

Technical Education Division Program Review Summary  
December 4, 2013  
Dr. Karen Cowell, Dean, Health Sciences & Technical Education

The Technical Education Division had an annual unduplicated headcount of 2664 in 2012-13, representing a decline of over 18% since the state and college budget reductions that began in 2009-10. The decline in students occurred because of a 16% reduction in sections offered during fall and spring terms and the elimination of all intersession sections and the reduction of 66% of summer classes in the division. FTES for summer terms declined by 61% between 2009-10 and 2012-13. FTES declined in all other terms, but not as dramatically as summer. Summer classes provided an introduction to the career technical fields which would have increased student success. Annual FTES declined by 5% over the past four years, reflecting a higher fill rate for CTE classes and a four to five percent increase in full-time students.

The part-time to full-time instructor ratio remained quite stable over the past four years. In the longer term, however, a key position in the Welding discipline remained unfilled.

Student success by ethnicity has remained above the college standard. Hispanic students' success rate has averaged 78% in the past four years and non-Hispanic students' success rate has averaged 75%. The success rate for non-Hispanic students dipped to 71% in 2012-13. Student success for females ranged from 74% (2012-13) to 78% (2010-11) and success of male students ranged from 74% (2012-13) to 77% (2009-10). Success has been highest in the Asian and White student groups and lowest in the African American student group. The African American student success rate lags the Asian student success rate by 25 to 28%. Notably, the success of African American students was highest in 2010-11 when summer introductory class offerings in career technical education were still near their peak.

Student retention is high in the career technical education classes. The average retention for Hispanic and non-Hispanic students is above 90% for all years except 2012-13. Retention of female students and male students is nearly equal and above 90% except for 2012-13, a year in which retention of students of both genders dipped to 88 and 89%. When examined by race, retention of African American students is somewhat lower than retention of students of other races (83% in 2012-13 in comparison to 94% for Asian students). Retention of African American students was highest in 2009-10 when the technical education summer schedule was still robust. Term to term persistence varied, but ranged from 56% (spring to fall 2009) to 76% (spring to fall 2012-13).

The number of degrees and certificates awarded in division disciplines has been low except in Administration of Justice, Airframe and Powerplant, and Aircraft Fabrication. All faculty notes that this is an area in which they would like to see improvement. To this end the faculty has been consulting the CTE Counselor for strategies to improve student completion of degrees and certificates.

In the faculty's discipline program reviews the ever-increasing cost of supplies and the concomitant decline in supply budgets has been noted as a factor in student success. Faculty has

been frugal with supply funding and has used Perkins funding, Prop 20 funds, and corporate donations to supplement the meager District supply budgets. To modernize equipment the discipline faculty has benefited from awards from Perkins funding.

The division faculty's top priorities for full-time faculty positions is directly related to the desire for full-time faculty leadership in disciplines that have none (Clothing and Textiles/Fashion and Welding) and the need for leadership in Palmdale for an Administration of Justice degree, and additional adjunct faculty for nearly every discipline in the division. A faculty in Fire Technology is retiring in July 2014 and that position was high priority for filling as well. Other positions that were noted in the discipline program reviews: Automotive Instructor (evenings), Auto Body instructional assistant (evenings), Welding instructional assistant, Electricity instructor, Aircraft Fabrication instructional assistant, Aircraft Fabrication instructor, Air Conditioning/Refrigeration/Ventilation instructor (evening), ACRV instructional assistant (evening), Administration of Justice instructors (total of four additional instructors including the faculty designated for Palmdale), hourly worker for Agriculture, Electricity instructor, Electrical Technology instructional assistant, Fire Technology instructor (in addition to the replacement for a retiring instructor), Interior Design resource assistant (part-time). Several faculty requested a full-time CTE counselor position. The faculty notes that the recent hire of a CTE counselor has been a positive move for their programs.

Physical resource needs relate to the expansion of programs that are in high demand (administration of justice, fire technology, welding, automotive, auto body, electronics) and in programs that have large equipment. The faculty identified the need for additional instructional space, functioning environmental controls in the classrooms and labs (ventilation, heat, air conditioning), additional electrical capacity in the older labs, and storage space. The need for security for technology and instructional equipment in TE 6, TE 8, and TE 3—all of which have experienced thefts in fall 2013)—was noted.

Information technology needs related to the expansion of wireless computing technology throughout the campus.

Professional development needs are critical to the success of instructors, and therefore, essential to student success. Perkins funding is currently the only source of professional development funds for career technical education instructors. It is important for all CTE faculty to be able to implement innovations in their fields into the curriculum so that students remain employable.

The need to have stronger advisory committees and better data regarding employment of graduates was identified in several disciplines. Overall, the division faculty's goals are to increase student success, to increase graduation rates and provide stackable credentials, and to improve educational pathways for students including articulation with high school programs.

## **Comprehensive Program Review Self-Study Report**

Technical Education, Administration of Justice – 2013

Professor Dexter Cummins and Instructor Tim Lynskey.

### **Part 2 - Data Analysis and Use**

- 2.1 Please review the five year headcount and FTES enrollment data provided on the web link. Comment on trends and how they affect your program.\*

Annual district headcount decreased 21.9 percent from 2008-2009 to 2012-2013 and during that time, Administration of Justice headcount decreased only 18.2 percent. The decrease over this period of time is mostly due to fewer classes being offered by the district in this discipline. The number of classes offered dropped from 46 class sessions over the regular school semester to 34, 10 summer classes to zero and 7 Intersession classes to zero. These courses returned starting in spring 2013.

- 2.2 Report and analyze program/area data showing the quantity of services provided over the past four years (e.g. number of students served, books sold, employees hired, acreage maintained).

The Administration of Justice program served almost 11,000 students over the past four years. The program was on target to serve 13,000 students, but didn't due to the fiscal restraints and cutting of the number of classes offered. During the last four years eight additional adjunct faculty were hired to maintain the program at that level helping to cover the loss of a full-time instructor.

- 2.3 Please review the five year data on sections offered, faculty ratios, and efficiency data provided on the web link. Comment on trends and how they affect your program.

Sections offered by the district decreased 27.5 percent from 2008-2009 to 2012-2013. That reflects a 33 percent decrease in Lancaster sections, a 61 percent increase in Palmdale sections, and a 66 percent decrease in sections offered elsewhere. During that time sections in Administration of Justice decreased dramatically. They have recently returned to the Pre-2008 class offerings. The faculty full-time to part-time ratios in Administration of Justice have been from 4.5 to 7.8 during this period of time. The hiring of the second full-time instructor, fall 2013, will help that ratio, but it is still far from meeting the current ratio for the district of 1. Even hiring the third full-time instructor will not bring the program to the district ratio. The goal needs to be bringing the Administration of Justice program in line with the district guidelines by hiring four additional full-time instructors.

District efficiency increased 2.5 percent over the past five years; Administration of Justice efficiency increased 3.5 percent over that same period. The Administration of Justice program met and exceeded the pattern of the District.

- 2.4 Using the discipline student success data provided by web link, please comment on any similarities or differences between race, gender, location, and modality groups in meeting the Institutional Standard of 68% for student success (students earning grades of A, B, C, Pass, or Credit). Identify what actions are planned to address trends and achievement gaps in the current academic year.\*

The success of Mexican/Central or South American students in the district increased from 68 percent to 72 percent between 2008-2009 and 2012-2013 and Administration of Justice Program followed that trend with an increase from 69 percent to 75 percent. The District had a similar increase in Other/Unknown that increased from 69 percent to 73 percent, and Administration of Justice Program also had an increase from 65 percent to 73 percent.

The success of Asian and White students in the district was unchanged over the past five years at 78 and 76 percent respectively. For the Administration of Justice students, Asian students went from 70 to 87 percent and Whites from 77 to 80 percent. The difference for the AJ program seems to bolster a greater success than that of the District as a whole.

The success of American Indians/AK Native students decreased from 68 to 67 percent. The Administration of Justice students had a drop from 75 Percent to 64 percent. During that time period there were dramatic ups and downs, possibly indicating that there were few of these students and the percentages skewed when few were successful or failed.

The success of Pacific Islander students decreased from 69 to 64 percent, both groups falling below the Institutional Standard of 68 percent. For the Administration of Justice program, the percentages went from 76 to 92, but again looking at the entire five year period, the percentages rose and fell like a roller coaster and don't appear to indicate a trend.

69 percent of female students in the district were successful in 2008-2009; 71 percent were successful in 2012-2013. 68 percent of male students in the district were successful in 2008-2009; 69 percent were successful in 2012-2013. The students in the Administration of Justice program showed an interesting trend in comparing male to female success over the same period. The female student percentages rose from 67 percent to 76 percent while the male student percentages dropped from 69 percent to 67 percent. With the larger trend for females being more successful, the male numbers are too small of a change to be significant.

Student success by location has changed little in recent years. Palmdale students achieved 66 percent success in 2012-2013, slightly lower than the Institutional Standard

of 68 percent. That same year Lancaster students achieved 70 percent success and students in Other/Unknown locations achieved 80 percent success. Both locations had a rise in Administration of Justice student success; Lancaster rose from 67 percent to 71 percent and Palmdale from 73 percent to 76 percent.

Students taking traditional courses in the district exceed the Institutional Standard of 68 percent success. 71 percent of students were successful in 2012-2013, down slightly from 72 percent the prior year but duplicating the success rates of 2011-12 and 2010-2011 and higher than the 69 percent success rate in 2008-2009. The Administration of Justice program only has traditional courses. The program success rate rose from 68 percent to 72 percent.

Students taking online courses in the district have not achieved the Institutional Standard of 68 percent success in any of the past five years. 56 percent were successful in 2012-2013, down from 58 percent in the two prior years and down from 57 percent in 2007-2008 and 2008-2009. There are no online courses in the Administration of Justice program at this time.

2.5 Analyze and summarize trends in student progression through basic skills courses, if applicable. N/A

2.6 List degrees and certificates currently offered in the discipline. Analyze how resource adjustments or other changes during the past four years have impacted degree and certificate completion rates.

The Administration of Justice program has had a notable rise in degrees awarded in the last four years from 58 to 69. With the addition of the second full-time instructor, that rise should continue due to the work load being more equitable with the other degree disciplines. The need for four more full-time instructors is paramount if the degree conferring rate is to improve.

2.7 Using the data provided by web link, please comment on transfer rates to four-year institutions, license exam results, and job placement/post testing. If applicable, cite examples of using additional resources (e.g. human, facilities/physical, technology, financial, professional development) or making other changes during the past four years that have resulted in improvements in transfer rates to four-year institutions, license exam results, and job placement/post testing.

The Administration of Justice program is currently working on a Transfer Model Curriculum. Permanent assignment of more classrooms to the AJ program would assist in the success rate of students transferring to four-year institutions for several reasons. First, the students and instructors would have a single area, like most other programs in the district, for the students looking for a degree or to transfer to a four-year college to meet other students with similar goals and aspirations. The instructors would have a common area to work in, providing informal meetings as well as planned gatherings to

facilitate the dissemination of information and planning. It would also facilitate the posting of discipline advertising in the area of interest to the students.

- 2.8 Career Technical Education (CTE) programs: Review the labor market data on the California Employment Development Department website for jobs related to your discipline. Comment on the occupational projections for employment in your discipline for the next two years. Comment on how the projections affect your planning.  
<http://www.labormarketinfo.edd.ca.gov/Content.asp?pageid=1011>

The CEDD projections in the Administration of Justice field indicate growth to the year 2020.

Position	California	LA County
Bailiffs	No Data	
Detectives and Criminal Investigators	1.3	3.8
Fish and Game Wardens	No Data	
Lawyers	9.7	9.4
Paralegals and Legal Assistants*	20.1	19.3
Police and Sheriff Patrol Officers	7.1	7.5
Private Detectives and Investigators	14.8	9.8
Probation Officers and Treatment Specialists	17.1	18.4
Public Safety Dispatchers	14.3	17

All of the classes in AJ program are full two weeks before the start of each semester, even with the return to the number of classes offered in 2008 in Spring of 2013. The next plausible planning steps would be to add additional full-time instructors, add more classes, and offer the online courses that are being developed. Each of these has costs associated with them (more Administration of Justice dedicated classrooms, the additional instructor pay and benefits, expanded IT service, equipment, and training).

### Part 3 – Outcome Analysis and Use

- 3.1 Analyze changes in **student learning outcome (SLO)** and **program learning outcome (PLO)** assessment findings over the past five years. Cite examples of using data during that time as the basis for resource allocation (e.g. human, facilities/physical, technology, financial, professional development) or making other changes that resulted in or correlate with improved learning outcome findings over the past four years.\*

The Administration of Justice program has consistently met or exceeded the goals in the reporting of SLO's during the past five years. All courses reported a success rate in excess of 80 percent for the five year period.

A consistent theme throughout the five years is that AJ103 has had an adjunct instructor (Eugene Siegel) failing to correctly report the SLO numbers for his classes, therefore the report concerning that course is suspect.

During this five year period, the AJ program had fewer than the recommended number of full-time to adjunct instructor ratio. The number of full-time instructors for a program this size (46 classes offered per semester) should have six full-time instructors.

Also during the same period, the program was transferred from the Social and Behavioral Sciences Division to the Technical Education Division. Then the Technical Education Division Dean retired and the Technical Education Division was added to The Dean of Health Sciences responsibilities. Although the percentages indicating the SLO's have met the goals and the Deans have worked to provide a viable environment, these changes have an added workload onto the full-time professor.

- 3.2 Analyze changes in **operational outcomes** (OO) findings over the past five years. Cite examples of using data during that time as the basis for resource allocation (e.g. human, facilities/physical, technology, financial, professional development) or making other changes that resulted in or correlate with improved OO findings over the past four years.\*

#### **Part 4 - Stakeholder Assessment**

- 4.1 Assess how well the program serves the needs of the students, district, and community. Support statements with findings from student, employee, and/or community surveys. Include feedback from other sources if relevant (e.g. advisory committees, employers in the community, universities, scores on licensure exams, job placement).
1. The Administration of Justice Advisory Committee meets weekly with members of the teaching staff, regularly with representatives of the LA County Sheriff's Office, and retired California Highway Patrol personnel, to help guide decisions concerning course content and delivery to current and potential students.
  2. The Antelope Valley College has a Cadet program that assists the LA County Sheriff's office with minor enforcement activities and service to the people on the campus. The Cadets are required to be Administration of Justice students and many are involved in the work experience program.
  3. Since the spring semester of 2011, the Juvenile Procedures classes have toured Challenger Memorial Youth Center (A juvenile detention camp). The purpose of the tour was to expose the students to the actual environment that the coursework describes. The events were very successful in providing current information about the juvenile system to the students.

An unexpected byproduct from the tours, was the camp officials interacting with the students and encouraging them to work as interns at the location. Many of the students have applied.

4. On July 13, 2013, AJ adjunct instructors Tim Lynskey and Tom Campbell participated in a panel discussion titled “Preserving the Health of Our Community”. The program lasted the entire day (8hrs).

The panel was formed by community leaders in the Antelope Valley, and consisted of subject matter experts, stakeholders in the community who could have an effect on juvenile procedures and community members to discuss what problems the Antelope Valley is facing with truancy, juvenile crime and how to stem some of these problems.

The panel heard from the community and responded to questions from that group. The panel also provided perspectives from their respective fields of expertise. There was a period of discussion among the panel members, initiating a collaboration and the decision to continue to share information and perspectives that will help each member with a greater understanding of the issues and how each can assist the others.

5. The Administration of Justice Program has an articulation agreement with the Antelope Valley Unified School District for two AJ courses (AJ 101 and AJ 103) taught at Highland High School. AJ full-time instructors meet regularly with the high school instructor to review curriculum, goals and methods.

## **Part 5 - Goals and Objectives**

- 5.1 Review the goals identified in your most recent comprehensive self-study report and last year’s annual report. Indicate which have been completed and which have been eliminated.\*

**Goal:** The hiring of two full-time AJ instructors.

The AJ program hired one full-time instructor in August 2013. Hiring of the second has not occurred. In reviewing the District ratios of full-time to adjunct instructors, this goal needs to change to hiring four more full-time instructors.

**Goal:** Provide a Transfer Model Curriculum.

The courses have been submitted through Curricinet and are in the approval process.

- 5.2 List discipline/area goals and objectives related to **improving outcome findings and/or the success of the various learner populations** in completing courses, certificates, degrees, and transfer requirements. Discipline/area goals must be guided by district Strategic Goals and Plan Summaries in the Educational Master Plan (EMP). They must



be supported by an outcome action plan, data analysis, national or professional standards, and/or a requirement or guideline from an outside agency (e.g. legislation, Chancellor's Office, accrediting body, professional board). Consider curriculum, instruction, assessments, program services, operations, collaborations, scheduling, location, technology, etc.\*

Current (up to three years)

Goal 1: A specific target – Assign a full-time instructor to the Palmdale Center

- Guided by district Strategic Goal(s) # 1 (Palmdale Center), and District goal #1.
- Guided by Environmental Scan Plan Summary in EMP (Develop a comprehensive plan to offer specific STEM & CTE degree/certificate programs that are unique to the Palmdale Center.)
- Supporting action plan, data analysis, or other documentation
  - 2013 PT to FT FacultyRatio Excel file. Currently shows the District Ratio at 1.0, and the AJ Ratio at 7.0 (This does not include the recent hiring off one full-time instructor).

Objectives: Significant steps or actions needed to achieve the goal

**1c - Develop a comprehensive plan to offer specific STEM & CTE degree/certificate programs that are unique to the Palmdale Center.**

- 1) Fall 2013 – Identify need to division faculty
- 2) Assist Dean with request to hire Full-Time Faculty.

Goal 2: A specific target – Launch first Administration of Justice On-line Course.

- Guided by district Strategic Goal(s) District goals 1, 3.
- Guided by Environmental Scan Plan Summary in EMP (Develop a comprehensive plan to offer specific STEM & CTE degree/certificate programs that are unique to the Palmdale Center.)
- Supporting action plan, data analysis, or other documentation
  - 2013 PTFTFacultyRatio Excel file. Currently shows the District Ratio at 1.0, and the AJ Ratio at 7.0 (This does not include the recent hiring off one full-time instructor).

Objectives: Significant steps or actions needed to achieve the goal

**1a. Increase number of degrees and certificates granted to exceed the standard of 1,033 set by the Student Success Committee.**

**1c. Increase the student success rate to exceed the standard of 68% set by the Student Success Committee.**

**3a. Recruit more non-traditional students into CTE programs.**

- 1) Fall 2013 – Identify need to division faculty

- 2) Assist Dean with request to hire four Full-Time Faculty.
- 3) Meet with outside discipline faculty already teaching on-line courses.
- 4) Meet with IT personnel to determine IT needs and limitations.
- 5) Develop COR's and SLO's for course.\
- 6) Build program in CurricUNET.

Goal 3: A specific target – Provide a permanent, stable base for the AJ program.

- Guided by district Strategic Goal(s) # 1, 5
- Guided by Internal Scan, Measures of Performance Plan Summaries in EMP
- Supporting action plan, data analysis, or other documentation
  - 2013 PTFTFacultyRatio Excel file. Currently shows the District Ratio at 1.0, and the AJ Ratio at 7.0 (This does not include the recent hiring off one full-time instructor)

Objectives: Significant steps or actions needed to achieve the goal

**1d. Develop relationship between classroom instructors and counselors and career advisors by embedding counseling in division areas.**

- 1) Fall 2013 – Identify need to division faculty.
- 2) Assist Dean with request to hire four Full-Time Faculty.
- 3) Assist dean planning and providing meetings between embedded counselor and discipline faculty.

**5b. Rely on discipline faculty to identify program equipment and facility needs.**

- 1) Fall 2013 – Identify need to division faculty.
- 2) Assist dean with locating and designating specific classrooms for discipline.
- 3) Conduct survey of identified classrooms, determining needs (Paint, IT, tailoring classrooms to Administration of Justice courses).

Goal 4: A specific target – Provide a budget for the Administration of Justice program

- Guided by district Strategic Goal(s) # 5,
- Guided by Internal Scan, Measures of Performance Plan Summaries in EMP
- Supporting action plan, data analysis, or other documentation
  - The Administration of Justice program currently has no budget for equipment or supplies used for instruction.

Objectives: Significant steps or actions needed to achieve the goal

**5b. Rely on discipline faculty to identify program equipment and facility needs.**

- 1) Meet with discipline faculty to determine needs.
- 2) Meet with dean to assist in developing budget.

Near Term (three to five years)

Goal: A specific target – Provide a permanent, stable base for the AJ program.

- Guided by district Strategic Goal(s) # 1, 5
- Guided by Internal Scan, Measures of Performance Plan Summaries in EMP
- Supporting action plan, data analysis, or other documentation

Objectives: Significant steps or actions needed to achieve the goal

**1d. Develop relationship between classroom instructors and counselors and career advisors by embedding counseling in division areas.**

- 3) Fall 2013 – Identify need to division faculty.
- 4) Assist dean planning and providing meetings between embedded counselor and discipline faculty.

**5b. Rely on discipline faculty to identify program equipment and facility needs.**

- 4) Fall 2013 – Identify need to division faculty.
- 5) Assist dean with locating and designating specific classrooms for discipline.
- 6) Conduct survey of identified classrooms, determining needs (Paint, IT, tailoring classrooms to Administration of Justice courses).

- 5.3 List discipline/area goals and objectives **directly related to advancing Strategic Goals**. Discipline/area goals must be guided by district Strategic Goals and Plan Summaries in the Educational Master Plan (EMP). They must be supported by data analysis or other documentation.

Current (up to three years)

Goal: A specific target – Hire four additional Full-time Instructors

- Guided by district Strategic Goal(s) #1, 2, 3
- Guided by ILO, and Internal Scan Plan Summary in EMP
- Supporting data analysis or other documentation

Objectives: Significant steps or actions needed to achieve the goal

- **1a – Increase number of degrees and certificates granted to exceed the standard of 1033 set by the Student Success Committee.** The additional full-time instructors will provide more time and a greater ability for

interaction on assessing and acting on strategies to increase the number of students achieving degrees.

- **1b - Strengthen the link between SLO/PLO assessment and on plan development and evaluation.** The assessment of SLO's requires the collection, and assessment of the information from all of the instructors. Currently, AJ has fifteen adjunct instructors that are supposed to provide the SLO information for each of their classes. There is no hard rule that they assist in the compilation and assessment of the SLO's. This puts an undue burden on the two full-time instructors, and could be solved by providing the PTFT instructor ratio to 1.0 (six full-time instructors). This would also better insure the timely reporting of SLO's.
- **2a - Increase the number of transfer students by developing TMCs to facilitate transfer to CSUs as the TMCs become available.** The AJ program has the TMC's in the approval process currently. With six full-time instructors, versus the two currently, the bridge between CSU and AVC would be better satisfied through connections between the instructors and the CSU campuses (many instructors have their degrees through the CSU system) and the use of FPD time to build new alliances.
- **3b - Increase employer outreach for participation on advisory committees in occupational work-experience and in job placement.** The AJ program currently has an AJ Advisory committee. Most of the attendees are at the meetings voluntarily and attend when available. If the instructors were full-time, then the committee could be more robust in its attendance and proceedings by having regular attendance.

## Part 6 - Resource Needs

Identify significant resource needs that should be addressed currently (up to three years), near term (three to five years), and long term (five to ten years). If there may be safety issues, enrollment consequences, or other important concerns if a resource is not provided please make this known.\*

- 6.1 List needed human resources. List titles in priority order. Identify which discipline/area goal(s) guides this need.

To bring the program in compliance with the District ratio of full-time to adjunct instructors, hire four additional full-time AJ instructors.

6.2 List needed technology resources in priority order. Identify which discipline/area goal(s) guides this need.

1. The computers in all of the classrooms in LS1/LS2 are old and need to be replaced as they are working intermittently and when they don't work, the students suffer. Most AJ classes are taught in these buildings.
2. The screen in LS1-114 is mounted in a location that doesn't allow students in rows beyond the second row to see the screen. It is mounted too low.

6.3 List facilities/physical resources (remodels, renovations, or new) needed to provide a safe and appropriate student learning and/or work environment. List needs in priority order. Identify which discipline/area goal(s) guides this need.

1. Assigned AJ classrooms (LS1/LS2) need to be surveyed for properly controlled lighting while using Powerpoint or other projections. Some of the classrooms have to go dark in order to see the screen, but leave the students in a room that is dangerous to move around in if the need arises.

6.4 List needed professional development resources in priority order. Identify which discipline/area goal(s) guides this need.

None

6.5 List any other needed resources in priority order. Identify which discipline/area goal(s) guides this need.

None

## **Part 7 - Recommendations and Comments**

7.1 List recommended changes to the Educational Master Plan to:  
None

7.2 What changes in the program review process would improve institutional effectiveness or make the results more helpful to the program? N/A

## **Comprehensive Program Review Self-Study Report**

Division/Area Name: Airframe & Powerplant

Year: 2013-2014

### **Part 1 - Division or Area Overview**

1.1 Briefly describe how the division or area contributes to the district mission.

The mission of the Air Frame and Powerplant program is to provide quality education to students seeking employment in the Aeronautical/Aviation Fields. We strive to operate in a student-centered learning environment where students are prepared to obtain the requisite knowledge and skills to become entry-level Aviation Maintenance Technicians and obtain an Airframe and Powerplant certificate.

