Ornamental Horticulture, and Plant and Soil Science. Integral components of classroom and laboratory instruction, supervised agricultural experience projects, and leadership and interpersonal skills development prepare students for entry into a career, continued training, or advanced educational opportunities.

- The occupational outlook for the agriculture and natural resources sector is expected to be slower in comparison to other industries but will have good job prospects overall due to attrition and retirements.

- Agricultural Practices
- Agricultural Biology (UC Approved “d”)
- Agricultural Earth Science
- 3-D Wildlife Art & Design/Taxidermy (UC Approved “f”) • Agricultural Mechanics
- Advanced Agricultural Mechanics
- Companion Animal Care Management (UC Approved “g”)

- Significant areas of job growth will be for scientists and engineers, including biochemists, entomologists, geneticists, plant scientists, food scientists, veterinarians, and veterinarian technologists and technicians.

Vacaville High School

- Women and minorities are finding opportunities to own and operate farms in California, especially in the small specialty or niche operations. The percentage of small farms, especially organic farms, is increasing.

100 W. Monte Vista Avenue, Vacaville, CA 95688 Phone: 707-453-6011

- Farming often appeals to women because they can go anywhere and grow something and it allows them to seamlessly integrate work with family.
 - Agricultural Biology (UC Approved “d”)
 - Agricultural Science I (UC Approved “g”)
 - Animal Science I (UC Approved

CURRICULUM DEVELOPMENT, ASSESSMENT, AND OUTCOMES

Program Learning Outcomes

2.1 Program Learning Outcomes. Using the chart provided, list the Program Level Outcomes (PLOs) and which of the “core four” institutional learning outcomes (ILOs) they address. In the same chart, specifically state (in measurable terms) how your department assesses each PLO. For example, is there a capstone course (which one), is it completion of a series of courses (list), is it a passing grade on certain assignments that are universally given (list), passing a licensing exam, completing a portfolio, etc.

The PLOS below are for the Horticulture and Plant Science Associate of Science degree and certificate. The assessments are based on work completed in Horticulture 030, Landscape Design One, which is considered to be a capstone course for the program. All courses in the degree program are not required to be completed in order to assess Hort 030.

Table 4. Program Learning Outcomes

Program Learning Outcomes	ILO (Core 4)	How PLO is assessed
1. Design a landscape	II. A,B,C III. C IV. C	100% of students successful in the course will be able to design a residential landscape with proper plant selection and proper drafting techniques.
2. Estimate the cost of a landscape	II. B, D	100% of students will be able to estimate the cost of the design that they have designed for their client.
3. Lay out a landscape	II. B, D III. C	100% of students in the course will be able to demonstrate different construction techniques.

2.2 Course Support of PLOs. Report on how courses support the Program Level Outcomes at which level (introduced (I), developing (D), or mastered (M))

Table 5. Program Courses and Program Learning Outcomes

Course	PL01	PLO2	PL03
Hort 006	I		M
Hort 030	M		M
Hort 050	I		M
Hort 055	I		M
Hort 056	I		M
Hort 070	I	M	M
Hort 071	I		M

2.3 PLO Assessment Results. Utilizing table 6, describe the results of the program level assessments and any changes/planned actions made based on the outcomes of program level student learning assessments. Results should be both quantitative and qualitative in nature, describing student strengths and areas of needed improvement. Action plans should be specific and link to any needed resources to achieve desired results.

Table 6. Program Level Assessments

Program Learning Outcomes	Date(s) Assessed	Results	Action Plan
1. Design a landscape	Spring 2012	100% of the students were able to design a landscape per the PLO, however, only 90% of the students were able to design a residential landscape with proper plant selection.	Instructor will help students who have not had Plant Identification with proper plant selection. Curriculum for Plant Identification has been added to augment Hort 30 Landscape Design to help with proper choices

2. Estimate the cost of a landscape	Spring 2012	100% of the students were able to provide a cost of the landscape that they designed, however, some of the costs supplied were not in line with industry standards. It is one thing to provide a cost estimate and quite another to provide a realistic one.	Instructor will assign more time going over the cost of materials and labor and also give the students more examples of cost to work
3. Lay out a landscape	Spring 2012	100% of the students were able to effectively layout a landscape.	None required

2.4 Changes from PLO Assessment. Describe any changes made to the program or courses that were a direct result of program level assessments.

Since the adjusting of courses for Horticulture and Plant Science in 2006 there has only been the one adjunct instructor, Ken Williams, to teach and assess all of the courses for the AS program. All of the courses in the AS degree program with the exception of Introduction to Horticulture Hort 050 have been taught on a rotation basis and therefore only assessed generally once every two years. Each of the assessments have been completed and recommendation for improvement have been made and implemented. With change in status of the two adjuncts, Ken Williams and Sandra Diehl to a shared full time position, Sandra can now teach classes in the AS program as well as the Adaptive Horticulture program. With this change in structure, faculty will get together in the near future and look at all SLO's and rework them as necessary so that whomever is teaching an AS course the assessment process will be consistent.

Student Learning Outcomes

2.5 Current Status of SLOs. Describe the current status of SLOs in your program. Are SLOs being updated as necessary, are they being assessed yearly? Are assessment results driving course level planning? If deficiencies are noted, describe planned actions for change. Address how courses with multiple sections have been aligned so that a common tool is utilized to assess student learning outcomes; describe any steps taken to standardize measures.

Currently SCC policy for assessing courses is for even numbered courses in the fall and odd numbered courses in the spring (unless a course is taught only once a year). With that in mind

the faculty of Horticulture will access each Associate Degree course at the completion of each semester taught. Faculty believe that the assessing of courses each semester taught (with some only two years currently) that the faculty can more accurately keep the courses up to date and assessed properly.

2.6 Review of SLOs. *Review the course level SLOs completed by the program in the last year to ensure accuracy of information provided (core four, level of mastery, assessment tool, etc.). Note if any changes are needed.*

Horticulture and Plant Science SLOs are up to date. Assessments from the last cycle were put on hold while doing Program Review. As stated above with the completion of program review the faculty will evaluate and make changes as necessary to all SLO's in the very near future.

After faculty have evaluated and made changes to all the SLO's for the AS program, which ever faculty is teaching the subject for that particular semester will be responsible for assessing the course. If in the future additional instructors are hired to help teach any of the AS courses, the current instructors will help them assess the course at the end of the semester.

2.7 Changes from SLO Assessments. *Describe any changes made to the program or courses that were a direct result of student learning outcomes assessments.*

No changes to the courses or program have been made due to any assessments in the past few years. However, faculty believe with the upcoming evaluation that there will be some changes to the SLOs. There are no foreseeable changes to the program itself.

Curricular Offerings

2.8 Course Offerings. *Attach a copy of the course descriptions from the most current catalogue. Describe any changes to the course offering since the last program review cycle (course content, methods of instruction, etc.) and provide rationale for deletion or addition of new course offerings. Also state whether a transfer degree has been establish in accordance with SB 1440. Include a discussion of courses offered at Centers (Vacaville, Vallejo, Travis) and any plans for expansions/contraction of offerings at the Centers.*

Horticulture and Plant Science course offerings have been steady since the changes to the program in 2006. With all the courses rotated through the series with the exception of Introduction to Horticulture Hort 050, which is taught a minimum of every other semester. All courses have been on a day and evening cycle. Example: If Hort 050 was taught as a day class for the fall semester, then it was offered as an evening class the next time it was taught. With Ken and Sandra now sharing a full time position, more classes can and will be offered each semester. Most of the courses for Horticulture and Plant Science are very difficult to teach at either of the centers. Access to our green house and propagation room at the main campus is vital to most of the curriculum. Introduction to Horticulture Hort 050 was taught at the Vacaville

Center in the Spring of 2013 and is currently being taught at the Vallejo Center. In the near future faculty would like to offer classes at the centers for: Identification and Ecology of Landscape Plants, Hort 006, and for Landscape Design One and Two, Hort 030 and 031. Note: Program Description below for Horticulture and Plant Science is not accurate, certificate and degree for Horticulture and Plant Science only. Discrepancy has been passed on to appropriate personnel for correction. Adaptive Horticulture offerings have been on a regular rotation since inception, with the exception of the one summer with no classes.

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.

ASSOCIATE DEGREE: REQUIRED COURSES

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

JOB DIRECT CERTIFICATE: REQUIRED COURSES

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

HORT 006 4 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 31 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.

ADAPTIVE HORTICULTURE***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 1.0 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. 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).

