

Solano Community College

2007-2008

*Instructional Program Review:*

# Career Technical Education



## Introduction & Overview

The Instructional Program Review is carried out by the faculty and deans within each academic division; the General Program Review is the responsibility of individual unit managers. Both are integral components of Solano Community College's annual evaluation, planning, and budget development cycle. The outcomes of the Program Review process support the first component (evaluation), which informs the second (planning), which then impacts the third (budget development).

At Solano, the Program Review process includes the ongoing collection of both qualitative and quantitative data and the examination of trends in these data over time. The collection and examination of data then leads to the evaluation of program effectiveness and efficiency. Finally, reviewers develop recommendations for program improvement. These recommendations are assessed by peers and administrators for both feasibility and alignment with the College's Strategic Goals/Objectives and Educational Master Plan. Recommendations that require no new/additional funding can be implemented directly; those dependent on new/additional funds are prioritized and submitted for budgeting. Once implemented, the recommended changes are evaluated in the subsequent round of the Program Review process — and the cycle continues.

The Program Review report contains: 1) a narrative description of the unit and of each program or service offered, including mission, goals, and desired outcomes — student-learning or service-area outcomes (SLOs and SAOs, respectively); 2) both quantitative and qualitative data relative to unit/program performance; 3) an evaluation of the unit/program effectiveness and efficiency; 4) an analysis of trends; 5) recommended changes and expected outcomes; and 6) a description of unit/program needs to implement the recommended changes and achieve the expected outcomes.

Although performed by all units on an annual basis, the Program Review is only published for a specific unit every fourth year, according to a defined schedule. Programs Reviews published in the fall 2008 are based on the prior academic year's data (AY 2007-08). Where possible, up to an additional four years of data may be included to demonstrate trends.

Robert J. Simas  
Director, Research & Planning



# Definitions

## FTES

*Full-time Equivalent Student (FTES)* is the unit of measure based on student attendance patterns used by the State on the formula for apportionment of funds:

525 WSCH = 1 FTES [Source: First Census counts from End of Semester SCC10 report]

## WSCH

*Weekly Student Contact Hours (WSCH)* is the number of students in a class multiplied by the number of hours the class meets per week. For example, a class of 32 students that meets 3 hours per week generates 96 WSCH. WSCH is the primary factor used in the formula to calculate FTES. [Source: First Census counts from End of Semester SCC10 report]

## Enrollment

*Enrollment* totals are measured as the number of seats filled in classes offered. [Source: NSR report]

## FTEF

*Full-time Equivalent Faculty (FTEF)* is the measure that identifies the use of a full-time instructor for implementing an instructional program. Fifteen hours is the base formula hours (lecture-hour equivalents). For example, a three-hour lecture class is valued at .20 FTEF, ( $3/15 = .20$ ). A full-time instructor would teach five, three-hour lecture classes. [Source: First Census counts from End of Semester SCC10 report]

## Load

*Load* is a measure of relative performance of a program. Load is calculated by dividing WSCH by FTEF. For example, a class that is worth 0.2 FTEF and generates 96 WSCH will have a Load of 480 (WSCH divided by FTEF). Generally, larger classes generate higher loads. [Source: First Census counts from End of Semester SCC10 Report]

## Percent Fill

The percentage of available class seats filled at first census. [Source: SCC30 report.]

## **Percent Retention**

The percentage of seats filled at the end of semester compared to the seats filled at first census. [Source: SCC30 report.]

## **Apportionment Income**

The State funding allocation per FTES multiplied by FTES. (For 2007-2008 one FTES was valued at \$4,367.) [Source: Office of Administrative and Business Services.]

## **Expense**

*Direct Expense* includes salaries (1000, 2000, and 3000 budget codes), materials (4000 and 5000 budget codes), and capital outlay (6000 budget codes) expenditures incurred by the program during the academic year. (Years prior to 1998-1999 do not include materials, capital outlay, or VEA funds as part of their total direct expenses.) [Source: Office of Fiscal Services.]

## **Cost/FTES**

The cost to generate one FTES in the program. (Total Expense divided by FTES).

## **Growth/Decline**

The percent change in a measure from the prior year.

## **Percent Successful**

The *Percent Successful* is the number of “satisfactory” grades recorded (As, Bs, Cs, and CRs, as defined in the *California Code of Regulations*, Title 5, Div. 6, Chap. 6, Subchap. 9, §55758) compared to the total number of grades of record, including Ws and “substandard” grades (Ds, Fs, and NCs, as defined in the *California Code of Regulations*, Title 5, Div. 6, Chap. 6, Subchap. 9, §55761). This statistic measures grades not students. Since students can take more than one course in a specific term, the college-wide total grades are always higher than the number of students enrolled and should not be confused with headcount — the unduplicated count of individuals. At the programmatic level, duplication is less of a factor, but still exists. For example, it is possible that a student is taking two courses within the same program and is successful in both courses or in one course but not the other. This statistic is calculated only for the last academic year included in the report.

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## Aeronautics Department

### Part I. Goals/Objectives

#### 1. What are the goals/objectives of the program? (State in terms of student learning outcomes — SLOs.)

- Fulfill students objectives to pass the Federal Aviation Administration (FAA) exams with scores of 90% or higher.
- Update equipment and teaching methods to be more realistic in order to prepare the student for what he/she will be doing on the job.
- Bring student-to-teacher ratio into realistic numbers so students can function safely in the lab and have individual attention.
- Keep faculty current in state-of-the-art advances within his/her discipline as reflected by advances in industry.
- Participate in program expansion to meet the needs of a growing industry and local demands.
- Review industry demands for skill level of graduates.
- Review requirements for graduates as outlined in *Federal Aviation Regulation*, Part 14.7.
- Bring into line instructors' understanding of student needs in light of industry and FAA requirements.
- Initiate an Advanced Composite Structures program to help enhance student skills.

#### 2. List appropriate indicators of program success (i.e., measures of goals/objectives stated above). Include both quantitative and qualitative measures.

- Student's ability to phase into the working environment with a minimum of additional training.
- Student's ability to pass the FAA exam with a score above the national average.
- Employers' and graduates' reports of satisfaction with the capabilities of recent graduates.
- FAA-designated examiner's report of the quality of students taking the oral and practical exams.

## Part II. Analysis

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

**Enrollment** — Trends in enrollment continue to increase through the 2007-08 academic year. This increase was brought about by the referral of students to the Aeronautics Program, from the SCC Counseling Department and the Travis Air Force Base Education Department. Industry leaders are predicting a major shortage of Airframe & Powerplant (A&P) technicians and the FAA is still trying to bring about a change in the *Federal Aviation Regulation*, Part 65. It is anticipated that both of these will increase enrollment.

**Retention** — Retention continues to be among the highest in the College (91%-100%). This indicates a desire on the part of the students to finish the program once they have started, because of the inherent rewards for completion.

**Fill rate** — The fill rate has increased a small amount. This can also be attributed to trends in enrollment (see above).

#### **Other Factors** —

- Record numbers of SCC students are receiving passing scores on FAA exams, compared to the numbers graduating from SCC, and compared to national average numbers.
- The recovery of the corporate jet industry and the light sport aircraft in the United States has materialized due, in part, to the ease of maintaining a smaller aircraft, uncomplicated travel requirements, and less operating expenses than commercial airliners.

#### **Qualitative Factors** —

- WSCH/FTE has increased dramatically because of the new course, AERO 150: *FAA Special Projects and Course Enhancements*, which brings in many students for make-up and review.
- Letters/phone calls from industries that employ graduates, stating the graduate's ability to integrate into the workplace with either minimum or no additional training.
- Graduates who are out in the field complete questionnaires or give verbal evaluations of the worth of the program.
- Have a local, designated examiner prepare a written/verbal report on the quality of graduates taking the oral and practical exams.
- One member of the faculty has been assigned to survey the needs of the industry and help students locate available jobs.

**2. How do the above trends relate to the program goals identified during the last review?**

The present increase in potential jobs has helped, but the high cost of computers and computer-based training programs in the aeronautics field, makes much of the program's current equipment woefully behind the times. The aircraft industry's technology is increasing in cost and complexity every year. (One company has a terrific computer-based training program that would greatly help the program, but it costs \$329,000!) Although enrollment has come up dramatically and night classes have been added, the budget for supplies and equipment remains relatively the same as it was eight years ago. Modified computers that were originally purchased in 1998 are still being used.

**Part III. Conclusions and Recommendations**

**1. What are the major accomplishments of the program since the last report?**

The position of a part-time instructor for the A&P program has been filled. The Department still lacks state-of-the-art computers that would allow the use of new, current software.

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

With increasing enrollments, the new facility, and an extra class section, the already overburdened materials budget continues to decrease instead of increase. This is partly due to increasing costs in supplies without matching increase in funds, and a growing complexity in the basic requirements for the graduating student to achieve entry-level skills. A program of this nature will not attract students if it cannot provide the hands-on training required to give them the necessary, entry-level skills for the job they seek. With the competition for jobs the way it is, students will be attracted to the school that can provide the best entry-level skills, for the least expenditures in time and money.

In addition, faculty members should continue to update their expertise with training in order to provide students with state-of-the-art, entry-level skills. Unfortunately, the fact that there is no money to pay for substitute teachers, when most of the training opportunities are during the school year, inhibits recurrent training for instructors.

The Department is also initiating a FAA Composite Repair program that will help increase attendance and give students, who graduate from the program, additional repair skills that are rapidly becoming a necessary part of the industry. The aircraft industry in Solano County is a moderately sized, occupational field. Regional opportunities are more lucrative. Job market supply has not caught up with demand. Employment opportunities are cyclic.

		03-04	04-05	05-06	06-07	07-08
FTES GENERATED	Summer	3.93	3.36	0.00	0.00	0.00
	Fall	35.95	22.46	9.33	10.51	11.15
	Spring	28.53	10.37	6.85	7.49	15.35
	<b>TOTAL</b>	<b>68.41</b>	<b>36.19</b>	<b>16.18</b>	<b>18.00</b>	<b>26.50</b>
<b>Growth/Decline [(Yr2-Yr1)/Yr1]</b>		<b>-24%</b>	<b>-47%</b>	<b>-55%</b>	<b>11%</b>	<b>47%</b>
LOAD (WSCH/FTE)	Summer	256	219	0	0	0
	<b>Growth/Decline</b>	<b>-31%</b>	<b>-14%</b>	<b>-100%</b>	<b>N/A</b>	<b>N/A</b>
	Fall	251	185	112	172	182
	Spring	267	144	137	123	251
<b>AVERAGE, Fall &amp; Spring</b>		<b>259</b>	<b>165</b>	<b>125</b>	<b>148</b>	<b>217</b>
<b>Growth/Decline [(Yr2-Yr1)/Yr1]</b>		<b>15%</b>	<b>-36%</b>	<b>-24%</b>	<b>18%</b>	<b>47%</b>
ENROLLMENT	Summer	33	47	0	0	0
	Fall	62	49	14	23	22
	Spring	52	17	16	25	45
	<b>TOTAL</b>	<b>147</b>	<b>113</b>	<b>30</b>	<b>48</b>	<b>67</b>
<b>Growth/Decline [(Yr2-Yr1)/Yr1]</b>		<b>-16%</b>	<b>-23%</b>	<b>-73%</b>	<b>60%</b>	<b>40%</b>
NUMBER OF SECTIONS	Summer	4	4	0	0	0
	Fall	6	9	11	5	5
	Spring	6	11	8	4	5
	<b>TOTAL</b>	<b>16</b>	<b>24</b>	<b>19</b>	<b>9</b>	<b>10</b>
<b>Growth/Decline [(Yr2-Yr1)/Yr1]</b>		<b>-6%</b>	<b>50%</b>	<b>-21%</b>	<b>-53%</b>	<b>11%</b>
FTEF	Summer	0.460	0.460	0.000	0.000	0.000
	Fall	4.300	3.633	2.500	1.834	1.834
	Spring	3.200	2.167	1.500	1.834	1.834
PERCENT FILL (1st cen/max enroll)	Summer	34%	49%	0%	0%	0%
	Fall	53%	44%	10%	32%	27%
	Spring	57%	35%	19%	23%	38%
	<b>AVERAGE, Fall &amp; Spring</b>	<b>55%</b>	<b>40%</b>	<b>15%</b>	<b>28%</b>	<b>33%</b>
PERCENT RETENTION (EOS/1st cen)	Summer	97%	51%	0%	0%	0%
	Fall	82%	94%	85%	96%	100%
	Spring	85%	76%	67%	100%	91%
	<b>AVERAGE, Fall &amp; Spring</b>	<b>84%</b>	<b>85%</b>	<b>76%</b>	<b>98%</b>	<b>96%</b>
APPORTIONMENT INCOME (FTES * Annual Factor)		\$239,093	\$126,086	\$68,312	\$78,606	\$115,726
EXPENSE	Salaries	\$259,734	\$250,121	\$213,691	\$158,302	
	Materials	\$15,298	\$23,176	\$3,952	\$10,422	
	Capital Outlay	\$21,939	\$7,565	\$4,336	\$1,138	
	<b>Total Direct</b>	<b>\$296,971</b>	<b>\$280,862</b>	<b>\$221,978</b>	<b>\$169,862</b>	
	Indirect (Direct *.40)	\$118,788	\$112,345	\$88,791	\$67,945	
	<b>TOTAL</b>	<b>\$415,759</b>	<b>\$393,206</b>	<b>\$310,770</b>	<b>\$237,807</b>	<b>\$0</b>
ANNUAL COST/FTES		\$6,077	\$10,865	\$19,207	\$13,211	\$0
<b>Growth/Decline [(Yr2-Yr1)/Yr1]</b>		<b>-15%</b>	<b>79%</b>	<b>77%</b>	<b>-31%</b>	<b>-100%</b>

Prior to AY98-99 expense does not include capital outlay or VEA funds.

		White, non-Hispanic	African- American	Hispanic	Filipino	Other, non-white	Total #
<b>Summer</b>							
Grades *	A	0	0	0	0		0
	B	0	0	0	0		0
	C	0	0	0	0		0
	D	0	0	0	0		0
	F	0	0	0	0		0
	CR	0	0	0	0		0
	NC	0	0	0	0		0
	W	0	0	0	0		0
	<b>TOTAL #</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>% Successful *</b>		<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>
<b>Fall</b>							
Grades *	A	16	1	2	0	1	20
	B	1	0	0	0	2	3
	C	0	0	0	0		0
	D	0	0	0	0	4	4
	F	1	0	0	0		1
	CR	0	0	0	0		0
	NC	0	0	0	0		0
	W	0	0	0	0		0
	<b>TOTAL #</b>	<b>18</b>	<b>1</b>	<b>2</b>	<b>0</b>	<b>7</b>	<b>28</b>
<b>% Successful *</b>		<b>94%</b>	<b>100%</b>	<b>100%</b>	<b>0%</b>	<b>43%</b>	<b>82%</b>
<b>Spring</b>							
Grades *	A	16	5	0	0	10	31
	B	3	2	0	0	2	7
	C	1	1	0	0		2
	D	0	0	0	0		0
	F	0	0	0	0		0
	CR	0	0	0	0		0
	NC	0	0	0	0		0
	W	1	0	0	0		1
	<b>TOTAL #</b>	<b>21</b>	<b>8</b>	<b>0</b>	<b>0</b>	<b>12</b>	<b>41</b>
<b>% Successful *</b>		<b>95%</b>	<b>100%</b>	<b>0%</b>	<b>0%</b>	<b>100%</b>	<b>98%</b>

\* Includes duplicate counts.

<u>Summer</u>		<u>F</u>	<u>M</u>	<u>U</u>	<u>ESL</u>	<u>Non-ESL</u>	<u>U</u>
Grades *	A	0	0		0	0	
	B	0	0		0	0	
	C	0	0		0	0	
	D	0	0		0	0	
	F	0	0		0	0	
	CR	0	0		0	0	
	NC	0	0		0	0	
	W	0	0		0	0	
	TOTAL #	0	0	0	0	0	0
	% Successful *	0%	0%	0%	0%	0%	0%

  

<u>Fall</u>		<u>F</u>	<u>M</u>	<u>U</u>	<u>ESL</u>	<u>Non-ESL</u>	<u>U</u>
Grades *	A	0	20		0	20	
	B	0	3		0	3	
	C	0	0		0	0	
	D	0	4		0	4	
	F	0	1		0	1	
	CR	0	0		0	0	
	NC	0	0		0	0	
	W	0	0		0	0	
	TOTAL #	0	28	0	0	28	0
	% Successful *	0%	82%	0%	0%	82%	0%

  

<u>Spring</u>		<u>F</u>	<u>M</u>	<u>U</u>	<u>ESL</u>	<u>Non-ESL</u>	<u>U</u>
Grades *	A	2	29		1	30	
	B	1	6		1	6	
	C	0	2		0	2	
	D	0	0		0	0	
	F	0	0		0	0	
	CR	0	0		0	0	
	NC	0	0		0	0	
	W	0	1		0	1	
	TOTAL #	3	38	0	2	39	0
	% Successful *	100%	97%	0%	100%	97%	0%

\*Includes duplicate counts.

8/29/2008

Solano: Research and Planning

## Cosmetology Department

### Part I. Goals/Objectives

**1. What are the goals/objectives of the program? (State in terms of student learning outcomes — SLOs.)**

- To prepare students for job placement in the Cosmetology industry of Solano County and the greater Bay Area, by providing 1600 hours of technical and practical training, to qualify for the California State Board Examination for Cosmetology.

**2. List appropriate indicators of program success (i.e., measures of goals/objectives stated above). Include both quantitative and qualitative measures.**

*Quantitative:*

- The student will complete the state-mandated technical hours.
- The student will complete the state-mandated practical operations.
- The student will complete the required, state-mandated, 1600 clocked hours.

*Qualitative:*

- Successful passing of a written test.
- Successful passing of a practical performance evaluation.
- A successful passing score of 75% or higher.
- Biennial Instructional Program Review and Analysis.

### Part II. Analysis

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

**Enrollment —**

- Implementation of a permanent summer program, increased enrollment by 68% from 2003-04 to 2005-06 and resulted in an additional 11% growth of FTES in 2007-08.
- Institution of the permanent evening program in fall 2005, aided in the additional 68% growth of enrollment from 2006-07 to 2007-08 and the 72% increase of FTES from 2005-06 to 2007-08.

- With the College institution of Banner, a new computer software system, some the student progress and achievement indicators for the annual, successful course completion rate may be inaccurate due to the new method of reporting.
- The number of sections offered in fall 2006-07 was eight sections not twelve sections, as reported.

**Retention —**

- The overall, average retention rate of 90.5% from 2003-04 to 2007-08 is extremely good.
- Summer 2005-06 to 2007-08: average retention of 90.3%; fall 2003-04 to 2007-08: 94.6%; spring 2003-04 to 2007-08: 70.2%. With the implementation of the summer program, students are able to complete the program earlier. This could account for the reduction of 8% retention in 2005-06, and 3% in 2007-08.

**Fill rate —** Average fill rate from 2003-04 to 2007-08 is an outstanding 116%.

**Other Factors —**

- The Cosmetology program's completion rate over the last four year has been exceptional. Some of the program successes include: 1 AS degree & 15 certificates in 2004-05; 17 certificates in 2005-06; and 4 AS degrees & 26 certificates in 2006-07.
- 100% was the pass rate of students taking their Cosmetology State Board Exams in spring 2007.
- The Cosmetology program is fiscally responsible: 153.45 FTES in 2004-05; 247.28 FTES in 2005-06; 207.70 FTES in 2006-07; 229.85 FTES in 2007-08, and client revenue of \$53,920.40 for 2006-07.
- Institution of an evening Cosmetology program in fall 2005 has enabled an expansion of the program, increasing enrollment opportunities to an additional 50 students annually. This expansion has also optimized a greater use of the facilities and dedicated laboratory classrooms.
- Institution of a permanent summer program has enabled students to complete the program in a timelier manner, helping to retain student enrollment. This summer program has also increased utilization of the facilities and optimized a more effective use of the dedicated laboratory classrooms.
- The Cosmetology faculty and staff work diligently to maintain a high caliber of standards. Faculty contribute through continuing professional education to enhance student learning outcomes and maintain the integrity of the program.



- Continually networking with industry business professionals and working with an advisory board promotes currency with new and upcoming industry trends. It also maintains our relationship with professionals who employ our SCC cosmetology licensed graduates.
- Working with the community and sponsoring community service projects such as Locks of Love, SCC is now a depository for Locks of Love. Cleaning wigs for the American Cancer Society's "Look Good Feel Better" program. Supporting the Red Ribbon Lock-In, held at the Fairfield Community Center for junior high students, offering hair and makeup services. All of these services help to maintain the quality relationship and reputation with the community that the SCC Cosmetology Department has developed over the years.

**Qualitative Factors** — Factors include FTES, A.S. Degree, Certificates, and State Board Exams.

**2. How do the above trends relate to the program goals identified during the last review?**

- The goal of a permanent summer program to retain student enrollment and hasten program completion has been achieved. The review analysis shows a significant improvement from 2003-04 to 2007-08 with a 90.6% average.
- The goal of increasing enrollment opportunities by instituting an evening cosmetology program has been extremely successful, with an increase of enrollments in 2005-06 of 68% and an increase of FTES in 2005-06 of 61%.
- The goal of upgrading faculty and staff workstations to meet the ergonomic safety standards as recommended by Keenan & Associates has been achieved.