1.1 Place an "X" by each Institutional Learning Outcome (ILO) supported by the division or area.

- Analyze diverse perspectives from a variety of disciplines and experiences that contribute to the development of self-awareness.
- Value and apply lifelong learning skills required for employment, basic skills, transfer education, and personal development.
- Demonstrate a breadth of knowledge and experiences from the humanities, social and behavioral sciences, arts, natural sciences, and mathematics.
- Solve problems using oral and written communication, critical thinking and listening skills, planning and decision-making skills, information literacy, and a variety of technologies.
- Demonstrate good citizenship and teamwork through respect, tolerance, cultural awareness, and the role of diversity in modern society.
- Identify career opportunities that contribute to the economic well-being of the community.

1.2 Name of person leading this review

Jack R. Halliday

1.3 Names of all participants in this review

Tyrone Mettler  
Jack B. Halliday  
Patti Browne

### **Part 2 - Data Analysis and Use**

- 2.1 Please review the five year headcount and FTES enrollment data provided on the web link. Comment on trends and how they affect your program.\*

Annual district headcount decreased 21.9 percent from 2008-2009 and during that time, AERO headcount increased 10 percent. District FTES decreased 12 percent in the past five years while AERO increased 10 percent. The increase in headcount and FTES could possibly be related to the economy and students wanting to gain more skills to be competitive in the high skills aerospace industry. The program has had to over enroll classes to accommodate continuing students that were unable to register with early registration dates. The courses generally fill up within the first week of priority registration. This has caused our continuing students difficulty in completing the program. The Federal Aviation Administration has allowed us to enroll to 30 students in each course to accommodate continuing students.

- 2.2 Report and analyze program/area data showing the quantity of services provided over the past four years (e.g. number of students served, books sold, employees hired, acreage maintained). N/A

- 2.3 Please review the five year data on sections offered, faculty ratios, and efficiency data provided on the web link. Comment on trends and how they affect your program.

Sections offered by the district decreased 27.5 percent from 2008-2009 to 2012-2013. That reflects a 33 percent decrease in Lancaster sections, a 61 percent increase in Palmdale sections, and a 66 percent decrease in sections offered elsewhere. During that time sections in AERO decreased 25%. At this time the decrease in sections could have been related to the dropping of the SpaceTEC test preparation courses. The program offers the same number of sections every semester. There is an anomaly during the 2009-2010. The spike is related to the SpaceTEC grant that led to the offering of SpaceTEC test preparation courses.

Fall district PT/FT faculty ratio increased 5.9 percent and spring district PT/FT increased from 2009-2009 to 2012-2013. During that time AERO stayed the same each year due to the fact that there are no adjunct instructors in the program.

District efficiency in the fall increased 15.9 percent and efficiency in the spring increased 6.7 percent over the past five years. AERO efficiency in the fall increased 8.7 percent and spring increased 11 percent for the past five years. The increases could be due to the over enrollment to accommodate continuing students.

- 2.4 Using the discipline student success data provided by web link, please comment on any similarities or differences between race, gender, location, and modality groups in meeting the Institutional Standard of 68% for student success (students earning grades of A, B, C, Pass, or Credit). Identify what actions are planned to address trends and achievement gaps in the current academic year.\*

The success of Mexican/Central or South American students in the district increased from 68 percent to 72 percent between 2008-2009 and 2012-2013, similar to the increase in Other/Unknown students which increased from 69 percent to 73 percent. The success of Mexican/Central or South American students for the AERO program decreased from 98 percent to 95 percent in the last five years. For the AERO program the Other/Unknown population decreased from 100 percent to 75 percent. This is an interesting revelation that will need to be studied further. Most likely it is related to a student dropping. The success of Asian and White students in the district was unchanged over the past five years at 78 and 76 percent respectively. The success of Asian students remained at 100 percent for the last 5 years. White students in the AERO program increased from 91 percent to 93 percent over the past five years. The success of black or African American students decreased from 88 percent to 82 percent. The success of American Indians/AK Native students decreased from 68 to 67 percent and the success of Pacific Islander students decreased from 69 to 64 percent, both groups falling below the institutional standard of 68 percent.

69 percent of female students in the district were successful in 2008-2009; 71 percent were successful in 2012-2013. 68 percent of male students in the district were successful in 2008-2009; 69 percent were successful in 2012-2013. In the AERO program female students decreased from 92 percent to 75 percent success rate in the last five years. This decrease is due to the fact that females are a small majority within the program, so if one female student is not successful it affects the numbers greatly. 95 percent of male students in the 2008-2009 in the program were successful in 2008-2009; 94 percent were successful in 2012-2013.

Student success by location has changed little in recent years. Palmdale students achieved 66 percent success in 2012-2013, slightly lower than the Institutional Standard of 68 percent. That same year Lancaster students achieved 70 percent success and students in Other/Unknown locations achieved 80 percent success. Students taking traditional courses in the district achieved the Institutional Standard of 68 percent success. 71 percent of students were successful in 2012-2013, down slightly from 72 percent the prior year but duplicating the success rates of 2011-12 and 2010-2011 and higher than the 69 percent success rate in 2008-2009. Students taking online courses in the district have not achieved the Institutional Standard of 68 percent success in any of the past five years. 56 percent were successful in 2012-2013, down from 58 percent in the two prior years and down from 57 percent in 2007-2008 and 2008-2009. The AERO program meets at the Fox Field site only. However, during the 2009-2010 and 2011-2012 academic years courses were offered for the SpaceTEC written test preparation at the Lancaster Campus. These courses are no longer offered and the numbers went back to 0 percent which is normal for the program.

Student retention by race stayed fairly steady for the AERO program. Female retention rates dropped 25% in the five years. Females make up a very small proportion of our student base. During the 2012-2013 academic year, 3 female students dropped for either marriage or they had obtained jobs in the field. All student retention categories are above the institutional standard of 60%.



2.5 Analyze and summarize trends in student progression through basic skills courses, if applicable. N/A

2.6 List degrees and certificates currently offered in the discipline. Analyze how resource adjustments or other changes during the past four years have impacted degree and certificate completion rates.

The program offers three associate degrees. The number of Airframe degrees completed increased 600 percent in the last five years. The Powerplant degrees completed increased 25 percent over the same time period. The General degrees completed increased by 100 percent.

The number of certificates completed in each pathway are as follows:

Airframe increased from 9 to 14 in the last five years

Powerplant decreased from 19 to 7 in the last 5 years.

General increased from 2 certificates issued in 2008-2009 to 9 certificates in 2012-2013.

This downward trend for Powerplant certificates could be due to students not applying for their certificates. This can be remedied by having the students applying for the Powerplant certificate in the classroom.

2.7 Using the data provided by web link, please comment on transfer rates to four-year institutions, license exam results, and job placement/post testing. If applicable, cite examples of using additional resources (e.g. human, facilities/physical, technology, financial, professional development) or making other changes during the past four years that have resulted in improvements in transfer rates to four-year institutions, license exam results, and job placement/post testing.

The program has a 2 year cumulative success rates in completion of licensure exams. For the students who take the Powerplant written exam the passing rates are 100 percent as compared to 94 percent nationally. The Airframe pass rate is 100 percent as compared to the national average of 93 percent. For the General written exam the success rate is 100 percent and national numbers are 93 percent.

2.8 Career Technical Education (CTE) programs: Review the labor market data on the California Employment Development Department website for jobs related to your discipline. Comment on the occupational projections for employment in your discipline for the next two years. Comment on how the projections affect your planning.  
<http://www.labormarketinfo.edd.ca.gov/Content.asp?pageid=1011>

## Labor Market Data

	2010 Jobs	2020 Anticipated Jobs	Percent Change	Average annual job opening
Aerospace engineering and operating technicians	810	760	-6.2	16
Aircraft assemblers	3000	3600	20.0%	60
Aircraft mechanics and service technicians	3590	3830	6.7%	132
Alternative energy technicians	NA	NA	NA	NA
Automotive service technicians and mechanics	16,810	18,920	12.6%	645
Avionics technicians*	1400	1500	7.1%	30
Motorboat mechanics	NA	NA	NA	NA
Industrial machinery mechanics*	19,300	24,500	26.9	880
Sales representatives, technical and scientific	8360	10,010	19.7	362

The occupational projections in both categories for the program indicate an increase in assembler and mechanic jobs over the next six years. This is consistent with the information received during the Airframe/Powerplant advisory committee meeting attended by local employers in the aviation and aerospace industry.

### Part 3 – Outcome Analysis and Use

- 3.1 Analyze changes in **student learning outcome (SLO)** and **program learning outcome (PLO)** assessment findings over the past five years. Cite examples of using data during that time as the basis for resource allocation (e.g. human, facilities/physical, technology, financial, professional development) or making other changes that resulted in or correlate with improved learning outcome findings over the past four years.\*

In reviewing the last Comprehensive Program Review, the AFAB program along with the Airframe & Powerplant was the first programs to develop their SLOs and PLOs. The Technical Education Division has been a leader in the development of PLOs with our format being adopted for use college-wide.

The Airframe and Powerplant program continues to assess all the SLOs in all the courses for the program every semester (dependent on if all courses in the program are offered that semester); the program has a 100% SLO assessment compliance rate. All the instructors assess every SLO per course every semester. The findings are discussed with the faculty at the meetings. SLOs are also discussed at divisions meetings

The Airframe and Powerplant program is in the process of completing four full cycles of assessing all courses in the program. The results of the assessment have been examined and there have been minor adjustments made to several courses. At this time the program results are staying very steady. Most of the action plans for the program have related to maintaining the current standards for the Federal Aviation Administration.

The program used SLO data to make a decision to upgrade the computer laboratory. It will take a few semesters to see if it has changed student success or SLO data. The lab was installed during just before Spring 2013 Semester. The program has also used SLO and PLO data and it was determined that more space is needed. We have submitted a proposal to obtain an additional hangar to give us more instructional and storage space. This will take a few semesters to determine if it changes student success and retention. In addition, SLO data and action plans led us to determine that our sheet metal shop needs to be upgraded. The Perkins proposal has been funded and ordering of the tools and equipment will take place this fall.

- 3.2 Analyze changes in **operational outcomes** (OO) findings over the past five years. Cite examples of using data during that time as the basis for resource allocation (e.g. human, facilities/physical, technology, financial, professional development) or making other changes that resulted in or correlate with improved OO findings over the past four years.\*  
N/A

#### **Part 4 - Stakeholder Assessment**

- 4.1 Assess how well the program serves the needs of the students, district, and community. Support statements with findings from student, employee, and/or community surveys. Include feedback from other sources if relevant (e.g. advisory committees, employers in the community, universities, scores on licensure exams, job placement).

The Airframe and Powerplant program has not conducted surveys to obtain stakeholder data at this time. However, we have gotten some feedback from a few stakeholders. The Antelope Valley 99's said that they have sent students our way but were unable to get in due to the high demand. Speaking with advisory committee members and students, they have recommended that we increase classroom and shop space. In addition, they

recommended that we start an additional track of the Airframe and Powerplant program to accommodate continuing and new students.

## Part 5 - Goals and Objectives

- 5.1 Review the goals identified in your most recent comprehensive self-study report and last year's annual report. Indicate which have been completed and which have been eliminated.\*

Goal 2012-2013 To finish the state of the art computer laboratory for the Fox Field site.

Objectives: This computer system should be fully implemented by the Spring 2013 semester Begin assessment of student achievement and student learning outcomes related to the installation of the computer laboratory.

This goal and objective was accomplished. We will monitor student success and achievement data to determine whether the computer lab is making a difference. This goal is complete.

Goal 2012-2013

Incorporate human factors training into the AERO program as mandated by the Federal Aviation Administration

Objectives: Determine areas of the curriculum where this information could be incorporated. Design curriculum to facilitate the implementation of human factors training. Have Federal Aviation Administration guest speakers in to discuss human factors each semester. The AERO program is continuing to implement the human factors training in various courses. This is a continuing goal for the next year.

Goal 2012-2013 Review Student Learning Outcomes to ascertain their validity and if they truly affect student achievement.

Objectives: Review Student Learning Outcomes for all six courses Review assessments to determine validity and if they are actually measuring what they are supposed to measure. This is an ongoing goal.

Goal 2012-2013 Review Student Learning Outcomes for ascertain their validity and if they truly affect student achievement Objectives: Review Student Learning Outcomes for all six courses Review assessments to determine validity and if they are actually measuring what they are supposed to measure. This is a continuing goal.

- 5.2 List discipline/area goals and objectives related to **improving outcome findings and/or the success of the various learner populations** in completing courses, certificates, degrees, and transfer requirements. Discipline/area goals must be guided by district Strategic Goals and Plan Summaries in the Educational Master Plan (EMP). They must be supported by an outcome action plan, data analysis, national or professional standards,

and/or a requirement or guideline from an outside agency (e.g. legislation, Chancellor's Office, accrediting body, professional board). Consider curriculum, instruction, assessments, program services, operations, collaborations, scheduling, location, technology, etc.\*

Current (up to three years)

Goal: Increase Powerplant certificate completion by 30 percent.

- Guided by district Strategic Goal(s) # 1
- After looking at the data for certificate completers we noticed a sharp decrease of completer for the Powerplant Certificate.
- Objectives: Have students apply for the certificate in the classroom under the direction of the instructors.

Current( up to three years)

Goal: Review and modify curriculum as the Federal Aviation Administration (FAA) makes changes to the regulations regarding what is taught.

- Guided by district Strategic Goal(s) # 1
- This is really driven by the FAA in order for the program to maintain its certification.
- Objectives: Hire a temporary instructor to cover the summer course. Have 1 instructor take a summer semester off to revise the curriculum.

5.3 List discipline/area goals and objectives **directly related to advancing Strategic Goals**. Discipline/area goals must be guided by district Strategic Goals and Plan Summaries in the Educational Master Plan (EMP). They must be supported by data analysis or other documentation.

Current( up to three years)

- Goal: Obtain additional tools and equipment to update and replace tools that wear out or are broken.
- Guided by district Strategic Goal(s)# 5b
- This goal was outlined in the Program Learning Outcomes for Spring 2013. The class sizes have increased several percent in the last few years.

Current ( up to three years)

- Goal: Obtain additional work and storage space for the program
- Guided by district Strategic Goal(s)# 5b
- This goal was outlined in the Program Learning Outcomes for Spring 2013. The class sizes have increased several percent in the last few years. This also a health and safety issue.

Long Term (five to ten years)

Goal: Obtain permanent facility to house the Airframe and Powerplant program

- Guided by district Strategic Goal(s) #5b
- This goal was outlined in the Program Learning Outcomes for Spring 2013. The class sizes have increased several percent in the last few years. We have outgrown our facility.
- Objectives: Continue to include this goal in future action plans and Goals. Continue to work with the district and community to achieve this goal.
- 

Current( up to three years)

- Goal: Send at least one instructor to the Aviation Technician Education Council annual meeting. In addition, one instructor needs to go to composites training.
- Guided by district Strategic Goal(s)# 4d, 5d
- This goal is related to Technical Education Division Goal 6.

## Part 6 - Resource Needs

Identify significant resource needs that should be addressed currently (up to three years), near term (three to five years), and long term (five to ten years). If there may be safety issues, enrollment consequences, or other important concerns if a resource is not provided please make this known.\*

- 6.1 List needed human resources. List titles in priority order. Identify which discipline/area goal(s) guides this need.

One full-time instructor to fill future retirement (long term).

- 6.2 List needed technology resources in priority order. Identify which discipline/area goal(s) guides this need.

Need to obtain DVD training videos to replace videotapes that are old and quickly becoming obsolete (Current).

- 6.3 List facilities/physical resources (remodels, renovations, or new) needed to provide a safe and appropriate student learning and/or work environment. List needs in priority order. Identify which discipline/area goal(s) guides this need.

Acquire a hangar for additional work and storage space. Health and Safety issue. Goal 2 (Section 5.3) Obtain additional work and storage space for the program (Current)

Obtain a permanent facility for the A & P program. Goal 3 (Section 5.3)

Goal 1 (Section 5.3) Obtain additional tools and equipment to update and replace tools that are either worn out or broken. This goal covers the following list:

Various tools to replace and update tool inventory  
Propellers and Propeller manuals  
Aircraft Batteries  
Power Supplies  
Sandblaster  
Assorted sanding discs and belts  
Cleveland brakes/brake pads  
Various Intake Filters  
Propeller governors and manuals  
Cutaway reciprocating engine  
Operable Cessna 152/172  
Turboprop trainer  
Various switches/solenoids  
Copier and toner for A & P office  
Ignition Harnesses

- 6.4 List needed professional development resources in priority order. Identify which discipline/area goal(s) guides this need.

Instructors need to stay current in the field and in aviation education in order to keep up with regulation and new technologies. This requires one instructor annually to attend the Aviation Technician Education Council national meeting. In addition, instructors need to attend aviation related seminars.

- 6.5 List any other needed resources in priority order. Identify which discipline/area goal(s) guides this need.

## **Part 7 - Recommendations and Comments**

- 7.1 List recommended changes to the Educational Master Plan to:  
N/A

- 7.2 What changes in the program review process would improve institutional effectiveness or make the results more helpful to the program? N/A

## **Part 1 - Division or Area Overview**

### **1.4 Briefly describe how the division or area contributes to the district mission.**

The mission of the Agriculture department is to provide high quality career and technical programs that provide students with the skills and knowledge necessary to secure long-term employment in high wage, high-skilled careers.

The Agriculture program primarily aligns with the college mission that states “Career and Technical certificate and degree programs comprised of business, technical and occupational courses designed to enhance students’ knowledge and skills leading to employment, career advancement, certification and state and federal licensure.”

The Agriculture program also aligns with the college mission that states “Transfer/General Education Courses”, since all of our courses will transfer and a component of the Agriculture department is the general education transfer class “Introduction to Botany”.

### **1.5 Place an “X” by each Institutional Learning Outcome (ILO) supported by the division or area.**

- Analyze diverse perspectives from a variety of disciplines and experiences that contribute to the development of self-awareness.
- Value and apply lifelong learning skills required for employment, basic skills, transfer education, and personal development.
- Demonstrate a breadth of knowledge and experiences from the humanities, social and behavioral sciences, arts, natural sciences, and mathematics.
- Solve problems using oral and written communication, critical thinking and listening skills, planning and decision-making skills, information literacy, and a variety of technologies.
- Demonstrate good citizenship and teamwork through respect, tolerance, cultural awareness, and the role of diversity in modern society.
- Identify career opportunities that contribute to the economic well-being of the community.

### **1.6 After completing Parts 2-7, prepare a one page summary of the division/area. Interpret the significance of the findings. Note successes in supporting district strategic goals and where improvements are needed.**

1.7 Neal Weisenberger

1.8 Sharon Weisenberger (adjunct faculty), Marilyn Buchanan (Agriculture lab technician)



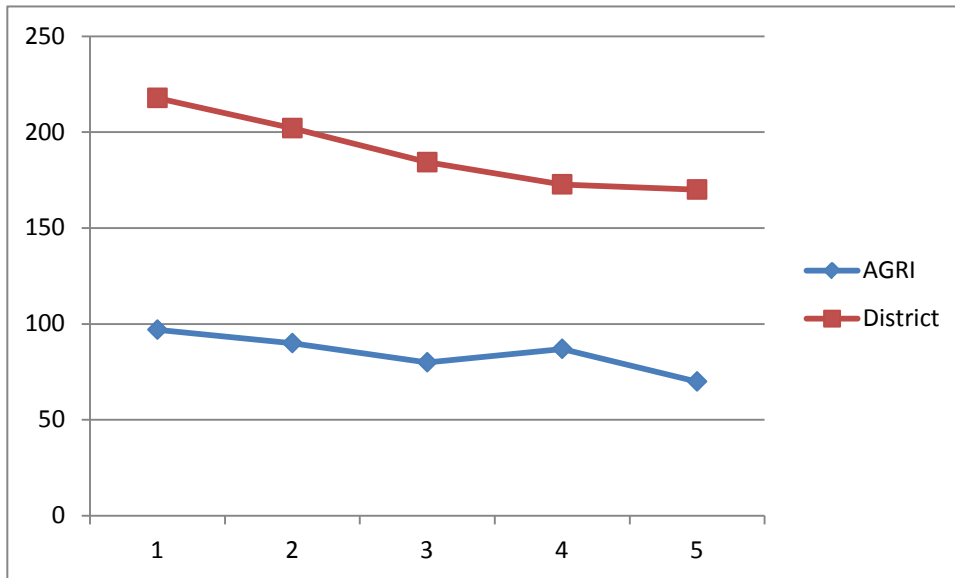
## Part 2 - Data Analysis and Use

### 2.1 Please review the five year headcount and FTES enrollment data provided on the web link. Comment on trends and how they affect your program.\*

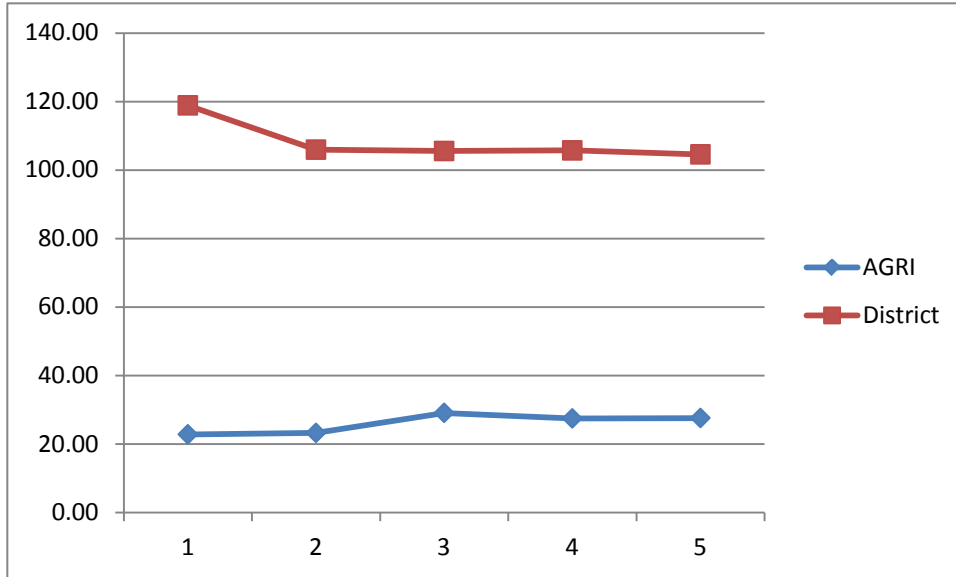
The agriculture program is a small program on campus (headcount of 70 students), the statistics can quickly change with the addition of one or two students. The agriculture program also offers BIO 103 – Introduction to Botany, which is absent from these statistics, which also makes looking at trends difficult. Some semesters we offer two sections of the class and other semester we offer one, during the budget reduction years sections of botany were lost.

From visual observations we have a core of students taking several classes, trying to finish the program in two years, surrounded by a layer of students trying to finish the program in 3 to 5 years, working around their work schedule. Then there is a group of students on the 5year plus track taking a class or two a semester. The trend has been moving towards taking more classes quickly to finish the program, probably based on the ongoing increases in tuition and financial aid.

Annual district headcount decreased 21.9 percent from 2008-2009 to 2012-2013 and during that time, the agriculture program headcount decreased 22.2 percent.



District FTES decreased 12 percent in the past five years while FTES in the agriculture program increased 20.1 percent.



**2.2 Report and analyze program/area data showing the quantity of services provided over the past four years (e.g. number of students served, books sold, employees hired, acreage maintained).**

NA

**2.3 Please review the five year data on sections offered, faculty ratios, and efficiency data provided on the web link. Comment on trends and how they affect your program.**

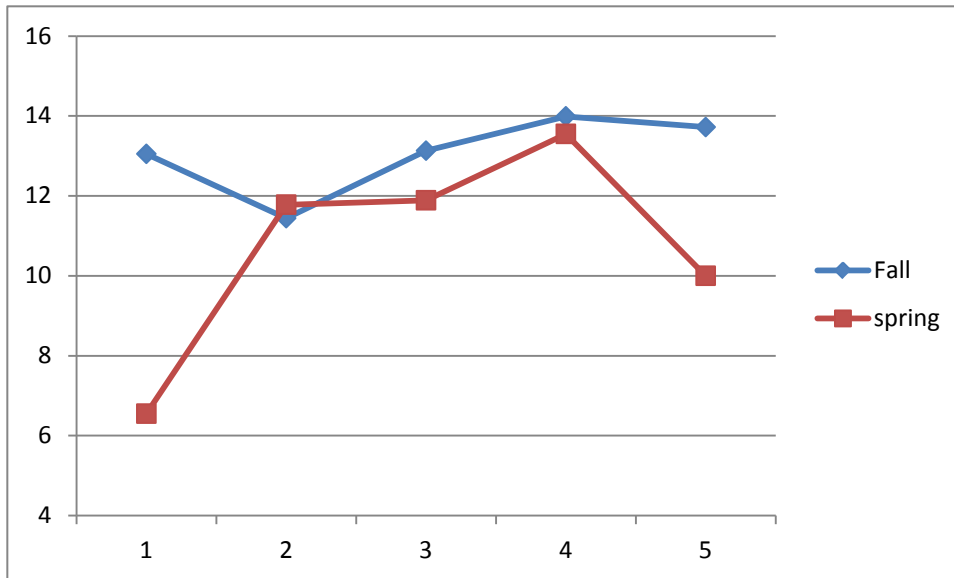
Sections offered by the district decreased 27.5 percent from 2008-2009 to 2012-2013. That reflects a 33 percent decrease in Lancaster sections, a 61 percent increase in Palmdale sections, and a 66 percent decrease in sections offered elsewhere.

During the same time frame time sections in agriculture decreased 14 percent. BIO 103 – Introduction to Botany, is absent from these statistics, which also makes looking at trends difficult. Some semesters two sections of the class were offered and other semester only one section was offered. During the budget reduction years, sections of botany were lost.