2.9 Fill rates/Class size. Based on data from ITRP, discuss the trends in course fill rates and possible causes for these trends (include comparison/analysis of courses by modality if applicable). Address how the size of classes affects courses and if there are any necessary adjustments to course classroom maximums. If there are courses that are historically under-enrolled, discuss strategies that might increase enrollment.

The AS program has its ups and downs with enrollment. Over the years the faculty has had to struggle with rumors of program discontinuance and counseling advising students not to take “those” classes because the program is going away. Faculty feel that counseling should never discourage students from taking any class until “official” word of discontinuance is published. With that said, due to the enormous amount of energy and time the faculty have put in outside of

their adjunct contracts the programs are as strong as or stronger than ever. Faculty believe that the program will continue to grow with their ability to offer more classes per semester and to offer additional classes that had been dropped in years past due to being under staffed. The AH program has had no fill rate problems with the exception of one semester when repeatable was not understood by administration. With that correction and the desire of the outside agencies to send their clients to the AH program faculty see the program on a steady course.

2.10 Course sequencing. *Report on whether courses have been sequenced for student progression through the major, how students are informed of this progression, and the efficacy of this sequencing. Report on whether curriculum is being offered in a reasonable time frame (limit to one or two paragraphs).*

There has not been any problem with course sequencing since faculty reduced the number of classes being offered and stuck to a rotation of classes within the major for Horticulture and Plant Science. Students who could not complete in the course in a reasonable amount of time, now find that they can complete the course in 5 semesters. This data is evidenced by the matrix for awards. Sequencing for AH runs smooth as long as the college does not shut down again for a summer. The summer offering in AH 301A is the only time it is offered and when missed in the summer caused faculty to have to offer it out of sequence in order for students to complete the program. Faculty believe this was a one-time occurrence and should not happen again.

2.11 Basic Skills (if applicable). **Describe the basic skills component of the program, including how the basic skills offerings prepare students for success in transfer-level courses. Analyze courses with prerequisites and co-requisites, and whether this level of preparation supports student success.**

Basic skills are not offered as part of our program. However, the AS courses do require some term papers and reports that students who have completed or are at the English 01 level do a much better job with. All of the AS courses have course advisories for SCC minimum English and Math standards. The AH students with their varied learning challenges may or may not possess basic skills. Through the daily curriculum they are reading, writing and using simple math to improve their basic skills. Many of those who complete the AH program leave with improved basic skills and feel they can take other college course.

2.12 Student Survey. *Describe the student survey feedback related to course offerings. In terms of the timing, course offerings, and instructional format, how does what your program currently offer compare to student responses?*

Preferred time offerings for classes were evenly split between 8:00 am and 9:00 am, currently the Associate Degree program starts its classes at 8:30 am and 6:00 pm, which also was a favorite time. The question of Saturday classes showed that a third of the students would attend in the morning, a third in the afternoon, and two thirds would not attend a Saturday class at any time. The question of a hybrid or on line course as evenly split between yes and no. The question of a Horticulture learning center or computer lab was met with a 73% yes. No Dissatisfied or lower responses were given to questions on textbooks, instructional materials, quality of classroom/labs and tools.

See appendix A for student survey results

2.13 Four-year articulation (if applicable). *Utilizing the most current data from the articulation officer, and tools such as ASSIST.org, state which of your courses articulate with the local four*

year institutions and whether additional courses should be planned for articulation (limit to one or two paragraphs).

According to assist.org, all of our course offerings are transferrable to the CSU system under Ornamental Horticulture. None of our courses are listed for transfer to the UC system. Curriculum development for the new Agriculture Program will endeavor to have several classes that are transferrable to the UC and CSU systems.

2.14 High school articulation (if applicable). *Describe the status of any courses with articulation/Tech Prep agreements at local high schools. What (if any) are your plans for increasing/strengthening ties with area high schools and advertising your program to prospective students? (limit to one or two paragraphs).*

All of Solano County high schools have dropped their “agriculture” programs with the exception of Vacaville High School and Dixon High School. Faculty have plans to develop a better relationship with the faculty at these high schools in the hopes of getting their students to attend SCC Horticulture and Agriculture programs. See section 1.6 Future Outlook for High School data.

2.15 Distance Education (if applicable). *Describe the distance education courses offered in your program, and any particular successes or challenges with these courses. Include the percentage of courses offered by modality and the rationale for this ratio.*

Then:

- 1) Discuss your program’s plans to expand or contract distance education offerings;*
- 2) State how you ensure your online courses are comparable to in-class offerings*

N/A – The Horticulture program does not offer distance education courses due to the hands-on nature of the discipline.

2.16 Advisory Boards/Licensing (CTE) (if applicable). *Describe how program curriculum has been influenced by advisory board/licensing feedback. How often are advisory board meetings held, provide membership information and what specific actions have been taken. Attach minutes from the past two years.*

Faculty have had a long term relationship with the various commercial organizations and businesses within Solano County. Both faculty members are close friends, fellow Horticulture Club members, and business associates with most of the members of the Horticulture Advisory Committee, and as such have contact and conversations with them frequently outside of meetings. See appendix B for the minutes of the meetings.

STUDENT EQUITY & SUCCESS

3.1 Course Completion and Retention. *Anecdotally describe how the program works to promote student success. Include teaching innovations, use of student support services (library, counseling, DSP, etc.), community partnerships, etc.*

Horticulture and Plant Science and Adaptive Horticulture student to faculty ratio is set at 24 to 1. The AS program on average runs in the area of 16 to 1, while the AH program runs on the average of 24. Breadth, depth, and rigor for the courses is maintained by the faculty ensuring that the PLOs and SLOs are met and exceeded. Instruction for the AS program is based on practices and standards for landscape professionals; technology is ever changing to make the landscape industry more automated. Faculty stay abreast of these updates and changes and bring that knowledge to the classroom. Both faculty members recently became certified as “Quality Bay-Friendly Landscape Maintenance Professionals” through training offered by Marin County Stormwater Pollution Prevention Program. They have also attended numerous courses in the last couple of years at Sonoma State University in the area of Sustainable Landscape. The AS courses of instruction offer the students with real hands-on project that enable them to take the work in the classroom to the landscape and apply that knowledge in building and construction. As an example this past year the Hort 071 Irrigation Principles class installed a complete irrigation system for the new orchard, after first collaboratively designing the system with the instructor. The Hort 070 Construction and Estimation class installed all the orchard trees and helped with the irrigation. Both classes used heavy trenching and digging machinery as part of their lab experiences. The AH classes propagate and grow different vegetables and plants every semester for use in the Horticulture gardens and for sale at the semi-annual plant sales. The faculty ensures a diversity of plant materials is used that enables to the students to further develop their skills in propagation and maintenance.

For the AS program the teaching methodologies with seven completely different courses offered vary from course to course, however, every course has both hands-on and visual work from seed planting, to drafting, gluing of water pipe, measuring for building, pruning, and leaf identification. Teaching these different skills to students who bring a variety of skills and knowledge to the classroom always varies and faculty use multiple strategies to ensure everyone understand the concept and principles. Often pairing of students works very well when one student is struggling with a concept or principle another student has just seen the light come on and can convey the idea in student terms. In the AH program the teaching methodologies are primarily hands-on/experiential learning. This modality is the most effective due to the diverse intellectual and physical needs of the adaptive students. There are four different curriculums taught concurrently daily. Each curriculum has four to six students and a minimum of one intern / aide per group facilitating the outdoor labs. There are daily lectures to all four groups on topics relative to the day’s activities and individual lectures to two of the four individual groups daily relative to their specific curriculum objectives. They are learning workplace skills in the greenhouse, nursery and landscape industries. In addition they are taught to be accountable, responsible, how to communicate effectively and appropriately in a workplace setting.

Completion rates/awards have increased significantly since the AS program was changed from offering 6 different majors to only one. This was necessitated by only having one adjunct to teach the program and the desire to allow student to get through the program with a certificate or degree in a reasonable amount of time. See Hort-Awards. Completion and retention in the AH program has been steady since its inception. Student retention is developed in the AS Introduction to Horticulture, Hort 050, and in AH Introduction to Horticulture, AH 301A, by instilling in the student their desire to learn about the plants around them that provide shelter, food, and beauty. The hands-on activities coupled with the textbook reading and assignments

bring the plants to life. Students find out that no one really has a “brown thumb” and they can all develop a truly “green thumb” with the proper training and guidance. Faculty involves the students in all facets of landscaping and gardening in the different course offerings. Horticulture skills can be readily equated to “life skills”. Learning these skills is what has improved our retention rate over the past years. AH students growing food for the first time or AS students repairing an irrigation system for the first time is what brings landscaping and gardening to life.