**Part III. Conclusions and Recommendations**

**1. What are the major accomplishments of the program since the last report?**

- Secured funding for professional development for faculty to attend conferences and seminars such as:
  - ◇ Cosmetology Educators of America Conferences, held annually
  - ◇ West Coast Beauty Systems Spring Style Show, held annually
  - ◇ Maly's Beauty Education Symposium
  - ◇ Eva's Professional Skin Care post-graduate program
  - ◇ Academic Senate Vocational Education Leadership Conference
  - ◇ CTA semi-annual conferences
- In spring 2007, SCC achieved a 100% pass rate of students taking their Cosmetology State Board Examinations.
- Mary Ann Haley was voted California Instructor of the Year for 2006 by the California Cosmetology Association.

- SCC Cosmetology Club raised funds to create a SCC Cosmetology Club Scholarship for cosmetology students.
- Pedagogical shifts impacting the delivery of instruction include becoming more computer-based by the anticipated upgrade of lecture classrooms 1626, 1634, and clinic laboratory 1610 to smart, wireless classrooms.
- Students participated in the annual California Cosmetologist Association Student Team Competition held in Santa Cruz.
- Yosh Toya, internationally renowned cosmetologist, chose SCC Cosmetology to be one of the 100 selected cosmetology schools in the world to receive a day of education from him. The day of education was held September 19, 2006.

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

- A full-time faculty position is required for the advanced cosmetology evening program — COSM 101: *Cosmetology II*, COSM 102: *Cosmetology III*, and COSM 103: *Cosmetology IV* (taught concurrently).
  - ◇ This full-time cosmetology faculty position was scheduled to be filled. However, due to budgetary constraints and workload issues, the scheduled full-time faculty position has not been filled. As a result, three adjunct faculty have been hired to teach COSM 101, 102 and 103 (concurrent) classes for the night program, which only requires one full-time faculty during the day program. Having multiple adjuncts teach the same classes (COSM 101, 102, and 103) created pedagogic conflicts, produced an inconsistency of both theoretical and practical concepts, and undermined the established SCC instructional methods, procedures, and standards.
  - ◇ Multiple adjuncts created confusion for the students when performing daily assignments and the process and practical services during the clinic laboratory on clients. Many of the practical instructional methods utilized by the multiple adjuncts (each having their own/different way of doing the same practical service) are contradictive, incongruent, inconsistent, and jeopardize the established standard Solano College methodologies the students have learned and are required to perform.
  - ◇ One class taught by multiple instructors, using multiple teaching methods, especially for the state board performance criteria, encourages a less than positive learning environment for the students. This weakens the educational foundation established in COSM 100: *Cosmetology I*. Apparently, this instructional environment is setting the students up to fail.

- ◇ Due to additional budget cuts and lack of educational consistency, the full time COSM 100 night instructor was reassigned to teach the advanced (COSM 101) clinical laboratory. This assignment prevented enrollment opportunities of 25 new COSM 100 students, and prevented the optimal usage of the clinical laboratory, greatly affecting the WSCH/FTES. Additional factors affected are the percent of fill rate, percent of retention, apportionment income, Bookstore revenues and other campus financial gains.
- Fill the full-time, cosmetology lab technician classified position. The position has been vacant since fall 2008. As a result, a part-time (hourly) classified staff has been hired, creating pedagogical hardships and difficulties for the evening full-time faculty, students, and the program. Some of the hardships that have made instruction extremely difficult for the evening program include, but are not limited to:
  - ◇ Assisting with the supervision of students' clinical operations
  - ◇ Assisting with maintaining safety and state requirements for operations performed on clients, using hazardous materials such as chemical strengtheners, cold waves, bleach, facialing chemicals and hair color
  - ◇ Assisting with safety measures for practical operations using thermal hot irons, stoves, marcel irons, flat irons, etc.
  - ◇ Assisting with the operation of the front desk, reception procedures
  - ◇ Retrieving and applying phone messages from students and clients
  - ◇ Assisting with the booking of clients and maintaining client records
  - ◇ Assisting with set-up of equipment demonstration classes
  - ◇ Assisting with the maintenance of Department equipment
  - ◇ Working with inventory/replenishment of supplies
  - ◇ Completing duplicating requests for the cosmetology department.
  - ◇ The grading of tests
  - ◇ Mailing out information packets to potential students
  - ◇ Coverage for faculty breaks and dinner

Program Review 2007-08		Career Technical Education				
COSMETOLOGY		Division 11				
TOPs: 3007.00						
		03-04	04-05	05-06	06-07	07-08
FTES	Summer	0.00	0.00	8.29	14.78	12.20
GENERATED	Fall	78.71	73.53	108.92	95.80	102.67
	Spring	91.13	79.92	130.07	97.12	114.98
	<b>TOTAL</b>	169.84	153.45	247.28	207.70	229.85
<b>Growth/Decline [(Yr2-Yr1)/Yr1]</b>		4%	-10%	61%	-16%	11%
LOAD	Summer			2488	778	642
	<b>Growth/Decline</b>	-100%	N/A	N/A	-69%	-17%
(WSCH/FTE)	Fall	1181	1103	1089	958	770
	Spring	1367	1199	976	971	862
	<b>AVERAGE, Fall &amp; Spring</b>	1274	1151	1033	965	816
<b>Growth/Decline [(Yr2-Yr1)/Yr1]</b>		21%	-10%	-10%	-7%	-15%
ENROLLMENT	Summer	0	0	32	47	45
	Fall	69	67	94	83	88
	Spring	81	72	107	84	94
	<b>TOTAL</b>	150	139	233	214	227
<b>Growth/Decline [(Yr2-Yr1)/Yr1]</b>		-14%	-7%	68%	-8%	6%
NUMBER OF SECTIONS	Summer	0	0	1	2	2
	Fall	5	5	5	12	6
	Spring	5	5	6	5	8
	<b>TOTAL</b>	10	10	12	19	16
<b>Growth/Decline [(Yr2-Yr1)/Yr1]</b>		11%	0%	20%	58%	-16%
FTEF	Summer	0.000	0.000	0.100	0.570	0.570
	Fall	2.000	2.000	3.000	3.000	4.000
	Spring	2.000	2.000	4.000	3.000	4.000
PERCENT FILL	Summer	N/A	N/A	107%	97%	90%
(1st cen/max enroll)	Fall	138%	122%	118%	98%	84%
	Spring	162%	144%	102%	105%	90%
	<b>AVERAGE, Fall &amp; Spring</b>	150%	133%	110%	102%	87%
PERCENT RETENTION	Summer			97%	94%	80%
(EOS/1st cen)	Fall	94%	99%	94%	94%	92%
	Spring	86%	92%	81%	88%	84%
	<b>AVERAGE, Fall &amp; Spring</b>	90%	96%	88%	91%	88%
APPORTIONMENT INCOME						
(FTES * Annual Factor)		\$593,591	\$534,620	\$1,044,016	\$907,026	\$1,003,755
EXPENSE	Salaries	\$383,083	\$322,233	\$543,551	\$510,746	
	Materials	\$2,103	\$934	\$19,690	\$26,797	
	Capital Outlay	\$0	\$0	\$0	\$15,061	
	<b>Total Direct</b>	\$385,186	\$323,167	\$563,241	\$552,604	
	Indirect (Direct * .40)	\$154,074	\$129,267	\$225,296	\$221,042	
	<b>TOTAL</b>	\$539,260	\$452,434	\$788,537	\$773,646	\$0
ANNUAL COST/FTES		\$3,175	\$2,948	\$3,189	\$3,725	\$0
<b>Growth/Decline [(Yr2-Yr1)/Yr1]</b>		25%	-7%	8%	17%	-100%
Prior to AY98-99 expense does not include capital outlay or VEA funds.						
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		White, non-Hispanic	African- American	Hispanic	Filipino	Other, non-white	Total #
<b>Summer</b>							
Grades *	A	6	0	0	0	1	7
	B	12	1	2	1	1	17
	C	4	1	2	0		7
	D	1	1	0	0		2
	F	1	0	1	0		2
	CR	0	0	0	0		0
	NC	0	0	0	0		0
	W	2	0	0	0		2
	TOTAL #	26	3	5	1	2	37
% Successful *		85%	67%	80%	100%	100%	84%
<b>Fall</b>							
Grades *	A	16	2	3	1	1	23
	B	16	4	6	0	3	29
	C	8	3	4	0	3	18
	D	0	2	1	2		5
	F	3	0	2	0		5
	CR	0	0	0	0		0
	NC	0	0	0	0		0
	W	5	2	1	0		8
	TOTAL #	48	13	17	3	7	88
% Successful *		83%	69%	76%	33%	100%	80%
<b>Spring</b>							
Grades *	A	18	2	7	0		27
	B	23	3	3	0	3	32
	C	3	3	2	0	2	10
	D	1	2	0	0	2	5
	F	3	1	1	0		5
	CR	0	0	0	0		0
	NC	0	0	0	0		0
	W	6	0	5	1	1	13
	TOTAL #	54	11	18	1	8	92
% Successful *		81%	73%	67%	0%	63%	75%

\* Includes duplicate counts.

<u>Summer</u>		<u>F</u>	<u>M</u>	<u>U</u>	<u>ESL</u>	<u>Non-ESL</u>	<u>U</u>
Grades *	A	6	1		0	7	
	B	15	2		0	17	
	C	7	0		0	7	
	D	2	0		0	2	
	F	2	0		0	2	
	CR	0	0		0	0	
	NC	0	0		0	0	
	W	2	0		0	2	
	TOTAL #	34	3	0	0	37	0
% Successful *		82%	100%	0%	0%	84%	0%

  

<u>Fall</u>		<u>F</u>	<u>M</u>	<u>U</u>	<u>ESL</u>	<u>Non-ESL</u>	<u>U</u>
Grades *	A	21	2		0	23	
	B	29	0		1	28	
	C	16	2		2	16	
	D	3	2		0	5	
	F	5	0		0	5	
	CR	0	0		0	0	
	NC	0	0		0	0	
	W	8	0		0	8	
	TOTAL #	82	6	0	3	85	0
% Successful *		80%	67%	0%	100%	79%	0%

  

<u>Spring</u>		<u>F</u>	<u>M</u>	<u>U</u>	<u>ESL</u>	<u>Non-ESL</u>	<u>U</u>
Grades *	A	26	1		1	26	
	B	31	1		1	31	
	C	10	0		0	10	
	D	4	1		0	5	
	F	5	0		0	5	
	CR	0	0		0	0	
	NC	0	0		0	0	
	W	10	3		1	12	
	TOTAL #	86	6	0	3	89	0
% Successful *		78%	33%	0%	67%	75%	0%

\*Includes duplicate counts.

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Solano: Research and Planning

## Criminal Justice Department

### Part I. Goals/Objectives

#### 1. What are the goals/objectives of the program? (State in terms of student learning outcomes — SLOs.)

##### **Successful completion of this program enables a student to:**

- Be able to obtain employment in a criminal justice occupation, i.e., as a Juvenile Hall Counselor, Law Enforcement Officer, or Correctional Officer.
- Develop and apply an understanding of the political, social, structural, and operational aspects of the entire criminal justice system, i.e., law enforcement, courts, and corrections.
- Be motivated to continue his/her four-year education.
- Acquire various intern positions within the criminal justice and the corrections systems.
- Acquire a knowledge of computer technology as utilized in the criminal justice field.
- Acquire a knowledge of current forensic techniques utilized in law enforcement.

#### 2. List appropriate indicators of program success (i.e., measures of goals/objectives stated above). Include both quantitative and qualitative measures.

##### *Quantitative:*

- Grades obtained in criminal justice courses
- Number of students matriculating at a four-year institution
- Employment in a criminal justice agency
- Intern positions acquired
- The proportion of ethnic-minority and female students in the program
- Number of students acquiring certificates and/or degrees

##### *Qualitative:*

- Student evaluations of instructors
- Number of students advanced in job positions
- Number of students placed in non-peace officer, computerized, technical support positions

- Number of students placed in traditional, peace officer positions as non-peace officers

## Part II. Analysis

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

**Enrollment** — Enrollment in Criminal Justice has increased steadily (4%) from 2003-04 to 2007-08. This increase in enrollment (2,423 to 2,657) could be attributed to the increase of course offerings and the weakening economy. Since the last program review, enrollment increased by 234 students.

**Retention** — Criminal Justice retention rate experienced a slight increase (86% to 89%) from 2003-04 to 2004-05, but decreased steadily (89% to 83%) from 2004-05 to 2007-08.

**Fill rate** — Fill rate has experienced a significant overall decrease (94% to 79%) from 2003-04 to 2007-08. This rate could be attributed partially, to the decrease in online courses that instructors are allowed to teach.

#### **Other factors** —

- Since the last program review, the law enforcement and corrections careers have experienced a large increase in retirements, which have opened up slots for entry-level positions. The majority of police and corrections agencies nationwide only require a high school education for entry-level positions, thus negating any incentive to acquire an associate or four-year degree.
- In addition, once a student has taken several criminal justice classes, she/he has a good idea of the difficulties associated with the intensive hiring process in California for law enforcement and corrections positions. Students who have not been successful in the process on one or more occasions become disillusioned and change their career focus.
- Another factor that should be considered is the proliferation of television shows concerning police and forensics. There has been an increase in students expressing an interest in forensic fields. However, it appears that a number of students change majors after learning the educational requirements for a position in forensics labs are science-based and that a graduate degree is normally required for an entry-level position.

#### **Qualitative Factors** —

- This program is a pre-service program that provides the academic background for those who wish to enter an occupation. While the program does not satisfy in-service training needs, completion of this program indicates to perspective employers that the student is committed to the occupation. The program also gives students an in-depth background into the occupational lore and knowledge, which then enhances their ability to receive specialized training with little difficulty. The program continues to graduate students with certificates and/or degrees. Anecdotal evidence points to the fact that graduates of the program are hired in sworn and non-sworn peace officer positions, corrections, and forensics-related positions.



- It should be noted that from fall 2003 until spring 2008 the program awarded two certificates and two degrees to 152 students. In addition, the table below identifies the numbers of students who acquired a certificate and/or a degree during the periods of summer 1997 to spring 1998.

		Total Degrees			
		0	1	2	Total
Total Certificates	0	0	45	48	93
	1	69	107	7	183
	2	104	1	220	325
Total		153	275	601	

**2. How do the above trends relate to the program goals identified during the last review?**

The Solano College Criminal Justice program continues to meet its stated goals and objectives. Anecdotal evidence suggests that employment in law enforcement and corrections positions for students has increased. Students continue to transfer to four-year institutions and Solano’s program remains committed to gender, racial, ethnic, and cultural diversity.

**Part III. Conclusions and Recommendation**

**1. What are the major accomplishments of the program since the last report?**

- Completed all Student Learning Outcomes (SLO’s) for all courses.
- Completed the Core 4 competency assessments for all courses.
- Developed new online courses.
- Developed 30-unit certificates in law enforcement and corrections, obtainable completely online.
- Offer more classes at the Vallejo Center.
- Completed an articulation agreement with Jesse Bethel High School for Solano’s CJ 001: *Introduction to Criminal Justice* course and attended festivals to market the program.
- Added a course delivery site at Dixon High School.
- Expanded the cadre of agencies that offer internship positions to our students (Concord PD, Solano County District Attorney’s Office, et.).
- Updated the courses that are offered by eliminating the perishable skills courses that were noted in previous catalogues, but had not been offered in several years because of California Police Officers Standards & Training (POST) requirements.

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

In order for the Criminal Justice Program to continue to meet its program goals and maintain effectiveness, the following issues and concerns should be addressed:

- Increase the number of online classes an instructor can teach.
- Increase the number of agencies that will provide slots for CJ 090: *Vocation Work Experience: Law Enforcement*, and CJ 091: *Vocation Work Experience: Corrections* interns.
- Decrease the time-span for advertising, screening, and interviewing of candidates for new adjunct positions.
- Emphasize the hiring of adjunct instructors who have course work that includes adult teaching methodologies and the use of emerging technology and instructional systems design (ISD). California Police Officers Standards & Training (POST) offers this type of course in an advanced officer format.
- Expand course offerings at the Vallejo Center and provide adequate classroom space for additional courses at the future Vacaville Center.
- Emphasis on developing new online and face-to-face courses in law enforcement and corrections (i.e., terrorism, multi-cultural policing, and victimology).
- Develop additional articulation agreements with local high schools.
- Development of a matriculation schedule that would enable students to plan a fixed, two-year schedule of courses (including summer school), resulting in an AS degree.
- Assess the need for the creation of a formal “mentoring” program involving students, local law enforcement, and corrections personnel.
- Research the benefits, if any, of hiring another full-time instructor.

		03-04	04-05	05-06	06-07	07-08
FTES GENERATED	Summer	19.43	16.10	25.73	22.39	25.53
	Fall	113.68	113.88	109.49	114.66	117.42
	Spring	113.53	119.04	119.21	117.81	123.22
	<b>TOTAL</b>	<b>246.64</b>	<b>249.02</b>	<b>254.43</b>	<b>254.86</b>	<b>266.17</b>
<b>Growth/Decline [(Yr2-Yr1)/Yr1]</b>		-4%	1%	2%	0%	4%
LOAD (WSCH/FTE)	Summer	729	604	643	672	547
	<b>Growth/Decline</b>	<b>-34%</b>	<b>-17%</b>	<b>6%</b>	<b>5%</b>	<b>-19%</b>
	Fall	632	649	547	593	581
	Spring	647	602	542	546	566
	<b>AVERAGE, Fall &amp; Spring</b>	<b>640</b>	<b>626</b>	<b>545</b>	<b>570</b>	<b>574</b>
<b>Growth/Decline [(Yr2-Yr1)/Yr1]</b>		<b>6%</b>	<b>-2%</b>	<b>-13%</b>	<b>5%</b>	<b>1%</b>
ENROLLMENT	Summer	199	164	259	224	258
	Fall	1101	1126	1091	1142	1167
	Spring	1123	1166	1181	1177	1232
	<b>TOTAL</b>	<b>2423</b>	<b>2456</b>	<b>2531</b>	<b>2543</b>	<b>2657</b>
<b>Growth/Decline [(Yr2-Yr1)/Yr1]</b>		<b>5%</b>	<b>1%</b>	<b>3%</b>	<b>0%</b>	<b>4%</b>
NUMBER OF SECTIONS	Summer	5	5	7	7	8
	Fall	29	30	34	38	32
	Spring	28	33	38	35	34
	<b>TOTAL</b>	<b>62</b>	<b>68</b>	<b>79</b>	<b>80</b>	<b>74</b>
<b>Growth/Decline [(Yr2-Yr1)/Yr1]</b>		<b>0%</b>	<b>10%</b>	<b>16%</b>	<b>1%</b>	<b>-8%</b>
FTEF	Summer	0.800	0.800	1.200	1.000	1.400
	Fall	5.400	5.267	6.000	5.800	6.067
	Spring	5.267	5.933	6.600	6.467	6.533
PERCENT FILL (1st cen/max enroll)	Summer	100%	86%	93%	107%	74%
	Fall	89%	90%	79%	83%	79%
	Spring	99%	92%	78%	81%	78%
	<b>AVERAGE, Fall &amp; Spring</b>	<b>94%</b>	<b>91%</b>	<b>79%</b>	<b>82%</b>	<b>79%</b>
PERCENT RETENTION (EOS/1st cen)	Summer	81%	90%	82%	89%	82%
	Fall	85%	90%	88%	84%	86%
	Spring	86%	88%	82%	87%	80%
	<b>AVERAGE, Fall &amp; Spring</b>	<b>86%</b>	<b>89%</b>	<b>85%</b>	<b>86%</b>	<b>83%</b>
APPORTIONMENT INCOME (FTES * Annual Factor)		\$862,007	\$867,586	\$1,074,203	\$1,112,974	\$1,162,364
EXPENSE	Salaries	\$284,551	\$304,953	\$381,506	\$312,251	
	Materials	\$2,989	\$2,375	\$3,344	\$3,768	
	Capital Outlay	\$21,068	-\$436	\$0	\$0	
	<b>Total Direct</b>	<b>\$308,608</b>	<b>\$306,892</b>	<b>\$384,850</b>	<b>\$316,019</b>	
	Indirect (Direct * .40)	\$123,443	\$122,757	\$153,940	\$126,408	
<b>TOTAL</b>	<b>\$432,051</b>	<b>\$429,649</b>	<b>\$538,790</b>	<b>\$442,427</b>	<b>\$0</b>	
ANNUAL COST/FTES		\$1,752	\$1,725	\$2,118	\$1,736	\$0
<b>Growth/Decline [(Yr2-Yr1)/Yr1]</b>		<b>-2%</b>	<b>-2%</b>	<b>23%</b>	<b>-18%</b>	<b>-100%</b>

Prior to AY98-99 expense does not include capital outlay or VEA funds.