Fall district PT/FT faculty ratio increased 5.9 percent and spring district PT/FT faculty ratio increased 8.8 percent from 2008-2009 to 2012-2013. During that time agriculture program PT/FT ratio stated constant because the same classes are offered each semester.

District efficiency in the fall increased 15.9 percent and efficiency in the spring increased 6.7 percent over the past five years. The Agriculture program efficiency in the fall increased 5.1 percent and efficiency in the spring increased 52.7 percent over the past five years. The statistics are very misleading and hard to analysis the average fall

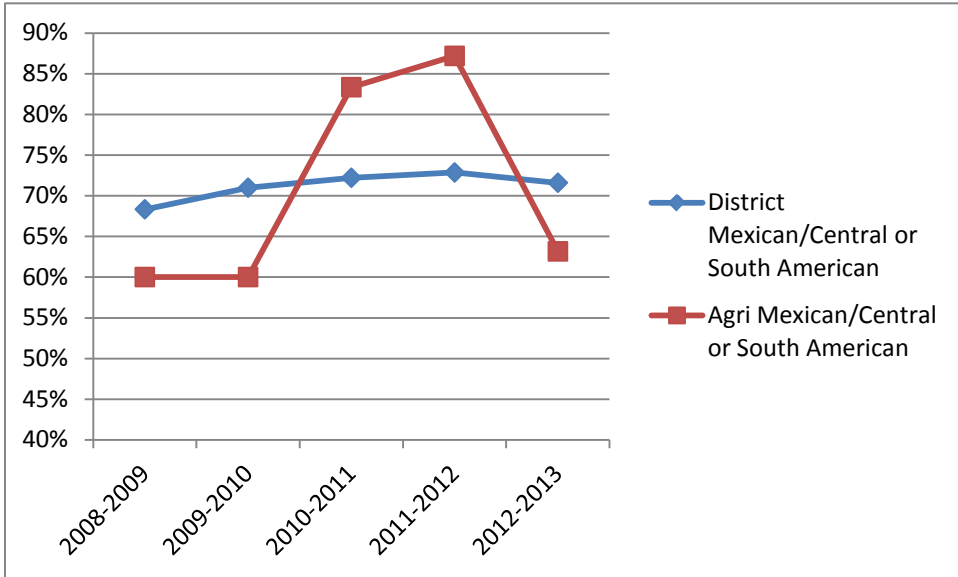
efficiency since fall 2008 is 13.066, with a high of 13.99 and a low of 11.44. The spring average is 10.75, with a high of 13.55 and a low of 6.55 (which the percent above is based upon). The Fall semester trend seems to be slightly improving and the spring semester seems staying somewhat stable. See chart below



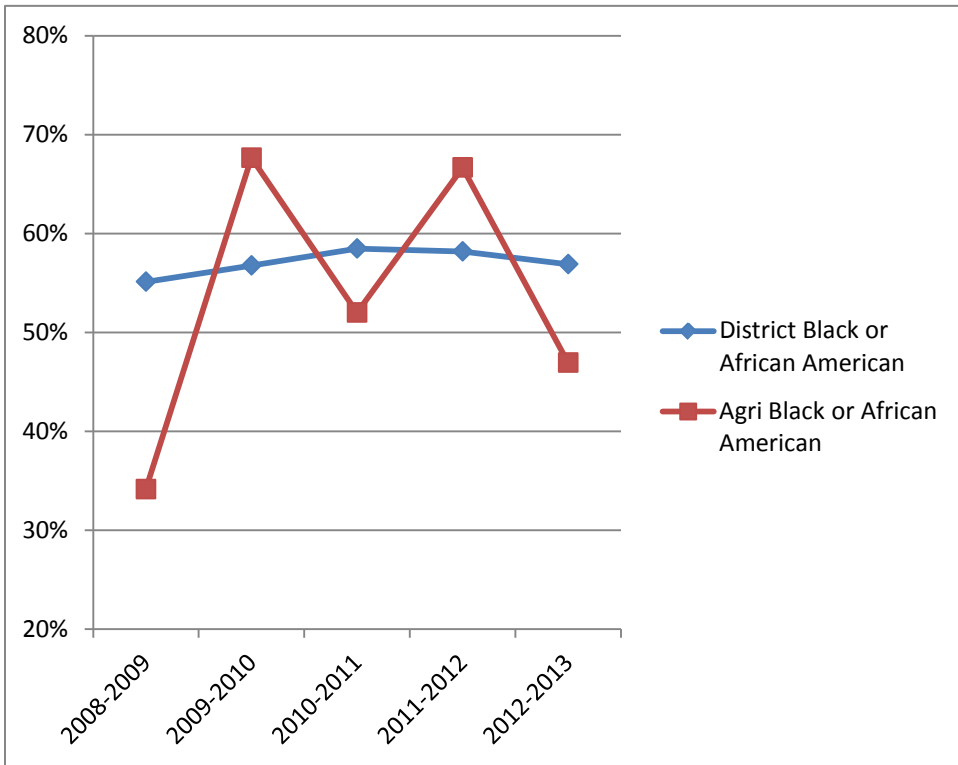
The agriculture program is a small program on campus (headcount of 70 students), the statistics can quickly change with the addition of one or two students. From visual observations we have a core of students taking several classes, trying to finish the program in two years, surrounded by a layer of students trying to finish the program in 3 to 5 years, working around their work schedule. Then there is a group of students on the 5year plus track taking a class or two a semester. The trend has been moving toward taking more classes quickly to finish the program, probably based on the ongoing increases in tuition and financial aid.

**2.4 Using the discipline student success data provided by web link, please comment on any similarities or differences between race, gender, location, and modality groups in meeting the Institutional Standard of 68% for student success (students earning grades of A, B, C, Pass, or Credit). Identify what actions are planned to address trends and achievement gaps in the current academic year.\***

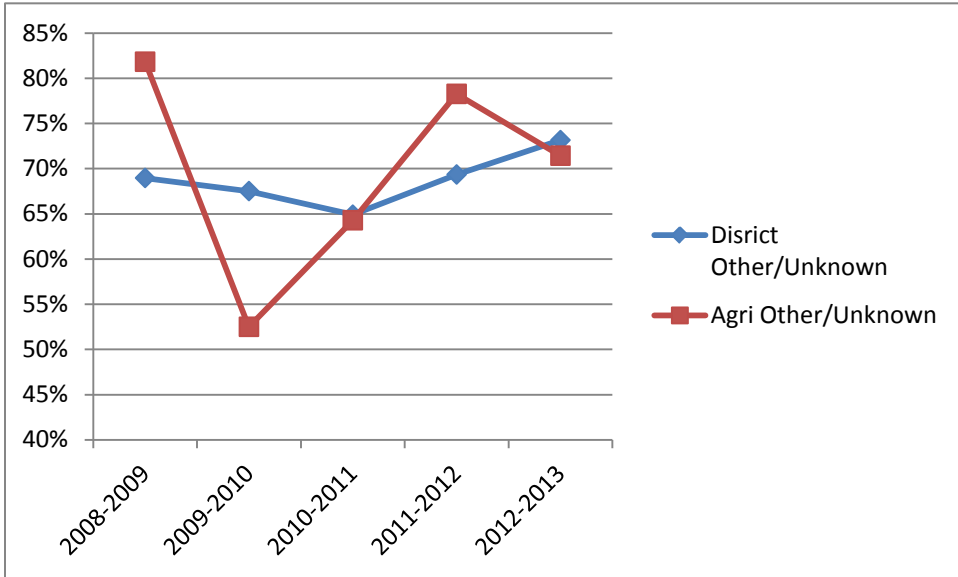
The success of Mexican/Central or South American students in the district increased from 68 percent to 72 percent between 2008-2009 and 2012-2013.



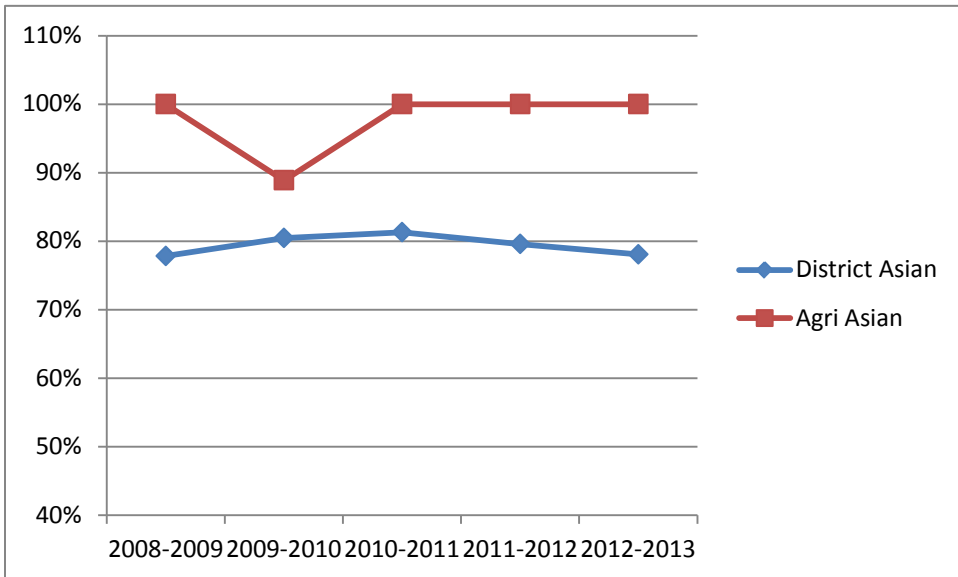
The success of Black or African Americans in the district increased from 55 percent to 57 percent between 2008-2009 and 2012-2013.

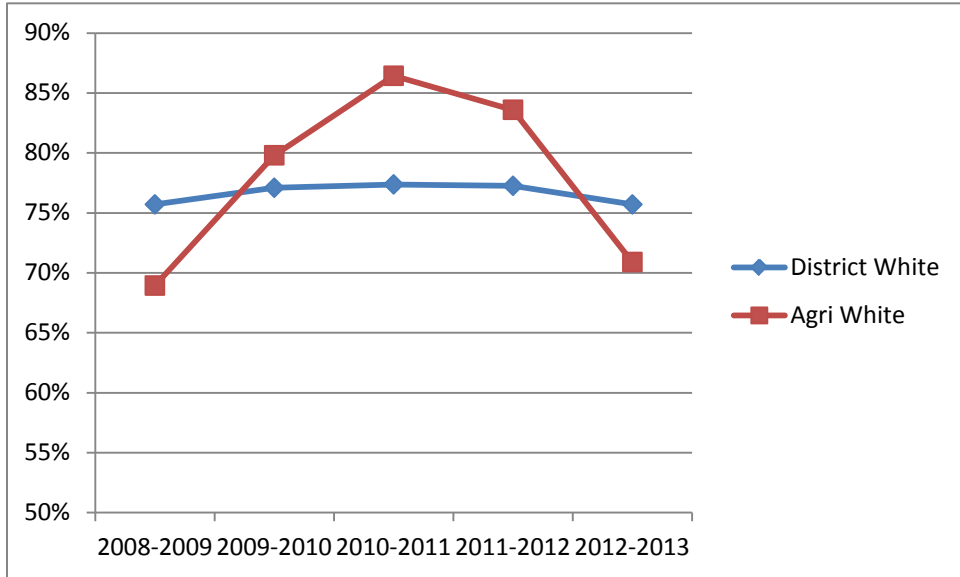


Other/Unknown increased from 69 percent to 73 percent.

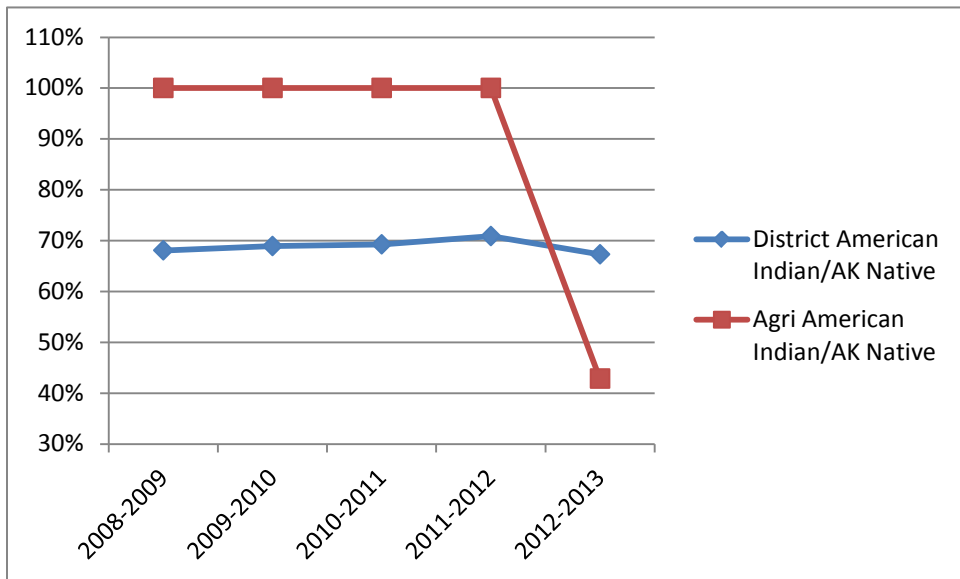


The success of Asian and White students in the district was unchanged over the past five years at 78 and 76 percent respectively.



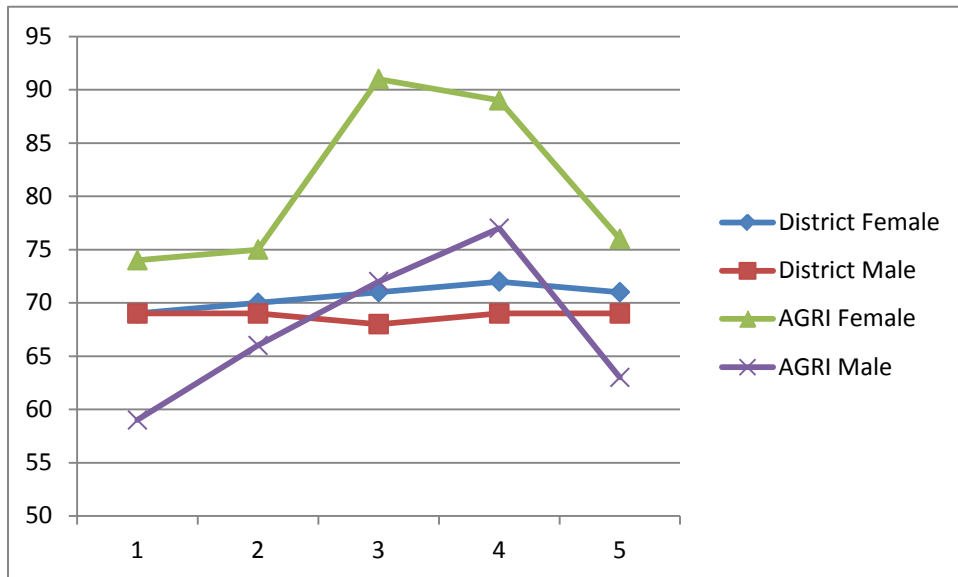


The success of American Indians/AK Native students decreased from 68 to 67 percent and the success of Pacific Islander students decreased from 69 to 64 percent, both groups falling below the Institutional Standard of 68 percent.



69 percent of female students in the district were successful in 2008-2009; 71 percent were successful in 2012-2013. 68 percent of male students in the district were successful in 2008-2009; 69 percent were successful in 2012-2013. The trend shows that the female students are more successful in the agriculture program over the last years. Male students statistics are erratic and do not come to a reliable analysis. The agriculture

program is a small program on campus (headcount of 70 students), the statistics can quickly change with the addition of one or two students.



**2.5 Analyze and summarize trends in student progression through basic skills courses, if applicable.**

Not Applicable

**2.6 List degrees and certificates currently offered in the discipline. Analyze how resource adjustments or other changes during the past four years have impacted degree and certificate completion rates.**

The Agriculture program offers 1 local certificate; 2 certificates, and 2 degrees. The grounds maintenance certificate is the local offered certificate that was developed for the Vocational Inmate Program, which no longer is an active program. The grounds maintenance certificate needs to be modify or eliminated to fit into the overall program.

The two certificates and two degrees are the Environmental Horticulture Certificate and degree and the Landscape Construction Certificate and degree. Both degrees and both certificates have just had a few students earn over the last 4 years.

For many years the Agriculture program had limited space in order to offer classes, with most classes being offered once every two years. With the new building projects, the program added a new classroom in order to offer the classes more frequently. At the same time the college limited class offerings. This continues to impact our program. The agriculture program has not been able to offer the final class of the program for many years. Students have go to other colleges to get the class or have come up with

alternative methods to earn the certificate. With classes on a two-year rotation if a student misses or fails a class it may take 4 years or more years to finish the program.

	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	Total
Grounds Maintenance Cert	1	0	0	0	0	1
Environmental Horticulture Cert.	1	0	4	4	2	10
Landscape Construction Cert	0	0	2	1	0	3
Environmental Horticulture Degree.	2	0	2	2	0	6
Landscape Construction Degree	0	0	2	1	0	3

Degrees granted by the district decreased 29.9 percent from 2008-2009 to 2012-2013. (or decreased by 23.9 percent from 2009-2010 to 2012-2013.)

The district transfer rate decreased 38.4 percent from 2008-2009 to 2011-2012. Numbers for 2012-2013 are not available at writing time.

- 2.7 Using the data provided by web link, please comment on transfer rates to four-year institutions, license exam results, and job placement/post testing. If applicable, cite examples of using additional resources (e.g. human, facilities/physical, technology, financial, professional development) or making other changes during the past four years that have resulted in improvements in transfer rates to four-year institutions, license exam results, and job placement/post testing.**

The faculty does not have information about student transfers in this discipline. The effort to establish a Transfer Model Curriculum has stalled due to the dichotomy of thought on plant versus animal agriculture. The current belief is that one TMC will not be sufficient for both areas of the discipline.

- 2.8 Career Technical Education (CTE) programs: Review the labor market data on the California Employment Development Department website for jobs related to your discipline. Comment on the occupational projections for employment in your discipline for the next two years. Comment on how the projections affect your planning. <http://www.labormarketinfo.edd.ca.gov/Content.asp?pageid=1011>**

Landscape and Environmental Horticulture jobs are hard to track on the EDD website. The jobs do not identify the Antelope Valley or even North Los Angeles County. The reports do not identify nursery sale for retail sales. Identify city, county and state park



workers from landscape workers. It does not recognize self-employed gardeners or contractors. However, “First line landscape and groundskeepers workers” is one of the job classifications with the most openings in California and the Los Angeles area. Most of my students are self-employed gardeners, contractors, City workers, and landscape designers. Listed are some occupations recognized by the EDD with state projections

Occupation	State		
	Projected Openings	% Change	Annual openings
Landscape and groundskeeper Supervisors	3100	15.2	600
Landscaping and groundskeeping worker	29900	21.3	5440
Grounds Maintenance worker	100	7.7	30
Farmworker and labors, crop and Nursery	3500	1.4	7880
Pesticide sprayers and applicators	700	19.4	130
Landscape Designer	?	?	?
Nursery Sales	?	?	?
Landscape Contractor	?	?	?
Irrigation specialist	?	?	?
Home improvement sales	?	?	?

### Part 3 – Outcome Analysis and Use

- 3.1 Analyze changes in student learning outcome (SLO) and program learning outcome (PLO) assessment findings over the past five years. Cite examples of using data during that time as the basis for resource allocation (e.g. human, facilities/physical, technology, financial, professional development) or making other changes that resulted in or correlate with improved learning outcome findings over the past four years.\***

Students have successfully met SLOs and PLOs stated, however it is become increasingly difficult to meet the SLOs and PLOs with declining supply budgets. Most changes to meeting the SLO’s and PLO’s have been more learning mode changes. In other words how can the material be taught or presented. With most classes meeting only twice in the program review process it is difficult determine if changes have been beneficial. The action plans have identified increased supply budget and increase replacement or equipment budget

- 3.2 Analyze changes in operational outcomes (OO) findings over the past five years. Cite examples of using data during that time as the basis for resource allocation (e.g. human, facilities/physical, technology, financial, professional development) or making other changes that resulted in or correlate with improved OO findings over the past four years.\***  
 Not applicable

**Part 4 - Stakeholder Assessment**

- 4.1 Assess how well the program serves the needs of the students, district, and community. Support statements with findings from student, employee, and/or community surveys. Include feedback from other sources if relevant (e.g. advisory committees, employers in the community, universities, scores on licensure exams, job placement).**

The following survey was given to classes and to staff to evaluate the program  
**ANTELOPE VALLEY COLLEGE**  
 Stakeholder Survey  
 Environmental Horticulture / Landscape Construction

Circle one of the following      Taking first class    Taken 2 to 5 classes    Taken more than 5 classes

Rank the following 0 – not observed, no comment, not applicable;  
 Rank statement as 1 lowest score (do not agree) to 10 highest score (total agree)

<b>The following questions address the classroom or indoor space</b>											
The classroom is large enough for learning activities	0	1	2	3	4	5	6	7	8	9	10
The classroom audio visual is adequate for learning activities	0	1	2	3	4	5	6	7	8	9	10
The lighting in the classroom is adequate	0	1	2	3	4	5	6	7	8	9	10
The furniture is appropriate for the classes	0	1	2	3	4	5	6	7	8	9	10
There is enough classroom lab equipment to operate the classes	0	1	2	3	4	5	6	7	8	9	10
The classroom lab equipment is new and modern. (industry standard)	0	1	2	3	4	5	6	7	8	9	10
<b>The following questions address the outdoor space</b>											
The facilities are large enough for learning activities	0	1	2	3	4	5	6	7	8	9	10
The lighting in the facilities is adequate	0	1	2	3	4	5	6	7	8	9	10
The furniture is appropriate for the classes	0	1	2	3	4	5	6	7	8	9	10
There is enough outdoor lab equipment to operate the classes	0	1	2	3	4	5	6	7	8	9	10
The outdoor lab equipment is new and modern. (industry standard)	0	1	2	3	4	5	6	7	8	9	10
<b>The following questions address the curriculum</b>											
The curriculum of the program is sufficient and in depth	0	1	2	3	4	5	6	7	8	9	10
The classes are offered frequently enough to complete the program in a reasonable time	0	1	2	3	4	5	6	7	8	9	10

Comments on classroom or indoor space section

Comments on Outdoor space section

Comments on curriculum section

	<b>Student average response</b>	<b>Staff / Advisory committee average response</b>
<b>The following questions address the classroom or indoor space (Students taken more than 2 classes)</b>	<b>9 8.1</b>	<b>9</b>
<b>The classroom is large enough for learning activities (Students taken more than 2 classes)</b>	<b>9.4 8.5</b>	<b>10</b>
Comments; Staff: no comments		
Comments; Students: Clean and comfortable The classroom is large enough to complete what assignments are given. Good size not overcrowded. More security (2) Nice classroom Need some lockers for when we go outside		
<b>The classroom audio visual is adequate for learning activities (Students taken more than 2 classes)</b>	<b>9 8.4</b>	<b>6</b>
Comments: Staff: It is difficult to use the manual screen in conjunction with the learning process		
Comments; Students: No comments		
<b>The lighting in the classroom is adequate (Students taken more than 2 classes)</b>	<b>9.7 8.9</b>	<b>9</b>
Comments: Staff: the control of the lighting could be better		
Comments; Students: no comments		
<b>The furniture is appropriate for the classes (Students taken more than 2 classes)</b>	<b>9.1 8.0</b>	<b>10</b>
Comments; Staff: no comments		
Comments; Students: no comments		

<b>There is enough classroom lab equipment to operate the classes (Students taken more than 2 classes)</b>	<b>8.5</b> <b>7.6</b>	<b>8</b>
Comments: Staff: more lab equipment is needed to eliminate student waiting time for equipment		
Comments; Students: Soils needs more equipment (2)		
<b>The classroom lab equipment is new and modern. (Industry standard) (Students taken more than 2 classes)</b>	<b>8.3</b> <b>7.1</b>	<b>10</b>
Comments; Staff: no comments		
Comments; Students: I think there should be more modern and updated		
<b>The following questions address the outdoor space (Students taken more than 2 classes)</b>	<b>8.6</b> <b>7.7</b>	<b>7.4</b>
<b>The facilities are large enough for learning activities (Students taken more than 2 classes)</b>	<b>9.5</b> <b>8.6</b>	<b>9</b>
Comments; Staff: no comments		
Comments; Students: The outside work area is at fair conditions. Maybe a little bigger Greenhouses are good for students. Top of the line facilities Could use improvement The areas are full and unorganized. To many areas unfinished. Need bigger space outside for construction work Plenty of space outside with enough room for multiple projects		
<b>The lighting in the facilities is adequate (Students taken more than 2 classes)</b>	<b>7.9</b> <b>6.9</b>	<b>5</b>
Comments: Staff: Lighting is adequate for walking, but not for working, students bring flashlight to complete outdoor lights. Portable lights are used but difficult to work with		
Comments; Students: needs better lighting (2)		
<b>The furniture is appropriate for the classes (Students taken more than 2 classes)</b>	<b>8.3</b> <b>7.6</b>	<b>8</b>
Comments: Staff: Can always use more workbenches, carts and wheelbarrows. Outdoor chairs would benefit classes		

Comments; Students: No comments		
<b>There is enough outdoor lab equipment to operate the classes (Students taken more than 2 classes)</b>	<b>8.6</b> <b>7.6</b>	<b>7</b>
Comments: Staff: more lab equipment is needed to eliminate student waiting time for equipment		
Comments; Students: Need more small rototillers		
<b>The outdoor lab equipment is new and modern. (Industry standard) (Students taken more than 2 classes)</b>	<b>8.9</b> <b>7.9</b>	<b>8</b>
Comments; Staff No comments		
Comments; Students: No comments		
<b>The following questions address the curriculum (Students taken more than 2 classes)</b>	<b>7.9</b> <b>6.6</b>	<b>7</b>
<b>The curriculum of the program is sufficient and in depth (Students taken more than 2 classes)</b>	<b>9</b> <b>8.1</b>	<b>8</b>
Comments: Staff: The curriculum always needs reviewed and adjusted. The program could expand into new and different areas		
Comments; Students: Perfect!!!, Very Good Very good learning lots of new things. I never want to miss a class This program would definitely benefit from the introduction of Plant ID 3. A course in 'Advanced' Nursery Practices would be nice for those of us who took these classes with a more scientific frame of mind. The addition could be supplemented with one or two requisites chemistry course as well as an "advanced" Botany in order to offer a more advanced major in Plant Sciences. A little narrow Great! Maybe classes on ponds and water features and fire features, the construction of Can have more hands on classes		
<b>The classes are offered frequently enough to complete the program in a reasonable time (Students taken more than 2 classes)</b>	<b>6.8</b> <b>5.1</b>	<b>6</b>
Comments: Staff: Classes are mainly on once every two-year or once every year. Missing a classes or failing a class reduces the chances on a student completing the program		

Comments; Students:

Would like a couple of extra slots for classes to come back in rotation faster.