Then, utilizing data from the office of Institutional Research and Planning, report on student success through course completion and retention data. Analyze by gender, age, ethnicity, and on-line (may analyze other variables such as disability, English as a second language, day vs. night courses, etc. as appropriate).

Provide possible reasons for these trends AND planned action to equalize student success.

All data derived from Summer concerning course completion and retention data analyzed by gender, age and ethnicity are only based on Adaptive students, there are no summer classes for the Associate Degree program.

Success Rate (Gender)

	Fall 2010	Spring 2011	Summer 2011	Fall 2011	Spring 2012	Fall 2012	Spring 2013	Summer 2013	Fall 2013	Spring 2014	Summer 2014	Fall 2014
Total	70 84.7%	60 84.0%	26 80.8%	65 77.1%	62 79.4%	67 86.7%	73 80.4%	15 86.7%	77 79.8%	45 82.1%	15 80.0%	51 73.5%
Female	28 91.7% 23.1%	29 83.7% 16.0%	12 83.3% 8.2%	24 82.4% 13.8%	21 85.3% 17.0%	28 91.7% 22.4%	35 80.4% 11.9%	8 75.0% 0.7%	44 79.7% 10.6%	25 89.5% 19.3%	9 88.9% 10.1%	30 75.6% 7.7%
Male	39 79.3% 15.1%	29 83.3% 18.2%	12 83.3% 6.8%	37 71.4% 5.6%	37 73.2% 6.6%	34 85.7% 20.2%	36 79.6% 13.3%	6 100.0% 23.2%	29 76.9% 11.0%	17 73.1% 5.6%	6 66.7% -12.9%	17 69.6% 4.4%
Not Reported	3 100.0% 32.1%	2 100.0% 35.9%	2 50.0% -34.2%	4 100.0% 30.7%	4 100.0% 29.8%	5 60.0% -5.4%	2 100.0% 34.0%	1 100.0% 30.0%	4 100.0% 28.8%	3 66.7% 0.2%	0	4 75.0% 8.6%

	Fall 2010	Spring 2011	Summer 2011	Fall 2011	Spring 2012	Fall 2012	Spring 2013	Summer 2013	Fall 2013	Spring 2014	Summer 2014	Fall 2014
Asian or Pacific Islander	9 75.0% 5.2%	5 66.7% -3.2%	3 66.7% -15.6%	4 100.0% 28.8%	9 100.0% 28.9%	9 92.3% 21.3%	10 93.3% 23.1%	1 100.0% 21.7%	7 66.7% -3.4%	9 83.3% 10.7%	2 50.0% -34.4%	9 66.7% -4.7%
Black Non-Hispanic	10 88.2% 34.4%	12 88.9% 35.3%	7 100.0% 34.5%	8 83.3% 28.1%	8 50.0% -3.4%	9 86.7% 30.8%	9 78.6% 24.3%	3 66.7% 1.5%	9 92.3% 34.7%	7 66.7% 10.8%	4 50.0% -17.3%	7 75.0% 21.0%
Hispanic	4 100.0% 34.2%	3 25.0% -41.8%	0	10 50.0% -15.2%	6 50.0% -15.8%	9 84.6% 19.5%	14 73.9% 6.5%	3 100.0% 24.1%	12 60.0% -6.3%	4 50.0% -17.3%	1 100.0% 22.6%	5 71.4% 5.5%
Other	20 76.7% 6.4%	17 93.9% 27.9%	7 57.1% -20.6%	15 83.3% 12.9%	11 81.0% 8.1%	8 100.0% 27.8%	6 87.5% 14.3%	0	1 100.0% 26.3%	0	0	1 0.0% -68.0%
White Non-Hispanic	27 91.4% 19.9%	23 81.8% 8.8%	9 88.9% 9.8%	27 75.0% 2.5%	26 86.8% 13.3%	31 81.1% 7.9%	33 80.0% 7.2%	8 87.5% 9.1%	46 85.0% 12.2%	23 94.4% 19.5%	7 100.0% 17.2%	28 77.1% 5.3%

Success Rate (Ethnicity)

	Fall 2010	Spring 2011	Summer 2011	Fall 2011	Spring 2012	Fall 2012	Spring 2013	Summer 2013	Fall 2013	Spring 2014	Summer 2014	Fall 2014
Total	70 84.7%	60 84.0%	26 80.8%	65 77.1%	62 79.4%	67 86.7%	73 80.4%	15 86.7%	77 79.8%	45 82.1%	15 80.0%	51 73.5%
	0	0	0	1 100.0%	1 100.0%	1 100.0%	0	0	0	0	0	0
Am. Indian or Alaskan Native	0	0	0	0	1 0.0% -66.0%	0	1 50.0% -13.7%	0	2 50.0% -16.2%	2 50.0% -22.4%	1 100.0% 15.4%	1 100.0% 28.1%

Success Rate (Age)

	Fall 2010	Spring 2011	Summer 2011	Fall 2011	Spring 2012	Fall 2012	Spring 2013	Summer 2013	Fall 2013	Spring 2014	Summer 2014	Fall 2014
Total	70 0.85 0.69 0.16	60 0.84 0.69 0.15	26 0.81 0.75 0.06	65 0.77 0.69 0.08	62 0.79 0.69 0.11	67 0.87 0.68 0.18	73 0.80 0.69 0.11	15 0.87 0.76 0.10	77 0.80 0.71 0.09	45 0.82 0.70 0.12	15 0.80 0.79 0.01	51 0.74 0.70 0.04
0-17	0	0	0	0	0	0	2 50.0% -25.0%	1 100.0% 16.0%	1 0.0% -68.4%	0	0	2 0.0% -72.0%
18-25	32 83.0% 18.4%	26 88.6% 23.5%	12 83.3% 7.7%	33 70.0% 4.8%	31 84.0% 18.4%	39 89.1% 22.4%	41 82.0% 15.5%	8 87.5% 12.3%	33 83.0% 16.5%	21 76.5% 8.8%	5 80.0% 0.9%	15 76.2% 11.0%
26-30	8 77.8% 10.1%	4 83.3% 16.4%	3 66.7% -8.2%	3 100.0% 31.1%	7 75.0% 5.2%	4 71.4% 4.3%	2 50.0% -18.3%	0	1 100.0% 32.6%	1 100.0% 30.5%	3 100.0% 20.3%	6 83.3% 16.6%
31-35	1 100.0% 29.9%	3 25.0% -39.9%	1 100.0% 27.4%	5 33.3% -36.3%	2 66.7% -5.9%	1 100.0% 32.0%	3 60.0% -4.3%	2 100.0% 28.6%	5 100.0% 30.4%	6 87.5% 17.5%	2 100.0% 22.1%	8 81.8% 10.1%
36-40	4 80.0% 7.7%	3 75.0% 4.5%	1 100.0% 19.9%	2 75.0% 0.2%	3 50.0% -22.1%	4 60.0% -9.6%	1 100.0% 29.9%	0	2 100.0% 28.6%	1 100.0% 29.4%	0	1 0.0% -67.6%

	Fall 2010	Spring 2011	Summer 2011	Fall 2011	Spring 2012	Fall 2012	Spring 2013	Summer 2013	Fall 2013	Spring 2014	Summer 2014	Fall 2014
41-45	4 100.0% 28.5%	5 100.0% 29.3%	5 60.0% -12.0%	7 100.0% 26.9%	4 71.4% -0.8%	3 100.0% 27.0%	7 88.9% 17.9%	2 50.0% -30.6%	6 50.0% -22.5%	4 50.0% -26.3%	0	3 100.0% 33.5%
46+	21 85.2% 9.8%	19 81.5% 5.1%	4 100.0% 23.6%	15 89.5% 14.3%	15 81.0% 8.3%	16 88.9% 15.7%	17 81.8% 6.5%	2 100.0% 22.2%	29 78.4% 2.7%	12 100.0% 27.4%	5 60.0% -19.7%	16 69.6% -4.3%

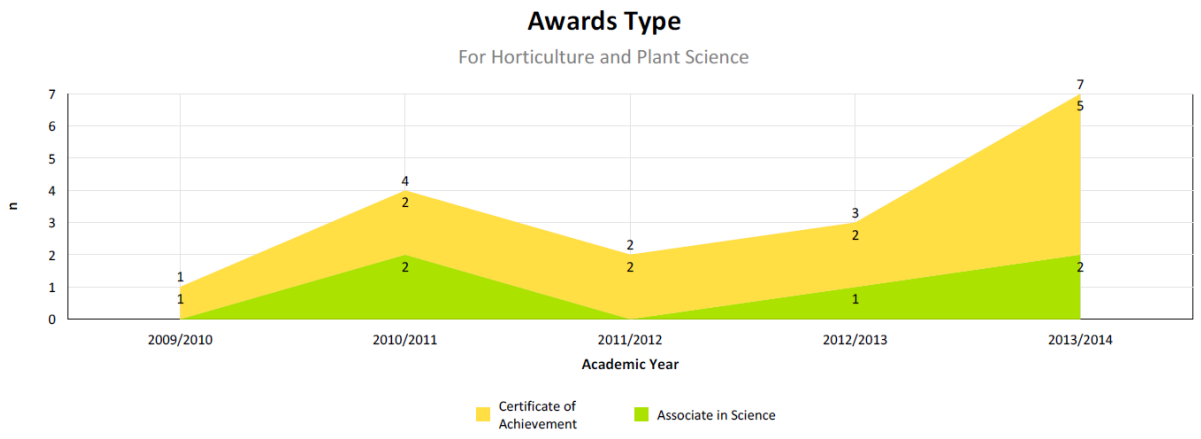
3.2 Degrees/Certificates Awarded (if applicable). Include the number of degrees and certificates awarded during each semester of the program review cycle. Describe the trends observed and any planned action relevant to the findings.