		White, non-Hispanic	African- American	Hispanic	Filipino	Other, non-white	Total #
<b><u>Summer</u></b>							
Grades *	A	48	27	20	7	18	120
	B	10	11	8	4	6	39
	C	5	2	1	4	5	17
	D	5	0	1	0	2	8
	F	3	3	1	1	1	9
	CR	5	4	6	0	2	17
	NC	1	0	0	0	1	2
	W	10	18	4	0	6	38
	<b>TOTAL #</b>	<b>87</b>	<b>65</b>	<b>41</b>	<b>16</b>	<b>41</b>	<b>250</b>
<b>% Successful *</b>		<b>78%</b>	<b>68%</b>	<b>85%</b>	<b>94%</b>	<b>76%</b>	<b>77%</b>
		White, non-Hispanic	African- American	Hispanic	Filipino	Other, non-white	Total #
<b><u>Fall</u></b>							
Grades *	A	168	92	82	21	34	397
	B	79	65	58	8	18	228
	C	38	45	25	3	7	118
	D	16	15	14	2	6	53
	F	45	51	39	7	22	164
	CR	8	5	6	0	1	20
	NC	0	1	0	0	1	2
	W	40	32	20	7	21	120
	<b>TOTAL #</b>	<b>394</b>	<b>306</b>	<b>244</b>	<b>48</b>	<b>110</b>	<b>1102</b>
<b>% Successful *</b>		<b>74%</b>	<b>68%</b>	<b>70%</b>	<b>67%</b>	<b>55%</b>	<b>69%</b>
		White, non-Hispanic	African- American	Hispanic	Filipino	Other, non-white	Total #
<b><u>Spring</u></b>							
Grades *	A	188	95	74	18	48	423
	B	82	64	43	12	26	227
	C	39	36	32	7	7	121
	D	19	16	13	5	3	56
	F	37	43	29	8	10	127
	CR	8	9	2	0	2	21
	NC	2	1	2	0		5
	W	53	77	43	9	21	203
	<b>TOTAL #</b>	<b>428</b>	<b>341</b>	<b>238</b>	<b>59</b>	<b>117</b>	<b>1183</b>
<b>% Successful *</b>		<b>74%</b>	<b>60%</b>	<b>63%</b>	<b>63%</b>	<b>71%</b>	<b>67%</b>

\* Includes duplicate counts.

<u>Summer</u>		<u>F</u>	<u>M</u>	<u>U</u>	<u>ESL</u>	<u>Non-ESL</u>	<u>U</u>
Grades *	A	77	43		5	115	
	B	24	15		0	39	
	C	8	9		0	17	
	D	3	5		1	7	
	F	4	5		0	9	
	CR	11	6		2	15	
	NC	0	2		0	2	
	W	25	13		1	37	
	TOTAL #	152	98	0	9	241	0
% Successful *		79%	74%	0%	78%	77%	0%

  

<u>Fall</u>		<u>F</u>	<u>M</u>	<u>U</u>	<u>ESL</u>	<u>Non-ESL</u>	<u>U</u>
Grades *	A	219	178		7	390	
	B	106	122		9	219	
	C	56	62		6	112	
	D	26	27		2	51	
	F	90	74		5	159	
	CR	16	4		3	17	
	NC	2	0		0	2	
	W	67	53		4	116	
	TOTAL #	582	520	0	36	1066	0
% Successful *		68%	70%	0%	69%	69%	0%

  

<u>Spring</u>		<u>F</u>	<u>M</u>	<u>U</u>	<u>ESL</u>	<u>Non-ESL</u>	<u>U</u>
Grades *	A	234	189		14	409	
	B	127	100		6	221	
	C	61	60		6	115	
	D	29	27		2	54	
	F	70	57		7	120	
	CR	19	2		1	20	
	NC	3	2		1	4	
	W	118	85		10	193	
	TOTAL #	661	522	0	47	1136	0
% Successful *		67%	67%	0%	57%	67%	0%

\*Includes duplicate counts.

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## Drafting Department

### Part I. Goals/Objectives

**1. What are the goals/objectives of the program? (State in terms of student learning outcomes — SLOs.)**

- To prepare students for job placement in the drafting, engineering and architectural industries of Solano County and the greater Bay Area.
- To offer opportunities to current drafting/engineering professionals to update and advance job skills.
- To prepare students for further education in the engineering and architectural fields.

**Successful completion of this program enables a student to:**

- Demonstrate the ability to use computer-aided design and drafting applications to produce industry-quality civil, mechanical, electrical, and architectural drawings.
- Demonstrate the ability to communicate electronically, work from written and verbal instructions, and to meet deadlines.
- Demonstrate knowledge of drafting and engineering terminology and standards.
- Demonstrate the ability to read and listen effectively.
- Demonstrate the ability to communicate effectively for career purposes through writing, speech, and visual means, for career purposes.

**2. List appropriate indicators of program success (i.e., measures of goals/objectives stated above). Include both quantitative and qualitative measures.**

*Quantitative:*

- Increased enrollment and student retention
- Successful completion of major classes
- Maintain or increase student enrollment
- Maintain Department web presence
- Student evaluation of the program

*Qualitative:*

- Successful passing scores in major classes
- Student success in acquiring jobs in the drafting field
- Biennial Instructional Program Review and Analysis
- Employer satisfaction with recent graduate drafters

## Part II. Analysis

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

**Enrollment** — Enrollment has increased every year since 2004-05, from 254 FTES, to 321 in 2007-08.

**Retention** — Retention was steady at the 80% range, from 2004-07, and declined to 75% in 2007-08.

**Fill Rate** — Fill rate was steady at the 80% range from 2004-07, and declined to 64% in 2007-08.

**Other Factors** — Apportionment income increased from \$172,772 in 2004-05, to \$230,185 in 2007-08.

#### **Qualitative Factors** —

The upward trends are due to upgraded software, new drafting laboratory classrooms, new instructors, and the addition of online classes. Upper level classes are now predominantly offered at night or online. This has enabled a wider range of individuals, including those working day jobs, to enroll and participate in the program. Drafting software is current and up-to-date to meet industry standards. This has increased class demand.

- New instructors with more recent industry experience keep the program on the cutting edge of current trends and standards, thus making students more employable after graduation and increasing the popularity and program demand.
- Online classes are popular with working professionals, with individuals who have transportation problems, and with those needing a more flexible schedule. For this reason, students who would not normally enroll are taking drafting classes.
- More students from other disciplines (Interior Design, Welding, etc.) are enrolling in drafting classes to diversify skills.

### 2. How do the above trends relate to the program goals identified during the last review?

- Trends suggest that goals are being met and surpassed. As long as adequate funding continues, there is no reason why the program will not continue on a positive course.

- Increased employer demand for drafting students indicate the program is meeting employer needs. Current economic conditions may produce a short downturn in graduate demand, but based on employer surveys, the expectations are that the increased demand will continue, in the long term, with the addition of the Survey Drafting Certificate Program.
- Increased enrollment indicates the drafting program is meeting the needs of the community and the students. Continued outreach from “2+2” Tech Prep keeps program awareness high in secondary schools.
- New, state-of-the-art software increases demand among working drafting professionals who need to upgrade skills. Specific classes not related to certificates and the A.S. program are popular with professionals in jobs that do not specialize in drafting, but have elements of drafting on the fringes of the job description, such as managers needing to make small changes on CAD drawings.
- In the short term, the state budget shortfalls may impact the number of sections offered. If the budget problems are not a major factor, the program should see increased enrollment with the new surveying program and because of individuals seeking job retraining due to the economic downturn.

### Part III. Conclusions and Recommendations

#### 1. What are the major accomplishments of the program since the last report?

- New full-time instructor/program coordinator
- Job placement
- Drafting degrees and certificates
- Continuation of “2+2” with high schools in Solano County
- Major program upgrades, including Computer Aided Drafting in all upper-level classes
- Successful and comprehensive curriculum review
- Now software such as AutoCAD 2009 and Solidworks 2008
- Successful addition of online learning in four drafting classes:
  - ◇ DRFT 045: *Introduction to Computer Aided Drafting*
  - ◇ DRFT 046: *Advanced Computer Aided Drafting*
  - ◇ DRFT 079: *Blueprint Reading*
  - ◇ DRFT 175: *Solid modeling with Solidworks*
- New program development – Civil Drafting and Surveying Certificate (pending state approval). Developed partnership with the Solano County surveyor as a new program advisor



- Development of student learning outcomes (SLO's)
- Participated in local festival to promote Solano College and the Drafting Program
- Student achievement highlights
- Student, Cynthia [Jourgensen](#), won Best of Show in the 2008 California State Fair for her solid modeling project
- Former student, Shawn Carney, is now a civil drafting instructor, after gaining experience as a computer aided drafting manager at Foulk Gomez and Associates, civil engineering firm

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

- Survey Drafting Program is expected to increase enrollment and course offerings.
- Continued recruitment of adjunct faculty with current industry experience, will enable the continuation and growth of course offerings.
- Recruitment at area high schools will increase awareness of the program. Increased participation in "2+2" outreach program.
- Continued interaction with other campus departments in sharing resources to further increase enrollments.
- Promotion of current and new drafting programs and courses.
- Continued outreach to working professionals needing to upgrade their drafting skills and software comprehension.

Program Review 2007-08  
**DRAFTING TECHNOLOGY**  
TOPs: 0953.00

Career Technical Education  
**Division 11**

		03-04	04-05	05-06	06-07	07-08
<b>FTES GENERATED</b>	Summer	0.00	0.00	0.00	1.20	0.00
	Fall	26.87	24.87	21.65	21.94	24.28
	Spring	23.07	24.72	27.79	22.43	28.43
	<b>TOTAL</b>	<b>49.94</b>	<b>49.59</b>	<b>49.44</b>	<b>45.57</b>	<b>52.71</b>
<b>Growth/Decline <math>[(Yr2-Yr1)/Yr1]</math></b>		-7%	-1%	0%	-8%	16%
<b>LOAD (WSCH/FTE)</b>	Summer	0	0	0	101	0
	<b>Growth/Decline</b>	N/A	N/A	N/A	N/A	-100%
	Fall	312	25	274	278	235
	Spring	293	298	271	219	300
<b>AVERAGE, Fall &amp; Spring</b>		<b>303</b>	<b>161</b>	<b>273</b>	<b>249</b>	<b>268</b>
<b>Growth/Decline <math>[(Yr2-Yr1)/Yr1]</math></b>		-8%	-47%	69%	-9%	8%
<b>ENROLLMENT</b>	Summer	0	0	0	12	0
	Fall	138	129	116	124	156
	Spring	114	125	178	160	165
	<b>TOTAL</b>	<b>252</b>	<b>254</b>	<b>294</b>	<b>296</b>	<b>321</b>
<b>Growth/Decline <math>[(Yr2-Yr1)/Yr1]</math></b>		-7%	1%	16%	1%	8%
<b>NUMBER OF SECTIONS</b>	Summer	0	0	0	2	0
	Fall	11	12	14	12	11
	Spring	10	10	13	14	12
	<b>TOTAL</b>	<b>21</b>	<b>22</b>	<b>27</b>	<b>28</b>	<b>23</b>
<b>Growth/Decline <math>[(Yr2-Yr1)/Yr1]</math></b>		-5%	5%	23%	4%	-18%
<b>FTEF</b>	Summer	0.000	0.000	0.000	0.356	0.000
	Fall	2.584	2.722	2.367	2.367	3.100
	Spring	2.364	2.489	3.078	3.078	2.844
<b>PERCENT FILL (1st cen/max enroll)</b>	Summer	0%	0%	0%	60%	0%
	Fall	86%	81%	83%	86%	67%
	Spring	81%	89%	89%	75%	61%
	<b>AVERAGE, Fall &amp; Spring</b>	<b>84%</b>	<b>85%</b>	<b>86%</b>	<b>81%</b>	<b>64%</b>
<b>PERCENT RETENTION (EOS/1st cen)</b>	Summer	0%	0%	0%	83%	0%
	Fall	81%	83%	83%	86%	76%
	Spring	89%	85%	76%	84%	74%
	<b>AVERAGE, Fall &amp; Spring</b>	<b>85%</b>	<b>84%</b>	<b>80%</b>	<b>85%</b>	<b>75%</b>
<b>APPORTIONMENT INCOME (FTES * Annual Factor)</b>		\$174,540	\$172,772	\$208,736	\$199,004	\$230,185
<b>EXPENSE</b>	Salaries	\$148,619	\$156,635	\$139,263	\$126,669	
	Materials	\$6,382	\$2,763	\$4,839	\$49,233	
	Capital Outlay	\$0	\$42,776	\$23,147	\$2,962	
	<b>Total Direct</b>	<b>\$155,001</b>	<b>\$202,174</b>	<b>\$167,248</b>	<b>\$178,864</b>	<b>\$0</b>
	Indirect (Direct * .40)	\$62,000	\$80,870	\$66,899	\$71,545	\$0
<b>TOTAL</b>		<b>\$217,001</b>	<b>\$283,044</b>	<b>\$234,148</b>	<b>\$250,409</b>	<b>\$0</b>
<b>ANNUAL COST/FTES</b>		<b>\$4,345</b>	<b>\$5,708</b>	<b>\$4,736</b>	<b>\$5,495</b>	<b>\$0</b>
<b>Growth/Decline <math>[(Yr2-Yr1)/Yr1]</math></b>		2%	31%	-17%	16%	-100%

Prior to AY98-99 expense does not include capital outlay or VEA funds.

8/29/2008

Solano: Research and Planning

		White, non-Hispanic	African- American	Hispanic	Filipino	Other, non-white	Total #
<b>Summer</b>							
Grades *	A	0	0	0	0		0
	B	0	0	0	0		0
	C	0	0	0	0		0
	D	0	0	0	0		0
	F	0	0	0	0		0
	CR	0	0	0	0		0
	NC	0	0	0	0		0
	W	0	0	0	0		0
	<b>TOTAL #</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>% Successful *</b>		<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>
		White, non-Hispanic	African- American	Hispanic	Filipino	Other, non-white	Total #
<b>Fall</b>							
Grades *	A	29	1	10	9	10	59
	B	10	2	5	1	1	19
	C	5	4	3	2	1	15
	D	4	2	0	0	2	8
	F	7	0	6	3	4	20
	CR	0	0	0	0		0
	NC	0	0	0	0		0
	W	10	4	3	1	3	21
	<b>TOTAL #</b>	<b>65</b>	<b>13</b>	<b>27</b>	<b>16</b>	<b>21</b>	<b>142</b>
<b>% Successful *</b>		<b>68%</b>	<b>54%</b>	<b>67%</b>	<b>75%</b>	<b>57%</b>	<b>65%</b>
		White, non-Hispanic	African- American	Hispanic	Filipino	Other, non-white	Total #
<b>Spring</b>							
Grades *	A	22	2	13	12	12	61
	B	12	4	12	5	5	38
	C	5	4	2	0		11
	D	4	2	0	0		6
	F	4	0	0	1		5
	CR	0	0	0	0		0
	NC	0	0	0	0		0
	W	21	1	2	2	2	28
	<b>TOTAL #</b>	<b>68</b>	<b>13</b>	<b>29</b>	<b>20</b>	<b>19</b>	<b>149</b>
<b>% Successful *</b>		<b>57%</b>	<b>77%</b>	<b>93%</b>	<b>85%</b>	<b>89%</b>	<b>74%</b>

\* Includes duplicate counts.

<u>Summer</u>		<u>F</u>	<u>M</u>	<u>U</u>	<u>ESL</u>	<u>Non-ESL</u>	<u>U</u>
Grades *	A	0	0		0	0	
	B	0	0		0	0	
	C	0	0		0	0	
	D	0	0		0	0	
	F	0	0		0	0	
	CR	0	0		0	0	
	NC	0	0		0	0	
	W	0	0		0	0	
	TOTAL #	0	0	0	0	0	0
	% Successful *	0%	0%	0%	0%	0%	0%

  

<u>Fall</u>		<u>F</u>	<u>M</u>	<u>U</u>	<u>ESL</u>	<u>Non-ESL</u>	<u>U</u>
Grades *	A	15	44		6	53	
	B	3	16		2	17	
	C	0	15		1	14	
	D	3	5		0	8	
	F	2	18		1	19	
	CR	0	0		0	0	
	NC	0	0		0	0	
	W	3	18		2	19	
	TOTAL #	26	116	0	12	130	0
	% Successful *	88%	75%	0%	75%	65%	0%

  

<u>Spring</u>		<u>F</u>	<u>M</u>	<u>U</u>	<u>ESL</u>	<u>Non-ESL</u>	<u>U</u>
Grades *	A	15	46		8	53	
	B	8	30		4	34	
	C	0	11		0	11	
	D	0	6		0	6	
	F	0	5		0	5	
	CR	0	0		0	0	
	NC	0	0		0	0	
	W	7	21		0	28	
	TOTAL #	30	119	0	12	137	0
	% Successful *	77%	73%	0%	100%	72%	0%

\*Includes duplicate counts.

\*\* See prior footnote.

8/29/2008

Solano: Research and Planning

## Electronics and Industrial Technology Departments

### Part I. Goals/Objectives

#### 1. What are the goals/objectives of the program? (State in terms of student learning outcomes — SLOs.)

##### **Electronics Technology:**

- To prepare students for entry-level and continued employment in the electronics technology field.
- To provide an extensive background in electronics theory with laboratory application.
- To provide transferable courses to students wishing to attend UC or CSU campuses.

##### **Digital Home Technology Integration**

- To prepare students for entry-level and continued employment in the digital home technology integration field.
- To provide an extensive background in the design, installation, and servicing of various home-based technologies.
- To prepare the student for independent industry certification.

##### **Mechatronics**

- To prepare students for entry-level and continued employment in the advanced manufacturing career field.
- To prepare students for entry-level and continued employment in the building and equipment maintenance fields.
- To provide an extensive background in the design, installation, and servicing of various manufacturing, building, and maintenance technologies.

##### **Computer Investigations**

- To prepare students for entry-level and continued employment in the computer investigations field.
- To provide topical instruction on computer investigations to students currently employed in related fields.

##### **Computer Information Security**

- To prepare students for entry-level and continued employment in the computer information security field.
- To provide topical instruction on computer information security to students, currently employed in related fields.

### **Electronic Security and Surveillance Technician**

- To prepare students for entry-level and continued employment in the electronic security and surveillance field.
- To provide topical instruction on electronic security and surveillance to students, currently employed in related fields.

### **Home Technology Integrator**

- To prepare students for entry-level and continued employment in the home technology integrator field.
- To provide topical instruction on home technology to students, currently employed in related fields.
- To prepare the student for independent industry certification.

## **2. What are appropriate indicators of program success (i.e., both qualitative and quantitative measures of goals/objectives stated above)?**

### **Electronics Technology**

#### *Quantitative:*

- Core program enrollment.
- Retention rates.
- Fill rates.
- Transition of courses to new programs.

#### *Qualitative:*

- Advisory committee endorsed of program changes.
- Changes in employment opportunities.

### **Digital Home Technology Integration**

#### *Quantitative:*

- Program enrollment.
- Number of students completing program.
- Chancellor's Office approval.

#### *Qualitative:*

- Curriculum development.

- Feedback from advisory group.
- Student recruitment.

### **Mechatronics**

#### *Quantitative:*

- Program enrollment.

### **Computer Investigations**

#### *Quantitative:*

- Program enrollment.
- Chancellor's Office approval.

#### *Qualitative:*

- Feedback from the advisory group and students.

### **Computer Information Security**

#### *Quantitative:*

- Program enrollment.
- Chancellor's Office approval.

#### *Qualitative:*

- Feedback from the advisory group.

### **Electronic Security and Surveillance Technician**

#### *Quantitative:*

- Program enrollment.

#### *Qualitative:*

- Advisory group recommendations.

### **Home Technology Integrator**

#### *Quantitative:*

- Program enrollment.
- Course scheduling, fill rates, and retention.
- Chancellor's Office approval.

#### *Qualitative:*

- Advisory group feedback.

## Part II. Analysis

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

#### **Electronics Technology**

**Enrollment** — Enrollment in courses listed under electronic technology has declined from 42.71 FTES in the 2003-04 academic year, to 24.22 FTES in the 2007-08 academic year. The core Electronics Technology Certificate and Associate Degree program is in the process of discontinuance, as other programs are being created to take its place, and the declining enrollment trend reflects the transition of students.

**Retention** — Retention of students has averaged above 80% throughout the reporting period.

**Fill rate** — Fill rates have declined substantially from 80% in the 2003-04 academic year, to below 55% in the 2007-08 academic year, as entry-level courses have been phased out and only the capstone courses are offered to students completing their education goals. Since not all students who start the program complete it, the fill rate in the most advanced course diminishes, as skipping semesters will not increase the number of students ready to take the course.

**Other Factors** — Not all courses listed under electronics technology are being discontinued. Courses needed for new programs (see below), as well as courses offered for other programs, i.e. Electrical Safety for the Fire Technology program, will remain.

Some of the electronics courses have been moved to other programs and are now listed under industrial technology, maintenance technology, or computer information systems.

Core electronics faculty has declined from a peak of two full-time and four part-time faculty, to one full-time and two part-time faculty. The reduction of faculty, along with contract restrictions in faculty load, have made it difficult to schedule enough entry-level courses in the replacement programs, while still allowing students to complete this program.

**Qualitative Factors** — The Electronics Advisory Group has specified that the need for certificate and degree qualified electronics technicians and electronics engineering assistants has diminished to the point that new graduates will find it increasingly difficult to find employment. The Group specified that the traditional electronics technician has transitioned into one of several other specialized or more generalized skill sets and students would be better serviced by an education program that caters to some of these fields. As a result, the core electronics technology program is being discontinued and other programs are being created to take its place (see below).

### **Digital Home Technology Integration**

**Enrollment** — This is one of the new programs replacing the Electronics Technology program. Students in the Digital Home Technology Integration program are enrolled in courses listed under electronics and are



indistinguishable using gathered statistics. These students also take at least two industrial technology courses and one computer information systems course.

**Other Factors** — This program is still in the process of Chancellor's Office approval and there are no completers at the time of this reporting.

**Qualitative Factors** — An advisory group for Digital Home Technology Integration has been formed and has provided considerable guidance in the creation of this program. It is intended to become a full certificate and degree program. Approval by the Chancellor's Office is pending. All of the courses in the program have been offered at least once, feedback has been collected from students, and the instructional design process is continuing. While a handful of students have taken each of the new courses offered as part of this program, no students have completed the program and no serious student recruiting efforts have been made, as of this report.