With classes offered only every two years It's hard to complete the program.

Need more classes to complete faster

The classes are not offered on a timely matter. Some classes are offered every two years making an AA degree be 4 years if miss one of the key classes are missed.

Some classes, advanced Design, need to be offered more frequently

With classes only being offered every 2 years its impossible to complete this two year program in 2 years

## Part 5 - Goals and Objectives

### 5.1 Review the goals identified in your most recent comprehensive self-study report and last year's annual report. Indicate which have been completed and which have been eliminated.\*

Goals	Objectives	Time frame	Justification	% Completion	Reason	New time frame
	<i>significant steps or actions needed to achieve the goal</i>	<i>Period of time the goal and objectives will be addressed</i>	<i>How does the goal support the mission of the college? How does the goal meet the needs of the community</i>			
1. Organize the new Agriculture/Landscape Science facilities			This will be "placing student success and <b>student-centered learning</b> as our number one priority through higher educational standards and <b>innovative programs</b> "			
1A	Organize tools and supplies in storage	Completed during the 10-11 school year		50%	Waiting for shelving	13-14 school year
1B	Organize classroom	Completed		100%		

	materials in cabinets	during the 09-10 school year				
1C	Scan in all slides and pictures into computer for storage and side shows	Completed during the 11-12 school year		0%	Not High Priority	14-15 school year
2 Design and Landscape new Facilities			This will be “placing student success and <b>student-centered learning</b> as our number one priority through higher educational standards and <b>innovative programs</b> ”			
2A	Design Landscape and develop material needs for facility	Completed during the 09-10 school year		90%	This is a design/build operation. We have identified the main components and have the materials. The design will adjust during construction	Ongoing
2B	Work with industry/community to help in providing needed materials	Completed during the 09-10 school year		90%	Several meetings with both the industry and community help identify major purchases and donations.	Ongoing
2C	Install Landscapes (with Classes)	Completed during the 11-12 school year		33%	Ongoing	Ongoing
3. Develop a plan to provide resources to maintain the new larger facilities.		This will be “placing student success and <b>student-centered</b>				

		<b>learning</b> as our number one priority through higher educational standards and <b>innovative programs”</b>				
3A	Work with college administration on development of a volunteers or docents process	Completed during the 09-10 school year		75%	In discussion	Ongoing
3B	Work with government and industry for assistance in the program	Completed during the 09-10 school year		50%	Ongoing	Ongoing
3C	Work with college administration to restore supply budget, which has decreased over the last few years	Ongoing	It is become more difficult to meet SLOs and PLOs without adequate supply budget to teach classes and maintain equipment	0%		Ongoing
3D	Develop a budget for new and innovative lesson and hands on experience in classes  <i>(old goal from 2009 sef study) Develop a process to bring the program up to “state of the art” status in the landscape field</i>	Ongoing	Requested Prop 20 money and VTEA funds to help with these projects	15%	Received VTEA and prop 20 funds to purchase materials to assist in the classroom	Ongoing
3E	Develop a budget to replace tools and equipment in order to have enough tools and equipment of industry standard to operate labs and have students receive hands on experience in	Ongoing	Requested Prop 20 money and VTEA funds to help with these projects	50%	Received VTEA and prop 20 funds to purchase materials to assist in the classroom	Ongoing



	<p>classes</p> <p>(old goals from 2009 self study)  The program is lacking in tools and equipment to efficiently operate the program. Develop a process to bring the program's tool and equipment up to industry standards.</p>					
4. Involve the program in more community activities held at the new facilities	Hold community events for water districts or garden associations	Completed during the 09-10 school year	<p>This will be "placing student success and <b>student-centered learning</b> as our number one priority through higher educational standards and <b>innovative programs</b>".</p> <p>This also allows the co-operation between the community and AVC</p>	90%	Currently the Hi Desert Iris and Daylily Society is meeting monthly and holding their annual plant sale at the college Starting May 2011 holding smart workshops at AVC is cooperation with local Water groups Working with AVRCD to develop a garden at their Nursery	Ongoing with new prospects
5. Involve the Agriculture/Landscape Advisory Committee in program activities	Hold more meetings during the year	Completed during the 09-10 school year	<p>This will be "placing student success and <b>student-centered learning</b> as our number one priority through higher educational standards and <b>innovative programs</b>".</p>	100%	Held meetings, however we still need to have more regular scheduled meetings	Completed during the 10-11 school year

**5.2 List discipline/area goals and objectives related to improving outcome findings and/or the success of the various learner populations in completing courses, certificates, degrees, and transfer requirements. Discipline/area goals must be guided by district Strategic Goals and Plan Summaries in the Educational Master Plan (EMP). They must be supported by an outcome action plan, data analysis, national or professional standards, and/or a requirement or guideline from an outside agency (e.g. legislation, Chancellor’s Office, accrediting body, professional board). Consider curriculum, instruction, assessments, program services, operations, collaborations, scheduling, location, technology, etc.\***

Goal	Objectives	Objection requirements	Guided by ___ Plan Summary in EMP	Time frame – current, Near Term, Long Term ongoing	Supporting Documentation
1	Maintain a clean, safe, and functional learning and work environment.  (old goal wording from 2009 self study) Organize the Agriculture/ Landscape Science facilities		Goal 1 * note no objective in goal #1 fits this area goal. The education master plan needs to add a goal or objective about a safe and clean learning environment.  Goal #5b	Near term to ongoing	Documented in: Stakeholders Survey, Previous Program Reviews  Advisory committee minutes,  PLO/SLO action plans  Educational Master plan
1A	Organize, clean, and repair tools and supplies in storage.	In order to complete objective addition shelving, tool racks and other organization items needs are required.  Time required is limited with teaching and other college responsibilities			
1B	Address all safety issues				
1C	Address functional				

	issues of the facilities				
1D	Scan in all slides and pictures into computer for storage and side shows	Time required is limited with teaching and other college responsibilities			

Goal	Objectives	Objection requirements	Guided by ___ Plan Summary in EMP	Time frame – current, Near Term, Long Term ongoing	Supporting Documentation
2, Design and Landscape new Facilities			Goal 5b	Ongoing	Documented in: Stakeholders Survey, Previous Program Reviews  Advisory committee minutes,  PLO/SLO action plans  Educational Master plan  Class Curriculum
2A	Design Landscape and develop material needs for facility	This will be a ongoing project in order to train students on how to maintain and install landscapes			
2B	Work with industry/community to help in providing needed materials	This will be a ongoing project in order to train students on how to maintain and install			

		landscapes			
2C	Install Landscapes (with Classes)	This will be a ongoing project in order to train students on how to maintain and install landscapes			

Goal	Objectives	Objection requirements	Guided by ____ Plan Summary in EMP	Time frame – current, Near Term, Long Term ongoing	Supporting Documentation
3. Develop a plan to provide resources to maintain the facilities.			Goal 1a Goal 1c Goal 1e Goal 3b Goal 5b Goal 5c Goal 6a	Ongoing	Documented in: Stakeholders Survey, Previous Program Reviews  Advisory committee minutes,  PLO/SLO action plans  Educational Master plan
3A	Work with college administration on development of a process to hire or use hourly workers to help maintain facilities when lab technician is sick or on vacation.				
3B	Work with college administration on development of a volunteers or docents process to assist in maintaining facilities				
3C	Work with government and industry for assistance in the				

	program				
3D	Work with college administration to restore supply budget, which has decreased over the last few years	It is become more difficult to meet SLOs and PLOs without adequate supply budget to teach classes and maintain equipment			It is become more difficult to meet SLOs and PLOs without adequate supply budget to teach classes and maintain equipment
3E	Work with college administration to Increase supply budget past historically high levels	It is become more difficult to meet SLOs and PLOs without adequate supply budget to teach classes and maintain equipment			
3F	Develop a budget for new and innovative lesson and hands on experience in classes  <i>(old objective from 2009 self study)</i> <i>Develop a process to bring the program up to "state of the art" status in the landscape field</i>				
3G	Develop a budget to replace tools and equipment in order to have enough tools and equipment of industry standard to operate labs and have students receive hands on experience in classes  <i>(old objective from 2009 self study)</i> The program is lacking in tools and equipment to	It is become more difficult to meet SLOs and PLOs without adequate supply budget to teach classes and maintain equipment			

	efficiently operate the program. Develop a process to bring the program's tool and equipment up to industry standards.				
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Goal	Objectives	Objection requirements	Guided by ___ Plan Summary in EMP	Time frame – current, Near Term, Long Term ongoing	Supporting Documentation
4. Involve the program in more community activities held at the new facilities	Hold community events for water districts or garden associations		Goal 3a Goal 5c Goal 6a	Ongoing	Documented in:  Previous Program Reviews  Advisory committee minutes,

Goal	Objectives	Objection requirements	Guided by ___ Plan Summary in EMP	Time frame – current, Near Term, Long Term ongoing	Supporting Documentation
5. Involve the Agriculture/Landscape Advisory Committee in program activities	Hold more meetings during the year	This goal as completed, however it can always be improved upon	Goal 3b	Ongoing	Documented in:  Previous Program Reviews  Advisory committee minutes,  PLO/SLO action plans  Educational Master plan

Goal	Objectives	Objection requirements	Guided by ___ Plan Summary in EMP	Time frame – current, Near Term, Long Term ongoing	Supporting Documentation
6. Increase class offerings	Add one section each semester to the schedule	Class offerings have been reduced, when the should have been increased, students do not finish the program due to the limited class offerings	Goal 1a Goal 1e Goal 1g	Near Term	Documented in: Stakeholders Survey, Previous Program Reviews  Advisory committee minutes,  PLO/SLO action plans  Educational Master plan  Class Curriculum

Goal	Objectives	Objection requirements	Guided by ___ Plan Summary in EMP	Time frame – current, Near Term, Long Term ongoing	Supporting Documentation
7. Keep curriculum relevant and up to date				Ongoing	Documented in: Stakeholders Survey, Previous Program Reviews  Advisory committee minutes,  PLO/SLO action plans  Educational Master plan  Class Curriculum
	Update COR, PLOs and SLO on a regular basis				

	Analysis the certificate programs and modify as needed for industry standards				
	Determine if new certificates or degrees are needed as job trends change				
	Work on model transfer curriculum				

**5.3 List discipline/area goals and objectives directly related to advancing Strategic Goals. Discipline/area goals must be guided by district Strategic Goals and Plan Summaries in the Educational Master Plan (EMP). They must be supported by data analysis or other documentation.**

See above

**Part 6 - Resource Needs**

**Identify significant resource needs that should be addressed currently (up to three years), near term (three to five years), and long term (five to ten years). If there may be safety issues, enrollment consequences, or other important concerns if a resource is not provided please make this known.\***

**6.1 List needed human resources. List titles in priority order. Identify which discipline/area goal(s) guides this need.**

Short Term -Neither of these needs relate to new positions however they need to be addressed as a staffing need. (area goal 3)

Hourly Worker - Staffing the facilities on a short-term situation such as when the Agriculture Lab technician is on vacation, injured or sick. When Agriculture Lab Technician is off, some lab activities are curtailed or rearranged due to safety issues. The workload for maintaining the facilities (mainly watering) fall onto the faculty or volunteers, in which Faculty needs to be present. (goal 3A)

Volunteers - Additional staffing needed to maintain the new larger facilities being planned, i.e. student assistance, volunteers, and/or docents. (goal 3B)

**6.2 List needed technology resources in priority order. Identify which discipline/area goal(s) guides this need.**

1. Replacement of stolen Laptops (goal 3F)



2. Staff must use personal cell phone to communicate with security or anyone when outside of the classroom, which is most of the time (goal 1B)
2. Upgrade of older computers and laptops (goal 3F)
3. Upgrade and Increase lab electronic testing equipment (goal 3F/3G)

**6.3 List facilities/physical resources (remodels, renovations, or new) needed to provide a safe and appropriate student learning and/or work environment. List needs in priority order. Identify which discipline/area goal(s) guides this need.**

1. Wiring for hydroponic unit (facility request approved 3 years ago) Goal 3E
2. Programming for door locks. Doors must be blocked open (fire issue) in order for students to enter building from greenhouses or lab facilities. (goal 1B/1C)
3. Increase outdoor lighting for nighttime classes. (Goal 1C)

**6.4 List needed professional development resources in priority order. Identify which discipline/area goal(s) guides this need.**

None

**6.5 List any other needed resources in priority order. Identify which discipline/area goal(s) guides this need.**

1. Restore and Increased Supply Budget (Goal 3D/E)
2. Increased Replacement Budget (Goal 3G)
3. New tools and equipment to operate classes more efficiently (Goal

**Part 7 - Recommendations and Comments**

**7.1 List recommended changes to the Educational Master Plan to:**

- Address external issues or mandates such as legislation, industry, and professional standards, etc.
- Respond to outcome findings.
- Reflect changes in technology, methodology, and/or disciplines.
- Address student achievement gaps and/or meet other student needs.

The education master plan needs to add a goal or objective about:

1. A safe (and clean) learning environment for students and staff. 6c in the program review address a safe and appropriate learning and/or work environment, the education plan does not.
2. Community outreach – Use of the facilities for community activities, especially if they apply to an education program on campus. I.e. garden clubs, water conservation workshops or similar activities. This brings new people on campus and increases public awareness of programs and the college – good publicity never hurts/

**7.2 What changes in the program review process would improve institutional effectiveness or make the results more helpful to the program?**

1. I believe every areas/discipline should have some start goals, especially curriculum, slos, plos.
2. Develop a stakeholders survey that can be used by programs / areas or at least a list of suggested questions

## **Comprehensive Program Review Self-Study Report**

Division/Area Name

Air Conditioning Refrigeration and Ventilation (ACRV)

Year

2013-2014

### **Part 1 - Division or Area Overview**

1.9 Briefly describe how the division or area contributes to the district mission.

1.10 Place an "X" by each Institutional Learning Outcome (ILO) supported by the division or area.

Analyze diverse perspectives from a variety of disciplines and experiences that contribute to the development of self-awareness.

Value and apply lifelong learning skills required for employment, basic skills, transfer education, and personal development.

Demonstrate a breadth of knowledge and experiences from the humanities, social and behavioral sciences, arts, natural sciences, and mathematics.

Solve problems using oral and written communication, critical thinking and listening skills, planning and decision-making skills, information literacy, and a variety of technologies.

Demonstrate good citizenship and teamwork through respect, tolerance, cultural awareness, and the role of diversity in modern society.

Identify career opportunities that contribute to the economic well-being of the community.

1.11 After completing Parts 2-7, prepare a one page summary of the division/area. Interpret the significance of the findings. Note successes in supporting district strategic goals and where improvements are needed.

1.12 Name of person leading this review

Prof. Joseph Owens, CMS

1.13 Names of all participants in this review

Angelo Galiano, Ernie Bridges, Ken Hymen

### **Part 2 - Data Analysis and Use**

2.1 Please review the five year headcount and FTES enrollment data provided on the web link. Comment on trends and how they affect your program.\*

The annual headcount for the ACRV program for 2008-2009 and 2009-2010 was higher due to summer and intersession courses being offered. These courses were discontinued

due to budgetary constraints. In 2012-2013 the headcount dropped by 31% to a low of 100 from the high of 146 in 2009-2010

However, with the drop in student headcount, there was still an increase in the annual FTES for the ACRV program which increased by 11.3%.

In 2008-2009 FTES was 80.88, and increased to 90.04 FTES in 2012-2013. This increase was during a period that the district noted a 12% decline and the Tech Ed. division a 4.5% drop in FTES.

The fluctuation in headcount is accounted for in a reduction of course offerings which included all the small unit classes during intersession. Once they were not offered, the FTES increased due to large unit classes (5 and 10 units) being offered.

- 2.2 Report and analyze program/area data showing the quantity of services provided over the past four years (e.g. number of students served, books sold, employees hired, acreage maintained).

**Not Applicable**

- 2.3 Please review the five year data on sections offered, faculty ratios, and efficiency data provided on the web link. Comment on trends and how they affect your program.

The ACRV program offered 15 sections including summer/intersession courses in 2008-2009. The summer & intersession courses were dropped in 2010. In 2012-2013 the program offered 10 sections .

Faculty PT/FT ratio for the period has consistently maintained a 2.01 ratio over the past five years.

The increase in FTES resulted in an increase in FTES/FTEF efficiency from fall 2008-2009 when it was 12.62 to 2012-2013 when it was 13.68 or an 8.4% increase in efficiency.

- 2.4 Using the discipline student success data provided by web link, please comment on any similarities or differences between race, gender, location, and modality groups in meeting the Institutional Standard of 68% for student success (students earning grades of A, B, C, Pass, or Credit). Identify what actions are planned to address trends and achievement gaps in the current academic year.\*

I see no correlation between race and success (or unsuccessful). While Asians, Whites and Mexican/Central or South Americans appear to be successful every year, the numbers vary from 100% down to 70%. Black / African Americans have shown the lowest success rates in 3 of the past five years with a less than the minimum standard for success of 68%. These numbers are actually better than the Technical Education

Division success rates and the district where all Black or African Americans did not achieve the minimum standard for success during the same period.

Both male and female success has been consistent over the last 5 years. Females are typically more successful. In 2012/2013 female success dropped to 38%, which can be accounted for by the 50% female retention that year.

(Location and Modality do not apply)

- 2.5 Analyze and summarize trends in student progression through basic skills courses, if applicable.

**Not Applicable**

- 2.6 List degrees and certificates currently offered in the discipline. Analyze how resource adjustments or other changes during the past four years have impacted degree and certificate completion rates.

The ACRV program offers 3 certificates and 3 degrees

1. Refrigeration Systems and Controls Certificate
2. Air conditioning Systems and Controls Certificate
3. Air conditioning & Refrigeration Systems and Controls Certificate

1. AS in Refrigeration Systems and Controls
2. AS in Air conditioning Systems and Controls
3. AS in Air conditioning & Refrigeration Systems and Controls

Certificates tend to be the goal of most students enrolled in the ACRV program. The number of certificates correlates closely with completers of both the ACRV programs. There were no degrees awarded in 2008/2009 yet over the last 4 years we have noted a gradual but consistent increase in degrees with one in 2009/2010 and five in 2010/2011 then seven in 2011/2012 and eight in 2012/2013. We are making a conscious effort to encourage students enrolled in our program to continue on toward an Associate degree.

- 2.7 Using the data provided by web link, please comment on transfer rates to four-year institutions, license exam results, and job placement/post testing. If applicable, cite examples of using additional resources (e.g. human, facilities/physical, technology, financial, professional development) or making other changes during the past four years that have resulted in improvements in transfer rates to four-year institutions, license exam results, and job placement/post testing.

## Not Applicable.

- 2.8 Career Technical Education (CTE) programs: Review the labor market data on the California Employment Development Department website for jobs related to your discipline. Comment on the occupational projections for employment in your discipline for the next two years. Comment on how the projections affect your planning.  
<http://www.labormarketinfo.edd.ca.gov/Content.asp?pageid=1011>

Labor market demand for career technical education: Heating, Air conditioning and Refrigeration

In the state of California there is a demand outlook over the next 10 years with an increase from an estimated 20,700 to a projected 26,300 for 5,600 new positions, a 27% increase in employment with an annual average of 920 openings per year. Nationally there is a estimated base of 267,800 jobs in the industry with a projected increase to 358,100 or 33.7% increase for a 90,300 change or new positions projected by 2020. Average annual openings of 137,600 positions (accounts for new positions and replacements positions for retiring personnel etc.)  
<http://www.projectionscentral.com/Projections/LongTerm>

This of course only looking into the specific industry of HVAC/R. There are occupations not under this heading like Maintenance personnel, Stationary Engineers and Boiler Operators, Plant and System operators, Installers, pipe fitters, sheet metal workers and controls specialist to name a few that are not accounted for.

### Part 3 – Outcome Analysis and Use

- 3.1 Analyze changes in **student learning outcome** (SLO) and **program learning outcome** (PLO) assessment findings over the past five years. Cite examples of using data during that time as the basis for resource allocation (e.g. human, facilities/physical, technology, financial, professional development) or making other changes that resulted in or correlate with improved learning outcome findings over the past four years.\*

After analyzing the data from weave, the ACRV program instructors made some of the necessary changes in teaching methods to include more lab time for hands on experience. More time is being devoted to core skills and competencies. These adjustments have only recently been implemented and the evaluation of findings are ongoing.

- 3.2 Analyze changes in **operational outcomes** (OO) findings over the past five years. Cite examples of using data during that time as the basis for resource allocation (e.g. human, facilities/physical, technology, financial, professional development) or making other changes that resulted in or correlate with improved OO findings over the past four years.

**Not Applicable.**

#### **Part 4 - Stakeholder Assessment**

- 4.1 Assess how well the program serves the needs of the students, district, and community. Support statements with findings from student, employee, and/or community surveys. Include feedback from other sources if relevant (e.g. advisory committees, employers in the community, universities, scores on licensure exams, job placement).

The ACRV program discontinued offering preparatory and advanced specialty courses were dropped in 2010 and have not been picked back up. This was done due to budget cuts and a need to streamline programs of non-essential courses that did not directly affect certificates or degrees.

EPA preparatory classes are held and EPA exams are proctored as needed. These are sponsored by the local RSES Chapter and presented and proctored by staff.

#### **Part 5 - Goals and Objectives**

- 5.1 Review the goals identified in your most recent comprehensive self-study report and last year's annual report. Indicate which have been completed and which have been eliminated.\*

*List the goals and objectives the program has for the next four years.*

*Goal: A specific action.*

Goals: (bulleted)

1. Improve quality of hands of training and practice across the program.
  1. Remotes storage to clear labs and provide more useable space.
  2. Additional lab location / storage facility
  3. Accept equipment donations from industry
2. Upgrade Electrical distribution system in our labs.
3. Over-head trellis (support system)
4. Remote storage site (for equipment and trainers)
5. Hydronic system mock-up trainer.

Goals: (details)

1. Improve the quality of hands on training achieved in the Commercial Refrigeration and Air Conditioning courses. This can be accomplished with increased lab space. (60% of the existing labs are used for storage of lab equipment and projects.)

- a. Acquire a location / remote lab for Commercial students to work on Commercial and Industrial equipment or a remote storage facility / location to allow unused labs and equipment to be stored temporarily. This would also allow present storage rooms to be better utilized for parts, supply and tool storage.
  - b. Additional space will make it possible to accept equipment donations that will benefit our program. These equipment donations would come from local contractors and government agencies.
  - c. Equipment could be set up and operational for advanced course training, allow diagnostics, repair, maintenance and disassembly and assembly of this equipment. (These goals are still realistic and receiving attention)
2. Upgrade the electrical power distribution system in our labs.  
Presently 115 volt 13 amp circuits are in the refrigeration lab and is grossly inadequate when running refrigerant recovery and evacuation equipment. It also inadequate when running student projects simultaneously. Initially we didn't have the tools and workstations to allow 12 student teams in the labs. (which we do now) When we work in the labs we may overload circuits and trip breakers. We must work students in teams of 4 to reduce power demand on the circuits.  
  
Upgrading to 120V / 240V single phase, and increase the circuits to each workstation would open the door for training of every student simultaneously and allow students in the commercial classes to work on light commercial refrigeration equipment.  
  
(This goal is lofty but has merit. It may take time until both state and federal money streams improve, but when such a time comes this would be a project that needs attention)
3. Over-head trellis system to support ductwork, piping, fan coils and air moving equipment to make it possible for the commercial Air Conditioning class to learn on equipment that they will work on in industry. The ability to offer real equipment configurations with real maintenance and operating conditions allows the students to experience first-hand what it's like to work around equipment with the tools and components. This trellis system would allow for the planning, design and building of systems that would be used throughout the year by the commercial courses. Built up systems could be left in place from week to week, and added to and modified as the course progresses. A similar trellis would be advantageous to the Commercial Refrigeration lab as well as the air Conditioning lab.  
(This goal is still considered to have merit)
4. Remote storage site / training lab for our training aids. Equipment like package unit A/C systems, furnaces and condensing units, Refrigeration rack system, and hopefully in the future display cases, and air distribution system and a boiler along with water coils.  
(We are presently using the outside lot [formerly the parking lot behind the 105 lab] as a training lab to work on package units, and split system lab projects.)
5. We still need a hydronic system mock-up trainer. This would include pump and air handling units to maximize training on an eight ton chiller that was recently donated to the



Commercial air conditioning program. This of course would need to be located in a remote lab / storage facility.