Horticulture and Plant Science degrees and certificates awarded from 2009 to present are listed below.

The AH Certificate of Achievement awards has stayed at an average of 16 since 2009/2010, the one low cycle of 2012/2013 can be attributed to the repeatability problem that has since been resolved. Faculty believes this average to continue and could increase with the increased outreach that is underway by Sandra Diehl to the local schools and agencies. The AS total awards has steadily increased since the program was paired down for efficiency. Faculty

believes with the increased awareness of the program and the ability to offer more classes that the awards could rise significantly. This assumption is based on the student load for AS classes this Spring semester 2015. The total student count is the best it has ever been with a combined 75% fill rate and only one student is in both classes which could mean a very good fill rate next semester.

Horticulture and Plant Science



	2009/2010	2010/2011	2011/2012	2012/2013	2013/2014
Total	1 100.00%	4 100.00%	2 100.00%	2 100.00%	7 100.00%

Certificate data for the Adaptive Horticulture Program is not depicted above, this certificate is a locally generated certificate only and as such the Office of Research and Planning does not tabulate this data for the records. Following are the number of certificates awarded by the Horticulture Department as tallied by the faculty.

Certificate of Achievement

2009/2010	2010/2011	2011/2012	2012/2013	2013/2014
14	18	19	12	16

3.3 Transfer (if applicable). Describe any data known about students in your program who are transfer eligible/ready (have 60 transferable units with English and math requirements met). Include how your program helps students become aware of transfer opportunities (limit to one or two paragraphs).

The AS courses are transferable to the CSU system and one course is transferable to the UC system. We have no data on any students transferring on to either system. There is data that shows one student from the AS program went on to San Francisco State and received a BA degree, however, not in horticulture.

3.4 Career Technical Programs (if applicable). For career technical programs, describe how graduates are prepared with the professional and technical competencies that meet employment/licensure standards. State if there are any efforts made to place students in the workforce upon graduation, including any applicable placement data.

The required classes for the AS program prepare the students to enter the landscaping or gardening industry in a multiple of jobs. The program is designed around the Mastering of the Landscape Design One and the Construction and Estimation courses. Since 2009 we have students who have either received their certificate of achievement or AS degree and have gone on to the following jobs in Solano County: Landscape Designer, Landscape Construction Estimator, and Landscape Maintenance. We have also awarded certificates of achievement to five (5) Solano County Master Gardener's, who went through the program to enhance their knowledge and skills as representatives of the University of California Extension Program for Master Gardener's. Over the years we have developed a mutual relationship with the Solano County Master Gardener Program. We have hosted facets of their training at the Horticulture facility and Ken Williams has taught two of their training courses at the Master Gardener Training site for the past 19 years. Ken and Sandy are both Master Gardener's with over 40 years of combined service to the community.

Sandy and Ken are both certified Horticulture Therapists, having received training from the Horticulture Therapy Institute of Denver, Colorado. Sandy and the AH students have participated in the hands-on training for Institute students from all over the United States on three different occasions at the SCC Horticulture facility. This training is very beneficial to the Institute students as it gives them practice with students with disabilities and it allows Sandy to update and enhance her skills with new techniques that the Institute develops.

The Adaptive Horticulture program has trained and certified 79 students since 2009/2010. Some of these students have gone on to enroll in mainstream classes across the campus and have applied for various gardening positions with local companies. Faculty believe that most of these students would never have taken a mainstream class at SCC if not having first successfully completed the AH program. The AH program is noted as a "soft" landing place for students with special needs that empowers them to greater achievements.

PROGRAM RESOURCES

4.1 Human Resources. *Describe the adequacy of current staffing levels and a rationale for any proposed changes in staffing (FTES, retirements, etc.). Address how current staffing levels impact the program and any future goals related to human resources.*

Horticulture currently consists of two faculty who are sharing one full time position. Prior to this shared position, created in Fall 2014, Ken served as an adjunct for 14 years and Sandy has been an adjunct for 7 years. As adjuncts they not only taught their +/- 67% loads, they also maintained and supported the entire Horticulture facility with countless hours of volunteer time.

Both Ken and Sandy are involved with the college community and both positively impact the institution. *Ken Williams* is on the Academic Senate, a committee member for AB 86, a committee member for Sustainability Advisory Committee, has chaired/organized the SCC Clean and Green Days, Earth Day, site captain for SCC and the Solano County Coastal Creek Clean-Up Day, Horticulture Club Advisor for the past 10 years, has served on numerous hiring committees, and is the Chairperson for the Horticulture Advisory Committee. *Sandra Diehl* is Chairperson for the Sustainability Advisory Committee, has chaired/organized SCC Earth Day, chaired/organized Horticulture participation in the SCC-Kaiser Wellness Day, and is Secretary for the Horticulture Advisory Committee.

Horticulture used to have a part-time custodian and handyman. This position was lost about 10 years ago. We do have a volunteer who is on site every day to help with some of the chores, however, being a volunteer faculty cannot always count on him to take care of some of the problems. There has never been a “lab” tech for the AS program, so student aides are used for this help. As Horticulture grows with the renovation project there will be a serious need for classified help. Most all repairs other than heating and electrical are done by the faculty.

4.2 Current Staffing. *Describe how the members of the department have made significant contributions to the program, the college, and the community. Do not need to list all the faculty members’ names and all their specific activities, but highlight the significant contributions since the last program review cycle.*

Since the last program review Sandy and Ken have been hired to share one full time position. This has allowed the AS program to offer more classes and is allowing Sandy and Ken to develop new curriculum for a new Agriculture program. This program will consist of 46.5 required units in the major, with four from the current AS program, five from other disciplines from the School of Math/Science, one from the School of Applied Technology and Business, and six units of electives that are currently taught at SCC and/or being developed by Horticulture faculty. Once approval of the Agriculture curriculum is finalized and before the first class outside of the Horticulture curriculum can be offered staffing needs will have to be addressed.

4.3 Equipment. *Address the currency of equipment utilized by the program and how it affects student services/success. Make recommendation (if relevant) for technology, equipment, and materials that would improve quality of education for students.*

Equipment for the classroom and for landscape and garden maintenance is marginal at best. Some new test equipment has been purchased with Perkins funds in the past couple of years. Tools are generally purchased with funds from the Horticulture Club. We were able to purchase a tractor to help with maintenance from the fire insurance, however, it would be nice to have some further attachments for it. It would also benefit the AH students to have more wheelchair accessible paths to the nursery and garden settings. Many of the surfaces are uneven for persons with mobility and visual challenges.

4.4 Facilities. *Describe the facilities utilized by your program. Comment on the adequacy of the facilities to meet program's educational objectives.*

The Horticulture facility building 1000 and the garden/landscape areas were built approximately 30 years ago and have seen minor updates during this time. The addition of computers for faculty and the "Smart Classroom" were major improvements. There are numerous issues that need to be addressed and rectified. Following is a list of problems and discrepancies:

- Sewer clogs were a major issue over the past couple of years, however, recently the problem was rectified.
- Propagation room ventilation is non-operable.
- Greenhouse ventilation is non-operable.
- Greenhouse and Propagation room flooring is not suited for the wet conditions, which makes it slippery and dangerous, especially for students with special needs. Recently faculty have applied a non-slip material to the Propagation room floor with materials supplied by the Horticulture club.
- No water catchment systems for greenhouse or for the entire site as a whole. This causes a lot of reusable water to go down the drain.
- Greenhouse and Propagation room automatic system for heating and ventilation is non-operable. Both areas have been "jerry-rigged" with new heaters and "residential" type thermostats by facilities so that there is heat when needed.
- Most of the wood structures have seen their better days. Two years ago facilities replaced some of the support beams, however, many more will need replacement in the near future.
- Storage sheds for irrigation and potting equipment are old, rusty, and overcrowded.
- No proper storage area for the tractor, lawn mowers, and other landscaping equipment.
- Loss of Solano Irrigation Water supply causes faculty to have to drag hoses from the upper Horticulture area to have water to the Adaptive gardens and for the community gardens to use. Need reliable potable water source to all areas of the Horticulture facility.