### **Mechatronics**

**Enrollment** — Courses listed under the Mechatronics program are primarily industrial technology courses, but also include some from electronics and computer and information science. The Mechatronics program began offering courses during the 2008-09 academic year, so enrollment data are not yet available.

### **Computer Investigations**

**Enrollment** — Computer Investigations is a job-direct certificate program that spans two departments in two separate divisions. Enrollment numbers are included in both Electronics Technology and Computer Information Services. Some of the courses are co-listed in both departments, further obfuscating enrollment data.

**Other Factors** — This program is still in the process of Chancellor's Office approval and there are no completers at the time of this reporting.

**Qualitative Factors** — An Computer Investigations' Advisory Group has been formed and has provided considerable guidance into the creation of this program. Approval by the Chancellor's Office is pending. All of the courses in the program have been offered at least once, feedback has been collected from students, and the instructional design process is continuing. While a handful of students have taken each of the new courses offered, as part of this program, no students have completed the program, and no serious student recruiting efforts have been made, as of the time of this report.

### **Computer Information Security**

**Enrollment** — Computer Information Security is a job-direct certificate program that spans two departments in two separate divisions. Enrollment numbers are included in both Electronics Technology and Computer Information Services.

**Other Factors** — This program is still in the process of Chancellor's Office approval and there are no completers, at the time of this reporting.

**Qualitative Factors** — An advisory group for Computer Information Security has been formed and has provided considerable guidance into the creation of this program. Approval by the Chancellor's Office is pending. Not all of the courses in the program have been offered and the instructional design process is continuing.

### **Electronic Security and Surveillance Technician**

**Enrollment** — Electronic Security and Surveillance Technician is a job-direct certificate program with all enrollment data listed under Electronics Technology.

**Other Factors** — This program never achieved Chancellor's Office approval and is in the process of being discontinued. Not all of the courses in this program have been offered and there is no indication that they ever will. Courses specific to this program will be removed from the catalog of courses as well. An advisory group for Electronic Security and Surveillance Technician was formed and the program was created according to their detailed specifications. However, the committee decided to pull support for the program at Solano Community College and the committee was subsequently dissolved.

**Qualitative Factors** — The advisory group for the Electronic Security and Surveillance Technician program consisted of prospective employers from seven local Indian casinos. When it became clear that it would take several years for the program to produce job-ready completers, the employer group moved their support to a private university.

### **Home Technology Integrator**

**Enrollment** — Home Technology Integrator is a job-direct certificate program that spans two departments. Enrollment numbers are included in both Electronics Technology and Industrial Technology. Anecdotal enrollment information is available in that the entire program has been offered five times as a grouped block of courses in individual summer and fall semesters. Each group generated approximately fourteen FTES, with fill rates above 100% and retention above 90%.

**Other Factors** — This program is still in the process of Chancellor's Office approval.

**Qualitative Factors** — An advisory group for the Home Technology Integrator program has been formed and has provided considerable guidance into the creation of this program. Approval by the Chancellor's Office is pending.

## **2. How do the above trends relate to the program goals identified during the last review?**

### **Electronics Technology**

With the Electronics Program winding down, the last of the students have completed instruction and are now either employed or seeking employment.

### **Digital Home Technology**

Since there are no students who have completed the Digital Home Technology program, the goal of providing work-ready graduates has not yet been met.

### **Mechatronics**

Since there are no students who have completed the Mechatronics program, the goal of providing work-ready graduates has not yet been met.

### **Computer Investigations**

The Computer Investigations program has not been approved by the Chancellor's Office. However, several students report career advancement due to the instruction that they have received and several students have jobbed out.

### **Computer Information Security**

All of the courses associated with the Computer Information Security program have not yet been offered, so the goal of preparing students for employment has yet to be met.

### **Electronic Security and Surveillance Technician**

The Electronic Security and Surveillance Technician program is being discontinued before it is completely offered, so the goal of preparing student for employment has not and will not be met.

### **Home Technology Integrator**

The Home Technology Integrator program has not been approved by the Chancellor's Office so students completing the program have not received certificates. However, students who complete this program are reporting excellent job prospects and many have returned for further education.

## **Part III. Conclusions and Recommendations**

### **1. What are the major accomplishments of the program since the last report?**

- Completed curriculum development for four new, job-direct certificate programs.
- Created twenty-one new courses. Seventeen of these courses are in anticipation of a new program that will be proposed during the next cycle.
- Revised five existing courses to modernize their presentation and keep up with current technology.
- Classroom facilities underwent extensive renovation as part of a district-wide bond build-out of all facilities. Two classroom/labs were stripped to the frame and completely rebuilt, with adequate electrical and modern communication, as well as new floors, furniture, and roofs that no longer leak. In addition, a classroom has been set aside for use as a computer lab and the former auto shop has been adapted into an electrical shop for industrial technology courses.

- New instructional equipment has been purchased. This equipment includes sixty-four computers used in the various labs, software for instruction, equipment for technology instruction, and equipment for electrical instruction. The majority of the new equipment was purchased through bond monies, some through VTEA and regular instructional budgets, while some were donated by local industries.
- Instructors attended extensive training sessions to support existing programs, as well as learn industry trends, and prepare to develop new curriculum for future programs.
- Student learning outcomes were developed for all existing courses.

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

- New programs need to be completed for accreditation and approval at the Chancellor's Office.
- New courses and programs need to be developed to continue the transition from Electronics Technology to instructional fields that are needed by local and statewide industries.
- Funding requirements will need to be met in order to complete the modernization of labs and support ongoing purchases of consumable supplies.
- Adjunct instructors who have left in the last three years need to be replaced in order to allow scheduling of entry-level courses and advanced courses. Without a full roster of instructors, students will not be able to complete programs.

		03-04	04-05	05-06	06-07	07-08
<b>FTES GENERATED</b>	Summer	0.79	2.65	7.70	9.55	0.00
	Fall	19.13	13.80	18.18	15.75	14.76
	Spring	22.79	21.19	12.81	13.62	9.46
	<b>TOTAL</b>	<b>42.71</b>	<b>37.64</b>	<b>38.69</b>	<b>38.92</b>	<b>24.22</b>
	<b>Growth/Decline [(Yr2-Yr1)/Yr1]</b>	<b>3%</b>	<b>-12%</b>	<b>3%</b>	<b>1%</b>	<b>-38%</b>
<b>LOAD (WSCH/FTE)</b>	Summer	190	225	315	391	0
	<b>Growth/Decline</b>	<b>N/A</b>	<b>18%</b>	<b>40%</b>	<b>24%</b>	<b>-100%</b>
	Fall	237	289	282	232	198
	Spring	274	271	245	215	174
	<b>AVERAGE, Fall &amp; Spring</b>	<b>256</b>	<b>280</b>	<b>264</b>	<b>224</b>	<b>186</b>
<b>Growth/Decline [(Yr2-Yr1)/Yr1]</b>	<b>5%</b>	<b>10%</b>	<b>-6%</b>	<b>-15%</b>	<b>-17%</b>	
<b>ENROLLMENT</b>	Summer	13	59	96	116	0
	Fall	132	119	124	128	114
	Spring	170	164	88	95	65
	<b>TOTAL</b>	<b>315</b>	<b>342</b>	<b>308</b>	<b>339</b>	<b>179</b>
	<b>Growth/Decline [(Yr2-Yr1)/Yr1]</b>	<b>23%</b>	<b>9%</b>	<b>-10%</b>	<b>10%</b>	<b>-47%</b>
<b>NUMBER OF SECTIONS</b>	Summer	1	3	4	4	0
	Fall	11	13	16	10	10
	Spring	13	17	15	9	7
	<b>TOTAL</b>	<b>25</b>	<b>33</b>	<b>35</b>	<b>23</b>	<b>17</b>
	<b>Growth/Decline [(Yr2-Yr1)/Yr1]</b>	<b>39%</b>	<b>32%</b>	<b>6%</b>	<b>-34%</b>	<b>-26%</b>
<b>FTEF</b>	Summer	0.125	0.353	0.733	0.733	0.000
	Fall	2.426	1.433	1.933	2.033	2.233
	Spring	2.492	2.350	1.567	1.900	1.633
	<b>TOTAL</b>	<b>5.043</b>	<b>4.136</b>	<b>3.233</b>	<b>4.666</b>	<b>3.866</b>
<b>PERCENT FILL (1st cen/max enroll)</b>	Summer	54%	82%	100%	121%	0%
	Fall	79%	79%	65%	67%	54%
	Spring	80%	85%	71%	50%	35%
	<b>AVERAGE, Fall &amp; Spring</b>	<b>80%</b>	<b>79%</b>	<b>65%</b>	<b>67%</b>	<b>54%</b>
	<b>Growth/Decline [(Yr2-Yr1)/Yr1]</b>	<b>48%</b>	<b>-1%</b>	<b>-34%</b>	<b>-34%</b>	<b>-34%</b>
<b>PERCENT RETENTION (EOS/1st cen)</b>	Summer	100%	75%	89%	95%	0%
	Fall	77%	76%	89%	83%	79%
	Spring	81%	80%	80%	68%	91%
	<b>AVERAGE, Fall &amp; Spring</b>	<b>79%</b>	<b>78%</b>	<b>85%</b>	<b>76%</b>	<b>85%</b>
	<b>Growth/Decline [(Yr2-Yr1)/Yr1]</b>	<b>-21%</b>	<b>-2%</b>	<b>-4%</b>	<b>-13%</b>	<b>11%</b>
<b>APPORTIONMENT INCOME (FTES * Annual Factor)</b>	<b>\$149,271</b>	<b>\$131,138</b>	<b>\$163,349</b>	<b>\$169,964</b>	<b>\$105,769</b>	
<b>EXPENSE</b>	Salaries	\$122,702	\$112,802	\$136,971	\$109,734	
	Materials	\$6,710	\$10,623	\$14,625	\$15,689	
	Capital Outlay	\$0	\$46,581	\$17,218	\$29,654	
	<b>Total Direct</b>	<b>\$129,412</b>	<b>\$170,007</b>	<b>\$168,813</b>	<b>\$155,077</b>	
	Indirect (Direct * .40)	\$51,765	\$68,003	\$67,525	\$62,031	
	<b>TOTAL</b>	<b>\$181,177</b>	<b>\$238,010</b>	<b>\$236,339</b>	<b>\$217,107</b>	<b>\$0</b>
<b>ANNUAL COST/FTES</b>	<b>\$4,242</b>	<b>\$6,323</b>	<b>\$6,109</b>	<b>\$5,578</b>	<b>\$0</b>	
<b>Growth/Decline [(Yr2-Yr1)/Yr1]</b>	<b>-5%</b>	<b>49%</b>	<b>-3%</b>	<b>-9%</b>	<b>-100%</b>	

Prior to AY98-99 expense does not include capital outlay or VEA funds.

		White, non-Hispanic	African- American	Hispanic	Filipino	Other, non-white	Total #
<b>Summer</b>							
Grades *	A	0	0	0	0		0
	B	0	0	0	0		0
	C	0	0	0	0		0
	D	0	0	0	0		0
	F	0	0	0	0		0
	CR	0	0	0	0		0
	NC	0	0	0	0		0
	W	0	0	0	0		0
	<b>TOTAL #</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>% Successful *</b>		<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>
		White, non-Hispanic	African- American	Hispanic	Filipino	Other, non-white	Total #
<b>Fall</b>							
Grades *	A	22	6	5	1	13	47
	B	10	1	4	4	1	20
	C	4	1	4	0	1	10
	D	1	0	0	0	1	2
	F	14	4	2	0	1	21
	CR	0	0	0	0		0
	NC	0	0	0	0		0
	W	2	2	2	1	2	9
	<b>TOTAL #</b>	<b>53</b>	<b>14</b>	<b>17</b>	<b>6</b>	<b>19</b>	<b>109</b>
<b>% Successful *</b>		<b>68%</b>	<b>57%</b>	<b>76%</b>	<b>83%</b>	<b>79%</b>	<b>71%</b>
		White, non-Hispanic	African- American	Hispanic	Filipino	Other, non-white	Total #
<b>Spring</b>							
Grades *	A	19	1	3	3	5	31
	B	3	1	1	2	1	8
	C	2	0	0	0	2	4
	D	0	1	1	0		2
	F	8	2	2	1	1	14
	CR	0	0	0	0		0
	NC	0	0	0	0		0
	W	3	2	0	0		5
	<b>TOTAL #</b>	<b>35</b>	<b>7</b>	<b>7</b>	<b>6</b>	<b>9</b>	<b>64</b>
<b>% Successful *</b>		<b>69%</b>	<b>29%</b>	<b>57%</b>	<b>83%</b>	<b>89%</b>	<b>67%</b>

\* Includes duplicate counts.

<u>Summer</u>		<u>F</u>	<u>M</u>	<u>U</u>	<u>ESL</u>	<u>Non-ESL</u>	<u>U</u>
Grades *	A	0	0	0	0	0	0
	B	0	0	0	0	0	0
	C	0	0	0	0	0	0
	D	0	0	0	0	0	0
	F	0	0	0	0	0	0
	CR	0	0	0	0	0	0
	NC	0	0	0	0	0	0
	W	0	0	0	0	0	0
	TOTAL #	0	0	0	0	0	0
	% Successful *	0%	0%	0%	0%	0%	0%

  

<u>Fall</u>		<u>F</u>	<u>M</u>	<u>U</u>	<u>ESL</u>	<u>Non-ESL</u>	<u>U</u>
Grades *	A	9	38		4	43	
	B	0	20		2	18	
	C	0	10		1	9	
	D	0	2		0	2	
	F	4	17		2	19	
	CR	0	0		0	0	
	NC	0	0		0	0	
	W	3	6		1	8	
	TOTAL #	16	93	0	10	99	0
	% Successful *	56%	73%	0%	70%	71%	0%

  

<u>Spring</u>		<u>F</u>	<u>M</u>	<u>U</u>	<u>ESL</u>	<u>Non-ESL</u>	<u>U</u>
Grades *	A	7	24		1	30	
	B	2	6		0	8	
	C	1	3		0	4	
	D	0	2		0	2	
	F	3	11		0	14	
	CR	0	0		0	0	
	NC	0	0		0	0	
	W	0	5		0	5	
	TOTAL #	13	51	0	1	63	0
	% Successful *	77%	65%	0%	100%	67%	0%

\*Includes duplicate counts.

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Solano: Research and Planning

Program Review 2007-08  
**INDUSTRIAL TECHNOLOGY**  
TOPs: 0956.00

Career Technical Education  
Division 11

		03-04	04-05*	05-06	06-07	07-08
<b>FTES GENERATED</b>	Summer	0.00	0.00	3.66	4.16	1.40
	Fall	10.08	16.97	7.44	11.56	9.01
	Spring	3.90	5.76	6.63	7.65	4.74
	<b>TOTAL</b>	13.98	22.73	17.73	23.37	15.15
<b>Growth/Decline [(Yr2-Yr1)/Yr1]</b>		-25%	63%	-22%	32%	-35%
<b>LOAD (WSCH/FTE)</b>	Summer	0	0	366	416	210
	<b>Growth/Decline</b>	N/A	N/A	N/A	14%	-50%
	Fall	440	509	452	315	300
	Spring	585	362	249	287	178
	<b>AVERAGE, Fall &amp; Spring</b>	513	436	351	301	239
<b>Growth/Decline [(Yr2-Yr1)/Yr1]</b>		35%	-15%	-20%	-14%	-21%
<b>ENROLLMENT</b>	Summer	0	0	24	26	14
	Fall	84	129	59	76	52
	Spring	39	44	44	53	32
	<b>TOTAL</b>	123	173	127	155	98
<b>Growth/Decline [(Yr2-Yr1)/Yr1]</b>		-13%	41%	-27%	22%	-37%
<b>NUMBER OF SECTIONS</b>	Summer	0	0	1	1	1
	Fall	4	6	5	4	3
	Spring	2	3	3	4	3
	<b>TOTAL</b>	6	9	9	9	7
<b>Growth/Decline [(Yr2-Yr1)/Yr1]</b>		0%	50%	0%	0%	-22%
<b>FTEF</b>	Summer	0.000	0.000	0.300	0.300	0.200
	Fall	0.687	1.000	0.700	1.100	0.900
	Spring	0.200	0.478	0.800	0.800	0.800
<b>PERCENT FILL (1st cen/max enroll)</b>	Summer	0%	0%	100%	108%	90%
	Fall	89%	94%	66%	75%	75%
	Spring	98%	81%	61%	83%	64%
	<b>AVERAGE, Fall &amp; Spring</b>	94%	88%	64%	79%	70%
<b>PERCENT RETENTION (EOS/1st cen)</b>	Summer	0%	0%	96%	88%	68%
	Fall	69%	72%	85%	78%	83%
	Spring	69%	80%	82%	86%	83%
	<b>AVERAGE, Fall &amp; Spring</b>	69%	76%	84%	82%	83%
<b>APPORTIONMENT INCOME (FTES * Annual Factor)</b>		\$48,860	\$79,191	\$74,856	\$102,057	\$66,160
<b>EXPENSE</b>	Salaries	\$11,852	\$37,961	\$149,861	\$161,410	
	Materials	\$1,353	\$4,083	\$17,658	\$32,660	
	Capital Outlay	\$14,535	-\$437	\$36,453	\$0	
	<b>Total Direct</b>	\$27,740	\$41,606	\$203,972	\$194,070	
	Indirect (Direct * .40)	\$11,096	\$16,643	\$81,589	\$77,628	
<b>TOTAL</b>	\$38,836	\$58,249	\$285,560	\$271,698	\$0	
<b>ANNUAL COST/FTES</b>		\$2,778	\$2,563	\$16,106	\$11,626	\$0
<b>Growth/Decline [(Yr2-Yr1)/Yr1]</b>		15%	-8%	528%	-28%	-100%

Prior to AY98-99 expense does not include capital outlay or VEA funds.

\* Air Cond. & Rerig. (TOP 0945.10) separated in 2005

8/29/2008

Solano: Research and Planning



		White, non-Hispanic	African- American	Hispanic	Filipino	Other, non-white	Total #
<b>Summer</b>							
Grades *	A	1	0	0	0		1
	B	2	1	0	0		3
	C	2	0	0	0		2
	D	1	0	0	0		1
	F	1	0	2	0	1	4
	CR	0	0	0	0		0
	NC	0	0	0	0		0
	W	1	0	1	0		2
TOTAL #		8	1	3	0	1	13
% Successful *		63%	100%	0%	0%	0%	46%
<b>Fall</b>							
Grades *	A	20	2	6	3	1	32
	B	14	1	3	1	2	21
	C	3	0	6	1	5	15
	D	2	0	0	0		2
	F	1	1	1	0	1	4
	CR	0	0	0	1		1
	NC	0	0	0	0		0
	W	5	3	3	0		11
TOTAL #		45	7	19	6	9	86
% Successful *		82%	43%	79%	100%	89%	80%
<b>Spring</b>							
Grades *	A	15	1	6	4	1	27
	B	7	1	4	0		12
	C	3	0	2	1		6
	D	0	0	0	0		0
	F	2	1	1	0		4
	CR	0	0	0	0		0
	NC	0	0	0	0		0
	W	1	1	0	0		2
TOTAL #		28	4	13	5	1	51
% Successful *		89%	50%	92%	100%	100%	88%

\* Includes duplicate counts.

<u>Summer</u>		<u>F</u>	<u>M</u>	<u>U</u>	<u>ESL</u>	<u>Non-ESL</u>	<u>U</u>
Grades *	A	0	1		0	1	
	B	0	3		0	3	
	C	0	2		0	2	
	D	0	1		0	1	
	F	1	3		0	4	
	CR	0	0		0	0	
	NC	0	0		0	0	
	W	0	2		0	2	
	TOTAL #	1	12	0	0	13	0
% Successful *		0%	16%	0%	0%	46%	0%

  

<u>Fall</u>		<u>F</u>	<u>M</u>	<u>U</u>	<u>ESL</u>	<u>Non-ESL</u>	<u>U</u>
Grades *	A	4	28		2	30	
	B	0	21		0	21	
	C	0	15		3	12	
	D	0	2		0	2	
	F	0	4		0	4	
	CR	0	1		0	1	
	NC	0	0		0	0	
	W	0	11		3	8	
	TOTAL #	4	82	0	8	78	0
% Successful *		100%	79%	0%	800%	82%	0%

  

<u>Spring</u>		<u>F</u>	<u>M</u>	<u>U</u>	<u>ESL</u>	<u>Non-ESL</u>	<u>U</u>
Grades *	A	2	25		2	25	
	B	0	12		2	10	
	C	0	6		1	5	
	D	0	0		0	0	
	F	1	3		1	3	
	CR	0	0		0	0	
	NC	0	0		0	0	
	W	0	2		0	2	
	TOTAL #	3	48	0	6	45	0
% Successful *		67%	90%	0%	83%	89%	0%

\*Includes duplicate counts.

## Fire Technology Department

### Part I. Goals/Objectives

**1. What are the goals/objectives of the program? (State in terms of student learning outcomes — SLOs.)**

- Obtain employment and advance in the fire service field.
- Educate students on how to effectively and safely perform as part of a team, to effectively mitigate an emergency situation.
- Relate to others the history of how emergency services evolved and identify the driving mechanisms and components of modern emergency services.
- Provide guidance and leadership in the areas of pre-fire methodologies, fire prevention, and fire suppression.
- Provide refresher training and certification to incumbent firefighters.
- To prepare a relatively small, but growing number of fire technology students, to transfer to four-year fire technology institutions such as CSU-Los Angeles and CSU-San Luis Obispo (Cal Poly).