(Some of this equipment was purchased with Perkins/ VTEA money from fiscal year 2011/2012 and is presently being used for demonstration and some hands on familiarization by the commercial air class.

*Objectives: Significant steps or actions needed to achieve these goals.*

Goal 1/ Goal 4: To improve the quality of hands on training and practice. Implement a proposal to enclose the old parking area behind lab 105 with a block wall with gate access. Several remote power substations and outdoor lighting would facilitate the use of equipment for training both day and night. This would resolve the issues in both goals 1 & 4

Goal 2: A proposal for the lab power upgrades will be drawn up this spring and submitted to facilities for an analysis and feasibility study. (This proposal has been put on hold until such a time when the budget appears to have improved) This upgrade would include increased circuits to the work benches. (Dedicated circuits to each workbench to handle equipment and tools.)

Goal 3: An overhead trellis system, presently in the beginning stages of planning by the instructors to insure it will meet the needs of all the courses offered by our program. Once a design is thoroughly thought out and analyzed, we will bring it to facilities for their input on our design, and determine feasibility and possible cost. This is still in the design and preparing for proposal stage and will be submitted when budgets appear to have improved.

Goal 4: With the loss of our equipment storage yard, we received two each, 40' storage containers which are parked outside our TE-7 105 lab. This eliminated a former parking area which is now used as an outdoor training area/ lab. This has proved to be a very convenient space to utilize for our program. The addition of a fence to secure the area and the equipment would be a great improvement allowing projects to be located and stored outside. Presently without a fence, equipment is vandalized and components stolen for recycling. (This fence has been brought up at the division meetings and appears to have some support.)

Goal 5: Hydronic mock up trainer – we have acquired many of the components necessary to build the mock-up, yet lack the room to do it. Building the mock up in the AC lab will limit other courses from using the lab space. This system could be built if space was freed up in the labs and the trellis system was built.

Overall assessment: SPACE is one of our biggest issues. A secure outdoor storage and lab space would be a tremendous help. An overhead trellis system in the labs would also help in providing additional workspace. A mezzanine level in the storage rooms would take

advantage of the high ceiling and better utilize the space available for parts, tools and supplies. All these items can be resolved with money to implement the changes and therefore has not yet been asked for. (but will be asked for soon)

- 5.2 List discipline/area goals and objectives related to **improving outcome findings and/or the success of the various learner populations** in completing courses, certificates, degrees, and transfer requirements. Discipline/area goals must be guided by district Strategic Goals and Plan Summaries in the Educational Master Plan (EMP). They must be supported by an outcome action plan, data analysis, national or professional standards, and/or a requirement or guideline from an outside agency (e.g. legislation, Chancellor's Office, accrediting body, professional board). Consider curriculum, instruction, assessments, program services, operations, collaborations, scheduling, location, technology, etc.\*

Current (up to three years)

Goal: Improve student retention and successful completion rate of both certificates and degrees.

Guided by district Strategic Goal(s) #1a, 1c, 1e, 1g & 5d

Objectives: Significant steps or actions needed to achieve the current goal include:

- a. Improve classroom / lab space utilization. (which will improve the quality of essential hands on elements of program)(1a,1c,1e)
- b. Submit to AP&P for approval additional specialty courses that will encourage diverse career goals and meet the needs of the hiring industries. (1a,1g, 1h)
- c. Provide "Train the Trainer" professional development for faculty teaching Air Conditioning load calculations. (5d)

Near Term (three to five years)

Goal: Improve student retention and successful completion rate of both certificates and degrees.

Guided by district Strategic Goal(s) #1g

Objectives: Significant steps or actions needed to achieve the near term goal include:

- a. Increased hands-on lab experience through better utilization of existing lab storage and improved use of lab space. Propose to facilities and find funding streams for a mezzanine storage level and an overhead trellis support system. (5b, 5c, )
- b. Offer additional specialty courses that will encourage diverse Career goals and meet the needs of the hiring industries.(1a, 1g, 4c, 3b)

- 5.3 List discipline/area goals and objectives **directly related to advancing Strategic Goals**. Discipline/area goals must be guided by district Strategic Goals and Plan Summaries in the Educational Master Plan (EMP). They must be supported by data analysis or other documentation.

Current (up to three years)

Goal: Additional Instructional assistant needed

- Guided by district Strategic Goal(s) #5b
- Supporting data analysis or other documentation

Objectives: Significant steps or actions needed to achieve the goal

a. Our evening programs (66% of the ACRV program) are unsupported by an instructional assistant.

b. to maintain and control equipment, parts, tools and supplies for evening courses which will improve class contact time by freeing the instructor from the tasks.

Near Term (three to five years)

Goal: A specific target

Need more classroom space and lab equipment storage

- Guided by district Strategic Goal(s) #5b, 5c, )
- Supporting data analysis or other documentation

Objectives: Significant steps or actions needed to achieve the goal

a. provide a secure outside storage area for lab equipment and student projects.

b. Remove student projects and lab equipment from the lab areas to increase available space in the lab.

c. Provide lighting and electrical source to allow the outside area to be utilized as an outside lab.

## Part 6 - Resource Needs

Identify significant resource needs that should be addressed currently (up to three years), near term (three to five years), and long term (five to ten years). If there may be safety issues, enrollment consequences, or other important concerns if a resource is not provided please make this known.\*

- 6.1 List needed human resources. List titles in priority order. Identify which discipline/area goal(s) guides this need.

1. An additional instructional assistant to control training equipment, parts and tools during the evening courses.

2. Second full time instructor would allow the offering of an additional full time fundamentals program, increasing the numbers of students available for advanced courses.
- 6.2 List needed technology resources in priority order. Identify which discipline/area goal(s) guides this need.
1. Hydronic system equipment mock-up trainer (boilers, hot water coils, expansion tanks, piping and pumping network – for use in the commercial air class – to allow hands on practical training on hot water boilers and their sub-systems.)
- 6.3 List facilities/physical resources (remodels, renovations, or new) needed to provide a safe and appropriate student learning and/or work environment. List needs in priority order. Identify which discipline/area goal(s) guides this need.
1. Install lighting and power for outside lab area
  2. A security fence around outside lab area to secure equipment and projects from mischievous and malicious damage.
  3. Mezzanine level in storage rooms to increase storage capacity for tools, parts, and small equipment items when not being used in labs.
  4. Over-head rack / trellis in labs to support ducting and piping during labs.
- 6.4 List needed professional development resources in priority order. Identify which discipline/area goal(s) guides this need.
1. Training for instructors in the use of load calculations and load calculation software
  2. Training on hydro-carbon refrigerants which are the next generation of refrigerants to be introduced to the United States. These will eventually replace all presently used HFC's or halogenated refrigerants.
- 6.5 List any other needed resources in priority order. Identify which discipline/area goal(s) guides this need.
1. Need additional storage facilities which will improve access to lab work stations.
    - a. Over-head mezzanines in parts rooms.
    - b. Secure outside area to allow use of area for lab equipment storage.
  2. Power and lighting in outside area. To allow night classes use of the outside area as a lab and storage.

## **Part 7 - Recommendations and Comments**

- 7.1 List recommended changes to the Educational Master Plan to:  
None
- 7.2 What changes in the program review process would improve institutional effectiveness or make the results more helpful to the program?      None

## **Comprehensive Program Review Self-Study Report**

Division/Area Name : Technical Education Division/Aircraft Fabrication & Assembly Technician Program (AFAB)

Year: 2013-2014 Academic Year

### **Part 1 - Division or Area Overview**

1.14 Briefly describe how the division or area contributes to the district mission.

The mission of the Aircraft Fabrication and Assembly program is to provide inexperienced students with the preparation for entry-level skills and experienced students with upgraded skills for the aerospace industry. The AFAB program stresses practical, hands-on experience using industry standard equipment with state-of-the-art laboratories. Our faculty members bring a wealth of knowledge into the classroom, combining their college education with real-world experience.

1.15 Place an "X" by each Institutional Learning Outcome (ILO) supported by the division or area.

- Analyze diverse perspectives from a variety of disciplines and experiences that contribute to the development of self-awareness.
- Value and apply lifelong learning skills required for employment, basic skills, transfer education, and personal development.
- Demonstrate a breadth of knowledge and experiences from the humanities, social and behavioral sciences, arts, natural sciences, and mathematics.
- Solve problems using oral and written communication, critical thinking and listening skills, planning and decision-making skills, information literacy, and a variety of technologies.
- Demonstrate good citizenship and teamwork through respect, tolerance, cultural awareness, and the role of diversity in modern society.
- Identify career opportunities that contribute to the economic well-being of the community.

1.16 After completing Parts 2-7, prepare a one page summary of the division/area. Interpret the significance of the findings. Note successes in supporting district strategic goals and where improvements are needed.

1.17 Name of person leading this review: Maria Clinton

1.18 Names of all participants in this review: Harold Bloemandaal, Ronald Coleman, Randy Durfee, Robert Browne, and Jeff Bryant

### **Part 2 - Data Analysis and Use**

2.1 Please review the five year headcount and FTES enrollment data provided on the web link. Comment on trends and how they affect your program.\*

Annual district headcount decreased 21.9 percent from 2008-2009 to 2012-2013 and during that time, the AFAB Program's headcount decreased 17 percent.

District FTES decreased 12 percent in the past five years while, the AFAB Program's FTES decreased by 10 percent. These decreases both in headcount and FTES are due to the programs reduction in courses being offered every semester.

The Program has had to reduce course offerings due to the budget crisis. This is affecting the ability of students to complete the program.

2.2 Report and analyze program/area data showing the quantity of services provided over the past four years (e.g. number of students served, books sold, employees hired, acreage maintained).

N/A

2.3 Please review the five year data on sections offered, faculty ratios, and efficiency data provided on the web link. Comment on trends and how they affect your program.

Sections offered by the district decreased 27.5 percent from 2008-2009 to 2012-2013. That reflects a 33 percent decrease in Lancaster sections, a 61 percent increase in Palmdale sections, and a 66 percent decrease in sections offered elsewhere. During that time sections in the AFAB program have decreased 28 percent due to the fiscal crisis and having to cut courses from the schedule. There is an anomaly in the 2009/2010 academic year where there was a 28 percent increase this was due to the grant associated with Northrop Grumman. Several additional courses (paid by the grant) were offered at the Northrop Grumman facility to Northrop Grumman employees, which has ended with the ending of the grant.

Fall district PT/FT faculty ratio increased 5.9 percent and spring district PT/FT faculty ratio increased 8.8 percent from 2008-2009 to 2012-2013. During that time the AFAB Program's PT/FT ratio increased 25 percent and in the spring the program's PT/FT faculty ratio decreased by 6 percent due to part time faculty leaving the adjunct pool.

District efficiency in the fall increased 15.9 percent and efficiency in the spring increased 6.7 percent over the past five years. The AFAB Program's efficiency in the fall increased 18 percent and efficiency in the spring increased 13 percent over the past five years.

2.4 Using the discipline student success data provided by web link, please comment on any similarities or differences between race, gender, location, and modality groups in meeting the Institutional Standard of 68% for student success (students earning grades of A, B, C, Pass, or Credit). Identify what actions are planned to address trends and achievement gaps in the current academic year.\*

The success of Mexican/Central or South American students in the district increased from 68 percent to 72 percent between 2008-2009 and 2012-2013, similar to the increase in Other/Unknown which increased from 69 percent to 73 percent. The success of

Mexican/Central or South American students for the AFAB Program was unchanged over the past five years between 91 percent in 2008-2009 and 92 percent in 2012-2013.

The success of Asian and White students in the district was unchanged over the past five years at 78 and 76 percent respectively. The success of Asian students in the AFAB Program decreased 10 percent from 100 to 91 percent over the past five years. The success of White students in the AFAB Program decreased 6 percent from 94 to 88 percent over the past five years.

The success of American Indians/AK Native students in the district decreased from 68 to 67 percent and the success of Pacific Islander students decreased from 69 to 64 percent, both groups falling below the Institutional Standard of 68 percent. The success of American Indians/AK Native students in the AFAB Program increased 33 percent from 67 to 100 percent, while the success of Pacific Islander students remained unchanged 100 to 100 percent over the last five years.

The success of Black or African American students in the AFAB Program increased 6 percent from 82 percent to 87 percent over the last five years.

The success of Other/Unknown in the district increased from 69 percent to 73 percent. The success of Other/Unknown for the AFAB Program increased 11 percent from 89 to 100 percent over the last five years.

69 percent of female students in the district were successful in 2008-2009; 71 percent were successful in 2012-2013. 68 percent of male students in the district were successful in 2008-2009; 69 percent were successful in 2012-2013. 92 percent of female students in the AFAB Program were successful in 2008-2009; 84 percent were successful in 2012-2013. 90 percent of male students in the district were successful in 2008-2009; 89 percent were successful in 2012-2013. The decrease in female student success is due partly to the fact that female students are a small majority in the program and they are usually first to be hired by aerospace companies thus inhibiting them from completing the program. The success of males students in the program remains relatively the same over the last five years, with a slight decrease due partly to students gaining employment.

Student success by location has changed little in recent years. Palmdale students achieved 66 percent success in 2012-2013, slightly lower than the Institutional Standard of 68 percent. That same year Lancaster students achieved 70 percent success and students in Other/Unknown locations achieved 80 percent success. The AFAB Program is located on the main campus in the TE7 building and has been there since its inception. Student success has decreased from 97 to 93 percent in the past five years partly due to students gaining employment and partly to course offerings being reduced making it difficult for students to complete the program. There is an anomaly in the 2009-2010 and 2010-2011 academic years due to the fact that several of the courses offered in the AFAB program were given at the Northrop Grumman facility (grant funded) and the success rate is relatively higher than at the AVC campus due mostly to the fact that the students in the grant funded classes were Northrop Grumman employees.

Students taking traditional courses in the district exceed the Institutional Standard of 68 percent success. 71 percent of students were successful in 2012-2013, down slightly from 72 percent the prior year but duplicating the success rates of 2011-12 and 2010-2011 and higher than the 69 percent success rate in 2008-2009. Students taking traditional courses in the AFAB Program exceed the Institutional Standard of 68 percent success. 93 percent of students were successful in 2012-2013, down slightly from 95 to 96 percent the prior year but duplicating the success rates of 2009-2010 and 2010-2011 and slightly lower than the 97 percent success rate in 2008-2009.

Students taking online courses in the district have not achieved the Institutional Standard of 68 percent success in any of the past five years. 56 percent were successful in 2012-2013, down from 58 percent in the two prior years and down from 57 percent in 2007-2008 and 2008-2009. The AFAB Program does not teach any of its courses in the online format.

2.5 Analyze and summarize trends in student progression through basic skills courses, if applicable.

N/A

2.6 List degrees and certificates currently offered in the discipline. Analyze how resource adjustments or other changes during the past four years have impacted degree and certificate completion rates.

Degrees granted by the district decreased 29.9 percent from 2008-2009 to 2012-2013 (or decreased by 23.9 percent from 2009-2010 to 2012-2013).

Degrees granted by the AFAB Program increased by 20 percent from 2008-2009 to 2012-2013. However there is a significant decrease from the 2012-2013 years to that of 2010-2011 and 2011-2012 in degree attainment. This is due partly to the reduction in class offerings due to the budget crisis and partly to students gaining employment.

Certificates granted by the AFAB Program increased by 41 percent from 2008-2009 to 2012-2013. However there is a significant decrease from the 2012-2013 years to that of 2009-2010 and 2010-2011 in degree attainment. This is due partly to the reduction in class offerings due to the budget crisis and partly to students gaining employment.

2.7 Using the data provided by web link, please comment on transfer rates to four-year institutions, license exam results, and job placement/post testing. If applicable, cite examples of using additional resources (e.g. human, facilities/physical, technology, financial, professional development) or making other changes during the past four years that have resulted in improvements in transfer rates to four-year institutions, license exam results, and job placement/post testing.

The district transfer rate decreased 38.4 percent from 2008-2009 to 2011-2012. Numbers for 2012-2013 are not available at writing time.



N/A for the AFAB Program.

- 2.8 Career Technical Education (CTE) programs: Review the labor market data on the California Employment Development Department website for jobs related to your discipline. Comment on the occupational projections for employment in your discipline for the next two years. Comment on how the projections affect your planning.  
<http://www.labormarketinfo.edd.ca.gov/Content.asp?pageid=1011>

**Labor Market Demand for the Aircraft Fabrication and Assembly Technician Program**

	2010 Jobs	2020 Anticipated Jobs	Percent Change	Average annual job opening
Aircraft assemblers	3000	3600	20.0%	60
Assemblers, fabricators, all others	6090	6520	7.1%	430

The occupational projections in both categories for the program indicate an increase in assembler jobs over the next two to six years. This information is also consistent with the information received during the AFAB Advisory Committee meetings attended by local aerospace company representatives in the Antelope Valley.

**Part 3 – Outcome Analysis and Use**

- 3.1 Analyze changes in **student learning outcome (SLO)** and **program learning outcome (PLO)** assessment findings over the past five years. Cite examples of using data during that time as the basis for resource allocation (e.g. human, facilities/physical, technology, financial, professional development) or making other changes that resulted in or correlate with improved learning outcome findings over the past four years.\*

In reviewing the last Comprehensive Program Review, the AFAB program along with the Airframe & Powerplant were the first programs to develop their SLOs and PLOs. The Technical Education Division has been a leader in the development of PLOs with our format being adopted for use college-wide.

The AFAB program continues to assess all the SLOs in most of all the courses for the program every semester (dependent on if all courses in the program are offered that semester); the program has a 100% SLO assessment compliance rate. All the instructors (full time and adjunct) assess every SLO per course every semester. The findings are discussed with the faculty at the meetings. SLOs are also discussed at divisions meetings

The AFAB program is in the process of completing four full cycles of assessing all courses in the program. The results of the assessment have been examined and there have been minor adjustments to the SLOs for the AFAB 210 outcomes and assessment criteria. All the AFAB courses' assessment criteria have been updated.

One major result from reviewing the assessment data showed that students were not becoming as proficient in the lab courses; this was due because the shop air compressor was nonoperational for periods of time during the semester. Students were not being allowed sufficient time in the lab to develop their hands on skills. Once the air compressor was replaced the student proficiency rates (SLOs) increased. The SLO assessment data also indicate that students are meeting the proficiency level in all courses.

In addition, the assessment results show only that newly hired faculty or faculty teaching a new course need more support and mentoring to ensure that they are stressing instructors. It has no dedicated instructional assistant or other full-time faculty to help with program development and upkeep of the program equipment. The minimum requirement to keep the program at its current level of success is at least one full-time instructor and adjunct faculty that help with the upkeep of the labs and equipment. Currently there is one full-time faculty to five adjunct instructors. It is becoming more and more difficult to manage all aspects of the program, especially with the demand of the lab classes.

- 3.2 Analyze changes in **operational outcomes** (OO) findings over the past five years. Cite examples of using data during that time as the basis for resource allocation (e.g. human, facilities/physical, technology, financial, professional development) or making other changes that resulted in or correlate with improved OO findings over the past four years.\*  
N/A

#### **Part 4 - Stakeholder Assessment**

- 4.1 Assess how well the program serves the needs of the students, district, and community. Support statements with findings from student, employee, and/or community surveys. Include feedback from other sources if relevant (e.g. advisory committees, employers in the community, universities, scores on licensure exams, job placement).

The AFAB Program has not conducted any surveys to obtain stakeholder input. However, the AFAB program does conduct Advisory meetings at least once a semester. The AFAB advisory committee has representation from Northrop Grumman, Lockheed Martin, the Boeing Company, the Spaceship Company, Scaled Composites, General Atomics, and BAE. The AFAB Advisory committee goes over program requirements and meeting the needs of local industry. In the May 15, 2013 AFAB advisory meeting, the committee was informed that all the COR's for the AFAB program will need to be reviewed and updated for the upcoming academic year, and the Northrop Grumman representative Mr. Orville Dothage stated, "that he would like to set up a meeting with Ms. Clinton to go over the curriculum. Northrop would like to add additional items to the curriculum as well as

emphasize certain structural requirements". The full-time faculty member did meet with Northrop Grumman supervisors during the 2013 summer semester to go over the requested changes and input concerning the program.

Northrop Grumman and Lockheed Martin are the two major companies in the valley that employ the students that are trained in the AFAB program. Both employers have given positive feedback in regards to the quality of students they have been seen from the program.

In addition, the Northrop Grumman representative indicated that there will be B-2 openings for structural technicians at Northrop Grumman. He also gave the committee an update concerning the job outlook for Northrop Grumman. He indicated that the two major areas for the company will be located in Palmdale California and St. Augustine, Florida as well as a significant projected growth in the next 2 years.

## Part 5 - Goals and Objectives

- 5.1 Review the goals identified in your most recent comprehensive self-study report and last year's annual report. Indicate which have been completed and which have been eliminated.\*

In reviewing the last Comprehensive Program Review the goals for the AFAB program are listed in the order of priority at that time, and are still consistent in priority.

1. Hire a dedicated AFAB Instructional Assistant. (not completed)
2. Increase the supply budget for the program. (not completed)
3. Expand the course offerings to include pneumatics and electrical wiring. (not completed)
4. Hire another full-time instructor for the AFAB program.(not completed)

All of the above objectives are contingent on the State's budget situation and out of the Technical Education Division's control.

- 5.2 List discipline/area goals and objectives related to **improving outcome findings and/or the success of the various learner populations** in completing courses, certificates, degrees, and transfer requirements. Discipline/area goals must be guided by district Strategic Goals and Plan Summaries in the Educational Master Plan (EMP). They must be supported by an outcome action plan, data analysis, national or professional standards, and/or a requirement or guideline from an outside agency (e.g. legislation, Chancellor's Office, accrediting body, professional board). Consider curriculum, instruction, assessments, program services, operations, collaborations, scheduling, location, technology, etc.\*

Current (up to three years)

Goal: Increase the rate of certificate completion for the AFAB program by 10 percent.

- Guided by district Strategic Goal(s) **#1**
- Supporting action plan, data analysis, or other documentation  
After reviewing the certificate completion rate data, it is clear that certificate completions rates have dropped.
- Objectives: Significant steps or actions needed to achieve the goal  
Have students apply for the certificate in the classroom under the direction of the full-time instructor.

Near Term (three to five years)

Goal: Increase the rate of non-traditional students into the AFAB program by 5 percent.

- Guided by district Strategic Goal(s) **#3**
- Supporting action plan, data analysis, or other documentation  
After reviewing the student success and retention rates data, female student success rates are slightly less than that of the male students.
- Supporting action plan, data analysis, or other documentation

Objectives: Significant steps or actions needed to achieve the goal  
Get with the Dean of Institutional Research and Effectiveness and create a student survey to identify why these students are leaving the program before achieving certificates.

Long Term (five to ten years)

Goal: Increase AFAB Program certificate completion rate by 25%

- Guided by district Strategic Goal(s) **#1**  
After reviewing the certificate completion rate data, it is clear that certificate completions rates have dropped.
- Objectives: Significant steps or actions needed to achieve the goal  
Have students apply for the certificate in the classroom under the direction of the full-time instructor. In addition, get with the Dean of Institutional Research and Effectiveness to create a survey to identify why students are leaving the program before completing.

- 5.3 List discipline/area goals and objectives **directly related to advancing Strategic Goals.** Discipline/area goals must be guided by district Strategic Goals and Plan Summaries in the Educational Master Plan (EMP). They must be supported by data analysis or other documentation.

Current (up to three years)

Goal 1: Increase employer outreach for participation on the AFAB advisory committees and to enhance community partnerships.

- Guided by district Strategic Goal(s) **#3b and 6**
- Supporting data analysis or other documentation

After reviewing the AFAB Advisory committee minutes and sign-in sheets, the participation by the industry representatives has declined.

Objectives: Significant steps or actions needed to achieve the goal

- The full-time faculty member needs to set up additional meetings with each representative in conjunction with the AFAB advisory meeting to keep the interest alive for the program. In addition, the full-time faculty member needs to solicit agenda items and discussion from the industry participants. Perhaps get with the Dean of Institutional Research and Effectiveness to create a survey to identify why participation has declined.

Goal 2: Obtain additional tools and equipment to update and replace tools that wear out or are broken.

- Guided by district Strategic Goal(s) **# 5b**
- The class sizes have increased several percent in the last few years and the technology and equipment needs have changed as well.

Objectives: Significant steps or actions needed to achieve the goal

- Increase the AFAB Budget and Perkins Funding

Goal 3: Obtain additional advanced training for AFAB full-time instructor.

- Guided by district Strategic Goal(s) **# 5b**
- The technology and techniques for the industry standards is in constant change and faculty need to be trained in these areas in order to provide students with the skills and knowledge necessary to be successful in the workplace.

Objectives: Significant steps or actions needed to achieve the goal

- Re-instate the district's faculty professional development funding source, and or increase Perkins funding.

Near Term (three to five years)

Goal: Revise AFAB curriculum to include the addition of classes requested by industry (wiring and advanced composite classes).

- Guided by district Strategic Goal(s) **#1**
- Supporting data analysis or other documentation  
After reviewing the AFAB Advisory committee minutes there is a theme that has persisted, and that is more training is needed for more advanced classes within the program.

Objectives: Significant steps or actions needed to achieve the goal

Another full-time faculty member needs to be on board to help in the development of the program and curriculum. A Dacum needs to be conducted with participation by industry representatives to gather data for required element of the curriculum.

Long Term (five to ten years)

Goal: Merge the AFAB program and Airframe & Power plant program facilities.