4.5 Budget/Fiscal Profile. Provide a five year historical budget outlook including general fund, categorical funding, Perkins, grants, etc. Discuss the adequacy of allocations for programmatic needs. This should be a macro rather than micro level analysis.

Fiscal Year	Account	Account Title	6A Academic Salaries	6M Benefits	7A Supplies	7E Other Operating	Total
2008	1310	Instructional Salaries,Adjunct	\$48,139.78				\$48,139.78
	1311	Instr Sal, Adjunct Office Hours	\$1,003.68				\$1,003.68
	1340	Substitute Instructors	\$836.40				\$836.40
	3340	MEDI-Acad Instr		\$724.68			\$724.68
	3510	SUI-Acad Instr		\$24.98			\$24.98
	3610	WC-Acad Instr		\$758.75			\$758.75
	3710	STRS CB-Acad Inst		\$1,999.21			\$1,999.21
	4200	Books,Magazines,Periodicals				\$-	\$-
	4400	Instructional Supplies & Materials				\$-	\$-
	5795	Advertising				\$-	\$-
2008 Total			\$49,979.86	\$3,507.62	\$-	\$-	\$53,487.48
2009	1310	Instructional Salaries,Adjunct	\$22,943.73				\$22,943.73
	3340	MEDI-Acad Instr		\$332.67			\$332.67
	3510	SUI-Acad Instr		\$68.84			\$68.84
	3610	WC-Acad Instr		\$339.46			\$339.46
	3710	STRS CB-Acad Inst		\$917.75			\$917.75
	4400	Instructional Supplies & Materials			\$4,064.65		\$4,064.65
	5795	Advertising				\$-	\$-
2009 Total			\$22,943.73	\$1,658.72	\$4,064.65	\$-	\$28,667.10
2010	1310	Instructional Salaries,Adjunct	\$36,341.11				\$36,341.11
	1311	Instr Sal, Adjunct Office Hours	\$317.82				\$317.82
	3340	MEDI-Acad Instr		\$531.56			\$531.56
	3510	SUI-Acad Instr		\$110.01			\$110.01
	3610	WC-Acad Instr		\$574.88			\$574.88
	3710	STRS CB-Acad Inst		\$1,466.39			\$1,466.39
	4400	Instructional Supplies & Materials			\$1,981.76		\$1,981.76
	5795	Advertising				\$-	\$-
2010 Total			\$36,658.93	\$2,682.84	\$1,981.76	\$-	\$41,323.53
2011	1310	Instructional Salaries,Adjunct	\$25,401.46				\$25,401.46
	3340	MEDI-Acad Instr		\$368.33			\$368.33
	3510	SUI-Acad Instr		\$182.89			\$182.89
	3610	WC-Acad Instr		\$398.32			\$398.32
	3710	STRS CB-Acad Inst		\$1,016.05			\$1,016.05
	4400	Instructional Supplies & Materials			\$-		\$-
	5795	Advertising				\$-	\$-

2011						
Total			\$25,401.46	\$1,965.59	\$-	\$27,367.05
2012	1310	Instructional Salaries,Adjunct	\$21,256.55			\$21,256.55
	3340	MEDI-Acad Instr		\$308.21		\$308.21
	3510	SUI-Acad Instr		\$342.27		\$342.27
	3610	WC-Acad Instr		\$377.30		\$377.30
	3710	STRS CB-Acad Inst		\$850.24		\$850.24
	4400	Instructional Supplies & Materials			\$-	\$-
	5610	Rents & Leases			\$105.23	\$105.23
2012						
Total			\$21,256.55	\$1,878.02	\$-	\$23,239.80
2013	1310	Instructional Salaries,Adjunct	\$21,324.80			\$21,324.80
	1311	Instr Sal, Adjunct Office Hours	\$522.18			\$522.18
	3110	STRS-Acad Inst		\$-		\$-
	3340	MEDI-Acad Instr		\$316.75		\$316.75
	3510	SUI-Acad Instr		\$240.34		\$240.34
	3610	WC-Acad Instr		\$405.06		\$405.06
	3710	STRS CB-Acad Inst		\$873.88		\$873.88
	4400	Instructional Supplies & Materials			\$1,632.11	\$1,632.11
	5110	Personal Service Agree/Consultants			\$4,436.80	\$4,436.80
	5610	Rents & Leases			\$-	\$-
2013						
Total			\$21,846.98	\$1,836.03	\$1,632.11	\$29,751.92
2014	1110	Contract Instructor	\$44,238.60			\$44,238.60
	1310	Instructional Salaries,Adjunct	\$20,947.50			\$20,947.50
	1311	Instr Sal, Adjunct Office Hours	\$1,113.40			\$1,113.40
	1320	Instruct Salaries Overload	\$5,284.50			\$5,284.50
	3110	STRS-Acad Inst		\$436.00		\$436.00
	3210	PERS-Acad Instr		\$5,061.84		\$5,061.84
	3310	FICA-Acad Instr		\$2,285.64		\$2,285.64
	3340	MEDI-Acad Instr		\$931.06		\$931.06
	3410	H&W-Acad Instr		\$11,615.07		\$11,615.07
	3510	SUI-Acad Instr		\$32.08		\$32.08
	3610	WC-Acad Instr		\$1,250.80		\$1,250.80
	3710	STRS CB-Acad Inst		\$882.45		\$882.45
	4400	Instructional Supplies & Materials			\$-	\$-
	5110	Personal Service Agree/Consultants			\$-	\$-
2014						
Total			\$71,584.00	\$22,494.94	\$-	\$94,078.94

As evidenced from the Budget/Fiscal profile above, Horticulture faculty have run a successful program with very little cost to the college for supplies and other operating expenses. Most all of the supplies and equipment needs for the program are paid for through Perkins money or Horticulture club monies. Instructional salaries are the biggest expense to the college.

5.1 Summarize what you believe are your program's strengths and major accomplishments in the last 5 years. Next, state the areas that are most in need of improvement.

The Horticulture faculty not only believe in their program, they “live” the program, their desire to see the program not only survive but to grow. This has been their mutual goal for the last eight years. With the addition of the Agriculture program to the AS Horticulture program there will be more students in the AS Horticulture degree program because of the cross-over of curriculum, we the faculty believe that this will benefit both programs. Students in the AS Horticulture program will benefit from the influx of students and equipment that will accompany the Agriculture program. As attested by the student surveys the students are very satisfied with instruction, with the instructors, and with their dedication to the program. The faculty's community involvement with other professional landscape and garden businesses and individuals through the Horticulture Advisory Committee, the Horticulture Club, the Solano County Master Gardener's, and through their own business enterprises keep the lines of communication open and vibrant. The forthcoming Horticulture Renovation Project coupled with the addition of the Agriculture Program has been a long term goal and has gone from the conception phase to the first step of implementation. Another goal of the faculty is to continually upgrade and improve the existing facility that is over 30 years old and as all older things fail we must strive to repair and replace them. With continued development of Agriculture curriculum and development of more short term (6 to 8 week) Horticulture classes we believe there will be new blood pumped into the program. Long range goal of having the only non-native Botanical Garden in Solano County, with its accompanying museum/event center will bring prestige and more recognition to the college, along with some projected influx of funds that can be attained from the event center and botanical garden could make the facility and program completely self-supporting.

Faculty have met the Educational Master Plan Goals and Strategies head on and have already accomplished many and others are currently in the works. Examples of progress:

1. Faculty have hosted the counseling department during one of their monthly meetings for lunch, tour of the facility, and a verbal outline of the program. Ken Williams has also gone to several of their monthly meetings to present any new or additional information about the program coming in upcoming semesters. Sandra Diehl works closely with SCC's DSP, local mental health agencies and high school transition programs to recruit new students. Conceptual plans for the botanical garden, museum and event center are completed and have been presented to the Board of Trustees. Connection to the community has been established with one substantial donor to the Horticulture Renovation Project, who has donated money, a structure, and some in-kind service.
2. With the recent approval of the Board of Trustees for \$1, 000,000.00 of Measure Q funds and the signing of a contract with an engineering firm to investigate infrastructure requirements, the establishment of the new community garden and K-12 garden area is underway.
3. The Adaptive Horticulture farmer's market as shown on the master renovation plan will be one of the last features to be built, however, the infrastructure for it will be laid with goal (1) above.
4. Development of Agriculture curriculum is underway and faculty is planning on having the first class approved and ready to teach by Spring 2016.