**2. List appropriate indicators of program success (i.e., measures of goals/objectives stated above). Include both quantitative and qualitative measures.**

*Quantitative*

- Approximately 332 individual student enrollments per semester.
- Approximately 5% or eighteen of current enrollments are incumbent, journey level firefighters.
- An average 97% of the cadets complete both the Wildland Fire Academy and the Firefighter I Academy.
- Approximately 17-24% of the students entering the fire program finish their associate's degree within two years. Most job-out and take a fire internship position with a volunteer fire department, obtaining full-time fire positions once they serve their one year internship.
- Less than three students per year transfer to a four-year institution majoring in fire technology or related field.

## Part II. Analysis

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

**Enrollment** — Between the 2003-04 and 2007-08 academic years, enrollment in the Fire program increased by an average of 3%.

**Retention** — Between the 2003-04 and 2007-08 academic years, the retention rate of the fire program spiked at a high of 87%, to a low of 81%.

**Fill rate** — Fill rates have decreased steadily from a high of 94% in 2003-04, down to a current low of 73%. The cause for these decreases can be attributed to: the demand to quickly, not necessarily efficiently, fill the new Vallejo Center with representations of all programs including fire technology; the administrative decision to increase enrollments at the Travis AFB Center; and most importantly, the limitations placed on online course deliveries per instructor.

**Other Factors** — Administrative decisions, i.e., limiting the number of fire academies from two per semester to one per semester.

### 2. How do the above trends relate to the program goals identified during the last review?

The above trends are part of the normal cyclic spikes here at Solano Community College and, in most cases, the above trends were not unanticipated nor surprising when you consider: the administrative decisions made at the time, the state of the Fairfield campus (under construction and swing space issues), and the downward spiral of the State's economy.

## Part III. Conclusions and Recommendations

### 1. What are the major accomplishments of the program since the last report?

- Move to Vacaville Center completed and functioning smoothly.
- Two resource training officers, per academy, has: increased our success rates at both fire academies, reduced our cadet disciplinary suspensions and expulsions, and increased our ability to give verified remedial skills training and personal attention to our DSP students.
- Fire Technology Club re-established and functioning smoothly.
- No "lost time" academy cadet injuries.
- A new (to the program, but in fact 1977) type I fire engine and garage are now part of the fire program's facilities and equipment.
- The co-location of a Vacaville City vs. Solano Community College fire training grounds and facilities is nearing agreement.
- The FTE cost sharing agreement with local fire entities is beginning to take shape, with Fairfield and Vallejo having signed their respective agreements.

- The re-structuring of the fire technology curriculum is about 40% complete.
- The State Fire Marshal accreditation package is on its final draft and will be submitted prior to the end of February 2009.

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

It is impossible to predict the ability to make changes that will be associated with the unprecedented budgetary issues facing the State and the accreditation unknowns.

There is one thing for certain: challenges are coming, most likely very major changes. It is equally certain that the fire program will meet its share of the challenges and will come out of the process, a better (not necessarily a larger) program.

Program Review 2007-08  
**FIRE TECHNOLOGY**  
 TOPS: 2133.00 + 2133.50 + 0303.00

Career Technical Education  
 Division 11

		03-04	04-05	05-06	06-07	07-08
<b>FTES GENERATED</b>	Summer	16.91	19.57	24.39	10.20	10.10
	Fall	44.30	42.61	65.85	31.57	60.94
	Spring	33.70	57.78	53.65	56.37	41.03
	<b>TOTAL</b>	<b>94.91</b>	<b>119.96</b>	<b>143.89</b>	<b>98.14</b>	<b>112.07</b>
<b>Growth/Decline [(Yr2-Yr1)/Yr1]</b>		-8%	26%	20%	-32%	14%
<b>LOAD (WSCH/FTE)</b>	Summer	333	375	339	383	379
	<b>Growth/Decline</b>	-17%	13%	-10%	13%	-1%
	Fall	391	475	465	242	387
	Spring	497	498	405	449	295
	<b>AVERAGE, Fall &amp; Spring</b>	<b>444</b>	<b>487</b>	<b>435</b>	<b>346</b>	<b>341</b>
<b>Growth/Decline [(Yr2-Yr1)/Yr1]</b>		-6%	10%	-11%	-21%	-1%
<b>ENROLLMENT</b>	Summer	57	59	137	102	101
	Fall	332	400	488	289	313
	Spring	332	309	367	292	292
	<b>TOTAL</b>	<b>721</b>	<b>768</b>	<b>992</b>	<b>683</b>	<b>706</b>
<b>Growth/Decline [(Yr2-Yr1)/Yr1]</b>		-2%	7%	29%	-31%	3%
<b>NUMBER OF SECTIONS</b>	Summer	3	2	7	4	4
	Fall	13	14	19	13	14
	Spring	11	18	20	12	14
	<b>TOTAL</b>	<b>27</b>	<b>34</b>	<b>46</b>	<b>29</b>	<b>32</b>
<b>Growth/Decline [(Yr2-Yr1)/Yr1]</b>		-4%	26%	35%	-37%	10%
<b>FTEF</b>	Summer	1.522	1.567	2.158	0.800	0.800
	Fall	3.400	2.689	4.252	3.919	4.724
	Spring	2.033	3.484	3.977	3.771	4.166
<b>PERCENT FILL (1st cen/max enroll)</b>	Summer	55%	79%	95%	85%	75%
	Fall	89%	91%	84%	79%	73%
	Spring	98%	88%	77%	82%	72%
	<b>AVERAGE, Fall &amp; Spring</b>	<b>94%</b>	<b>90%</b>	<b>81%</b>	<b>81%</b>	<b>73%</b>
<b>PERCENT RETENTION (EOS/1st cen)</b>	Summer	81%	83%	84%	48%	74%
	Fall	85%	86%	81%	81%	87%
	Spring	79%	87%	80%	87%	76%
	<b>AVERAGE, Fall &amp; Spring</b>	<b>82%</b>	<b>87%</b>	<b>81%</b>	<b>84%</b>	<b>82%</b>
<b>APPORTIONMENT INCOME (FTES * Annual Factor)</b>		\$331,710	\$417,941	\$607,504	\$428,577	\$489,410
<b>EXPENSE</b>	Salaries	\$167,789	\$193,485	\$259,039	\$204,093	
	Materials	\$17,386	\$35,389	\$65,213	\$53,907	
	Capital Outlay	\$0	\$0	\$313	\$4,687	
	<b>Total Direct</b>	<b>\$185,175</b>	<b>\$228,874</b>	<b>\$324,564</b>	<b>\$262,687</b>	
	<b>Indirect (Direct * .40)</b>	<b>\$74,070</b>	<b>\$91,549</b>	<b>\$129,826</b>	<b>\$105,075</b>	
<b>TOTAL</b>	<b>\$259,245</b>	<b>\$320,423</b>	<b>\$454,389</b>	<b>\$367,761</b>	<b>\$0</b>	
<b>ANNUAL COST/FTES</b>		\$2,731	\$2,671	\$3,158	\$3,747	\$0
<b>Growth/Decline [(Yr2-Yr1)/Yr1]</b>		7%	-2%	18%	19%	-100%

Prior to AY98-99 expense does not include capital outlay or VEA funds.

8/29/2008

Solano: Research and Planning

		White, non-Hispanic	African- American	Hispanic	Filipino	Other, non-white	Total #
<b>Summer</b>							
Grades *	A	34	1	5	3	4	47
	B	12	1	2	0	1	16
	C	5	0	3	0		8
	D	1	0	1	0		2
	F	1	0	1	0	1	3
	CR	0	0	0	0		0
	NC	0	0	0	0		0
	W	8	2	1	1	3	15
	<b>TOTAL #</b>	<b>61</b>	<b>4</b>	<b>13</b>	<b>4</b>	<b>9</b>	<b>91</b>
<b>% Successful *</b>		<b>84%</b>	<b>50%</b>	<b>77%</b>	<b>75%</b>	<b>56%</b>	<b>78%</b>
<b>Fall</b>							
Grades *	A	80	1	25	6	9	121
	B	42	3	22	6	7	80
	C	27	3	9	2	2	43
	D	3	2	1	1		7
	F	10	2	1	3		16
	CR	1	0	0	0		1
	NC	0	0	0	0		0
	W	9	3	6	0	4	22
	<b>TOTAL #</b>	<b>172</b>	<b>14</b>	<b>64</b>	<b>18</b>	<b>22</b>	<b>290</b>
<b>% Successful *</b>		<b>87%</b>	<b>50%</b>	<b>88%</b>	<b>78%</b>	<b>82%</b>	<b>84%</b>
<b>Spring</b>							
Grades *	A	66	1	13	1	6	87
	B	50	1	14	10	7	82
	C	17	4	4	2	2	29
	D	5	1	2	1	3	12
	F	11	1	5	0	3	20
	CR	1	0	0	0		1
	NC	0	0	0	0		0
	W	11	6	3	7	5	32
	<b>TOTAL #</b>	<b>161</b>	<b>14</b>	<b>41</b>	<b>21</b>	<b>26</b>	<b>263</b>
<b>% Successful *</b>		<b>83%</b>	<b>43%</b>	<b>76%</b>	<b>62%</b>	<b>58%</b>	<b>76%</b>

\* Includes duplicate counts.

<u>Summer</u>		<u>F</u>	<u>M</u>	<u>U</u>	<u>ESL</u>	<u>Non-ESL</u>	<u>U</u>
Grades *	A	1	46		0	47	
	B	1	15		0	16	
	C	1	7		0	8	
	D	0	2		0	2	
	F	0	3		0	3	
	CR	0	0		0	0	
	NC	0	0		0	0	
	W	3	12		0	15	
	TOTAL #	6	85	0	0	91	0
% Successful *		50%	80%	0%	0%	78%	0%

  

<u>Fall</u>		<u>F</u>	<u>M</u>	<u>U</u>	<u>ESL</u>	<u>Non-ESL</u>	<u>U</u>
Grades *	A	4	117		1	120	
	B	5	75		1	79	
	C	0	43		0	43	
	D	0	7		0	7	
	F	0	16		1	15	
	CR	0	1		0	1	
	NC	0	0		0	0	
	W	0	22		0	22	
	TOTAL #	9	281	0	3	287	0
% Successful *		100%	84%	0%	67%	85%	0%

  

<u>Spring</u>		<u>F</u>	<u>M</u>	<u>U</u>	<u>ESL</u>	<u>Non-ESL</u>	<u>U</u>
Grades *	A	8	79		0	87	
	B	3	79		0	82	
	C	2	27		0	29	
	D	1	11		0	12	
	F	3	17		1	19	
	CR	0	1		0	1	
	NC	0	0		0	0	
	W	1	31		0	32	
	TOTAL #	18	245	0	1	262	0
% Successful *		72%	76%	0%	0%	76%	0%

\*Includes duplicate counts.

8/29/2008

Solano: Research and Planning



## Ornamental Horticulture

### Part I Goals/Objectives

#### 1. What are the goals/objectives of the program? (State in terms of student learning outcomes — SLOs.)

##### **Horticulture Science**

- To teach students the following:
  - ◇ Identification of landscape plant material by their leaves, bark, fruit, flower, and growth habits.
  - ◇ Binomial nomenclature of plant names: proper pronunciation, spelling, and usage.
  - ◇ Basic botany: plant vascular systems, leaf arrangements and function, processes of photosynthesis, nitrogen cycle, and hydrologic cycle.
  - ◇ How to properly place plants in a landscape by size, color, growth habits, and ornamental value.
  - ◇ To draw a landscape design using mechanical drawing skills and the appropriate landscape plant materials.
  - ◇ To install landscape plants and hardscape materials, using proper planting techniques and current UC Cooperative standards.
  - ◇ Identification of landscape pests: insects, weeds, and diseases. Students will use their skill at insect and pest damage recognition to develop a plan to correct the problem. They will also be able to identify weeds from ornamental plants and develop plans for control.
  - ◇ UC Cooperative standards for integrated pest management.
  - ◇ To identify the different types of landscape soil profiles. Students will use their knowledge of soils to determine proper watering and fertilizing techniques.
  - ◇ The principles and practices of landscape irrigation. The student will be able to calculate irrigation demand, availability, and design a water efficient irrigation system.
- To provide career, hands-on training for mainstream students entering the Landscape Maintenance, Greenhouse / Propagation, Nursery & Farming Industries and Rehabilitative Therapy programs.

### **Adaptive Horticulture Program**

- To provide students, who have special learning needs and challenges, the job training for entry-level positions within the Landscape Maintenance, Greenhouse / Propagation, and Nursery & Farming industries.
- To introduce students, who have special learning needs and challenges, to the basic horticultural concepts applied in a garden, nursery, and/or landscape setting.
- To teach students, who have special learning needs and challenges, appropriate workplace skills of responsibility, productivity, self-management, self-awareness, and effective communication.
- To prepare students, who have special learning needs and challenges, for entering mainstream curriculum courses on the SCC campus.
- To provide career hands-on training for mainstream students entering the Landscape Maintenance, Greenhouse / Propagation, Nursery & Farming Industries and Rehabilitative Therapy programs.

**2. List appropriate indicators of program success (i.e., measures of goals/objectives stated above). Include both quantitative and qualitative measures.**

#### **Horticulture Science**

##### *Quantitative:*

- Students earning a Horticulture Science Certificate.
- Students earning an Associates of Science degree in Ornamental Horticulture.
- Students successfully completing their natural sciences requirement for general education.
- Students entering the job market in horticulture related fields:
  - ◇ Landscape designer
  - ◇ Landscape construction foreman
  - ◇ Manager of nursery
  - ◇ Florist
  - ◇ Pond and fish supply manager
  - ◇ Landscape maintenance personnel

##### *Qualitative:*

- Continued success of students entering the design field.
- Students being sought for positions at nurseries.
- Continued student participation from Solano County Master Gardeners.
- UC Cooperative Extension desiring continuing education.

## **Adaptive Horticulture Program**

### *Quantitative:*

- Student success entering the job market.
- Student success entering mainstream curriculum courses on campus.
- Student success of completion of program.
- Increased demand for classes from on-campus disabilities services and multiple outside agencies.
- Increased enrollment of mainstream students wanting to work with disabled populations in horticulture.

### *Qualitative:*

- Outside agencies and local high schools promote the program throughout Solano County.
- Outside agencies support students' success.
- Measurable student outcomes for horticultural job skills.
- Measurable student outcomes for success and well being.

## Part II      Analysis

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

#### **Horticulture Science**

**Enrollment** — Enrollment in horticulture science has been a challenge for the staff and the department due to several factors:

- Lack of a full-time instructor to support and promote the program.
- Lack of cooperation and help from the Counseling Department.
- Lack of acknowledgement throughout the community that SCC has a horticulture program due to lack of promotion.
- Changes in the horticulture industry towards the labor force.

**Retention** — Once students learn of the program and get involved, they have continued to enroll in advanced classes. Students who have taken HORT 050: *Introduction to Horticulture* for their general education requirement in the natural sciences have come back to take advanced classes for their own edification.

**Fill rate** — The fill rate has been low. The program has met or exceeded minimum standards every semester, however, full classes have not been noted for some time.

**Other Factors** — As stated above, the Counseling Department has not helped the program by not recommending HORT 050 as an alternative science. Also, we have been told that on several occasions, when asked about the program, they have told the student that the program was going away and they should not bother.

## **Adaptive Horticulture**

**Enrollment** —Program began summer 2007. Class maximum enrollment is twenty-four students. In 2007-08, the average class size per eight-week session was 21.4 students; in 2008-09, the average class size per eight-week session is 29.8 students; this represents 39% growth from the first year to the current year.

### **2. How do the above trends relate to the program goals identified during the last review?**

#### **Horticulture Science**

Continued enrollment indicates a desire for the community to enroll in horticulture classes. Horticulture is the number one hobby in the United States and horticulture classes are in demand when offered at the right time with the right subject. Student success in the field of horticulture is a direct relationship to the program at SCC.

#### **Adaptive Horticulture Program**

Increased enrollment indicates the program is meeting the needs of the students and community. Students who enroll are from a wider segment of the campus community, the various county agencies, high schools, and rehabilitative programs. Students' retention success is directly related to program goals.

## **Part III Conclusions and Recommendations**

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

#### **Horticulture Science**

- The two current horticulture instructors at SCC are both graduates of the Horticulture Science program at Solano. They both hold horticulture positions in the private sectors that can be attributed directly to the Horticulture Science program at SCC.
- The two current horticulture instructors at SCC are both recent graduates of the Horticulture Therapy Institute and have used, and will continue to use, their newfound education for both the adaptive horticulture students and the mainstream students.
- Seventeen students are currently enrolled or have been enrolled to receive their AS in Horticulture Science. Most of these students have completed their requirements for horticulture and are currently working on their general education requirements. Six of these seventeen are also active Master Gardeners for the Solano County UC Cooperative Extension.
- Sixteen students have successfully completed HORT 050 to fulfill their natural sciences requirements for general education.
- Twenty-seven students have enrolled in the Horticulture Science Certificate program and have successfully completed most of the courses they need.

- Twenty-eight students have enrolled in continuing education in various subjects. Of these twenty-eight students, nine are Master Gardeners for Solano County UC Cooperative Extension.
- One of the above mentioned students recently received three certificates in three different areas of horticulture.
- One of the above mentioned students has gained employment as a nursery manager.
- Of the above mentioned students, six are active landscape designers.
- Of the above mentioned students, one is a landscape designer for her husband's landscape construction company in Napa, CA.
- Facilities include: working nursery, two greenhouses, fruit tree orchards, grape vineyards, raised vegetable beds and demonstration gardens. All are in year-round production with live products.
- Community outreach program through the Horticulture Club has recently taken a large step to reach out to the community. The Club has changed its by-laws and constitution to accept members without being active students (only students may hold an office in the club). Membership is growing daily, as evidenced by having an average membership over the years of fourteen to eighteen and, to date, we have twenty-seven members.
- The Horticulture Club has recently joined the Garden Clubs of California, Inc., and the National Garden Clubs, Inc.

#### **Adaptive Horticulture Program (program 2 years old)**

- All students who have completed the program are now employed.
- Program curriculum developed through instructor certification training in horticultural therapy from the American Horticultural Therapy Institute.
- Quarterly Disability Services Advisory Committee attended and maintained (Solano County Human Services Agencies & SCC).
- Implemented an on-campus Farmers' Market to sell produce, fruit, and plants grown by students.
- Program operates as a business model to grow and sell products.
- Market and promote SCC positively, while serving community population needs.
- Several students employed / participated in installation of landscaping project at Potrero Hills Landfill last summer.
- Future SCC Daycare Center landscape installation project, using students, is in the development stage.

- Program serves as a model for other counties and agencies wanting to implement a similar program. Representatives from Sacramento and Napa community colleges / Health & Social Services, United Way, Cerebral Palsy, and mental health advisors from Holland have toured the program.
- Collaboration for student placement from Solano County agencies (WIB, DOR, SCOE - TPP, TAY, North Bay Regional Center, Dreamcatchers, Crestwood Behavioral Health, No Barriers, WorkAbility - High School Job Shadow Program, SDS).
- Collaboration for student placement from Solano County high schools (Fairfield, Vallejo, Benicia, and Dixon).
- Student populations served include a variety of disabilities: cognitive, physical, emotional, rehabilitation, and mental illness. Other populations served include displaced workers, returning military veterans, welfare to work recipients, and the homeless.
- Facilities include: working nursery, two greenhouses, fruit tree orchards, grape vineyards, raised vegetable beds and demonstration gardens. All are in year-round production with live product.

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

**Horticulture Science**

- Make the local community more aware of the great opportunity they have at SCC to learn and develop more skills and knowledge as horticulturists.
- Facility infrastructure needs minor repairs to become more efficient and productive.
- Budget for materials needs to be established and supported.
- Need to establish contacts with local potential employers to job-place more students.
- SCC Counseling Department needs to promote the program more effectively and positively.
- Develop surrounding property to increase orchards, vineyards, and vegetable growing areas.
- Develop short-term (*Vista*) classes for those people not desiring a certificate or a degree.
- Get cooperation from UC and CSU to come to SCC and talk to students about transferring to their college for further education.
- Develop new curriculum for advanced classes.

### **Adaptive Horticulture Program**

- Continuing a trend of growing enrollment suggests more classes should be offered, thus requiring additional instructional and support staffing. Program reputation is rapidly growing throughout the county, enrollment trends will only continue to increase. Currently, more than 40 students in each eight-week session want to enroll, resulting in ten or more students being turned away.
- Class size maximums should be limited to twenty-four to provide effective educational instruction and student training.
- Facility infrastructure needs minor repairs to become more efficient and productive.
- Budget for materials needs to be established and supported.
- Need to establish contacts with local potential employers to job-place more students.
- SCC Counseling Department needs to promote the program more effectively.
- Develop surrounding property to increase orchards, vineyards, and vegetable growing areas.
- Develop new curriculum for advanced classes.