- Guided by district Strategic Goal(s) #1
- Supporting data analysis or other documentation  
*This goal for a permanent facility was outlined in the Airframe & Powerplant's Program Learning Outcomes for Spring 2013. Both programs are closely related disciplines and should be merged together in order to work effectively with industry and the provide students with more opportunities. In addition, equipment's needs would not need to be duplicated.*

Objectives: Significant steps or actions needed to achieve the goal  
*Work closely with industry to form a partnership that would allow for some or most of the cost of such a facility to be provided by our industry partners. Increase the District's support for a facility.*

## **Part 6 - Resource Needs**

Identify significant resource needs that should be addressed currently (up to three years), near term (three to five years), and long term (five to ten years). If there may be safety issues, enrollment consequences, or other important concerns if a resource is not provided please make this known.\*

- 6.1 List needed human resources. List titles in priority order. Identify which discipline/area goal(s) guides this need.

Hire a dedicated AFAB Instructional Assistant. Currently the Instructional Assistant provides no assistance to the AFAB program. The full-time faculty member has to clean, repair, inventory, set up shop, etc... for the classes. Help during lab time to ensure the safety of students and proper use of equipment (this would also help reduce the cost of replacing broken equipment and tooling from improper student usage). Some of this work has been subsidized by the loaning of the Airframe and Powerplant Instructional Assistants during the spring 2009 semester. The assistants were available for a total combined of 8 hours a week (4 hours each). Although this was a help, it is not enough. The program's huge growth with all classes being offered during the summer (8-hour instruction days) has stressed the labs, equipment, and funds for the program.

Hire another full-time instructor for the AFAB program. Currently there is one full-time faculty to seven adjunct instructors. It is becoming more and more difficult to manage all aspects of the program, especially with the expansion of classes due to the dramatic increase in growth. Another full-time faculty member is needed to manage class scheduling, adjunct coordinating, SLO data collecting and assessment, repairing shop equipment and tooling, purchasing supplies, etc...

- 6.2 List needed technology resources in priority order. Identify which discipline/area goal(s) guides this need.

Need to obtain dvd training videos to replace videotapes that are old and quickly becoming obsolete (Current).

- 6.3 List facilities/physical resources (remodels, renovations, or new) needed to provide a safe and appropriate student learning and/or work environment. List needs in priority order. Identify which discipline/area goal(s) guides this need.  
Need to be relocated the AFAB program with the Airframe & Powerplant program, when a permanent facility that meets the needs for both programs had been established.
- 6.4 List needed professional development resources in priority order. Identify which discipline/area goal(s) guides this need.  
Need to send faculty to composite and sheet metal training courses in order to keep up with industry standards.  
Need to replace the drill motors and rivet guns; and purchase new advanced tools and equipment to keep up with industry standards.
- 6.5 List any other needed resources in priority order. Identify which discipline/area goal(s) guides this need.

Need to replace the Vacuum Generators for the composites lab  
Need to replace the drill motors and rivet guns; and purchase new advanced tools and equipment to keep up with industry standards.

The growth that the program has received in the last year has allowed more classes to be offered due to student and industry demand; however the current supply budget is inadequate. Alternate sources of funding are a necessity to the program at this point in time.

The program would like to expand of the course offerings to include pneudraulics and electrical wiring. Northrop has expressed a need for this training. However the classroom/lab and time dedicated to developing these courses by the full-time faculty member is limited. The development of these courses will increase the AFAB classes to include the much needed training that industry (Northrop) is requesting.

## **Part 7 - Recommendations and Comments**

- 7.1 List recommended changes to the Educational Master Plan to:
- Address external issues or mandates such as legislation, industry, and professional standards, etc. N/A
  - Respond to outcome findings. N/A
  - Reflect changes in technology, methodology, and/or disciplines. N/A
  - Address student achievement gaps and/or meet other student needs. N/A
- 7.2 What changes in the program review process would improve institutional effectiveness or make the results more helpful to the program?

Decrease the requirements for the annual updates for Program Review. As they are written, is that much information really necessary between the annual and comprehensive reports? Would a bi-annual review be better suited, to allow faculty the opportunity to see change over a two-year cycle versus every year, some programs do not complete a cycle but for every two years. Are we interested in quality data or quantity as an institution?



## **Comprehensive Program Review Self-Study Report**

Division/Area Name ABDY/ Tech Ed

Year 2013

### **Part 1 - Division or Area Overview**

1.19 Briefly describe how the division or area contributes to the district mission.

1.20 Place an “X” by each Institutional Learning Outcome (ILO) supported by the division or area.

Analyze diverse perspectives from a variety of disciplines and experiences that contribute to the development of self-awareness.

Value and apply lifelong learning skills required for employment, basic skills, transfer education, and personal development.

Demonstrate a breadth of knowledge and experiences from the humanities, social and behavioral sciences, arts, natural sciences, and mathematics.

Solve problems using oral and written communication, critical thinking and listening skills, planning and decision-making skills, information literacy, and a variety of technologies.

Demonstrate good citizenship and teamwork through respect, tolerance, cultural awareness, and the role of diversity in modern society.

Identify career opportunities that contribute to the economic well-being of the community.

1.21 After completing Parts 2-7, prepare a one page summary of the division/area. Interpret the significance of the findings. Note successes in supporting district strategic goals and where improvements are needed.

1.22 Name of person leading this review: Tim Sturm

1.23 Names of all participants in this review: Tim Sturm, Marvin Guzman, Joe Whitlow and Tony Pustizzi

### **Part 2 - Data Analysis and Use**

2.1 Please review the five year headcount and FTES enrollment data provided on the web link. Comment on trends and how they affect your program.\*

Peak headcount of 73 was 2008-2009 with the lowest being 63 in 2013. The night ABDY classes had stopped teaching over lapping classes during this time the collision and refinishing classes were down on enrollment. We have since reinstated the over lapping classes and both collision and refinishing are full.

- 2.2 Report and analyze program/area data showing the quantity of services provided over the past four years (e.g. number of students served, books sold, employees hired, acreage maintained).

The ABDY program served 53 FTES except in 2011-2012 when it went to 59. Intersession and summer classes are not offered, also the program is only offered on the Lancaster campus and we do not hold online classes.

- 2.3 Please review the five year data on sections offered, faculty ratios, and efficiency data provided on the web link. Comment on trends and how they affect your program.

Part time to full time faculty ratios is steady at 1.01. Efficiency was low spring of 2008-2009 at 10.4, with the high being fall of 2011 at 14.22. The ABDY program is always full within 1 to 2 week of registration, and students are trying to get the class during the first week of semester.

- 2.4 Using the discipline student success data provided by web link, please comment on any similarities or differences between race, gender, location, and modality groups in meeting the Institutional Standard of 68% for student success (students earning grades of A, B, C, Pass, or Credit). Identify what actions are planned to address trends and achievement gaps in the current academic year.\*

The success of Hispanic student is 81% and is 81% success in non-Hispanic students. African American student are not as successful as other races. Female students succeed at a minimum of 15% and as much as 32%. Students of all ethnicities exceed the institution standard of 68%. 92% of Hispanic students are more likely to be retained and exceed the standard of 60%, the Auto Body industry has a high following of the Hispanic race. During the last 4 years 100% of the female students were retained, the male student was at 93% to 94%. The females that have attended the ABDY program have been very motivated to stay in the classes and succeed. The retention by race exceeds the institution standard by at least 29%; also the African American student is as likely to stay in the program. Term to term spring to fall is usually lower and students are less likely to return, due to taking jobs or just not wanting to pursue the Auto body industry as a career, the auto body student can become employed in the field with very little schooling as the shops like to train entry level employees to their standard.

- 2.5 Analyze and summarize trends in student progression through basic skills courses, if applicable. n/a

- 2.6 List degrees and certificates currently offered in the discipline. Analyze how resource adjustments or other changes during the past four years have impacted degree and certificate completion rates.

The ABDY program offers an Associate degree Automotive Collision repair specialist certificate also a Refinish repair specialist certificate. We have had 3 degrees in the last 5 years; 2011-2012 had 2 in refinishing and 1 in collision repair. In 2011-2012 the program had 10 certificate completers in collision and refinishing, all other year between 3 and 9 with nine being the average.

- 2.7 Using the data provided by web link, please comment on transfer rates to four-year institutions, license exam results, and job placement/post testing. If applicable, cite examples of using additional resources (e.g. human, facilities/physical, technology, financial, professional development) or making other changes during the past four years that have resulted in improvements in transfer rates to four-year institutions, license exam results, and job placement/post testing.

N/A

- 2.8 Career Technical Education (CTE) programs: Review the labor market data on the California Employment Development Department website for jobs related to your discipline. Comment on the occupational projections for employment in your discipline for the next two years. Comment on how the projections affect your planning.  
<http://www.labormarketinfo.edd.ca.gov/Content.asp?pageid=1011>

The Auto body industry has a high demand for entry level employees, we have seen a sharp decline in journey man level techs do to there retiring or just not willing to change with the current technologies being used in the field, with that being said the ABDY program has been I great resource for our local shops to recruit there entry level employees. The students that we have been able to place in shops have been very successful.

### Part 3 – Outcome Analysis and Use

- 3.1 Analyze changes in student learning outcome (SLO) and program learning outcome (PLO) assessment findings over the past five years. Cite examples of using data during that time as the basis for resource allocation (e.g. human, facilities/physical, technology, financial, professional development) or making other changes that resulted in or correlate with improved learning outcome findings over the past four years.\*

The SLO and PLO data shows that all sections are performing above are goal, but all instructors have found that the lack of budget to purchase materials has caused some concern on getting the students to master the objectives that they are measured on because of the lack of supplies to allow them to spend more time on objectives. We did receive a increase this semester in prop 20 funding and that has already helped the students in becoming more proficient. I have been attending the SEMA conference and that has

allowed us to stay up on the changing procedures and equipment and bring this information back to the classroom.

- 3.2 Analyze changes in operational outcomes (OO) findings over the past five years. Cite examples of using data during that time as the basis for resource allocation (e.g. human, facilities/physical, technology, financial, professional development) or making other changes that resulted in or correlate with improved OO findings over the past four years.\*

N/A

#### Part 4 - Stakeholder Assessment

- 4.1 Assess how well the program serves the needs of the students, district, and community. Support statements with findings from student, employee, and/or community surveys. Include feedback from other sources if relevant (e.g. advisory committees, employers in the community, universities, scores on licensure exams, job placement).

The Auto body program is teaching the most current procedures being used in the Auto body field; we give the students a real chance to be successful if they get employed at entry level I have my advisory meetings but I have found that trying to get the local shops and jobbers in the same place is next to impossible and if you can their input is limited, I have been going and meeting with the committee at their place of business and asking standard questions on what they would like to see with in the program this has been very helpful in providing the things in our student that the local employers are looking for.

#### Part 5 - Goals and Objectives

- 5.1 Review the goals identified in your most recent comprehensive self-study report and last year's annual report. Indicate which have been completed and which have been eliminated.\*

We have continued our alliance with I-CAR there has been changes as to the fact that we now have to pay 900.00 a year fee to keep all information current and the new programs coming, the other option is \$2500.00 a year and that would allow our students to receive the I-CAR points to take into the work force. Under the old system the student could pay 10.00 and receive the points, there was not much interest by the students for this so with the budget I elected to go with the less of the two plans. The local body shops have been attending the I-CAR classes that have been given in our facility; all have been very impressed with the AVC ABDY shop.

- 5.2 List discipline/area goals and objectives related to improving outcome findings and/or the success of the various learner populations in completing courses, certificates, degrees, and transfer requirements. Discipline/area goals must be guided by district Strategic

Goals and Plan Summaries in the Educational Master Plan (EMP). They must be supported by an outcome action plan, data analysis, national or professional standards, and/or a requirement or guideline from an outside agency (e.g. legislation, Chancellor's Office, accrediting body, professional board). Consider curriculum, instruction, assessments, program services, operations, collaborations, scheduling, location, technology, etc.\*

Current (up to three years)

Goal #1: Decrease loss of tools and supplies; provide adequate supplies for instruction.

- Guided by district Strategic Goal(s) #1-C

There has been a big loss of tools and equipment to the amount of over \$1000.00 this semester alone.

Objectives: Hire an evening auto body instructional assistant to monitor tool check in and check out and assist the evening instructors with activities in the shop. Advocate for stable and increased District funding for supplies.

Goal #2: Improve technology resources for students.

- Guided by district Strategic Goal(s) #5b & 7a
- Student evaluations of the shop mentioned issues with equipment and supplies.

Objectives: Get a funding source for a paint spraying simulator this training aid would allow us to save on materials while the students learn the proper spraying methods on the simulator. This equipment cost is \$25000.00.

Goal #3: Stay current in changes the field.

- Guided by district Strategic Goal(s) #5d
- The paint and techniques used in auto body change frequently as models of cars change and innovations in applications occur .

Objectives: To have the Instructional Assistant attend the SEMA show with the full time Instructor so we both can see the current procedures and equipment and teach the students the applications they will need for success in the industry.

- 5.3 List discipline/area goals and objectives **directly related to advancing Strategic Goals**. Discipline/area goals must be guided by district Strategic Goals and Plan Summaries in the Educational Master Plan (EMP). They must be supported by data analysis or other documentation.

Current (up to three years)

Goal #4: Increase the number of students who achieve certificates and degrees.

- Guided by district Strategic Goal(s) #1-C

- No more than 6 degrees/certificates have been awarded in each of the past five years in ABDY.

Objectives: Planning on having the CTE counselor come into the class and help students with an ED plan. Promote degree and certificate completion in the classes.

Goal #5: Increase the number of students who meet with a counselor to get educational plans.

- Guided by district Strategic Goal(s) #1-D
- There is no baseline data for this. However, the faculty believe this is a need for our students so they stay on a career path.

Objectives: Continue to have relationships' with counselors and career advisors so the students can get information they need to succeed.

Goal #6: Provide a safe learning environment for auto body students.

- Guided by district Strategic Goal(s) #5b
- With the size of the shop students have to work outside, the amount of light is not adequate for this to be a safe work place at night. We also need to have the east wall electrical sockets changed to be able to handle the needs of our MIG welders at this time we have to limit the amount of welders that we can teach with due to the fact that the current electrical breakers will blow.

Objectives: Assess electrical capacity of the shop area (Facilities Services). File work order for additional lighting in the yard.

## Part 6 - Resource Needs

Identify significant resource needs that should be addressed currently (up to three years), near term (three to five years), and long term (five to ten years). If there may be safety issues, enrollment consequences, or other important concerns if a resource is not provided please make this known.\*

- 6.1 List needed human resources. List titles in priority order. Identify which discipline/area goal(s) guides this need.

Instructors Assistant for the night classes (Goal #1)  
CTE counselor (Goals #4 & 5)

- 6.2 List needed technology resources in priority order. Identify which discipline/area goal(s) guides this need.

Main computer to have a cd drive; not having this does not allow us to play educational material for students on the projector. (Goal #2)

Paint spraying simulator this training aid would allow us to save on materials while the students learn the proper spraying methods on the simulator. This equipment cost is \$25000.00. (Goal #2)

- 6.3 List facilities/physical resources (remodels, renovations, or new) needed to provide a safe and appropriate student learning and/or work environment. List needs in priority order. Identify which discipline/area goal(s) guides this need.

Adequate lighting in the auto yard (Goal # 6)

East wall electrical sockets changed (Goal # 6)

- 6.4 List needed professional development resources in priority order. Identify which discipline/area goal(s) guides this need.

Instructional Assistant and full time instructor need to attend the SEMA show so we both can see the current procedures and equipment (Goal #3)

- 6.5 List any other needed resources in priority order. Identify which discipline/area goal(s) guides this need.

There is a need for the materials budget to continue to grow with the cost of materials (Goal #1).

## **Part 7 - Recommendations and Comments**

- 7.1 List recommended changes to the Educational Master Plan to:
- Address external issues or mandates such as legislation, industry, and professional standards, etc.
  - Respond to outcome findings.
  - Reflect changes in technology, methodology, and/or disciplines.
  - Address student achievement gaps and/or meet other student needs.

None

- 7.2 What changes in the program review process would improve institutional effectiveness or make the results more helpful to the program?

None

## **Comprehensive Program Review Self-Study Report**

Division/Area Name --Automotive Technology

Year-- 2013-2014

### **Part 1 - Division or Area Overview**

1.24 Briefly describe how the division or area contributes to the district mission.

1.25 Place an "X" by each Institutional Learning Outcome (ILO) supported by the division or area.

- Analyze diverse perspectives from a variety of disciplines and experiences that contribute to the development of self-awareness.
- Value and apply lifelong learning skills required for employment, basic skills, transfer education, and personal development.
- Demonstrate a breadth of knowledge and experiences from the humanities, social and behavioral sciences, arts, natural sciences, and mathematics.
- Solve problems using oral and written communication, critical thinking and listening skills, planning and decision-making skills, information literacy, and a variety of technologies.
- Demonstrate good citizenship and teamwork through respect, tolerance, cultural awareness, and the role of diversity in modern society.
- Identify career opportunities that contribute to the economic well-being of the community.

1.26 After completing Parts 2-7, prepare a one page summary of the division/area. Interpret the significance of the findings. Note successes in supporting district strategic goals and where improvements are needed.

1.27 Name of person leading this review

Kevin Mawhorter

1.28 Names of all participants in this review

John Mawhorter, Chuck Capsel, Bruce Shanks

### **Part 2 - Data Analysis and Use**

2.1 Please review the five year headcount and FTES enrollment data provided on the web link. Comment on trends and how they affect your program.\*

The annual headcount for the automotive department for 2008-2009 was 288, in 2012-2013 the headcount was 142. Headcount for automotive decreased 50.7% from 2008-2009 to 2012-2013.



The annual FTES for the automotive department for 2008-2009 was 87.58, in 2012-2013 the FTES was 66.63. FTES decreased 24% from 2008-2009 to 2012-2013. 24% is double district decrease of 12%.

The decrease in FTES and headcount are essentially due to budget cuts over the past several years, and lack of course offerings for students.

- 2.2 Report and analyze program/area data showing the quantity of services provided over the past four years (e.g. number of students served, books sold, employees hired, acreage maintained). NA.
- 2.3 Please review the five year data on sections offered, faculty ratios, and efficiency data provided on the web link. Comment on trends and how they affect your program.

Sections offered by the automotive department for 2008-2009 was 38, in 2012-2013 the sections offered was 13. Sections offered from 2008-2009 to 2012-2013 decreased 65.8%. The percentage listed is almost double district of 33% for the Lancaster campus.

Faculty PT/FT ratio for fall 2009-2010 was 2.35, for 2012-2013 the PT/FT ratio was 1.22. The PT/FT ratio decreased 48.1% for fall over this period of time. Faculty PT/FT ratio for spring 2009-2010 was 1.87, for spring 2012-2013 The PT/FT ratio was 1.28. The PT/FT ratio decreased 31.6% for spring over this period of time.

FTEF efficiency for fall 2008-2009 was 11.82, in 2012-2013 efficiency for fall was 13.79. FTEF efficiency for spring 2008-2009 was 12.95, in 2012-2013 FTEF Efficiency for spring was 13.09. FTEF efficiency for fall increased 16.6% and for spring FTEF efficiency increased 10.8%.

- 2.4 Using the discipline student success data provided by web link, please comment on any similarities or differences between race, gender, location, and modality groups in meeting the Institutional Standard of 68% for student success (students earning grades of A, B, C, Pass, or Credit). Identify what actions are planned to address trends and achievement gaps in the current academic year.\*

The success of American Indian has increased from 53% in 2009 to 80% in 2013 and the Asian success percentage has improved from 54% in 2009 to 75% in 2013, both over 20% improvement. African American success has improved from 40% in 2009 to 64% in 2013 but falls short of the institutional standard of 68%. Pacific Islander success was 67% in 2009 and improved to 100% in 2012 (no data for 2013). The success of white students improved 8% from 2009 to 2013. Mexican/Central or South American student's success increased from 57% in 2009 to 85% in 2013. Other students decreased from 67% in 2009 to 25% in 2013 falling far below institutional standards. At this time I don't know why other student's percentage is so low but, I will try to find out in the near

future. After reviewing program review data I found from 2008-2009 to 2012-2013 other student success remained low over the past 5 years.

Both male and female success improved 16% over the last 5 years. Female success in 2009 was 64% and improved to 80% in 2013. Male success in 2009 was 55% and improved to 71% in 2013.

Student success by location improved from 55% in 2009 to 72% in 2013. Student success by location improved 17% over the last 5 years.

The success of students taking traditional courses (in-person) increased from 56% in 2009 to 72% in 2013 an increase of 16% over the last 5 years.

- 2.5 Analyze and summarize trends in student progression through basic skills courses, if applicable. NA.
- 2.6 List degrees and certificates currently offered in the discipline. Analyze how resource adjustments or other changes during the past four years have impacted degree and certificate completion rates.

The automotive department offers 2 certificates

1. Drivability, Emissions and Electrical Certificate
2. Engine and Drive Trains Certificate

In 2009, 7 students completed certificate program, 2010, 6 students completed certificate program, 2011, 4 students completed certificate program, 2012, 5 students completed certificate program, 2013. 3 students completed certificate program.

The automotive department encourages students to continue their education and complete the required units needed for an A/S degree. 6 students completed their associate's degree in 2009 and 2010. 1 student received an associate's degree in 2012.

Over the past 4 years state budget cuts have impacted the technical education division at Antelope Valley College. Courses that are not required for a certificate were cancelled. Student persistence is greatly impacted due to limited course offering. Students trying to complete courses to earn a certificate could not register for the needed course because the course was already filled to capacity and wait listed. Over the last 3 semesters, approximately 20 students (with priority registration) have come to me and asked if I could help them get into the courses needed to complete their certificate, I tell them to check back through the first 2 weeks of class and if someone drops the course I will let them in.

- 2.7 Using the data provided by web link, please comment on transfer rates to four-year institutions, license exam results, and job placement/post testing. If applicable, cite

examples of using additional resources (e.g. human, facilities/physical, technology, financial, professional development) or making other changes during the past four years that have resulted in improvements in transfer rates to four-year institutions, license exam results, and job placement/post testing. NA.

- 2.8 Career Technical Education (CTE) programs: Review the labor market data on the California Employment Development Department website for jobs related to your discipline. Comment on the occupational projections for employment in your discipline for the next two years. Comment on how the projections affect your planning.  
<http://www.labormarketinfo.edd.ca.gov/Content.asp?pageid=1011>

Labor market demand for career technical education: Automotive Technology

Automotive service technicians and mechanics- average annual job openings 645.

Automotive machinery mechanics- average annual job openings 261.

Tire repair and changers- average annual job openings 97.

### Part 3 – Outcome Analysis and Use

- 3.1 Analyze changes in **student learning outcome** (SLO) and **program learning outcome** (PLO) assessment findings over the past five years. Cite examples of using data during that time as the basis for resource allocation (e.g. human, facilities/physical, technology, financial, professional development) or making other changes that resulted in or correlate with improved learning outcome findings over the past four years.\*

After analyzing the data from Weave, the automotive instructors made the necessary changes and realigned the standardized tests in some courses to directly reflect information found in the book, handouts, and subject matter covered in class. After making these adjustments, student learning outcome have improved and can be directly related to the improvements found in the program review data base.

- 3.2 Analyze changes in **operational outcomes** (OO) findings over the past five years. Cite examples of using data during that time as the basis for resource allocation (e.g. human, facilities/physical, technology, financial, professional development) or making other changes that resulted in or correlate with improved OO findings over the past four years. NA.

### Part 4 - Stakeholder Assessment

- 4.1 Assess how well the program serves the needs of the students, district, and community. Support statements with findings from student, employee, and/or community surveys. Include feedback from other sources if relevant (e.g. advisory committees, employers in the community, universities, scores on licensure exams, job placement).

Currently the automotive department is only offering about half the courses that it offered before the budget cuts. Some courses offered (auto 190 and auto 200) are no longer in the college catalogue; the courses were removed because they were not offered for over 2 years. The reason they were not offered is the dean of technical education at that time would not offer them because the course was not required for a certificate.

The smog check update program is very important to the smog check program technicians in the Antelope Valley. The Bureau of Automotive Repair requires smog check technicians pass a 20 hour update course to maintain a current smog license. Currently the automotive department offers 1 update a semester. Before the budget cuts the automotive department would offer 2 updates a semester and sometimes 1 during the summer if needed.

Advisory committee members have changed. Some of the new members are: David Pharris from the Holiday Automotive Group, Dan Nagy from the General Motors Training Center,

## Part 5 - Goals and Objectives

- 5.1 Review the goals identified in your most recent comprehensive self-study report and last year's annual report. Indicate which have been completed and which have been eliminated.\*

Listed in order of priority

1. Fill vacant full time instructor position.
2. Offer courses needed for certificate completion.
3. Management certificate.
4. Alternative fuel vehicle course

Completed- Audio visual equipment

- 5.2 List discipline/area goals and objectives related to **improving outcome findings and/or the success of the various learner populations** in completing courses, certificates, degrees, and transfer requirements. Discipline/area goals must be guided by district Strategic Goals and Plan Summaries in the Educational Master Plan (EMP). They must be supported by an outcome action plan, data analysis, national or professional standards, and/or a requirement or guideline from an outside agency (e.g. legislation, Chancellor's Office, accrediting body, professional board). Consider curriculum, instruction, assessments, program services, operations, collaborations, scheduling, location, technology, etc.\*

Current (up to three years)

Goal: Improve certificate completion  
Guided by district Strategic Goal(s) #1g  
Objectives: Offer courses that have been canceled and reinstate courses that were cancelled due to budget.

Near Term (three to five years)

Goal: Implement management certificate program  
Implement alternative fuel course  
Guided by district Strategic Goal(s) #1c  
Objectives: Significant steps or actions needed to achieve the goal

- 5.3 List discipline/area goals and objectives **directly related to advancing Strategic Goals**. Discipline/area goals must be guided by district Strategic Goals and Plan Summaries in the Educational Master Plan (EMP). They must be supported by data analysis or other documentation.