5. The need to hire a full time Horticulture and Plant Science faculty member was accomplished in August of 2014 with the hiring of Ken Williams and Sandra Diehl to share a full time position. The establishment of this new position has allowed them to start Agriculture curriculum development and do further research into developing an Agriculture program.
6. Funding for the Horticulture Renovation Project has been partially secured with some Measure Q funds, and with a Cal-Fire grant for the orchard. New grant sources are continually being investigated as well as funding from major landscape industries.

5.2 Program Goals. Based on the self-study analysis, prioritize the program's short (1-2 years) and long term goals (3+ years). Check whether the goal requires fiscal resources to achieve.

Table 8. Short-Term and Long-Term Goals

Short-Term Goals	Planned Action	Target Date	Person Responsible	Source
1. Install new infrastructure, roads, and farmers market stand.	Plans are out to bid and construction should begin early June 2016.	Finish by September 2016.	Kitchell, Horticulture faculty and contractor awarded the project (unknown at this time).	Measure Q Funds
2. Inventory and clean up existing storage sheds.	During Summer 2106 achieve goal.	September 2016	Horticulture faculty	None
3. Design and install butterfly garden and drip irrigation in area on North side of driveway.	During Summer session for Adaptive Horticulture Pgm.	August 2016	Horticulture faculty.	Hort Club Funds
4. Design and Repair of back lawn area.	Design new lawn and reception area and begin work.	August 2017	Horticulture faculty, Hort club members, students	Hort Club funds
5. Install irrigation system to new community gardens.	With Fall 2016 Irrigation class install irrigation to new plots.	November 2016	Horticulture faculty and students	Foundation funds

6. Install new raised beds in Adaptive garden	Design and begin installation in Fall 2016	May 2017	Horticulture faculty and Hort Club members	Foundation funds
7. Replace fans in greenhouse and propagation room	Fall of 2016 determine replacement costs and source	May 2017	Horticulture faculty and Hort Club members	P and Foundation funds and Hort Club funds

Long-Term Goals	Planned Action	Target Date	Person Responsible	Source
1. Acquire funds to finish renovation project.	Solicit businesses and community members for donations and naming rights to buildings.	2018	Horticulture faculty and Director of Foundation	Private
2. Acquire funds for Hort/Ag Museum and Event center	Solicit businesses and community members for donations and naming rights to buildings.	2018	Horticulture faculty and Director of Foundation	Private
3. Acquire funds for Botanical Garden	Solicit businesses and community members for donations and naming rights.	2019	Horticulture faculty and Director of Foundation	Private

In the source column denote “SP” for Strategic Proposals, “DB” for Department Budget, “P” for Perkins or “NR” for No Additional Resources Needed.

SIGNATURE PAGE

6.1 Please include a signature page with all full-time faculty and as many part-time faculty as you are able. The signature page should include lines with the signatures and then typed names of the faculty members.

The undersigned faculty in the Horticulture and Plant Science program, have read and concur with the finding and recommendations in the attached program review self-study.

Sandra Diehl

Ken Williams

1. How many Horticulture courses have you successfully completed with a C or better at Solano College?

#	Answer	Response	%
1	One	5	45%
2	Two	1	9%
3	Three	1	9%
4	Four or more	4	36%
	Total	11	100%

Statistic	Value
Min Value	1
Max Value	4
Mean	2.36
Variance	2.05
Standard Deviation	1.43
Total Responses	11

2. In what Horticulture course are you currently enrolled?

#	Answer	Response	%
1	HORT 006	0	0%
2	HORT 030	0	0%
3	HORT 031	0	0%
4	HORT 050	0	0%
5	HORT 055	0	0%
6	HORT 056	1	8%
7	HORT 070	12	100%
8	HORT 071	4	33%

Statistic	Value
Min Value	6
Max Value	8
Total Responses	12

3. Is your major in Horticulture?

#	Answer	Response	%
1	Yes	9	75%
2	Undecided	0	0%
3	No (state your major)	3	25%
	Total	12	100%

No (state your major)
not in degree program; personal interest
No major
CDFS

Statistic	Value
Min Value	1
Max Value	3
Mean	1.50
Variance	0.82
Standard Deviation	0.90
Total Responses	12

4. What is your reason(s) for taking this class? (mark all that apply)

#	Answer	Response	%
1	General education requirement	0	0%
2	Required for major	5	42%
3	Transfer	1	8%
4	Professional development	2	17%
5	Required for my current job	1	8%
6	Prerequisite	0	0%
7	General interest	10	83%
8	Fits my schedule	0	0%
9	Other:	1	8%

Other:
 I am pursuing a career as an herbalist and want to further my plant knowledge, so that I can provide my own herbs and plants in my business. Also to provide others with landscape designs!

Statistic	Value
Min Value	2
Max Value	9
Total Responses	12

5. At which campus do you prefer to take your Horticulture classes? (mark as many as apply)

#	Answer	Response	%
1	Fairfield (Main)	12	100%
2	Vacaville	2	17%
3	Vallejo	1	8%

Statistic	Value
Min Value	1
Max Value	3
Total Responses	12

6. What were your reasons for choosing Solano College?

#	Answer	Response	%
1	Location	8	73%
2	Good programs/reputation	1	9%
3	Childcare available	0	0%
4	Availability of classes	2	18%
5	Other:	0	0%
	Total	11	100%

Other:

Statistic	Value
Min Value	1
Max Value	4
Mean	1.64
Variance	1.45
Standard Deviation	1.21
Total Responses	11

7. How do you choose your classes? Rank your choices below:

#	Question	Not at all Important	Very Unimportant	Somewhat Unimportant	Somewhat Important	Very Important	Extremely Important	Total Responses
1	Fits my schedule	0	0	2	2	5	3	12
2	Needed for my Major	3	0	0	0	4	4	11
3	By instructor reputation	2	1	1	1	2	5	12
4	By friends advice	2	1	2	6	0	0	11
5	By Rate My Professor	5	1	2	1	1	1	11
6	By Location	0	0	1	2	5	4	12

Statistic	Fits my schedule	Needed for my Major	By instructor reputation	By friends advice	By Rate My Professor	By Location
Min Value	3	1	1	1	1	3
Max Value	6	6	6	4	6	6
Total Responses	12	11	12	11	11	12

8. How satisfied are you with the availability of Horticulture courses?

#	Answer	Response	%
1	Very Satisfied	7	58%
2	Satisfied	3	25%
3	Neutral	2	17%
4	Dissatisfied	0	0%
5	Very Dissatisfied	0	0%
	Total	12	100%

Statistic	Value
Min Value	1
Max Value	3
Mean	1.58
Variance	0.63
Standard Deviation	0.79
Total Responses	12

9. What would be your preferred time(s) for courses to be offered? (mark all that apply) a. Weekday Start Times

#	Answer		Response	%
1	Early Morning (8am)		7	58%
2	Morning (9am-noon)		7	58%
3	Afternoon (1-4pm)		3	25%
4	Evening (After 5pm)		6	50%
5	No preference		1	8%

Statistic	Value
Min Value	1
Max Value	5
Total Responses	12

10. What would be your preferred time(s) for courses to be offered? (mark all that apply)b. Weekend labs

#	Answer		Response	%
1	Saturday morning		4	33%
2	Saturday afternoon		4	33%
3	Would not attend on Saturdays		6	50%

Statistic	Value
Min Value	1
Max Value	3
Total Responses	12

11. If evening courses are your preference, please state whether a 6:00pm or 6:30 start time is preferable

#	Answer		Response	%
1	6:00pm start		9	90%
2	6:30pm start time		1	10%
	Total		10	100%

Statistic	Value
Min Value	1
Max Value	2
Mean	1.10
Variance	0.10
Standard Deviation	0.32
Total Responses	10

12. Would you take an online/hybrid Horticulture course?

#	Answer	Response	%
1	Yes	5	45%
2	No	6	55%
	Total	11	100%

Statistic	Value
Min Value	1
Max Value	2
Mean	1.55
Variance	0.27
Standard Deviation	0.52
Total Responses	11