Program Review 2007-08  
HORTICULTURE  
TOPs: 0109.00

Career Technical Education  
Division 11

		03-04	04-05	05-06	06-07	07-08
FTES GENERATED	Summer	0.00	0.00	0.00	0.00	4.75
	Fall	11.29	12.65	12.69	5.08	16.07
	Spring	14.75	11.29	3.40	6.07	15.77
	<b>TOTAL</b>	26.04	23.94	16.09	11.15	36.59
<b>Growth/Decline [(Yr2-Yr1)/Yr1]</b>		2%	-8%	-33%	-31%	228%
LOAD (WSCH/FTE)	Summer					428
	<b>Growth/Decline</b>	N/A	N/A	N/A	N/A	N/A
	Fall	394	316	270	228	374
	Spring	365	308	278	303	380
<b>AVERAGE, Fall &amp; Spring</b>		380	312	274	266	377
<b>Growth/Decline [(Yr2-Yr1)/Yr1]</b>		-9%	-18%	-12%	-3%	42%
ENROLLMENT	Summer	0	0	0	0	23
	Fall	61	69	92	27	62
	Spring	82	73	17	35	74
	<b>TOTAL</b>	143	142	109	62	159
<b>Growth/Decline [(Yr2-Yr1)/Yr1]</b>		-10%	-1%	-23%	-43%	156%
NUMBER OF SECTIONS	Summer	0	0	0	0	1
	Fall	3	4	7	2	7
	Spring	4	5	3	3	10
	<b>TOTAL</b>	7	9	10	5	18
<b>Growth/Decline [(Yr2-Yr1)/Yr1]</b>		-13%	29%	11%	-50%	260%
FTEF	Summer	0.000	0.000	0.000	0.000	0.333
	Fall	0.860	1.200	1.411	0.667	1.289
	Spring	1.213	1.100	0.367	0.600	1.244
PERCENT FILL (1st cen/max enroll)	Summer	0%	0%	0%	0%	96%
	Fall	85%	72%	64%	56%	37%
	Spring	85%	76%	71%	73%	31%
	<b>AVERAGE, Fall &amp; Spring</b>	85%	74%	68%	65%	34%
PERCENT RETENTION (EOS/1st cen)	Summer	0%	0%	0%	0%	96%
	Fall	89%	91%	83%	93%	84%
	Spring	83%	77%	65%	91%	88%
	<b>AVERAGE, Fall &amp; Spring</b>	86%	84%	74%	92%	86%
APPORTIONMENT INCOME (FTES * Annual Factor)		\$91,010	\$83,407	\$67,932	\$48,692	\$159,789
EXPENSE	Salaries	\$31,947	\$37,698	\$36,902	\$17,634	
	Materials	\$5,310	\$2,822	\$4,717	\$4,166	
	Capital Outlay	\$0	\$0	\$0	\$0	
	<b>Total Direct</b>	\$37,257	\$40,520	\$41,619	\$21,800	
	Indirect (Direct * .40)	\$14,903	\$16,208	\$16,647	\$8,720	
<b>TOTAL</b>	\$52,160	\$56,728	\$58,266	\$30,520	\$0	
ANNUAL COST/FTES		\$2,003	\$2,370	\$3,621	\$2,737	\$0
<b>Growth/Decline [(Yr2-Yr1)/Yr1]</b>		-56%	18%	53%	-24%	-100%

Prior to AY98-99 expense does not include capital outlay or VEA funds.

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		White, non-Hispanic	African- American	Hispanic	Filipino	Other, non-white	Total #
<b>Summer</b>							
Grades *	A	0	0	0	0		0
	B	0	0	0	0		0
	C	0	0	0	0		0
	D	0	0	0	0		0
	F	0	0	0	0		0
	CR	11	5	2	0	2	20
	NC	0	0	0	0		0
	W	1	0	0	0		1
	<b>TOTAL #</b>	<b>12</b>	<b>5</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>21</b>
<b>% Successful *</b>		<b>92%</b>	<b>100%</b>	<b>100%</b>	<b>0%</b>	<b>100%</b>	<b>95%</b>
		White, non-Hispanic	African- American	Hispanic	Filipino	Other, non-white	Total #
<b>Fall</b>							
Grades *	A	13	0	1	1	1	16
	B	4	2	0	0	3	9
	C	2	0	2	0		4
	D	2	0	1	0		3
	F	0	0	1	0		1
	CR	6	3	3	0	2	14
	NC	3	1	1	0	1	6
	W	1	2	0	1		4
	<b>TOTAL #</b>	<b>31</b>	<b>8</b>	<b>9</b>	<b>2</b>	<b>7</b>	<b>57</b>
<b>% Successful *</b>		<b>81%</b>	<b>63%</b>	<b>67%</b>	<b>50%</b>	<b>86%</b>	<b>75%</b>
		White, non-Hispanic	African- American	Hispanic	Filipino	Other, non-white	Total #
<b>Spring</b>							
Grades *	A	18	3	4	1	6	32
	B	9	1	1	0	7	18
	C	2	2	1	0	2	7
	D	2	1	0	0		3
	F	0	0	1	0		1
	CR	1	2	0	0		3
	NC	0	0	0	0		0
	W	3	1	2	0		6
	<b>TOTAL #</b>	<b>35</b>	<b>10</b>	<b>9</b>	<b>1</b>	<b>15</b>	<b>70</b>
<b>% Successful *</b>		<b>86%</b>	<b>80%</b>	<b>67%</b>	<b>100%</b>	<b>100%</b>	<b>86%</b>

\* Includes duplicate counts.

<u>Summer</u>		<u>F</u>	<u>M</u>	<u>U</u>	<u>ESL</u>	<u>Non-ESL</u>	<u>U</u>
Grades *	A	0	0		0	0	
	B	0	0		0	0	
	C	0	0		0	0	
	D	0	0		0	0	
	F	0	0		0	0	
	CR	6	14		0	20	
	NC	0	0		0	0	
	W	0	1		0	1	
	TOTAL #	6	15	0	0	21	0
% Successful *		100%	93%	0%	0%	95%	0%

  

<u>Fall</u>		<u>F</u>	<u>M</u>	<u>U</u>	<u>ESL</u>	<u>Non-ESL</u>	<u>U</u>
Grades *	A	11	5		0	16	
	B	6	3		0	9	
	C	3	1		0	4	
	D	2	1		0	3	
	F	0	1		1	0	
	CR	7	7		1	13	
	NC	3	3		0	6	
	W	1	3		0	4	
	TOTAL #	33	24	0	2	55	0
% Successful *		82%	67%	0%	50%	76%	0%

  

<u>Spring</u>		<u>F</u>	<u>M</u>	<u>U</u>	<u>ESL</u>	<u>Non-ESL</u>	<u>U</u>
Grades *	A	18	14		1	29	2
	B	11	7		0	18	0
	C	2	5		1	6	0
	D	0	3		0	3	0
	F	0	1		0	1	0
	CR	3	0		0	3	0
	NC	0	0		0	0	0
	W	3	3		2	4	0
	TOTAL #	37	33	0	4	64	2
% Successful *		92%	79%	0%	50%	88%	100%

\*Includes duplicate counts.

8/29/2008

Solano: Research and Planning

## Occupational Education/Work Experience Department

### Part I Goals/Objectives

#### 1. What are the goals/objectives of the program? (State in terms of student learning outcomes — SLOs.)

- Note: The goal of this program is assisting students to succeed, and goes beyond what students actively learn (SLOs). It is also to provide access to employment and internship opportunities, increase communication with employers, and to serve as a liaison in workplace issues.
- Analyze, design, develop, and record learning objectives that are specific, achievable, reasonable, and time-bound.
- Productively work as a team member with people of diverse experiences and backgrounds in a workplace environment.
- Demonstrate high and efficient qualities of self-management and self-awareness, in terms of workplace responsibility and productivity.
- Demonstrate effective communication skills and professional relationships in the workplace.

#### 2. List appropriate indicators of program success (i.e., measures of goals/objectives stated above). Include both quantitative and qualitative measures.

##### *Quantitative:*

- Employer and instructor evaluation of student goals, as per *Title 5*.
- Employer evaluation of student's workplace accomplishments, as per *Title 5*.
- Student evaluation of program.
- Increased demand for Solano Community College work experience students by area employers.
- Created defined internship programs with local industry.
- Maintained or increased student enrollment in 2006-07, increases opportunities for student participation.
- Maintained a website presence for students and employers.
- Maintained off-campus work experience classes to provide access.

*Qualitative:*

- Student's development of workplace motivation and self-management.
- Employer's commendations of student attitude and soft skills performance.
- Increased job satisfaction and career success by returning students.
- Former students in management positions sending employee in to take the program.

## Part II      Analysis

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

**Enrollment** — Enrollment for 2007-08 remained high with enrollment of 162% in the fall and 136% in the spring. This program may begin experiencing fluctuations in enrollment due to *Title 5* regulations and institutional changes. Enrollment increased in fall 2008 due to changes in *Title 5* removing the requirement to be enrolled in seven units and increasing the repeatability of the Occupational program from twelve units to the State allowed sixteen units. Spring 2009 introduces an increase in the number of units a student can earn for a full semester course, which should increase enrollment, but severe cuts in the number of sections to be offered, due to the implementation of a new registration system, may offset growth. Classes at off-site campuses will be cut and the options for full-semester, twelve-week and eight-week sections will be eliminated. Additionally, new contract requirements for instructors do not allow enrollments of more than 160%. This means enrollments have to be denied to ensure there is no possibility of the instructor exceeding the limits imposed by the contract. The economy also impacts the enrollment in this program. Businesses facing a shortage of help are sometimes reluctant to further burden overworked staff with the oversight of interns.

**Retention** — Retention in this course is directly affected by the economy at large. When companies cutback or close, students are forced to drop the class. Early drop rates also occur as students realize this course has class work beyond just going to work and signing a timecard. Students are continuing to find email an effective way to connect with the instructor and it enables problems and issues to be solved more efficiently. The continuation of online course work has also made it easier for students to maintain enrollment around their jobs and military service. Online students are becoming comfortable with technology and the different way they need to study to be successful. Maintaining a website has allowed students access to handbooks, forms, and program requirements when they need them. The Department will probably continue to experience a higher retention loss with OCED 091: *General Work Experience*, which enrolls students who, at this time, are not as goal-oriented as the occupational students and more likely to quit or change jobs more frequently.

**Fill rate** — Fill rate is always over 100%.

**Other Factor —**

- A percentage (approximately one-fourth) of students repeat the course for additional credit in subsequent semesters.
- High degree of industry acceptance and interest.
- Increased job satisfaction and supervisor approval.

**Qualitative Factors —**

- Maintaining course offerings online and off-campus.
- Maintaining intensive recruiting on and off-campus.
- Quality of instruction in relation to job objectives.
- Continued program efficiency to campus and off-campus sites.
- Maintained employer involvement as work-stations.
- Continued program efficiency by offering online and short-term classes.
- Providing online access to forms and instructor.

**2. How do the above trends relate to the program goals identified during the last review?**

- Increased enrollment indicates the program is meeting the needs of the community and the students.
- Increased employer demand for SCC work experience students, indicates program is meeting employer needs.
- Students enrolling from a wider segment of the campus indicate expanded recruiting is effective.

**Part III Conclusions and Recommendations**

**1. What are the major accomplishments of the program since the last report?**

- Maintained student count in the program between 135-162%.
- Maintained three campus sites and two online course rooms.
- Maintained work sites in the business community.
- Maintained 10 twelve-week and 10 eight-week work experience sections, in addition to the 10 full-semester sections and two online sections, up to fall 2008.
- In fall 2008, maintained ninety-seven sections of work experience after transition is made to a new registration system.
- Maintained Occupational Education units transferable to C.S.U.
- Scheduled business leaders from the community to speak to students.
- Continued progress on work experience website.

- Continued effort to provide internship opportunities via online database.
- Maintained conversion of student records to computer, although still no database.
- Maintained online and e-mail system for students to contact instructor, replace lost forms, and submit assignments.
- Refined online curriculum for both, OCED 090: *Occupation Work Experience* and OCED 091: *General Work Experience*.
- Increased the voice of the Solano Community College program, through participation as a member of the California Cooperative Education and Internship Association.
- Attended seminars at statewide conferences on program development, online work experience, and work experience curriculum design.
- Organized participation in local festival to promote Solano College and the Work Experience program.

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

- Clerical support help to maintain the quality of the Work Experience program. *Title 5* requires, “the district plan shall contain provisions for adequate clerical and instructional services.” Total reliance on Federal Work Study Students is inconsistent, unreliable, and imposes greater responsibilities than reasonable on student help.
- Hiring of additional faculty to better manage the increasing numbers of students; increase section offerings to accommodate that need.
- Additional personnel devoted to internship development in the community. It takes many hours to work with a company and develop an appropriate internship program. This is best accomplished by personnel with that one focus.
- Development of more employment sites for student placement.
- College needs to develop and implement a marketing tool that will reach all Solano County residents and businesses.
- Create a course management database to more effectively maintain student and employer records.
- Close interaction and cooperation with other campus entities to share resources, increase campus faculty/staff awareness of the program, and further increase enrollment.
- Connect with area high schools to increase awareness of the program for future students. Draft specific requirements or limitations for high school participation.

- Create space on the College website for a full, interactive work experience site, where students and community employers can access the most up to date information about the program. The intent will be to allow employers to post requests for student interns and for students to request internships online, as well as providing access to required paperwork, application forms, and rules and regulations regarding the program.

Program Review 2007-08  
 OCCUPATIONAL EDUCATION (Work Experience)  
 TOPs: 0999.00

Career Technical Education  
 Division 11

		03-04	04-05	05-06	06-07	07-08
FTES GENERATED	Summer	0.00	0.00	0.00	0.00	0.00
	Fall	17.26	17.12	17.61	14.45	17.62
	Spring	20.24	18.93	14.85	16.06	16.08
	<b>TOTAL</b>	<b>37.50</b>	<b>36.05</b>	<b>32.46</b>	<b>30.51</b>	<b>33.70</b>
<b>Growth/Decline [(Yr2-Yr1)/Yr1]</b>		0%	-4%	-10%	-6%	10%
LOAD (WSCH/FTE)	Summer	0	0	0	0	0
	<b>Growth/Decline</b>	N/A	N/A	N/A	N/A	N/A
	Fall	366	234	367	323	332
	Spring	379	372	348	386	354
<b>AVERAGE, Fall &amp; Spring</b>		<b>373</b>	<b>303</b>	<b>358</b>	<b>355</b>	<b>343</b>
<b>Growth/Decline [(Yr2-Yr1)/Yr1]</b>		-2%	-19%	18%	-1%	-3%
ENROLLMENT	Summer	0	0	0	0	0
	Fall	178	187	185	164	202
	Spring	202	192	159	154	170
	<b>TOTAL</b>	<b>380</b>	<b>379</b>	<b>344</b>	<b>318</b>	<b>372</b>
<b>Growth/Decline [(Yr2-Yr1)/Yr1]</b>		1%	0%	-9%	-8%	17%
NUMBER OF SECTIONS	Summer	0	0	0	0	0
	Fall	27	32	32	32	32
	Spring	32	32	32	32	31
	<b>TOTAL</b>	<b>59</b>	<b>64</b>	<b>64</b>	<b>64</b>	<b>63</b>
<b>Growth/Decline [(Yr2-Yr1)/Yr1]</b>		0%	8%	0%	0%	-2%
FTEF	Summer	0.000	0.000	0.000	0.000	0.000
	Fall	1.416	1.456	1.440	1.344	1.592
	Spring	1.600	1.528	1.280	1.248	1.360
PERCENT FILL (1st cen/max enroll)	Summer	0%	0%	0%	0%	0%
	Fall	142%	107%	148%	44%	58%
	Spring	162%	154%	127%	123%	113%
	<b>AVERAGE, Fall &amp; Spring</b>	<b>152%</b>	<b>131%</b>	<b>138%</b>	<b>84%</b>	<b>86%</b>
PERCENT RETENTION (EOS/1st cen)	Summer	0%	0%	0%	0%	0%
	Fall	77%	73%	57%	66%	68%
	Spring	70%	70%	72%	82%	62%
	<b>AVERAGE, Fall &amp; Spring</b>	<b>74%</b>	<b>72%</b>	<b>65%</b>	<b>74%</b>	<b>65%</b>
APPORTIONMENT INCOME (FTES * Annual Factor)		\$131,063	\$125,598	\$137,046	\$133,237	\$147,168
EXPENSE	Salaries	\$78,294	\$83,221	\$88,707	\$73,392	
	Materials	\$0	\$4,476	\$1,657	\$1,860	
	Capital Outlay	\$0	\$0	\$0	\$28,142	
	<b>Total Direct</b>	<b>\$78,294</b>	<b>\$87,698</b>	<b>\$90,364</b>	<b>\$103,394</b>	
	Indirect (Direct * .40)	\$31,318	\$35,079	\$36,146	\$41,357	
<b>TOTAL</b>		<b>\$109,612</b>	<b>\$122,777</b>	<b>\$126,510</b>	<b>\$144,751</b>	<b>\$0</b>
ANNUAL COST/FTES		\$2,923	\$3,406	\$3,897	\$4,744	\$0
<b>Growth/Decline [(Yr2-Yr1)/Yr1]</b>		1%	17%	14%	22%	-100%

Prior to AY98-99 expense does not include capital outlay or VEA funds.

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Solano: Research and Planning



		White, non-Hispanic	African- American	Hispanic	Filipino	Other, non-white	Total #
<b>Summer</b> Grades *	A	0	0	0	0	0	0
	B	0	0	0	0	0	0
	C	0	0	0	0	0	0
	D	0	0	0	0	0	0
	F	0	0	0	0	0	0
	CR	0	0	0	0	0	0
	NC	0	0	0	0	0	0
	W	0	0	0	0	0	0
	TOTAL #	0	0	0	0	0	0
	% Successful *	0%	0%	0%	0%	0%	0%
<b>Fall</b>							
		White, non-Hispanic	African- American	Hispanic	Filipino	Other, non-white	Total #
Grades *	A	35	12	9	10	8	74
	B	8	6	0	1	1	16
	C	5	3	3	3	0	14
	D	1	1	1	1	0	4
	F	5	4	0	1	4	14
	CR	0	0	0	0	0	0
	NC	0	0	0	0	0	0
	W	12	21	6	4	9	52
	TOTAL #	66	47	19	20	22	174
	% Successful *	73%	45%	63%	70%	41%	60%
<b>Spring</b>							
		White, non-Hispanic	African- American	Hispanic	Filipino	Other, non-white	Total #
Grades *	A	29	8	9	2	11	59
	B	6	6	4	1	1	18
	C	6	3	0	1		10
	D	0	4	0	0		4
	F	2	9	1	0	1	13
	CR	0	0	0	0		0
	NC	0	0	0	0		0
	W	11	17	6	1	10	45
	TOTAL #	54	47	20	5	23	149
	% Successful *	76%	36%	65%	80%	52%	58%

\* Includes duplicate counts.

<u>Summer</u>		<u>F</u>	<u>M</u>	<u>U</u>	<u>ESL</u>	<u>Non-ESL</u>	<u>U</u>
Grades *	A	0	0		0	0	
	B	0	0		0	0	
	C	0	0		0	0	
	D	0	0		0	0	
	F	0	0		0	0	
	CR	0	0		0	0	
	NC	0	0		0	0	
	W	0	0		0	0	
	TOTAL #	0	0	0	0	0	0
	% Successful *	0%	0%	0%	0%	0%	0%

  

<u>Fall</u>		<u>F</u>	<u>M</u>	<u>U</u>	<u>ESL</u>	<u>Non-ESL</u>	<u>U</u>
Grades *	A	57	17		4	70	
	B	10	6		0	16	
	C	9	5		1	13	
	D	1	3		0	4	
	F	10	4		0	14	
	CR	0	0		0	0	
	NC	0	0		0	0	
	W	34	18		1	51	
	TOTAL #	121	53	0	6	168	0
	% Successful *	63%	53%	0%	83%	59%	0%

  

<u>Spring</u>		<u>F</u>	<u>M</u>	<u>U</u>	<u>ESL</u>	<u>Non-ESL</u>	<u>U</u>
Grades *	A	41	18		2	57	
	B	12	6		1	17	
	C	6	4		0	10	
	D	3	1		0	4	
	F	10	3		0	13	
	CR	0	0		0	0	
	NC	0	0		0	0	
	W	34	11		0	45	
	TOTAL #	106	43	0	3	146	0
	% Successful *	56%	65%	0%	100%	58%	0%

\*Includes duplicate counts.

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## Welding Department

### Part I Goals/Objectives

**1. What are the goals/objectives of the program? (State in terms of student learning outcomes — SLOs.)**

- Students will increase their knowledge of welding.
- Students will demonstrate the ability to work effectively and safely with equipment used to weld metals.
- Students will apply correct procedures to the fabrication of welded objects.
- Students will apply the welding skills needed to gain employment in related trades.

**2. List appropriate indicators of program success (i.e., measures of goals/objectives stated above). Include both quantitative and qualitative measures.**

*Quantitative:*

- Students applying skills taught in there professions.
- Students completing program successfully.
- Students gaining employment as welders.
- Students gaining employment in related trades.

*Qualitative:*

- Interest of student population in the program.
- Student evaluation of instructors
- Student knowledge of concepts presented during training.
- Diversity of student population.

### Part II Analysis

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

**Enrollment** — The number of students enrolled in the program increased from 317 in 2006-07, to 327 in 2007-08. The general trend has been for increased enrollment in the program.

**Retention** — Data indicate an annual 84% retention rate during 2006-07 academic year and a lowering of retention to 80% in 2007-08.

**Fill rate** — A 126% fill rate was achieved, when counting all students enrolled in the welding courses for the 2007-08 academic year. Instructor load (WSCH/FTEF) has been an average 538, for the last two years.

**Other Factor** — Some students are leaving the program to take jobs before they complete all of their training. State core indicators show that the program has a 48.28% completion rate, which is 29% below state performance goals. Retention and skill attainment are above the State's performance goals, while participation by non-traditional students is below the goals.