Current (up to three years)

Goal: Instructional assistants need to attend update training

- Guided by district Strategic Goal(s) # 5d

Objectives: In fall and spring California Automotive Teachers offer a conference and workshops to update training.

Near Term (three to five years)

Goal: Need more classroom space.

- Guided by district Strategic Goal(s) # 1g

Objectives: Need to make more room for additional classroom space.

## Part 6 - Resource Needs

Identify significant resource needs that should be addressed currently (up to three years), near term (three to five years), and long term (five to ten years). If there may be safety issues, enrollment consequences, or other important concerns if a resource is not provided please make this known.\*

- 6.1 List needed human resources. List titles in priority order. Identify which discipline/area goal(s) guides this need.
1. Second full time instructor
- 6.2 List needed technology resources in priority order. Identify which discipline/area goal(s) guides this need.

1. Specialized electronic diagnostic equipment (factory scan tools, lab scopes, testing equipment).
- 6.3 List facilities/physical resources (remodels, renovations, or new) needed to provide a safe and appropriate student learning and/or work environment. List needs in priority order. Identify which discipline/area goal(s) guides this need.
  1. Repair inoperative roll up door.
  2. Mezzanine for storage room.
- 6.4 List needed professional development resources in priority order. Identify which discipline/area goal(s) guides this need.
  1. Instructional assistants need to attend update training.
  2. Manufacturer information on latest technologies
- 6.5 List any other needed resources in priority order. Identify which discipline/area goal(s) guides this need.
  1. Need additional classroom space to offer more courses.

#### **Part 7 - Recommendations and Comments**

- 7.1 List recommended changes to the Educational Master Plan:  
None
- 7.2 What changes in the program review process would improve institutional effectiveness or make the results more helpful to the program?  
  
None

## **Comprehensive Program Review Self-Study Report**

Division/Area Name Technical Education, Clothing & Textiles/Fashion

Year: 2013

### **Part 1 - Division or Area Overview**

1.29 Briefly describe how the division or area contributes to the district mission.

1.30 Place an "X" by each Institutional Learning Outcome (ILO) supported by the division or area.

- Analyze diverse perspectives from a variety of disciplines and experiences that contribute to the development of self-awareness.
- Value and apply lifelong learning skills required for employment, basic skills, transfer education, and personal development.
- Demonstrate a breadth of knowledge and experiences from the humanities, social and behavioral sciences, arts, natural sciences, and mathematics.
- Solve problems using oral and written communication, critical thinking and listening skills, planning and decision-making skills, information literacy, and a variety of technologies.
- Demonstrate good citizenship and teamwork through respect, tolerance, cultural awareness, and the role of diversity in modern society.
- Identify career opportunities that contribute to the economic well-being of the community.

1.31 After completing Parts 2-7, prepare a one page summary of the division/area. Interpret the significance of the findings. Note successes in supporting district strategic goals and where improvements are needed.

1.32 Name of person leading this review: Melissa Ramiro

1.33 Names of all participants in this review

### **Part 2 - Data Analysis and Use**

#### **Clothing and Textiles-Fashion Design**

2.1 Please review the five year headcount and FTES enrollment data provided on the web link. Comment on trends and how they affect your program.\*

The five year data analysis includes summer and intersession enrollment data. Although the headcount and FTES data was consistent, the Clothing and Textiles-Fashion Design program stopped offering classes during these two sessions (summer in 2009-2010 and intersession in 2008-2009). Therefore the analysis will be for fall and spring, as it is more realistic numbers.

Annual district headcount decreased 21.9 percent from 2008-2009 to 2012-2013 and during that time, Clothing and Textiles headcount decreased 38.4 percent. District FTES decreased 12 percent in the past five years while Clothing and Textiles FTES decreased 36 percent.

The trend in Headcount, FTES, and FT/PT, as taken from the data provided, shows a general decline in numbers for headcount only (**203** in 2007-2008 to **125** in 2012-2013 or **-38.4 %**). It should be noted that an increase of **4.2%** occurred between the 2010-2011 and 2012-2013 academic years. As for FTES, a general decline until 2011-2012 school year. The data per subject area shows an increase from **26.99** (2010-2011) to **32.87** (2012-2013) or 21.8%. The reduction in headcount is also indicative of the decline in section count (**20** in 2007-2008 to **12** in 2012-2013) or 40%. It should be noted that with section count, independent studies with a single student and work experience with 2 students are factored into the section count data for the 2010-2011 and 2011-2012 school years.

Several issues are playing factors into the data provided. In the spring of 2009, the only full-time faculty member (Evelyn Tiede) retired, leaving three adjunct instructors in the program. In the fall of 2010, adjunct instructor (Melissa Ramiro) assumed the administrative duties of the retired faculty without the addition of LHE's. Under the direction of the Dean of Technical Education (Margaret Drake-now retired), the adjunct instructor began an enormous overhaul of the Clothing and Textiles program (more information to come in subsequent sections). Every COR was revised and updated, CT50 (was offered as pass/fail and not part of the program curriculum) was changed to CT105 and became part of the program requirements. Several courses were dropped due to the availability of adjunct LHE's or inconsistency with the newly updated program objectives. Where some of the courses were available to repeat up to four times, repeatability was no longer offered. All courses were revised, updated, and renumbered. The students who had declared during previous calendar years were looking for courses to take as electives (no electives exist in the program). The repeatability was keeping students in the introductory courses and not encouraging advanced enrollment. The headcount reduction, as noted above, is due to the reduction in section count (due to LHE limitations). The decline in FTES is due in part to students who had maxed out on possible units or course offerings. The increase of FTES in the 2011-2012 school year included students who needed one course for completion or were interested in the work experience course. A huge push has been made to enlighten students on the course contents, program requirements, and subsequent employment within the subject area. The program is still meeting with some resistance in the introductory sewing course, as students were used to repeating it four times, may feel bored or too advanced to take a (required) introductory construction class. The procurement of new commercial machines, sergers, tools and equipment, along with the Perkins funded procurement of the Gerber CAD system has enticed some students to enroll in the Clothing and Textiles-Fashion Design program. The FT numbers flopped between fall/spring, as more students are trying to complete the program. It is anticipated that the enrollment in the advanced courses may decline as students are either not meeting the minimum requirements from the introductory courses or financially unable to enroll in the upper division courses (the cost of supplies, equipment, and texts).



2.2 Report and analyze program/area data showing the quantity of services provided over the past four years (e.g. number of students served, books sold, employees hired, acreage maintained).

N/A

2.3 Please review the five year data on sections offered, faculty ratios, and efficiency data provided on the web link. Comment on trends and how they affect your program.

Sections offered by the district decreased 27.5 percent from 2008-2009 to 2012-2013. That reflects a 33 percent decrease in Lancaster sections.

During that time sections in Clothing and Textiles decreased 40 percent.

Fall district PT/FT faculty ratio increased 5.9 percent and spring district PT/FT faculty ratio increased 8.8 percent from 2008-2009 to 2012-2013. It should be noted that the full-time faculty member retired in spring of 2009. Therefore, starting in fall of 2010 there was no full time faculty.

District efficiency in the fall increased 15.9 percent and efficiency in the spring increased 6.7

percent over the past five years. Clothing and Textiles efficiency in the fall increased 28 percent and efficiency in the spring increased 36 percent over the past five years.

Upon the retirement of the only full-time faculty member, the maximum LHE for each adjunct is 10. Most construction courses are 5 LHE, while lectures courses are 3 LHE. Thus reducing the amount of sections offered within any semester. The Clothing and Textiles program has filled (and closed) most sections of courses offered per semester. Students, who enter the program on an odd year, can take up to 6 semesters to finish the program, due to the limitations of LHE and sections available. Students are often taking other courses while waiting for a specific CT course and growing frustrated with the wait. There has been reported discourse amongst students enrolled in the introductory construction courses for the 2011-2012 to present. Some students have "back-tracked" and had to take the required courses to obtain a certificate or degree. The disdain appears to be from the perceived lack of instructional integrity or comprehensive subject presentations. The data supports the increase and decrease in headcount, FTES, sections, efficiency, etc. Perhaps students are too advanced for introductory construction courses, or the course objectives are not being met and the students enrolled are demanding the completion of each objective.

2.4 Using the discipline student success data provided by web link, please comment on any similarities or differences between race, gender, location, and modality groups in meeting the Institutional Standard of 68% for student success (students earning grades of A, B, C, Pass, or Credit). Identify what actions are planned to address trends and achievement gaps in the current academic year.\*

All Clothing and Textiles-Fashion Design courses have been and are taught at the Lancaster campus, classroom setting, and in classroom APL-108.

Term to Term Persistence- As noted above, the data used for this report is based from Fall and Spring semesters. The persistence numbers run parallel with the FTES and FT student data numbers. In the years 2007-2008, 2008-2009 The Fall to Spring numbers were higher than the Spring to Fall (66%/54% and 67%/57% successively). However during the 2010-2011 and 2011-2012 academic years, the trend reverses to show improvement or near equalization for the term to term persistence (78%/75% and 79/68% successively). This trend was also present in the above stated data. After the aggressive program changes were actuated, the persistence and (as noted later in this report) retention numbers started to rise as students made their way through the “new” program. The higher percentages from fall to spring indicate a willingness of students to see the program through. The drop in percentage for the 2012 spring to fall is perhaps an indicator in instructor preference.

Student Success by Ethnicity- The data is broken down into three categories with a steady increase in “no response” (57% in 2007-2008 to 90% in 2012-2013). “Non-Hispanic” rose slightly (76% in 2007-2008 to 80% in 2012-2013). This may be possibly due to the increase in “no response”. Hispanic/Latino saw an increase as well (71% in 2007-2008 to 77% in 2012-2013), possibly for the same reason.

Student Success by Race- All races has shown improvement in the success by race numbers (except for the “other” category). Most notably were the numbers for Black/African American (63% in 2007-2008, 79% in 2010-2011, to 69% in 2012-2013). Each race shows a slight drop in all student success by race numbers between the academic years 2010-2011 and 2012-2013. As the program concluded its first two-year rotation, under the new program enhancements and guidelines, the success numbers dropped slightly as students acclimated to the new, more rigorous course as well as program objectives. The program saw slightly more “drops” in the 2012-2013 academic year than we had in previous years. There were fewer sections for students to take and instructors were vigilant in “no-show” and non-attendance drops.

Retention by Ethnicity- These numbers are all over the place. Even with highs and lows, the data from the 2007-2008 academic year to the 2012-2013 year, shows an average increase of 4.15% between all ethnicities.

Retention by Race- Again, the numbers (in comparison) are very similar. It should be noted that once the program changes took effect (2010-2011), the numbers increased in retention. One theory for this increase and steady retention rate for the next academic year is once the students committed (declared) to the program, they stuck with it. A noted increase in FTES between these academic years supports that theory. Again the African American category shows significant retention (86% in 2007/2008 to 91% in 2012/2013). White increased at a 5.6% rate (from 90% in 2007-2008 to 95% in 2012-2013).

Success and Retention by Gender- The data follows the same pattern as success and retention. It should be noted that Fashion Design, at AVC, has historically been a predominantly female driven program. In the years before the full-time faculty retired, male students were instructed to

design, construct, and even model female garments. Under the restructuring plan, there have been (both female and male) projects assigned for the choice of the student. We have seen an increase in the number of male students within the program, but continue to struggle to retain them through degree/certificate completion.

It is surmised that the retention numbers will be similar for the 2013-2014 academic year, but that the persistence will continue to rise as will the success rate by race. The Clothing and Textiles-Fashion Design program continues to surpass the AVC college-wide numbers for success, retention, and persistence (except for the noted “other” category).

Over the past five years, many changes have occurred within the program. The retirement of the only full-time faculty, the assumption of administrative duties by an adjunct without the addition of LHE’s, the resignation of one adjunct, the hurried addition of a replacement adjunct, as well as aggressive, all-encompassing changes being made to the courses as well as the program have been both tumultuous and evolving by nature. Under the direction of the Dean of Technical Education, it was imperative to establish an advisory panel for program advice, employment opportunities, as well as objective restructuring. The establishment of said advisory committee was established in the fall of 2010. The advisory members have been growing and providing key input for changes within the program which affect both retention and success data.

The retention of our students has to be driven by employment or transfer opportunities upon graduation. The success of our students is completely contingent upon understanding the needs of our students. Some students just want to improve his or her skills, while others are seeking employment within the fashion and/or merchandising/retail industries. Understanding these needs have been tied into course revision as well as equipment acquisition. The advisory board represents individuals from all of the fields listed as well as students and instructors. The advanced students (those enrolled in 200 level courses) were surveyed as well as the advisory board in reference to employment. As a result of those surveys, Perkins IV grant funding was generated and approved for the first time since the creation of the program. The distinct career paths that had been established with program revision (starting in fall 2010) required equipment for the success of those students who chose those particular paths.

The program/course changes that have occurred over the past five years have confused some students as well as counselors with regard to the objectives and outcomes. Many students have taken the lower level construction courses for general education credit or to fulfill financial aid requirements (instructor observation). Upon restructuring, the objectives, assignments, and outcomes have provided a better flow through the program. However, with these changes, a general malaise and possible refusal to enhance course content among some instructors have caused fluctuation in data numbers. Where at one time the Clothing and Textiles Design (old name) program was thought of as a “home sewing” or “quilting” program, now has been replaced with an updated, progressive Clothing and Textiles-Fashion Design curriculum for employment within the fashion design, merchandising, retail, and alterations/custom dressmaking fields. Instructors must update and complete course content to cover these new and improved course objectives. Along with the gradual increase in student success and completers is the desire for updated and necessary course content for employment preparedness. The program strives to increase the number of completers as well as help advise as to transfer opportunities.

Students requests for more sections, improved instruction, cohesiveness between sections, as well as need for direct supervision has resulted in action plans for full-time faculty position. The specific improvements required will be addressed in the goals section.

Action Plan for PLO #'s 1, 3, 4 Too much time is spent at the advanced level reviewing, demonstrating, and completing objectives and techniques that should not only be covered, but learned in the introductory courses. ALL CT syllabi need to be re-written to include a universal due date and acceptance of late work policy. There is a certain lack of cohesiveness between the instructors within the program. All CT instructors should survey their students within the first week in order to determine the degree of comprehension and career path goals. Most of the questions on the SLO exams should provide data to ascertain the results of where the students lie as to comprehension. There needs to be communication between instructors to relay this information between course instructors. A universal program policy for due date and late work acceptance would go a long way to create and enhance cohesiveness amongst instructors. However, just because there is a written policy in place does not mean each instructor is in compliance. A full time (supervising) faculty is imperative to facilitate and monitor not only the adherence to policies, but the revision of course syllabi as well. A faculty member would enhance cohesiveness as well.

Action Plan for PLO #'s 1,3,4 The Clothing and Textiles-Fashion Design program has gone through numerous upgrades and changes in the past few years. The procurement of industrial tools, software, and equipment/machines has enhanced to ability to demonstrate industrial methods. Each course has been re-written and updated to reflect the presence of an industrial-based career path objectives. Instructors should be "introducing" these concepts and equipment in the introductory courses. These concepts should be enhanced and demonstrated upon in the intermediate courses. Advanced or upper-level courses should find student comprehension of these concepts advanced to high. With lack of cohesiveness amongst instructors, these concepts are put off until the advanced (master-level) courses. Students have progressed through the program without any knowledge of industrial concepts. The communication between instructors is fair to poor. Some instructors stay in the classroom to assist students while other instructors leave early. There is a palpable dissensions in student attitudes and retention within the program. There is minimal counseling from most instructors, while student interest in classroom equipment and program completion has increased. The need for a full- time faculty is imperative for program advancement, cohesion, and adherence to program policies and procedures.

2.5 Analyze and summarize trends in student progression through basic skills courses, if applicable.

N/A

2.6 List degrees and certificates currently offered in the discipline. Analyze how resource adjustments or other changes during the past four years have impacted degree and certificate completion rates.

Degrees granted by the district decreased 29.9 percent from 2008-2009 to 2012-2013. (or decreased by 23.9 percent from 2009-2010 to 2012-2013.)

The Clothing and Textiles-Fashion Design program offers both certificates as well as an AA degree. Upon procurement of the Gerber CAD system, industrial machinery and equipment, advanced audio/visual equipment, new commercial sewing machines and sergers (one for each student per section offered), has propelled the program to be recognized with the AVC student population. In the spring of 2013 students and one staff member traveled to LA for the annual FCS sponsored fashion show. One student submitted a design and was recognized for her beautiful entry. All CA community college fashion programs were gathered and participated as well. The Clothing and Textiles-Fashion Design program prides itself on preparing graduates for whichever career path they chose in the fashion fields.

The degrees and certificates presented to Clothing and Textiles-Fashion Design graduates has remained the same for the years 2006-2007 through 2012-2013. With a total of 2 degrees and 3 certificates presented for the years indicated. However, in the academic year 2011-12, 6 degrees and 6 certificates were presented!

The past two years degree and certificate earners have been taught under the new program requirements and on limited new equipment. Although that was a huge accomplishment from the Clothing and Textiles-Fashion Design program students, it is anticipated that the numbers may still fluctuate until the implementation of CAD equipment and training is complete.

2.7 Using the data provided by web link, please comment on transfer rates to four-year institutions, license exam results, and job placement/post testing. If applicable, cite examples of using additional resources (e.g. human, facilities/physical, technology, financial, professional development) or making other changes during the past four years that have resulted in improvements in transfer rates to four-year institutions, license exam results, and job placement/post testing.

There is an upward trend (instructor observed) on student transfers to 4-year Universities in pursuit of Bachelor's degrees as well. There have been several cases of students desire to obtain a Bachelor's degree, along with employment experience to obtain an adjunct teaching position within the community college Fashion Design discipline.

With the onset of "Project Runway" (\*television show about Fashion Design), more students are seeking the glamor of fashion design. As of this writing, one recent graduate (with input from adjunct) has applied to audition and has been contacted by a producer for the upcoming (spring 2014) season! Another of our current students (anticipated graduation date of spring 2014) was notified of employment opportunities within the Prison Industry Authority-Fabric Product factories. The notification came through one of our advisory panel members. It is very difficult to be accepted for testing within the company/field. Our student was tested for a position. It should be noted that this was the student who presented and competed her design at the annual (FCS) Fashion symposium last spring!

Currently, we have one graduate completing her degree at CSULB. This 2012 AVC graduate was the recipient of the Subject Area Award for spring 2012. She is an active member of the

advisory board, and assists with updating course content/program requirements for transfer opportunities. There are currently 3 additional students/graduates who have applied to either CSULB or CSU- Northridge.

- 2.8 Career Technical Education (CTE) programs: Review the labor market data on the California Employment Development Department website for jobs related to your discipline. Comment on the occupational projections for employment in your discipline for the next two years. Comment on how the projections affect your planning.  
<http://www.labormarketinfo.edd.ca.gov/Content.asp?pageid=1011>

According to the web site listed above, there were several job position opportunities that were reviewed for this report. The following is an overview of the information;

Job title	SOC code #	Hourly mean \$	Projected employment	Annual average openings
Fashion Designer	27-1022	\$34.35	7300	280
Retail Salesperson	41-2031	\$12.67	540,500	23,200
Tailors, Dressmakers& Custom Sewers	51-6052	\$14.96	7400	180
Merchandise displayer& Window trimmer	27-1026	\$15.80	13,300	590
Costume Attend.	39-3092	\$18.12	varied	130
Textile (various)	51-6061,2,3,4	\$10.11-11.77	varied	0-40
Voc. Ed. Teachers- Postsecondary	25-1194	\$31.86	16,200	530
Museum Tech (Textiles)	*Master's degree	\$22.85	varied	60

Most of the above positions stated that employers are looking for Bachelor's degrees, with the exception of the Museum Tech, which required a Master's degree. During the last 5 years, and beginning revisions in fall 2013, the Clothing and Textiles program has undergone and will be updated and revised to reflect the employment paths for the above positions. Each class builds upon each other and should (if instructed as the objectives are written) to ensure graduates successful entry level into any of the above positions (excluding Museum tech). Fashion design and Merchandising is a constant field, maybe not lucrative, but always displaying openings. The students enrolled in the program should have good faith belief that the objectives, as written, are updated to reflect new technology as well as curriculum. As we strive for completers in the program, we must also prepare students for employment within any of the above listed fields. Instructors should be familiar with the positions available and advise students as they become available. The active advisory committee has been essential for those reasons. There are a substantially higher number of Retail Salespersons projected, but it should be noted that the numbers reflect ALL Retail. The common tie between all positions is to learn basic business practices and skills, time management, and on-time completion of duties assigned.

### Part 3 – Outcome Analysis and Use

- 3.1 Analyze changes in **student learning outcome (SLO)** and **program learning outcome (PLO)** assessment findings over the past five years. Cite examples of using data during that time as the basis for resource allocation (e.g. human, facilities/physical, technology, financial, professional development) or making other changes that resulted in or correlate with improved learning outcome findings over the past four years.\*

As mentioned previously, the Clothing and Textiles-Fashion Design program underwent a huge overhaul of all program components. Under the guidance of afore mentioned Technical Education Dean- Margaret Drake (retired) and the established advisory committee (meeting minutes in WEAVE document repository), clear definitions were needed to address the industry standards or industrial methods. It was determined to better prepare our students for employment within the fashion design, construction/alterations, or apparel manufacturing fields, industrial equipment was needed. Under the previous full-time faculty, numerous makes and models of commercial sewing machines were being used in the classroom. The assessments were based on rubrics for each class. Students were assigned construction techniques on machines without the specific method needed.

These successful grant applications were in part to align with program/course objectives and better meet the following:

1. SLO #2- CT-110, “Construct four garments, following accurate garment measurements, necessary alterations, professional sewing techniques that meet *industry standards*.”
2. SLO #1- CT-200, “Construct two custom tailored jackets, using advanced methods of tailoring. One jacket will be lined; one will be unlined, using appropriate interfacing, underlining, interlining, fabric, commercial patterns and notions for *constructing professional garments in the fashion industry*.”
3. SLO #2- CT-243 “Develop and utilize a sample notebook illustrating techniques used in fashion sewing. Notebooks will include *industry methods used in fashion sewing*.”
4. PLO #2- “Choose appropriate fabric, commercial patterns (where applicable), and notions for construction of garments that *meet industry standards*.”
5. PLO #3- “Analyze and choose garment construction techniques (ranging from basic to complex), apply alteration principles, and revise proper fit for various body types while *measuring industry tolerances*.”
6. PLO #4- “Analyze and evaluate commercial *engineering practices* such as product cost, textile technologies, and *industrial methods of production design and construction*.”

As with any complete program overhaul, every detail had to be revised. The SLO’s and PLO’s were no exception. Not only did each SLO need to be re-numbered, but the assessments were

skewed. Whereas each SLO is in the process of re-write to reflect the new COR and course objective changes, the assessments for each course were never fully developed.

A few examples of skewed assessment tools were/are:

1. Assessment #4 for CT-105, “The technique notebook will be evaluated using a *rubric based upon industry standards.*”
2. Assessment #3 for CT-110, “All instructors teaching CT 110 will use the same *instrument of evaluation provided by the industry.*”
3. Assessment #3 for CT-241, “Instructors will score and evaluate individual garments based on *industrial performance measurement tests.*”
4. Assessment #2 for CT-200, “Notebook will be assessed using a *rubric* developed by *department faculty* based on industry standards.”

There are many more examples of assessments written similar to those listed. The problem was no tests, rubrics, nor industry provided evaluations ever existed. The SLO's were not even entered into WEAVE until after the faculty had retired. The introductory clothing construction instructor was using a basic sewing test (sewing straight, curved, and broken lines on a piece of paper) with no real guidelines for scoring. The process was very subjective. Although many of the SLO's and assessments pointed towards industry or industrial standards, there was an immediate need to establish a better assessment method. A “test” was created for each course to be given at the beginning and the end of the class. Listed as pre-test/post-test in WEAVE, these 10 point “tests” were instrumental for both instructor and student alike. Action plans listed the development of updated SLO's with correct assessment data has been documented. The data collected, by comparing the pre-test scores with the post-test scores for numerical improvement as well as post-test scores to evaluate the total course comprehension, have netted some very valuable data. As the instructors meet to discuss pre-test scores, areas of course curriculum can be evaluated for depth of coverage based on overall comprehension. The student is afforded the ability to get a quick glimpse into the course objectives and expectations. As of this writing, the Clothing and Textiles-Fashion Design program is in the process of re-writing the SLO's but has been posting data based off of these Pre/Post test scores. In a program that is very individualized with interpersonal design ideals, a written “test” provides tangible objective data for processing.

The PLO's were re-written as well in the spring of 2011. there were numerous PLO's that were being assessed at the introductory level. We started compiling data as far back as the spring of 2010 for assessments, but were updated to reflect the new PLO's to be assessed at the mastery level. All pilot periods for PLO assessments have shown students meeting and even exceeding expectations. Action plan items may include re-evaluating achievement targets.

All CT staff will continue to monitor PLO's as well as SLO's for student performance or achievement.



Action plan SLO #1 CT 212 Students are still scoring low on pre-test questions pertaining to the basic principles and fundamentals of clothing construction. This wastes time and leads to student frustration. On subsequent offerings of the CT212 course, the assigned instructor needs to survey the class before progressing to determine the amount of review to be covered. CT 105 and CT 110 instructors need to be made aware of these data results to enforce the instruction of the principles and fundamentals in the respective courses.