13. Would you utilize a Horticulture/Science learning center/computer lab if it were available?

#	Answer	Response	%
1	Yes	8	73%
2	No	3	27%
	Total	11	100%

Statistic	Value
Min Value	1
Max Value	2
Mean	1.27
Variance	0.22
Standard Deviation	0.47
Total Responses	11

14. How satisfied are you with the following:

#	Question	Very Satisfied	Satisfied	Neutral	Dissatisfied	Very Dissatisfied	Total Responses	Mean
1	Quality of textbooks and instructional materials utilized in the Horticulture department	4	5	2	0	0	11	1.82
2	Quality of the classroom Horticulture courses are taught in	6	3	2	0	0	11	1.64
3	Quality of the propagation room and greenhouse that Horticulture courses are taught in	2	6	3	0	0	11	2.09
4	Quality and quantity of tools available for use in labs for the Horticulture courses	3	6	2	0	0	11	1.91

Statistic	Quality of textbooks and instructional materials utilized in the Horticulture department	Quality of the classroom Horticulture courses are taught in	Quality of the propagation room and greenhouse that Horticulture courses are taught in	Quality and quantity of tools available for use in labs for the Horticulture courses
Min Value	1	1	1	1
Max Value	3	3	3	3
Mean	1.82	1.64	2.09	1.91
Variance	0.56	0.65	0.49	0.49
Standard Deviation	0.75	0.81	0.70	0.70
Total Responses	11	11	11	11

15. What are the Horticulture departments' greatest strengths?

Text Response

Instructor

The Instructors

Ken Williams - great with all types of students Very welcoming to people in the community - not just traditional students Useful information Practical facility Horticulture Club the instruction given and the facility.

Ken Williams is an excellent instructor. The site is large with plenty of room for a variety of gardens.

friendly, casual atmosphere with lots of opportunity for hands-on learning

The Horticulture department's greatest strengths are.... *The Horticulture Club (80+ members)

*Ken Williams and Sandra Deihl! (They are amazing professors!) *The amount of land the department has to work with! *The Horticulture Plant sale *The Nursery! *The amazing students! *The garden plots

working outside. doing hands on activities

The "in field" training/experience. Being able to do what we learn in the classroom, during class time and outside of the class.

Good instructors

Statistic	Value
Total Responses	10

16. What are the Horticulture departments' weaknesses?

Text Response

Some very old equipment.

Supplies

Broader range of course offerings Nice to have mini-courses

at this time i do not see any areas that need improvement. however an area would be is to have more interest generated in horticulture so more students will take the classes.

An excellent instructor should always be assigned to teach the first course, Introduction to Horticulture, so there are enough students for all the classes to be filled.

The Horticulture Department's greatest weaknesses are... *The Location, there are no signs showing other where the dept. is, so many people don't even know it's there. *The lack of certain equipment tools, it would be nice if the school could help buy the department some more tools, newer and updated.

sitting in class doing text book work

There is only one bathroom.

No classes on vegetable gardening or hydroponics

Statistic	Value
Total Responses	9

Appendix B: Horticulture Advisory Minutes

Minutes of Horticultural Advisory Committee (HAC) Meeting
Wednesday, March 23, 2011 at SCC Horticulture Building, Room 1003

Meeting called to order at 8:03am

Attendees: Jennifer Baumbach (Master Gardener Program Director), Sandra Diehl (SCC Horticulture Adjunct Instructor), Katherine Gilbert (SCC Horticulture Club President), Susie Gilley (Dixon Ace Hardware Nursery Manager), Betsy Julian (SCC Dean Math & Science), Ted Mendenhall (Mendenhall Lawn Service, owner), Pam Muick (SCC Environmental Science Instructor), Trish Rose (SCC Horticulture Club President), and Ken Williams (SCC Horticulture Adjunct Instructor)

Introductions: first time attendees: Katherine Gilbert

Announcements: Betsy Julian

- Ken Williams & Sandra Diehl received President's Recognition Award in January 2011
- SCC has full Accreditation back
- Budget cutbacks: 25% summer classes, 9% fall classes; possible further cutbacks through fall, no promises for spring 2012 classes

Old Business Discussion: None

Discussion from 03/23/11 Agenda:

- Solano County Horticulture climate:
Retail nursery businesses sluggish in sales, veggies starts on the rise, landscape maintenance slow but see improvements coming, landscape contractor bids fed by federal stimulus \$\$\$, victory gardens, community gardens and related programs are on the rise
- Fire Claim Recovery Plan:
out to bid to remove & replace damaged / destroyed orchard trees, remove damaged eucalyptus trees, replace damaged fence surrounding site, clear and grade field & hydro seeded.
- Upcoming SCC Events:
 - April 15 Horticultural Therapy Institute from Denver here to work with Adaptive Hort students
 - May 1st Career Tech Fair
 - May 2nd Child Development students tour Adapt Hort programming exercises
 - May 5, 6, 7 Hort Club Plant Sale
 - May 22nd Green & Clean Day
- Site Repairs:
Replaced outdoor posts supports for outdoor classroom overhead structure this past January. Coming in June this year new heaters to be installed in propagation room & greenhouse, propagation roof to be replaced, greenhouse floor drainage to be scoped and repaired.

- VISTA classes a bust due to lack of visible promotion

Committee Roundtable: No discussion

Next Meeting: tba, @ SCC Hort bldg.

Meeting adjourned: 9:10am

Minutes of Horticultural Advisory Committee (HAC) Meeting
Wednesday, October 12, 2011 at SCC Horticulture Building, Room 1003

Meeting called to order at 7:45am

Attendees: Jennifer Baumbach (Master Gardener Program Director), Jim Darling (volunteer), Sandra Diehl (SCC Horticulture Adjunct Instructor), Susie Gilley (Dixon Ace Hardware Nursery Manager), Betsy Julian (SCC Dean Math & Science), Rose Loveall-Sale (Morning Sun Herb Farm, owner), Ted Mendenhall (Mendenhall Lawn Service, owner), Pam Muick (SCC Environmental Science Adjunct Instructor) and Ken Williams (SCC Horticulture Adjunct Instructor)

Announcements:

Betsy Julian

- Horticulture Program is being considered for discontinuance due to state and school budget cuts
- Ken Williams received Distinguished Adjunct Faculty of the Year Award

Sandra Diehl

- Adaptive horticulture classes doing well, always fully enrolled plus with 30 students every 8 week session. This coming December 7 students will be completing the 5 course program. 9 students walked the graduation line in May.
- May plant sale was the best on record, with over \$6,000 in gross sales!
- Horticultural Therapy Institute from Denver, with 14 of their students, was here in April to spend a day working with the adaptive students.
- It's been one year since the brush fire destroyed the pumpkin patch

Ken Williams

- Hort Intro has 21 students and Hort Soils has 17 students
- Soils class has all new chemical kits, replacing those which were 15 years old
- Green Valley Farmers market wants us to participate in their market days next year
- Over summer propagation house roof was replaced, greenhouse floor drains repaired, plus heaters replaced in both the propagation house and greenhouse
- Insurance claim for fire damages was paid and most of the recovery work has been completed: replaced site fencing, removal of burnt/scorched eucalyptus trees, grading of field. Items still needing to be completed are to purchase and plant damaged orchard trees, replacement of pumpkin patch
- Horticulture is now on sign at north entrance
- Horticulture Club has seventy nine members

Roundtable Discussion:

- Jennifer> back to full time 100%, office may have to move to accommodate upcoming master gardener training classes.
- Susie> business is very slow, poor summer sales, winter veggies popular now and basics are what is selling.
Trying not to buy products made in China for resale.
- Rose> wholesale sales down dramatically, retail sales is doing somewhat better. Cool season veggies, edibles and seeds are top sellers right now.
- Ted> business calls are picking up but most potential customers just wanting to know price to get lowest bid.
- Jim> feral cats trapped to date are 15
- Pam> suggests we could use a permanent sign at corner of Hort site fence to help better direct visitors, students & staff to Hort building.
- Ken> personal jobs are booming, commercial business down typically has 16 employees down to 8 currently
- Sandy> design business of 15 years is tanked with few future prospects

Upcoming SCC Events:

- Holiday Wreath & Plant Sale, December 8, 9 & 10

Next Meeting: tba, @ SCC Hort bldg.