**Qualitative Factors** — High enrollment in the program indicates student interest. High employment retention indicates the proper skills and knowledge are being acquired by the students. Low diversity indicates a need for better outreach.

**2. How do the above trends relate to the program goals identified during the last review?**

- Some improvement in enrollment can be attributed to the student's desire to cross-train in several trades, to meet industry's changing needs. Students continue to acquire skills and knowledge to meet industrial standards.
- Addition of a smart classroom and some newer machines has increased the program's efficiency.

### Part III Conclusions and Recommendations

**1. What are the major accomplishments of the program since the last report?**

- Major accomplishments include: placement of students into industry, enhancement of skill levels of students already on the job, and refinement of course content. Six new inverter-type welders were added to the lab equipment and smart classroom equipment was added to the lecture area. The addition of a Saturday schedule has allowed students to attend the program at alternative hours.

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

- Students continue to gain employment and upgrade their skill levels because of the welding courses at Solano College. Some students leave before the completion of the day or evening program, then return at a different time of day to continue their training. By increasing flexibility, the program will be able to help these students.
- A trend observed is the need for more time by students in certain areas of the curriculum, and the need to add new offerings in emerging areas of the trade. New equipment has been added that should help with the curriculum changes. However, there is still need to upgrade in certain areas of the trade.

- All classes in the Welding program are offered in combined sections. Three to four different classes are offered during the same period. When one class is receiving lecture material, the other two or three classes are working in the lab without direct instructor help. In order to make the combined sections work more effectively, a lab aide position should be added to every class period.
- A larger supply budget is needed to offset the increase in student load and the dramatic inflationary increase in supply costs.
- Upgrade of two of the Gas Tungsten Arc Welding machines to pulse units would allow courses to include pulse techniques.
- A Friday class section could increase the use of the lab space.

		03-04	04-05	05-06	06-07	07-08
FTES GENERATED	Summer	8.16	5.59	6.39	6.78	5.74
	Fall	42.52	33.03	28.63	33.59	35.94
	Spring	45.11	36.67	36.24	35.29	36.00
	<b>TOTAL</b>	<b>95.79</b>	<b>75.29</b>	<b>71.26</b>	<b>75.66</b>	<b>77.68</b>
<b>Growth/Decline [(Yr2-Yr1)/Yr1]</b>		25%	-21%	-5%	6%	3%
LOAD (WSCH/FTE)	Summer	593	406	442	470	398
	<b>Growth/Decline</b>	17%	-32%	9%	6%	-15%
	Fall	642	521	452	531	568
	Spring	681	541	535	521	531
<b>AVERAGE, Fall &amp; Spring</b>		<b>662</b>	<b>531</b>	<b>494</b>	<b>526</b>	<b>550</b>
<b>Growth/Decline [(Yr2-Yr1)/Yr1]</b>		16%	-20%	-7%	7%	4%
ENROLLMENT	Summer	74	58	67	65	59
	Fall	160	110	102	118	124
	Spring	164	132	149	134	144
	<b>TOTAL</b>	<b>398</b>	<b>300</b>	<b>318</b>	<b>317</b>	<b>327</b>
<b>Growth/Decline [(Yr2-Yr1)/Yr1]</b>		49%	-25%	6%	0%	3%
NUMBER OF SECTIONS	Summer	4	4	4	4	5
	Fall	15	14	13	14	14
	Spring	15	14	15	15	15
	<b>TOTAL</b>	<b>34</b>	<b>32</b>	<b>32</b>	<b>33</b>	<b>34</b>
<b>Growth/Decline [(Yr2-Yr1)/Yr1]</b>		10%	-6%	0%	3%	3%
FTEF	Summer	0.413	0.413	0.433	0.433	0.433
	Fall	1.987	1.900	1.900	1.900	1.900
	Spring	1.987	2.033	2.033	2.033	2.033
PERCENT FILL (1st cen/max enroll)	Summer	103%	81%	93%	135%	96%
	Fall	108%	109%	98%	121%	129%
	Spring	108%	89%	118%	111%	122%
	<b>AVERAGE, Fall &amp; Spring</b>	<b>108%</b>	<b>99%</b>	<b>108%</b>	<b>116%</b>	<b>126%</b>
PERCENT RETENTION (EOS/1st cen)	Summer	74%	79%	69%	97%	97%
	Fall	76%	96%	82%	84%	81%
	Spring	86%	86%	82%	84%	79%
	<b>AVERAGE, Fall &amp; Spring</b>	<b>81%</b>	<b>91%</b>	<b>82%</b>	<b>84%</b>	<b>80%</b>
APPORTIONMENT INCOME (FTES * Annual Factor)		\$334,786	\$262,310	\$300,860	\$330,407	\$339,229
EXPENSE	Salaries	\$142,787	\$134,018	\$149,861	\$161,410	
	Materials	\$30,983	\$21,691	\$17,658	\$32,660	
	Capital Outlay	\$30,799	\$0	\$36,453	\$0	
	<b>Total Direct</b>	<b>\$204,569</b>	<b>\$155,709</b>	<b>\$203,972</b>	<b>\$194,070</b>	
	Indirect (Direct *.40)	\$81,828	\$62,284	\$81,589	\$77,628	
<b>TOTAL</b>	<b>\$286,397</b>	<b>\$217,993</b>	<b>\$285,560</b>	<b>\$271,698</b>	<b>\$0</b>	
ANNUAL COST/FTES		\$2,990	\$2,895	\$4,007	\$3,591	\$0
<b>Growth/Decline [(Yr2-Yr1)/Yr1]</b>		-10%	-3%	38%	-10%	-100%

Prior to AY98-99 expense does not include capital outlay or VEA funds.

<b>Summer</b>		White, non-Hispanic	African- American	Hispanic	Filipino	Other, non-white	Total #
Grades *	A	10	3	5	0	4	22
	B	8	1	3	0	1	13
	C	0	0	0	2	2	4
	D	0	0	0	0	0	0
	F	0	0	0	0	0	0
	CR	0	0	0	0	0	0
	NC	0	0	0	0	0	0
	W	2	1	0	0	0	3
	TOTAL #	20	5	8	2	7	42
% Successful *		90%	80%	100%	100%	100%	93%
<b>Fall</b>		White, non-Hispanic	African- American	Hispanic	Filipino	Other, non-white	Total #
Grades *	A	10	2	4	2	1	19
	B	12	1	2	1	1	17
	C	7	1	1	0	1	10
	D	3	1	0	0	0	4
	F	1	3	1	0	0	5
	CR	0	0	0	0	0	0
	NC	0	0	0	0	0	0
	W	2	0	1	0	0	3
	TOTAL #	35	8	9	3	3	58
% Successful *		83%	50%	78%	100%	100%	79%
<b>Spring</b>		White, non-Hispanic	African- American	Hispanic	Filipino	Other, non-white	Total #
Grades *	A	23	2	8	0	6	39
	B	9	3	3	0	2	17
	C	12	1	4	1	0	18
	D	1	1	1	0	0	3
	F	1	2	2	0	1	6
	CR	0	0	0	0	0	0
	NC	0	0	0	0	0	0
	W	11	3	0	4	2	20
	TOTAL #	57	12	18	5	11	103
% Successful *		77%	50%	83%	20%	73%	72%

\* Includes duplicate counts.

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Solano: Research and Planning

<u>Summer</u>		<u>F</u>	<u>M</u>	<u>U</u>	<u>ESL</u>	<u>Non-ESL</u>	<u>U</u>
Grades *	A	2	20		2	20	
	B	2	11		1	12	
	C	1	3		0	4	
	D	0	0		0	0	
	F	0	0		0	0	
	CR	0	0		0	0	
	NC	0	0		0	0	
	W	2	1		0	3	
	TOTAL #	7	35	0	3	39	0
% Successful *		71%	97%	0%	100%	92%	0%

  

<u>Fall</u>		<u>F</u>	<u>M</u>	<u>U</u>	<u>ESL</u>	<u>Non-ESL</u>	<u>U</u>
Grades *	A	2	17		1	18	
	B	2	15		1	16	
	C	0	10		0	10	
	D	1	3		0	4	
	F	2	3		0	5	
	CR	0	0		0	0	
	NC	0	0		0	0	
	W	1	2		0	3	
	TOTAL #	8	50	0	2	56	0
% Successful *		50%	84%	0%	100%	79%	0%

  

<u>Spring</u>		<u>F</u>	<u>M</u>	<u>U</u>	<u>ESL</u>	<u>Non-ESL</u>	<u>U</u>
Grades *	A	3	36		0	39	
	B	0	17		1	16	
	C	2	16		1	17	
	D	0	3		1	2	
	F	2	4		0	6	
	CR	0	0		0	0	
	NC	0	0		0	0	
	W	0	20		2	18	
	TOTAL #	7	96	0	5	98	0
% Successful *		71%	72%	0%	40%	73%	0%

\*Includes duplicate counts.

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## APPENDICES

No narratives were provided by the Division  
for the following program worksheets.

## CTE Division Data Sheets:

Program Review 2007-08  
 Career Technical Education  
 DIVISION TOTALS

Division 11

		03-04	04-05	05-06	06-07	07-08
<b>FTES GENERATED</b>	Summer	49.22	47.27	76.16	69.06	59.72
	Fall	428.61	396.26	433.27	383.85	443.38
	Spring	428.14	417.15	437.23	418.38	440.97
	<b>TOTAL</b>	905.97	860.68	946.66	871.29	944.07
<b>Growth/Decline <math>[(Yr2-Yr1)/Yr1]</math></b>		-4%	-5%	10%	-8%	8%
<b>LOAD (WSCH/FTE)</b>	Summer	445	395	464	494	480
	<b>Growth/Decline</b>	-26%	-11%	17%	6%	-3%
	Fall	485	481	477	453	454
	Spring	538	493	496	470	466
	<b>AVERAGE, Fall &amp; Spring</b>	512	487	487	462	460
<b>Growth/Decline <math>[(Yr2-Yr1)/Yr1]</math></b>		12%	-5%	0%	-5%	0%
<b>ENROLLMENT</b>	Summer	376	387	615	592	500
	Fall	2421	2476	2477	2259	2437
	Spring	2467	2365	2359	2363	2458
	<b>TOTAL</b>	5264	5228	5451	5214	5395
<b>Growth/Decline <math>[(Yr2-Yr1)/Yr1]</math></b>		3%	-1%	4%	-4%	3%
<b>NUMBER OF SECTIONS</b>	Summer	17	18	28	24	21
	Fall	131	146	165	151	142
	Spring	133	155	164	145	148
	<b>TOTAL</b>	281	319	357	320	311
<b>Growth/Decline <math>[(Yr2-Yr1)/Yr1]</math></b>		0%	14%	12%	-10%	-3%
<b>FTEF</b>	Summer	3.320	3.593	4.924	4.192	3.736
	Fall	26.527	24.700	27.220	25.430	29.306
	Spring	23.989	24.962	26.469	26.714	28.414
	<b>AVERAGE, Fall &amp; Spring</b>	25.258	24.831	26.845	26.072	28.860
<b>PERCENT FILL (1st cen/max enroll)</b>	Summer	76%	77%	95%	104%	72%
	Fall	91%	91%	79%	76%	50%
	Spring	100%	94%	82%	82%	49%
	<b>AVERAGE, Fall &amp; Spring</b>	96%	93%	81%	79%	50%
<b>PERCENT RETENTION (EOS/1st cen)</b>	Summer	82%	80%	83%	84%	82%
	Fall	83%	86%	83%	82%	81%
	Spring	83%	85%	80%	82%	79%
	<b>AVERAGE, Fall &amp; Spring</b>	83%	86%	82%	82%	80%
<b>APPORTIONMENT INCOME (FTES * Annual Factor)</b>		\$3,166,365	\$2,998,609	\$3,996,799	\$3,804,923	\$4,122,754
<b>EXPENSE</b>	Salaries	\$1,723,176	\$1,727,556	\$2,201,534	\$1,936,910	\$0
	Materials	\$98,997	\$121,062	\$161,052	\$239,924	\$0
	Capital Outlay	\$88,341	\$99,659	\$143,683	\$84,771	\$0
	<b>Total Direct</b>	\$1,910,514	\$1,948,277	\$2,506,268	\$2,261,605	\$0
	Indirect (Direct *.40)	\$76,420,560	\$77,931,070	\$100,250,736	\$90,464,192	\$0
	<b>TOTAL</b>	\$78,331,074	\$79,879,347	\$102,757,005	\$92,725,797	\$0
<b>ANNUAL COST/FTES</b>		\$86,461	\$92,810	\$108,547	\$106,424	\$0
<b>Growth/Decline <math>[(Yr2-Yr1)/Yr1]</math></b>		-7%	7%	17%	-2%	-100%

Prior to AY98-99 expense does not include capital outlay or VEA funds.

8/29/2008

Solano: Research and Planning

Program Review 2007-08  
 Career Technical Education  
 DIVISION TOTALS

Division 11  
 Year: 2007-08

		White, non- Hispanic	African- American	Hispanic	Filipino	Other, non-white	Total #
<b>Summer</b> Grades *	A	99	31	30	10	27	197
	B	44	15	15	5	9	88
	C	16	3	6	6	7	38
	D	8	1	2	0	2	13
	F	6	3	5	1	3	18
	CR	16	9	8	0	4	37
	NC	1	0	0	0	1	2
	W	24	21	6	1	9	61
	TOTAL #	214	83	72	23	62	454
	% Successful *	82%	70%	82%	91%	76%	79%
<b>Fall</b>							
		White, non- Hispanic	African- American	Hispanic	Filipino	Other, non-white	Total #
Grades *	A	453	123	160	58	94	888
	B	215	88	107	26	43	479
	C	110	67	66	13	24	280
	D	35	25	21	8	13	102
	F	94	66	55	14	33	262
	CR	15	8	9	1	3	36
	NC	3	2	1	0	2	8
	W	89	71	48	14	39	261
	TOTAL #	1014	450	467	134	251	2316
	% Successful *	78%	64%	73%	73%	65%	73%
<b>Spring</b>							
		White, non- Hispanic	African- American	Hispanic	Filipino	Other, non-white	Total #
Grades *	A	472	126	152	45	117	916
	B	222	90	96	30	60	498
	C	99	57	50	13	16	235
	D	32	32	18	8	9	99
	F	71	61	49	10	17	208
	CR	10	11	2	0	2	25
	NC	2	1	2	0	0	5
	W	135	112	63	25	44	379
	TOTAL #	1043	490	432	131	265	2365
	% Successful *	77%	58%	69%	67%	74%	71%

\* Includes duplicate counts.

Program Review 2007-08  
 Career Technical Education  
 DIVISION TOTALS

Division 11  
 Year: 2007-08

<u>Summer</u>		<u>F</u>	<u>M</u>	<u>U</u>	<u>ESL</u>	<u>Non-ESL</u>	<u>U</u>
Grades *	A	99	31	30	10	27	197
	B	44	15	15	5	9	88
	C	16	3	6	6	7	38
	D	8	1	2	0	2	13
	F	6	3	5	1	3	18
	CR	16	9	8	0	4	37
	NC	1	0	0	0	1	2
	W	24	21	6	1	9	61
	TOTAL #	214	83	72	23	62	454
	% Successful *	82%	70%	82%	91%	76%	0%
<u>Fall</u>		<u>F</u>	<u>M</u>	<u>U</u>	<u>ESL</u>	<u>Non-ESL</u>	<u>U</u>
Grades *	A	453	123	160	58	94	888
	B	215	88	107	26	43	479
	C	110	67	66	13	24	280
	D	35	25	21	8	13	102
	F	94	66	55	14	33	262
	CR	15	8	9	1	3	36
	NC	3	2	1	0	2	8
	W	89	71	48	14	39	261
	TOTAL #	1014	450	467	134	251	2316
	% Successful *	78%	64%	0%	73%	65%	0%
<u>Spring</u>		<u>F</u>	<u>M</u>	<u>U</u>	<u>ESL</u>	<u>Non-ESL</u>	<u>U</u>
Grades *	A	472	126	152	45	117	916
	B	222	90	96	30	60	498
	C	99	57	50	13	16	235
	D	32	32	18	8	9	99
	F	71	61	49	10	17	208
	CR	10	11	2	0	2	25
	NC	2	1	2	0	0	5
	W	135	112	63	25	44	379
	TOTAL #	1043	490	432	131	265	2365
	% Successful *	77%	58%	0%	67%	74%	0%

\*Includes duplicate counts.

8/29/2008

Solano: Research and Planning

## Air Conditioning & Refrigeration Department Data Sheets:

Program Review 2007-08  
**AIR CONDITIONING & REFRIGERATION**  
 TOP: 0946.00

Career Technical Education  
 Division 11

		03-04	04-05*	05-06	06-07	07-08
<b>FTES GENERATED</b>	Summer	0.00	0.00	0.00	0.00	0.00
	Fall	0.00	0.00	2.42	2.75	3.10
	Spring	0.00	4.70	0.00	3.63	2.75
	<b>TOTAL</b>	0.00	4.70	2.42	6.38	5.85
<b>Growth/Decline [(Yr2-Yr1)/Yr1]</b>		N/A	N/A	-49%	164%	-8%
<b>LOAD (WSCH/FTE)</b>	Summer	0	0	0	0	0
	<b>Growth/Decline</b>	N/A	N/A	N/A	N/A	N/A
	Fall	0	0	363	413	465
	Spring	0	353	0	545	413
<b>AVERAGE, Fall &amp; Spring</b>		N/A	177	182	479	439
<b>Growth/Decline [(Yr2-Yr1)/Yr1]</b>		N/A	N/A	3%	164%	-8%
<b>ENROLLMENT</b>	Summer	0	0	0	0	0
	Fall	0	0	22	25	31
	Spring	0	47	0	33	25
	<b>TOTAL</b>	0	47	22	58	56
<b>Growth/Decline [(Yr2-Yr1)/Yr1]</b>		N/A	N/A	-53%	164%	-3%
<b>NUMBER OF SECTIONS</b>	Summer	0	0	0	0	0
	Fall	0	0	2	3	1
	Spring	0	2	2	1	1
	<b>TOTAL</b>	0	2	4	4	2
<b>Growth/Decline [(Yr2-Yr1)/Yr1]</b>		N/A	N/A	100%	0%	-50%
<b>FTEF</b>	Summer	0.000	0.000	0.000	0.000	0.000
	Fall	0.000	0.000	0.200	0.200	0.200
	Spring	0.000	0.400	0.000	0.200	0.200
<b>PERCENT FILL (1st cen/max enroll)</b>	Summer	0%	0%	0%	0%	0%
	Fall	0%	70%	55%	63%	103%
	Spring	0%	59%	0%	83%	63%
	<b>AVERAGE, Fall &amp; Spring</b>	N/A	65%	28%	73%	83%
<b>PERCENT RETENTION (EOS/1st cen)</b>	Summer	0%	0%	0%	0%	0%
	Fall	0%	96%	82%	100%	87%
	Spring	0%	66%	0%	67%	68%
	<b>AVERAGE, Fall &amp; Spring</b>	N/A	81%	41%	84%	78%
<b>APPORTIONMENT INCOME (FTES * Annual Factor)</b>		\$0	\$16,375	\$10,217	\$27,861	\$25,547
<b>EXPENSE</b>	Salaries	\$0	\$7,453	\$3,931	\$4,502	
	Materials	\$0	\$0	\$0	\$0	
	Capital Outlay	\$0	\$0	\$0	\$0	
	<b>Total Direct</b>	\$0	\$7,453	\$3,931	\$4,502	
	Indirect (Direct * .40)	\$0	\$2,981	\$1,573	\$1,801	
	<b>TOTAL</b>	\$0	\$10,434	\$5,504	\$6,303	\$0
<b>ANNUAL COST/FTES</b>		0	\$2,220	\$2,274	\$988	\$0
<b>Growth/Decline [(Yr2-Yr1)/Yr1]</b>		0%	#DIV/0!	2%	-57%	-100%

Prior to AY98-99 expense does not include capital outlay or VEA funds.

\* Combined with Industrial Technology (TOP 0937.00) until 2005

8/29/2008

Solano: Research and Planning

		White, non-Hispanic	African- American	Hispanic	Filipino	Other, non-white	Total #
<b>Summer</b> Grades *	A	0	0	0	0	0	0
	B	0	0	0	0	0	0
	C	0	0	0	0	0	0
	D	0	0	0	0	0	0
	F	0	0	0	0	0	0
	CR	0	0	0	0	0	0
	NC	0	0	0	0	0	0
	W	0	0	0	0	0	0
	TOTAL #	0	0	0	0	0	0
	% Successful *	0%	0%	0%	0%	0%	0%
<b>Fall</b> Grades *	A	10	2	2	1	4	19
	B	0	0	0	0	0	0
	C	3	3	1	1	0	8
	D	0	0	0	0	0	0
	F	0	0	0	0	0	0
	CR	0	0	0	0	0	0
	NC	0	0	0	0	0	0
	W	1	0	0	0	0	1
	TOTAL #	14	5	3	2	4	28
	% Successful *	93%	100%	100%	100%	100%	96%
<b>Spring</b> Grades *	A	6	2	3	0	1	16
	B	0	0	0	0	0	0
	C	0	1	0	0	0	1
	D	0	0	0	0	0	0
	F	0	0	0	0	0	0
	CR	0	0	0	0	0	0
	NC	0	0	0	0	0	0
	W	4	1	1	0	0	6
	TOTAL #	10	4	4	0	1	23
	% Successful *	60%	75%	75%	0%	100%	74%

\* Includes duplicate counts.