Meeting adjourned: 8:40am

Minutes of Horticultural Advisory Committee (HAC) Meeting Wednesday, January 11, 2012 at SCC Horticulture Building, Room 1003

Meeting called to order at 8:01am

Attendees: Jennifer Baumbach (Master Gardener Program Director), Jim Darling (volunteer), Sandra Diehl (SCC Horticulture Adjunct Instructor), Erik Fink (Lemuria Nursery, owner), Susie Gilley (Dixon Ace Hardware Nursery Manager), EJ Hullana (Dreamcatchers, CEO), Betsy Julian (SCC Dean Math & Science), Rose Loveall-Sale (Morning Sun Herb Farm, owner), Pam Muick (SCC Environmental Science Adjunct Instructor) and Ken Williams (SCC Horticulture Adjunct Instructor)

Round Robin Discussion:

Jennifer – new MG Training classes have 22 students, wreath workshop a success

Jim – feral cats continuing to be a problem

Sandra - several of AH students have employment in horticultural fields. Some of the positions include golf course maintenance, PACE Travis Air Base Landscape Maintenance, Valley Crest Landscape Maintenance, OSH Garden Department Sales.

Erik – poor business last year, retail sales up – wholesale down, bare root trees available now, no rain means

early sales

Susie – business very slow, no February purchases

EJ – introduced himself and his agency which provides services through grants and government funding/resources for vets, mental health consumers and welfare to work clients. Future prospects

include Windmill assembly training/jobs for 10-15 persons.

Betsy – had to leave for another meeting

Rose – wholesale sales down by 50%, seasonal employees are reduced to one, typically 11-12 seasonal workers but this past year was only 6-7, consistently attending Farmers Markets around bay area, markets business through talks at clubs, etc.

Pam- teaches on campus and online classes, typically 120 students with 50% attrition rates

Ken Williams- has 21 students in day class and 14 in night class, Perkins \$\$\$ allowed him to take professional development classes from Bay Friendly Landscaping, Xmas plant sale a success \$3500 gross/ \$2400 net sales, 42 pre-ordered wreaths.

Next Meeting: tba, @ SCC Hort bldg.

Meeting adjourned: 9:22am

Minutes of Horticultural Advisory Committee (HAC) Meeting
Wednesday, March 20, 2013 at SCC Horticulture Building, Room 1003

Meeting called to order at 8:08am

Attendees: Tim Allred (Quality Tree Service, owner), Sandra Diehl (SCC Horticulture Adjunct Instructor), Erik Fink (Lemuria Nursery, owner), Susie Gilley (Dixon Ace Hardware Nursery Manager), Ted Mendenhall (Mendenhall Lawn Service, owner), Rennee Moore (interim Dean of Science SCC), Pam Muick (SCC Environmental Science Adjunct Instructor) and Ken Williams (SCC Horticulture Adjunct Instructor).

Agenda Approval: motioned to approve by Ted, seconded by Erik

Minutes Approval: motioned to approve with amendment by Pam, seconded by Jim.

Old Business: Ken to research and commission a 'Horticulture Dept.' wood sign to be made for placement at NW fence line.

Round Robin Discussion:

Tim: business is good, not effected by downturn of economy, has 3 employees.

Jim: feral cat population is declining, still a few around Hort site.

Sandra: AH program thriving; need to create employment resource component.

Erik: business is up from last year; retail sales up, wholesale sales down; have 5 employees down from 11 last year; frost this year was not too bad.

Susie: business to date has doubled from last year; nursery has 1 dedicated employee (manager) & store has 17 employees some of which help in nursery.

Ted: business is slow at this time, new calls increasing as weather warms up, has 10 new clients thus far; most of new business is aerating & dethatching lawns; has 1 employee plus himself.

Pam: California Native Plant Society is breeding pathogen free plants; Rotary Club event was a great success, raised \$30K for scholarships, Sandy helped fundraising for event by planting ceramic containers with SCC plants; Nursery Manager job is available at Wal-Mart Fairfield.

Renee: Hort has support from Dr. Laguerre and board of trustees; Hort growth expected with implementation of master plan; full time Hort position to be announced soon.

Ken: classes are going strong this semester; looking to connect with Jelly Belly to have SCC Hort grow specialty crop for them.

Next Meeting: tba, @ SCC Hort bldg.

Meeting adjourned: 9:10am

Minutes of Horticultural Advisory Committee (HAC) Meeting
April 24, 2014 at SCC Horticulture Building, Room 1001

Meeting called to order at 12:17pm

Lunch served included pizza, salad and soda beverages.

Attendees: Tim Allred (Quality Tree Service, owner), Jennifer Baumbach (Program Coordinator Solano County Master Gardeners), Jorja Bennett (SCC student and Horticulture Club President), Ben Bourque (Horizon Irrigation, sales associate), Jim Darling (SCC Horticulture volunteer), Sandra Diehl (SCC Horticulture Adjunct Instructor), Erik Fink (owner Lemuria Nursery), Susie Gilley (Dixon Ace Hardware Nursery Manager), Ted Mendenhall (owner Mendenhall Lawn Service), Zach Wilkerson (owner A-Z Landscaping), Ken Williams (SCC Horticulture Adjunct Instructor) and Dr. John Yu (Dean of Science SCC).

Agenda Approval: motioned to approve by Susie, seconded by Jorja

Minutes Approval: motioned to approve with amendment by Jorja, seconded by Susie.

New Business/Announcements:

- Horticulture department has been renamed 'The Louise Yarbrough Horticulture and Plant Science Institute'. A beautiful pergola was constructed from reclaimed wood in front of the Hort building commemorating the new name. It was donated by Debra Russo, the daughter of Louise Yarbrough.
- A full-time shared position is in the works for Ken and Sandra. This new position will allow for each of them to develop and teach new course offerings that will include Agriculture, Viticulture and Sustainability.
- Orchard installation is underway. The irrigation class is installing the irrigation system and the construction class is planting the trees. All should be completed by the end of this semester. There are 46 new fruit trees which include Apples, Pears, Pluots, Plums, Avocados, Plums and Peaches. The irrigation water source is primarily from SID but will have a back-up bypass to use SCC water when SID is down. The irrigation system will have a combination of rotator sprinklers and drip. The plan is to plant cover crops and wildflowers in the orchard to promote soil health.
- A 1800 gallon tank was donated by one of the Hort Club members. It will be used to store SID water for use in the orchard. Plus it will be used to fertilize the trees with compost tea.
- Spring Plant Sale is just around the corner. It is slated for May 8, 9 & 10.

Old Business:

- No action to date on 'Horticulture Dept.' wood sign to be made for placement at NW fence line. Discussion included incorporating the SCC logo on it. This will require approval from SCC administration. Ken will follow up on this.

Round Robin Discussion:

Tim: Has seen many trees and shrubs stressed due to the ongoing drought. He is recommending to plant drought tolerant types to his customers.

Sandra: AH enrollment is down slightly. Looking forward to new position and the opportunity to develop and teach mainstream curriculum. Is slated to teach Plant Identification in the fall.

Ben: Business down this year from last year, new construction is slow. 70% of customers are construction/maintenance companies, 30% homeowners. Many from both are transitioning irrigation to drip to save water.

Erik: Drought is an issue for his customers. He believes there has been too much overhype from the media contributing to panic amongst homeowners. He is recommending they use drought tolerant varieties. Has lots of requests from customers for the UC Davis All-Stars and succulents. Is having trouble finding lavenders from growers due to high demand. Has offered to employ an AH student if they are qualified to do the job.

Jennifer: Drought top issue with residents of Solano County. Giving out lots of resources and holding seminars on the subject. Can get same resources for HAC members if requested.

Ted: Customers are cutting back on water use on their lawns. Eastridge HOA has a mandated 20% water use reduction in place. However, he is holding his own and managing to pay the bills.

Dr. Yu: Appreciated the support of this committee and its members. Excited about new positions for Ken and Sandra. Is hoping to fast track new curricular offerings within 2 to 3 semesters, it usually takes 2+ years.

Jim: Hort bee hives are down to one from three. They did not die but rather left over the winter.

Susie: Veggie starts are the #1 sales item. Season is going well, up from last year. Lots of bark, mulch, drip irrigation and drought tolerant plants being sold. She is slated to retire this year.

Zach: Business is going strong, customers conscious of water use. Recently attended TORO seminar on the use of USB irrigation controllers. Also noted turnover rate for his employees are about one year.

Jorja: Updated group on Hort Club activities. Membership currently at 68, with an average of 40-45 attending meetings. Club provided today's lunch for HAC group.

Ken: Irrigation class has 9 students, Construction class has 12 students. It's believed the enrollment is down due to last semester when a biology faculty taught the Hort Intro class. None of his students enrolled in other Hort classes.

Next Meeting: tba, @ SCC Hort bldg..

Meeting adjourned: 1:37pm