<u>Summer</u>		<u>F</u>	<u>M</u>	<u>U</u>	<u>ESL</u>	<u>Non-ESL</u>	<u>U</u>
Grades *	A	0	0		0	0	
	B	0	0		0	0	
	C	0	0		0	0	
	D	0	0		0	0	
	F	0	0		0	0	
	CR	0	0		0	0	
	NC	0	0		0	0	
	W	0	0		0	0	
	TOTAL #	0	0	0	0	0	0
	% Successful *	0%	0%	0%	0%	0%	0%

  

<u>Fall</u>		<u>F</u>	<u>M</u>	<u>U</u>	<u>ESL</u>	<u>Non-ESL</u>	<u>U</u>
Grades *	A	0	19		1	18	
	B	0	0		0	0	
	C	0	8		1	7	
	D	0	0		0	0	
	F	0	0		0	0	
	CR	0	0		0	0	
	NC	0	0		0	0	
	W	0	1		0	1	
	TOTAL #	0	28	0	2	26	0
	% Successful *	0%	96%	0%	100%	96%	0%

  

<u>Spring</u>		<u>F</u>	<u>M</u>	<u>U</u>	<u>ESL</u>	<u>Non-ESL</u>	<u>U</u>
Grades *	A	0	16		1	15	
	B	0	0		0	0	
	C	0	1		0	1	
	D	0	0		0	0	
	F	0	0		0	0	
	CR	0	0		0	0	
	NC	0	0		0	0	
	W	0	6		0	6	
	TOTAL #	0	23	0	1	22	
	% Successful *	0%	74%	0%	100%	73%	0%

\*Includes duplicate counts.

8/29/2008

Solano: Research and Planning

## Automotive Department Data Sheets:

Program Review 2007-08		Career Technical Education				
AUTOMOTIVE BODY & REPAIR		Division 11				
TOPs: 0949.00						
		03-04	04-05	05-06	06-07	07-08
<b>FTEs GENERATED</b>	Summer	0.00	0.00	0.00	0.00	0.00
	Fall	19.85	19.18	23.68	22.79	21.99
	Spring	21.19	23.35	23.33	23.51	21.01
	<b>TOTAL</b>	41.04	42.53	47.01	46.30	43.00
<b>Growth/Decline [(Yr2-Yr1)/Yr1]</b>		6%	4%	11%	-2%	-7%
<b>LOAD (WSCH/FTE)</b>	Summer	0	0	0	0	0
	<b>Growth/Decline</b>	N/A	N/A	N/A	N/A	N/A
	Fall	596	576	710	684	660
	Spring	636	701	700	705	630
<b>AVERAGE, Fall &amp; Spring</b>		616	639	705	695	645
<b>Growth/Decline [(Yr2-Yr1)/Yr1]</b>		11%	4%	10%	-1%	-7%
<b>ENROLLMENT</b>	Summer	0	0	0	0	0
	Fall	32	31	37	36	33
	Spring	34	38	35	36	33
	<b>TOTAL</b>	66	69	72	72	66
<b>Growth/Decline [(Yr2-Yr1)/Yr1]</b>		14%	5%	4%	0%	-8%
<b>NUMBER OF SECTIONS</b>	Summer	0	0	0	0	0
	Fall	5	5	5	5	5
	Spring	5	5	6	5	5
	<b>TOTAL</b>	10	10	11	10	10
<b>Growth/Decline [(Yr2-Yr1)/Yr1]</b>		25%	0%	10%	-9%	0%
<b>FTEF</b>	Summer	0.000	0.000	0.000	0.000	0.000
	Fall	1.000	1.000	1.000	1.000	1.000
	Spring	1.100	1.000	1.000	1.000	1.000
<b>PERCENT FILL (1st cen/max enroll)</b>	Summer	0%	0%	0%	0%	0%
	Fall	128%	124%	148%	144%	132%
	Spring	142%	158%	146%	150%	137%
<b>AVERAGE, Fall &amp; Spring</b>		135%	141%	147%	147%	135%
<b>PERCENT RETENTION (EOS/1st cen)</b>	Summer	0%	0%	0%	0%	0%
	Fall	88%	100%	84%	78%	89%
	Spring	94%	89%	86%	78%	91%
<b>AVERAGE, Fall &amp; Spring</b>		91%	95%	85%	78%	90%
<b>APPORTIONMENT INCOME (FTES * Annual Factor)</b>		\$143,435	\$148,175	\$198,476	\$202,192	\$187,781
<b>EXPENSE</b>	Salaries	\$79,078	\$83,264	\$88,787	\$88,906	
	Materials	\$10,483	\$12,729	\$7,701	\$8,764	
	Capital Outlay	\$0	\$3,610	\$25,765	\$3,127	
	<b>Total Direct</b>	\$89,561	\$99,603	\$122,252	\$100,797	
	Indirect (Direct * .40)	\$35,824	\$39,841	\$48,901	\$40,319	
<b>TOTAL</b>		\$125,385	\$139,444	\$171,153	\$141,116	\$0
<b>ANNUAL COST/FTES</b>		\$3,055	\$3,279	\$3,641	\$3,048	\$0
<b>Growth/Decline [(Yr2-Yr1)/Yr1]</b>		-9%	7%	11%	-16%	-100%
Prior to AY98-99 expense does not include capital outlay or VEA funds.						
8/29/2008						
Solano: Research and Planning						



		White, non-Hispanic	African- American	Hispanic	Filipino	Other, non-white	Total #
<b>Summer</b>							
Grades *	A	0	0	0	0		
	B	0	0	0	0		
	C	0	0	0	0		
	D	0	0	0	0		
	F	0	0	0	0		
	CR	0	0	0	0		
	NC	0	0	0	0		
	W	0	0	0	0		
	TOTAL #	0	0	0	0	0	0
% Successful *		0%	0%	0%	0%	0%	0%
<b>Fall</b>							
Grades *	A	1	0	0	1		2
	B	3	0	2	1		6
	C	0	0	8	0	1	9
	D	2	0	1	0		3
	F	4	0	2	0	1	7
	CR	0	0	0	0		0
	NC	0	0	0	0		0
	W	1	0	4	0		5
	TOTAL #	11	0	17	2	2	32
% Successful *		36%	0%	59%	100%	50%	53%
<b>Spring</b>							
Grades *	A	2	2	1	0		5
	B	0	0	3	0	1	4
	C	2	0	1	1		4
	D	0	2	0	2	1	5
	F	2	2	7	0	1	12
	CR	0	0	0	0		0
	NC	0	0	0	0		0
	W	2	1	0	0		3
	TOTAL #	8	7	12	3	3	33
% Successful *		50%	29%	42%	33%	33%	39%

\* Includes duplicate counts.

<u>Summer</u>		<u>F</u>	<u>M</u>	<u>U</u>	<u>ESL</u>	<u>Non-ESL</u>	<u>U</u>
Grades *	A	0	0		0	0	
	B	0	0		0	0	
	C	0	0		0	0	
	D	0	0		0	0	
	F	0	0		0	0	
	CR	0	0		0	0	
	NC	0	0		0	0	
	W	0	0		0	0	
	TOTAL #	0	0	0	0	0	0
	% Successful *	0%	0%	0%	0%	0%	0%

  

<u>Fall</u>		<u>F</u>	<u>M</u>	<u>U</u>	<u>ESL</u>	<u>Non-ESL</u>	<u>U</u>
Grades *	A	0	2		0	2	
	B	0	6		0	6	
	C	1	8		4	5	
	D	0	3		1	2	
	F	0	7		1	6	
	CR	0	0		0	0	
	NC	0	0		0	0	
	W	0	5		1	4	
	TOTAL #	1	31	0	7	25	0
	% Successful *	100%	52%	0%	57%	52%	0%

  

<u>Spring</u>		<u>F</u>	<u>M</u>	<u>U</u>	<u>ESL</u>	<u>Non-ESL</u>	<u>U</u>
Grades *	A	0	5		0	5	
	B	0	4		2	2	
	C	0	4		1	3	
	D	0	5		1	4	
	F	1	11		4	8	
	CR	0	0		0	0	
	NC	0	0		0	0	
	W	0	3		0	3	
	TOTAL #	1	32	0	8	25	0
	% Successful *	0%	41%	0%	38%	40%	0%

\*Includes duplicate counts.

8/29/2008

Solano: Research and Planning

Program Review 2007-08  
**AUTOMOTIVE MECHANICS & TECHNICIAN**  
TOPs: 0948.00

Career Technical Education  
Division 11

		03-04	04-05	05-06	06-07	07-08
FTES GENERATED	Summer	0.00	0.00	0.00	0.00	0.00
	Fall	0.00	0.00	0.00	0.00	0.00
	Spring	0.00	0.00	0.00	0.00	0.00
	<b>TOTAL</b>	0.00	0.00	0.00	0.00	0.00
<b>Growth/Decline [(Yr2-Yr1)/Yr1]</b>		-100%	N/A	N/A	N/A	N/A
LOAD (WSCH/FTE)	Summer	0	0	0	0	0
	<b>Growth/Decline</b>	-100%	N/A	N/A	N/A	N/A
	Fall	0	0	0	0	0
	Spring	0	0	0	0	0
<b>AVERAGE, Fall &amp; Spring</b>		N/A	N/A	N/A	N/A	N/A
<b>Growth/Decline [(Yr2-Yr1)/Yr1]</b>		N/A	N/A	N/A	N/A	N/A
ENROLLMENT	Summer	0	0	0	0	0
	Fall	0	0	0	0	0
	Spring	0	0	0	0	0
	<b>TOTAL</b>	0	0	0	0	0
<b>Growth/Decline [(Yr2-Yr1)/Yr1]</b>		-100%	N/A	N/A	N/A	N/A
NUMBER OF SECTIONS	Summer	0	0	0	0	0
	Fall	0	0	0	0	0
	Spring	0	0	0	0	0
	<b>TOTAL</b>	0	0	0	0	0
<b>Growth/Decline [(Yr2-Yr1)/Yr1]</b>		-100%	N/A	N/A	N/A	N/A
FTEF	Summer	0.000	0.000	0.000	0.000	0.000
	Fall	0.000	0.000	0.000	0.000	0.000
	Spring	0.000	0.000	0.000	0.000	0.000
	<b>TOTAL</b>	0.000	0.000	0.000	0.000	0.000
PERCENT FILL (1st cen/max enroll)	Summer	0%	0%	0%	0%	0%
	Fall	0%	0%	0%	0%	0%
	Spring	0%	0%	0%	0%	0%
	<b>AVERAGE, Fall &amp; Spring</b>	N/A	N/A	N/A	N/A	N/A
PERCENT RETENTION (EOS/1st cen)	Summer	0%	0%	0%	0%	0%
	Fall	0%	0%	0%	0%	0%
	Spring	0%	0%	0%	0%	0%
	<b>AVERAGE, Fall &amp; Spring</b>	N/A	N/A	N/A	N/A	N/A
APPORTIONMENT INCOME (FTES * Annual Factor)		\$0	\$0	\$0	\$0	\$0
EXPENSE	Salaries	\$0	\$0	\$0	\$0	\$0
	Materials	\$0	\$0	\$0	\$0	\$0
	Capital Outlay	\$0	\$0	\$0	\$0	\$0
	<b>Total Direct</b>	\$0	\$0	\$0	\$0	\$0
	Indirect (Direct * .40)	\$0	\$0	\$0	\$0	\$0
	<b>TOTAL</b>	\$0	\$0	\$0	\$0	\$0
ANNUAL COST/FTES		N/A	N/A	N/A	N/A	N/A
<b>Growth/Decline [(Yr2-Yr1)/Yr1]</b>		#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!

Prior to AY98-99 expense does not include capital outlay or VEA funds.

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Solano: Research and Planning

		White, non-Hispanic	African- American	Hispanic	Filipino	Other, non-white	Total #
<b>Summer</b> Grades *	A	0	0	0	0	0	0
	B	0	0	0	0	0	0
	C	0	0	0	0	0	0
	D	0	0	0	0	0	0
	F	0	0	0	0	0	0
	CR	0	0	0	0	0	0
	NC	0	0	0	0	0	0
	W	0	0	0	0	0	0
	TOTAL #	0	0	0	0	0	0
	% Successful *	0%	0%	0%	0%	0%	0%
<b>Fall</b>							
		White, non-Hispanic	African- American	Hispanic	Filipino	Other, non-white	Total #
Grades *	A	0	0	0	0	0	0
	B	0	0	0	0	0	0
	C	0	0	0	0	0	0
	D	0	0	0	0	0	0
	F	0	0	0	0	0	0
	CR	0	0	0	0	0	0
	NC	0	0	0	0	0	0
	W	0	0	0	0	0	0
	TOTAL #	0	0	0	0	0	0
	% Successful *	0%	0%	0%	0%	0%	0%
<b>Spring</b>							
		White, non-Hispanic	African- American	Hispanic	Filipino	Other, non-white	Total #
Grades *	A	0	0	0	0	0	0
	B	0	0	0	0	0	0
	C	0	0	0	0	0	0
	D	0	0	0	0	0	0
	F	0	0	0	0	0	0
	CR	0	0	0	0	0	0
	NC	0	0	0	0	0	0
	W	0	0	0	0	0	0
	TOTAL #	0	0	0	0	0	0
	% Successful *	0%	0%	0%	0%	0%	0%

\* Includes duplicate counts.

<u>Summer</u>		<u>F</u>	<u>M</u>	<u>U</u>	<u>ESL</u>	<u>Non-ESL</u>	<u>U</u>
Grades *	A	0	0		0	0	
	B	0	0		0	0	
	C	0	0		0	0	
	D	0	0		0	0	
	F	0	0		0	0	
	CR	0	0		0	0	
	NC	0	0		0	0	
	W	0	0		0	0	
	TOTAL #	0	0	0	0	0	0
% Successful *		0%	0%	0%	0%	0%	0%

  

<u>Fall</u>		<u>F</u>	<u>M</u>	<u>U</u>	<u>ESL</u>	<u>Non-ESL</u>	<u>U</u>
Grades *	A	0	0		0	0	
	B	0	0		0	0	
	C	0	0		0	0	
	D	0	0		0	0	
	F	0	0		0	0	
	CR	0	0		0	0	
	NC	0	0		0	0	
	W	0	0		0	0	
	TOTAL #	0	0	0	0	0	0
% Successful *		0%	0%	0%	0%	0%	0%

  

<u>Spring</u>		<u>F</u>	<u>M</u>	<u>U</u>	<u>ESL</u>	<u>Non-ESL</u>	<u>U</u>
Grades *	A	0	0		0	0	
	B	0	0		0	0	
	C	0	0		0	0	
	D	0	0		0	0	
	F	0	0		0	0	
	CR	0	0		0	0	
	NC	0	0		0	0	
	W	0	0		0	0	
	TOTAL #	0	0	0	0	0	0
% Successful *		0%	0%	0%	0%	0%	0%

\*Includes duplicate counts.

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Solano: Research and Planning

## Water & Wastewater Department Data Sheets:

Program Review 2007-08  
 WATER & WASTEWATER (Sanitation and Public Health)  
 TOPs: 0958.00

Career Technical Education  
 Division 11

		03-04	04-05	05-06	06-07	07-08
<b>FTES GENERATED</b>	Summer	0.00	0.00	0.00	0.00	0.00
	Fall	8.97	6.16	7.38	3.40	8.43
	Spring	10.20	3.43	2.40	11.33	12.15
	<b>TOTAL</b>	19.17	9.59	9.78	14.73	20.58
<b>Growth/Decline <math>[(Yr2-Yr1)/Yr1]</math></b>		41%	-50%	2%	51%	40%
<b>LOAD (WSCH/FTE)</b>	Summer	0	0	0	0	0
	<b>Growth/Decline</b>	N/A	N/A	N/A	N/A	N/A
	Fall	576	462	428	382	542
	Spring	574	258	270	434	475
	<b>AVERAGE, Fall &amp; Spring</b>	575	360	349	408	509
<b>Growth/Decline <math>[(Yr2-Yr1)/Yr1]</math></b>		28%	-37%	-3%	17%	25%
<b>ENROLLMENT</b>	Summer	0	0	0	0	0
	Fall	72	60	53	24	73
	Spring	74	33	18	85	87
	<b>TOTAL</b>	146	93	71	109	160
<b>Growth/Decline <math>[(Yr2-Yr1)/Yr1]</math></b>		36%	-36%	-24%	54%	47%
<b>NUMBER OF SECTIONS</b>	Summer	0	0	0	0	0
	Fall	2	2	2	1	2
	Spring	2	2	3	3	3
	<b>TOTAL</b>	4	4	5	4	5
<b>Growth/Decline <math>[(Yr2-Yr1)/Yr1]</math></b>		0%	0%	25%	-20%	25%
<b>FTEF</b>	Summer	0.000	0.000	0.000	0.000	0.000
	Fall	0.467	0.400	0.517	0.267	0.467
	Spring	0.533	0.400	0.267	0.784	0.767
<b>PERCENT FILL (1st cen/max enroll)</b>	Summer	0%	0%	0%	0%	0%
	Fall	120%	100%	88%	80%	91%
	Spring	123%	55%	60%	94%	88%
	<b>AVERAGE, Fall &amp; Spring</b>	122%	78%	74%	87%	90%
<b>PERCENT RETENTION (EOS/1st cen)</b>	Summer	0%	0%	0%	0%	0%
	Fall	69%	70%	57%	63%	91%
	Spring	73%	70%	72%	84%	81%
	<b>AVERAGE, Fall &amp; Spring</b>	71%	70%	65%	74%	86%
<b>APPORTIONMENT INCOME (FTES * Annual Factor)</b>		\$66,999	\$33,412	\$41,291	\$64,326	\$89,873
<b>EXPENSE</b>	Salaries	\$12,740	\$11,164	\$13,396	\$12,362	
	Materials	\$0	\$0	\$0	\$0	
	Capital Outlay	\$0	\$0	\$0	\$0	
	<b>Total Direct</b>	\$12,740	\$11,164	\$13,396	\$12,362	
	Indirect (Direct * .40)	\$5,096	\$4,466	\$5,358	\$4,945	
	<b>TOTAL</b>	\$17,836	\$15,630	\$18,754	\$17,307	\$0
<b>ANNUAL COST/FTES</b>		\$930	\$1,630	\$1,918	\$1,175	\$0
<b>Growth/Decline <math>[(Yr2-Yr1)/Yr1]</math></b>		-33%	75%	18%	-39%	-100%

Prior to AY98-99 expense does not include capital outlay or VEA funds.

8/29/2008

Solano: Research and Planning

		White, non-Hispanic	African- American	Hispanic	Filipino	Other, non-white	Total #
<b>Summer</b>	Grades *						
	A	0	0	0	0	0	0
	B	0	0	0	0	0	0
	C	0	0	0	0	0	0
	D	0	0	0	0	0	0
	F	0	0	0	0	0	0
	CR	0	0	0	0	0	0
	NC	0	0	0	0	0	0
	W	0	0	0	0	0	0
	TOTAL #	0	0	0	0	0	0
% Successful *		0%	0%	0%	0%	0%	0%
<b>Fall</b>	Grades *						
	A	33	2	11	2	11	59
	B	16	3	5	3	4	31
	C	8	4	0	1	3	16
	D	1	2	2	2	0	7
	F	3	1	0	0	0	4
	CR	0	0	0	0	0	0
	NC	0	0	0	0	0	0
	W	1	2	2	0	0	5
	TOTAL #	62	14	20	8	18	122
% Successful *		92%	64%	80%	75%	100%	87%
<b>Spring</b>	Grades *						
	A	50	2	11	4	11	78
	B	18	4	8	0	5	35
	C	7	2	2	0	1	12
	D	0	2	1	0	0	3
	F	1	0	0	0	0	1
	CR	0	0	0	0	0	0
	NC	0	0	0	0	0	0
	W	8	2	1	1	3	15
	TOTAL #	84	12	23	5	20	144
% Successful *		89%	67%	91%	80%	85%	87%

\* Includes duplicate counts.

<u>Summer</u>		<u>F</u>	<u>M</u>	<u>U</u>	<u>ESL</u>	<u>Non-ESL</u>	<u>U</u>
Grades *	A	0	0		0	0	
	B	0	0		0	0	
	C	0	0		0	0	
	D	0	0		0	0	
	F	0	0		0	0	
	CR	0	0		0	0	
	NC	0	0		0	0	
	W	0	0		0	0	
	TOTAL #	0	0	0	0	0	0
% Successful *		0%	0%	0%	0%	0%	0%

  

<u>Fall</u>		<u>F</u>	<u>M</u>	<u>U</u>	<u>ESL</u>	<u>Non-ESL</u>	<u>U</u>
Grades *	A	14	45		1	58	
	B	2	29		0	31	
	C	2	14		0	16	
	D	3	4		0	7	
	F	0	4		0	4	
	CR	0	0		0	0	
	NC	0	0		0	0	
	W	1	4		0	5	
	TOTAL #	22	100	0	1	121	0
% Successful *		82%	88%	0%	100%	87%	0%

  

<u>Spring</u>		<u>F</u>	<u>M</u>	<u>U</u>	<u>ESL</u>	<u>Non-ESL</u>	<u>U</u>
Grades *	A	14	64		3	75	
	B	2	33		0	35	
	C	5	7		1	11	
	D	1	2		0	3	
	F	0	1		0	1	
	CR	0	0		0	0	
	NC	0	0		0	0	
	W	2	13		1	14	
	TOTAL #	24	120	0	5	139	0
% Successful *		88%	87%	0%	80%	87%	0%

\*Includes duplicate counts.