Action plan SLO #1-4 CT 105 Upon review of the data collected for the tote bag project, it was noticeable that students have had more than enough time to not only construct, but personalize their tote bags. The instructors of the CT105 course should practice time management in techniques and objectives covered. While the previous quizzes and assignments have identified lack or reduced understanding of basic tools, machinery, techniques, they are given ample time to prepare and furthermore personalize one single project. Perhaps more time needs to be allotted for enhanced understanding of basic principles before applying personalization to one single project. A review of objectives or techniques would enhance student understanding of those basic principles and fundamentals. CT105 principles/objectives are the basis of all other CT construction courses. Instructors need to fully prepare students for all CT courses. Preparation needs to be not only in demonstrations but in updated information and basic program counseling is imperative. The retention of students was higher this semester in the morning program than that of the evening program.

- 3.2 Analyze changes in **operational outcomes** (OO) findings over the past five years. Cite examples of using data during that time as the basis for resource allocation (e.g. human, facilities/physical, technology, financial, professional development) or making other changes that resulted in or correlate with improved OO findings over the past four years.\*

See Above

#### **Part 4 - Stakeholder Assessment**

- 4.1 Assess how well the program serves the needs of the students, district, and community. Support statements with findings from student, employee, and/or community surveys. Include feedback from other sources if relevant (e.g. advisory committees, employers in the community, universities, scores on licensure exams, job placement).

Upon conversations with other community colleges covered under the FCS (Family and Consumer Sciences) programs, comparison of classroom equipment, tools, and methods offered were compared with what AVC had to use and offer. Through student questionnaires, potential employer questionnaires, AVC CT staff, and the Dean, two subsequent Perkins IV grants were applied for and approved for acquisition of equipment, tools, software, and sewing machines to complete the transformation of the program. Students are now afforded the opportunity to be instructed on standardized machines as well as state-of-the-industry CAD system and machinery. The graduates of the Clothing and Textiles-Fashion Design program will and are competitive within the work force and have certification to back up their degree/certificate.

The Advisory committee for the Clothing and Textiles-Fashion Design program is very active and continuously integrated new and updated ideas and objectives through continued assessment by industry professionals. Currently, the advisory committee is meeting to discuss and assist with new objectives through the COR revision process. As of spring 2012, we hired a new adjunct instructor, who was not only a graduate of the program, but an advisory member for many years. In fall 2011, one of the industry professionals hired one of our adjunct instructors, after meeting through the advisory committee. Such interaction and subsequent employment opportunities is imperative to understand what criteria our graduates need or should possess for employment. Currently, the advisory board is actively pursuing the inclusion of either a class or specific objectives within courses for personal and/or individual promotion, enhanced communication skills, individualized merchandising, and project promotion. We had two businesses that offered work experience opportunities to our 200 level students (spring 2012). It was an opportunity to assess the readiness of our students for possible employment. Currently, as of this writing, there are employment opportunities presented from an affluent fine men's clothing store on Rodeo Dr., LA. Our students/graduates are being considered for the jobs! We have had numerous donations from the very businesses that are actively involved with the program. It's been a win-win situation.

With all the accolades going to and through the advisory committee, instructors, and the community, it should be noted that students have the loudest voices in this process. There is a continual effort to assess student's input for program reviews, COR revisions, and updated SLO's assessments. Since the revision of the program, our numbers continue to grow, slowly, but grow. Students seem excited about the new equipment, tools, texts, and assignments. Through the display of student work, future students become interested in what the program has to offer. Through the concerted effort of a few students, graduates, and the adjunct program coordinator, we visit local high schools annually to present what our program has to offer, and not to have to drive so far away to pursue this major. Through communication between students and instructors, the program has continued to strive to provide a comprehensive program allowing students to become employable or to transfer for further degree completion. Students have been very vocal on what they perceive as the good as well as the bad points of the program. Students are insistent on instructor compatibility. They must achieve the goals and objectives of the lower division courses in order to succeed in the upper division courses. Through surveys and communications, students have vocalized a need for theatrical costuming course(s) as well as drawing/fashion illustration, and a complete CAD course. Students have vocalized the need for some of our courses to be offered as part I or II (i.e. Flat Pattern I and Flat Pattern II). The program is very thorough and provides an absolute saturated course curriculum. Students have also demanded professionalism, comprehensive overview of objectives listed, and thoughtful instruction to provide subject matter needed for employment. There is a general feeling that all instructors must be trained and invested in the curriculum assigned to them. There has been disdain over "passing the buck" on to other instructors for reasonable instruction of objectives listed. Students are attuned to the underlying dissent among staff and have expressed uneasiness and apprehension of program and instructor commitment. These expressions come through e-mail, survey responses, or through general conversations. Much effort is being made to alleviate the tensions and promote the program learning outcomes, the classroom setting, the projects and assignments as nothing less than exciting, innovative, and critical to employment or transfer

opportunities. Attention to student concerns must be considered and/or appreciated in order to promote these objectives. Students are our business.

## **Part 5 - Goals and Objectives**

5.1 Review the goals identified in your most recent comprehensive self-study report and last year's annual report. Indicate which have been completed and which have been eliminated.\*

**Goal:** To train the appropriate staff on the Gerber Computer Aided Design (CAD) system (installed through ITS and a Gerber technician) as well as the Photoshop and Illustrator software that has recently been purchased and is waiting to be installed.

· Objective: A Perkins IV Professional Development funds proposal needs to be submitted and approved in order to provide the appropriate staff training on the CAD system. Currently, staff is waiting on Gerber to provide training fees quotes in order to complete the funding form. A community education class will be offered upon completion of staff training, for all recent or near graduates desiring the training opportunity on the Gerber CAD system. The certificate of completion that will be presented at the end of successful completion will assist students/graduates with the skills required to obtain employment within the fashion industry.

**Update (comprehensive):** Two instructors were trained last January (2013) for a week by Gerber professional trainers. The training was funded through Perkins funds. The training was very basic and contained information to create a new course for adoption within the program. The adjunct program coordinator worked with Community Ed staff to offer a comprehensive Community Ed course to be offered in the spring 2014. This class will serve as an introduction and will subsequently be written into a new course proposal for submission through AP&P.

**Goal:** To train the adjunct instructors on the audio-visual equipment provided as well as the new industrial machines.

· Objective: All adjunct instructors need to be trained on all tools, equipment, machinery, and software within the program/classroom.

**Update (comprehensive):** There have been several futile attempts to train instructors on all machinery, tools, equipment within the program/classroom. As with most adjunct instructors, time outside of classroom responsibilities is at a premium. However, attempts to provide training that is accessible for all has been met with much resistance. As stated above, students are relying on instructors to fulfill the objectives through demonstrated practicum. Therefore it is imperative to include this goal in this review, again, until fulfillment.

**Goal:** To revise the SLO's for correct course numbers, objectives, and assessments as per action plans.

· Objective: All adjunct instructors are required to administer the pre and post-tests, collect data, and deliver data to WEAVE administrator before the deadline per semester. It is the WEAVE administrators' responsibility to provide feedback on achievement targets and have dialogue on action plans.

**Update (comprehensive):** One of the action plans for the spring 2013 semester was for instructors to review the data before submitting to the WEAVE administrator. The new process through circUNET has the inclusion of SLO's on the COR's through the revision process. There was a problem with the SLO numbers aligning with new course numbers. An attempt to assist an instructor as to which SLO numbers to use, was met with consternation and unwillingness to comply. Therefore, as of this writing, the SLO's have been re-written, updated, and are traveling through the AP&P process.

**Goal:** New courses need to be developed for core instruction on the CAD system as well as apparel engineering and manufacturing processes. An industrial approach to pattern making as well as the development of fashion through an engineering standpoint (Tech packs) needs to be included in the new curriculum. The program has begun to include an industrial-based career path. Thus, courses need to be developed to reflect these changes/improvements.

· Objective: Some of the advanced courses (CT-222, CT-241, CT-243) COR's need to be updated to include the use of advanced equipment, tools, machines, and software. Upon hiring more adjunct instructors, new course development will commence. Currently, we are unable to offer any additional courses or sections, due to staffing and LHE limitations.

**Update (comprehensive):** Along with the new process for COR/SLO revision and update, new verbiage on industrial use of equipment has been noted in the updated revision of COR's. A course will be offered in spring 2014, through community ed. for the CAD system. An update to the prerequisite (CT 222 as the prerequisite) for CT214 and CT243 was also included in the revisions. The inclusion of the engineering principles objective and business skills objectives have been included in several COR revisions as well.

**Goal:** To provide all instructors, counselors, local school districts with the appropriate literature to promote the Clothing and Textiles-Fashion Design program. Each instructor has the responsibility to assist students with career choice as well as proper flow through the program. Introductory course instructors should be encouraging students to build upon objectives and skills learned by discussing and directing students through each course.

· Objective: Copies need to be available at all times to be distributed to not only students in the intro classes but to any interested person who has questions about the program requirements. Instructors must familiarize themselves with the program, each course requirement, and the requirements for certificate or degree completion. More CT staff meetings need to be held to inform all instructors of any changes or issues as they arise.

**Update (comprehensive):** As of spring 2013, several students and the adjunct program coordinator visited and spoke to several local high schools. A revised program overview as well as comprehensive course overview was developed and distributed this fall (2013). Instructors

have the resources to inform students and perspective students of any changes that have been made. A few instructors are not in compliance with dissemination of these materials or objectives.

- 5.2 List discipline/area goals and objectives related to **improving outcome findings and/or the success of the various learner populations** in completing courses, certificates, degrees, and transfer requirements. Discipline/area goals must be guided by district Strategic Goals and Plan Summaries in the Educational Master Plan (EMP). They must be supported by an outcome action plan, data analysis, national or professional standards, and/or a requirement or guideline from an outside agency (e.g. legislation, Chancellor's Office, accrediting body, professional board). Consider curriculum, instruction, assessments, program services, operations, collaborations, scheduling, location, technology, etc.\*

Current (up to three years)

Goal #1: To train the adjunct instructors on the audio-visual equipment provided as well as all industrial machines, technologies, tools, classroom equipment, along with collaboration of text review and adoption to curriculum.

- Guided by district Strategic Goal(s) #1,5b, 3b
- Action plan to PLO 3's 1,3,4 In the CT 222 class, students are expected to develop, design, construct, fit, and complete a garment that uses an individual pattern (not commercial). It is imperative that students are well versed in pattern preparation, fit principles, and construction fundamentals for this course. It has been noted that some students are progressing through the program without ever achieving comprehension of the basic principles and fundamentals. So when asked to complete advanced techniques, students are faltering at best, because there is lower basic comprehension. Too much time is spent reviewing learned principles, thus forcing students to rush through advanced concepts. Introductory instructors are not completing a comprehensive presentation of the principles and fundamentals. Through the procurement of industrial machines and technology, students should be introduced to these items before expecting to complete projects using this equipment. Advanced students are entering courses without even an overview of the equipment, because it's deemed "too complicated" or "off limits". Students are forced backwards before being able to complete projects on this equipment, thus creating a need to hand work in late. Students

should progress through the program, adding comprehension in techniques and technology along the way. There is no cohesion between courses for this comprehension or even building upon concepts learned. Supporting action plan, data analysis, or other documentation

- Action plan for CT 105 SLO #2 As noted in the discrepancies of scores, under or poor achieving students need to be offered further assistance to facilitate an improvement in learned skills and scores. As scores are entered, these students should be assisted or offered opportunities to demonstrate skills (or understanding of) before completion of final project.

Objectives: All adjunct instructors need to be trained on all tools, equipment, machinery, and software within the program/classroom.

Goal #2: Strengthen the evaluation of SLO/PLO data to cooperate in the development and implementation of action plans.

- Guided by district Strategic Goal(s) # 1b
- Action plan for SLO #'s 1-3 CT 110 & CT 105 As of present, SLO data is being turned in without instructor observance. The tests that are given in all CT courses, are meant to not only introduce/review concepts and objectives for student understanding, but also to assist instructors with areas needed for increased lecture and demonstration. Instructors who turn in the materials without studying them are missing opportunities for enhanced coverage, thus allowing for students to promote through the program ill-equipped for the successive course. Perhaps, for some, it is merely an annoyance that must be turned in for submission. There needs to be clear defined supervision within the program to assist certain instructors with data interpretation and action plan conversations.

Objectives: Improved communication between all CT instructors. Interpretation of data and assessments must be discussed to generate a cohesive action plan. Overview and follow-up of action plans is need as revision of obsolete or out dated assessment tools.

Goal #3: Provide more diversified course content to the Clothing and Textiles-Fashion Design program to facilitate optional career paths, non-traditional students, and enhanced and relevant course work.

- Guided by district Strategic Goals # 3, 3a, 3b
- Action plan for PLO's 1-5 Upon reviewing the upper level course syllabi, it became apparent that the need for stricter due dates and

more specific verbiage was needed for accuracy of completion. The students had also requested a new and improved grading rubric to ensure each student the opportunity to understand what the exact requirements were. The syllabi, requirements, due dates, and grading criteria were updated. Thus, the higher number of "met" PLO's.

- Action plan CT114 SLO #1 The pre/post test that was given this semester had been written several years ago. The current instructor requested a new text this semester but required the notes and hand-outs from the previous instructor for assistance in preparing for the class. The notes, quizzes, assignments, assessment tools must be current and developed by the current instructor for presentation of objectives. Instructor integrity must be present before expecting student integrity. Supervision over instructor preparation needs to present. CT 114 instructors MUST re-write ALL quizzes, lectures, assignments, hand-outs, etc according to relevancy to texts and personal expression.
- Action plan for CT 105 SLO's 1-4 While reviewing the data, it becomes apparent that there are some discrepancies between the two sections. The quizzes that are being administered are antiquated. Most are the same hand-outs/quizzes/information that was being used 20-30 years ago. There is a need for instructors to refresh and update the hand-outs and review the findings. Due to lack of consistent leadership, each instructor relies on materials that have been used for many years. Proper identification and assessment needs to be adhered to by all instructors. Read the data collected and come up with an action plan for future course offerings. Therefore, the students are receiving old, out dated materials and are expected to be current when they enroll in upper division CT classes.

Objective: All materials, lectures, texts, and any course related hand-outs must be reviewed, updated, re-written, and administered per semester or during course offerings. The course materials must be relevant and consistent with student population and encourage all students' participation within the program.

Near Term (three to five years)

Goal #4: Enhanced collaboration between faculty, students, counseling, and perspective employers for program, assessment, and objectives review, updates, and revisions.

- Guided by district Strategic Goal(s) #3a,1h,1d, 3b
- Upon reviewing the upper level course syllabi, it became apparent that the need for stricter due dates and more specific verbiage was needed for accuracy of completion. The students had also

requested a new and improved grading rubric to ensure each student the opportunity to understand what the exact requirements were. The syllabi, requirements, due dates, and grading criteria were updated. Thus, the higher number of "met" PLO's. Supporting action plan, data analysis, or other documentation

- With each course offering several design projects, clear definitions of which design projects will be assessed needs to be clarified.
- The pre/post test that was given this semester had been written several years ago. The current instructor requested a new text this semester but required the notes and hand-outs from the previous instructor for assistance in preparing for the class. The notes, quizzes, assignments, assessment tools must be current and developed by the current instructor for presentation of objectives. The current instructor simply read the previous instructors notes and gave quizzes, assignments, and hand-outs that were not relevant to the chosen texts. Instructor integrity must be present before expecting student integrity. Supervision over instructor preparation needs to present. All CT instructors must review and possibly re-write quizzes, lectures, assignments, hand-outs, etc according to relevancy to texts and personal expression.
- Advisory meeting minutes

Objectives: Continual strong participation from advisory committee members, survey current students, past graduates, and transfer students, collaboration with newly assigned CTE counselor.

Goal #5: Improve communication and publicity of the Clothing and Textiles-Fashion Design program. Provide students, perspective students, and the community as a whole on the objectives and career options available through the CT program.

- Guided by district Strategic Goal(s) #1d, 3a, 6b
- Support and promotion of the Fashion and Costume Society (AVC club) to promote and enhance opportunities for students through AVC sponsored projects, meetings, and membership, as well as outreach assistance to the high schools and community.
- Continual support from the advisory committee membership, community outreach efforts, and faculty communication.

Objective: Provide support guidance, assistance, and instruction to students, advisory members, employers, and club members. Provide mentorship opportunities and work experience opportunities to students.

Long Term (five to ten years)

Goal #6: Continual support and facilitation of an enriched, relevant, and advanced fashion curriculum, improved communication, and career path driven course development and implementation. Facility updates, classroom reconfiguration, or additional space for both current and future



procured equipment and machines to support an increase in student retention, success, and completion in a safe and efficient manner.

- Guided by district Strategic Goal(s) #1, 1c, 1d, 1e, 1g, 1h, 3, 3a, 5c, 5b,
- Action plan for CT 110 A plan must be set in place to offer better documentation of scores/grades for the various assessment methods per SLO. Each instructor needs to understand the importance of data entry into WEAVE and what precisely is needed from each of them. A form will be developed to ensure accurate reporting.
- Action plan for CT 105 Upon review of the data collected for the tote bag project, it was noticeable that students have had more than enough time to not only construct, but personalize their tote bags. The instructors of the CT105 course should practice time management in techniques and objectives covered. While the previous quizzes and assignments have identified lack or reduced understanding of basic tools, machinery, techniques, they are given ample time to prepare and furthermore personalize one single project. Perhaps more time needs to be made to enhance understanding of basic principles before applying personalization to one single project. A review of objectives or techniques would enhance student understanding of those basic principles and fundamentals. CT105 principles/objectives are the basis of all other CT construction courses. Instructors need to fully prepare students for all CT courses. Preparation needs to be not only in demonstrations but in updated information and basic program counseling is imperative.
- Action plan for PLO's #1,3,4 In the CT 222 class, students are expected to develop, design, construct, fit, and complete a garment that uses an individual pattern (not commercial). It is imperative that students are well versed in pattern preparation, fit principles, and construction fundamentals for this course. It has been noted that some students are progressing through the program without ever achieving comprehension of the basic principles and fundamentals. So when asked to complete advanced techniques, students are faltering at best, because there is lower basic comprehension. Too much time is spent reviewing learned principles, thus forcing students to rush through advanced concepts. Introductory instructors are not completing a comprehensive presentation of the principles and fundamentals. Through the procurement of industrial machines and technology, students should be introduced to these items before expecting to complete projects using this equipment. Advanced students are entering courses without even an overview of the equipment, because it's deemed "too complicated" or "off limits". Students are forced backwards before being able to complete projects on this

equipment, thus creating a need to hand work in late. Students should progress through the program, adding comprehension in techniques and technology along the way. There is no cohesion between courses for this comprehension or even building upon concepts learned. .

Objectives: Communication between instructors, whether in formal meetings, or through assessment review and action plan creation, must remain consistent. Interaction between instructors, staff, students, and community requires an advanced level of integrity. Shared communication must be solicited and appreciated. Collaboration amongst all parties listed is imperative to program advancement.

- 5.3 List discipline/area goals and objectives **directly related to advancing Strategic Goals**. Discipline/area goals must be guided by district Strategic Goals and Plan Summaries in the Educational Master Plan (EMP). They must be supported by data analysis or other documentation.

N/A

## **Part 6 - Resource Needs**

Identify significant resource needs that should be addressed currently (up to three years), near term (three to five years), and long term (five to ten years). If there may be safety issues, enrollment consequences, or other important concerns if a resource is not provided please make this known.\*

The Clothing and Textiles-Fashion Design program has gone through significant growth and revision in the past few years. Many new machines, tools, and equipment were purchased thanks in part to Perkins IV funding. We have a strong advisory committee as well as opportunities for student work experience and employment. The needs of the program are for a full-time faculty position, additional adjunct instructors, facilities modifications, additional course sections, new course creation and instruction, and faculty professional development to provide for student achievement as well as graduate employment. The priority needs for the program are:

1. Replacement of faculty member. As of June 2010, the sole faculty member retired, thus leaving a vacancy for a full-time faculty position. Currently, the program is being run with 4 adjunct instructors. Under the direction of the Dean of Technical Education, one adjunct has assumed most of the administrative duties of the full-time faculty without the addition of LHE's. The replacement of this position is essential for future program and/or course development. The replacement would also add more LHE's, office hours, program supervision available without the addition of adjunct. Student enrollment, retention, completion, and ultimately success would increase.
2. The Clothing and Textiles-Fashion Design program is actively recruiting for adjunct instructors (with emphasis in apparel construction/ apparel manufacturing/ alterations/

illustration and photography/ merchandising fields). These positions will allow the department to offer more classes and/or develop new course as existing adjunct are limited to 10 LHE per semester, thus increasing student enrollment and success.

3. Reconfigure the current classroom to encompass the current, or future additional machinery, tool, and equipment. Whereas 5-10 years ago, the maximum enrollment in the courses was 12-15, currently each section is maxing out to full capacity of 20 students. There is not enough work stations to safely accommodate all the students while on sewing equipment. In order to promote a safe and efficient learning environment, additional space or reconfiguration must be done. The current classroom was sufficient for the equipment 5 years ago, but with the addition of 8 industrial sewing machines (tables), possibly more in the future, 6 computer workstations and a complete CAD system, additional dress forms, 42 (each) table-top sewing machines and sergers, 3 new ironing stations, current and advanced audio/visual equipment, the classroom need to be modified, or additional space is required for the safety and visual instructional needs of the faculty and students.

4. Faculty driven creation and implementation of new courses, or division of current courses into “part I” and “part II”. Additional sections needs to be added at the lower levels to increase the probable success of student completers. Strict attention to the objectives added to courses, along with course content, is required to address the non-traditional student needs. The addition of office hours/open lab hours to assist students with completion of assignments/projects or to advise on program requirements. Student enrollment, retention, and ultimately successful completion will increase with these changes.

5. Provide for professional staff development by funding attendance opportunities (for appropriate staff) on the use of Photoshop and Illustrator. Provide training opportunities for all faculty on the proper and safe use of all classroom sewing machines, tools, equipment, and technology.

6.1 List needed human resources. List titles in priority order. Identify which discipline/area goal(s) guides this need.

1. Full time faculty position (Goals 2,3,5,6)
2. Adjunct Instructors (Goals 1,2,3,4)

6.2 List needed technology resources in priority order. Identify which discipline/area goal(s) guides this need.

1. Find funding resources needed to provide service agreements for the current classroom/program technologies. (Goals 1)

- 6.3 List facilities/physical resources (remodels, renovations, or new) needed to provide a safe and appropriate student learning and/or work environment. List needs in priority order. Identify which discipline/area goal(s) guides this need.
1. Reconfigure, remodel, or provide addition space for the safe and effective use and storage of all classroom/program machinery, equipment, tools, and supplies. (Goals 1, 6)
- 6.4 List needed professional development resources in priority order. Identify which discipline/area goal(s) guides this need.
1. Train all program instructors on all current and future procured program machinery, tools, equipment, technologies, and supplies. (Goals 1, 6)
  2. Provide training opportunities for instructors on Photoshop and Illustrator (Goals 1, 3, 4, 6)
- 6.5 List any other needed resources in priority order. Identify which discipline/area goal(s) guides this need.
1. Creation and Implementation of new and relevant courses, increase current course sections, and/or revise current courses to be split into two subsequent sections. (Goals 2, 3, 4, 6)
  2. The addition of office hours/open lab to facilitate an enriching learning environment to further student success and completion (Goals 4-6)
  3. Support, facilitate, and promote the “Fashion and Costume Society” club. (Goals 3-6)

## **Part 7 - Recommendations and Comments**

- 7.1 List recommended changes to the Educational Master Plan to:
- Address external issues or mandates such as legislation, industry, and professional standards, etc.
  - Respond to outcome findings.
  - Reflect changes in technology, methodology, and/or disciplines.
  - Address student achievement gaps and/or meet other student needs.
- 7.2 What changes in the program review process would improve institutional effectiveness or make the results more helpful to the program?

Before the writing of this report, it would have been helpful to have both student and staff (instructor) input. Since this is the first time this writer has completed a comprehensive review, it was not clear what to ask instructors or students. Students are surveyed every semester, so the information contained here is current, but instructor involvement would have been beneficial. Acknowledgement of priority goals listed would be beneficial for action plan support and submission.

## **Comprehensive Program Review Self-Study Report**

Division/Area Name Electrical Technology

Year 2013

### **Part 1 - Division or Area Overview**

1.34 Briefly describe how the division or area contributes to the district mission.

The Electrical Technology programs supports the district mission by providing Technical certificates and degrees that are designed to enhance students' knowledge and skills leading to employment.

1.35 Place an "X" by each Institutional Learning Outcome (ILO) supported by the division or area.

- Analyze diverse perspectives from a variety of disciplines and experiences that contribute to the development of self-awareness.
- Value and apply lifelong learning skills required for employment, basic skills, transfer education, and personal development.
- Demonstrate a breadth of knowledge and experiences from the humanities, social and behavioral sciences, arts, natural sciences, and mathematics.
- Solve problems using oral and written communication, critical thinking and listening skills, planning and decision-making skills, information literacy, and a variety of technologies.
- Demonstrate good citizenship and teamwork through respect, tolerance, cultural awareness, and the role of diversity in modern society.
- Identify career opportunities that contribute to the economic well-being of the community.

1.36 After completing Parts 2-7, prepare a one page summary of the division/area. Interpret the significance of the findings. Note successes in supporting district strategic goals and where improvements are needed.

1.37 Name of person leading this review  
Justin Shores

1.38 Names of all participants in this review  
1.39

### **Part 2 - Data Analysis and Use**

The following data is provided on the Program Review website. Additional data is available from the Department of Institutional Research and Effectiveness (DIERP).

Longitudinal data  
District headcount and FTES      10455.88

Division headcount and FTES      1004.53  
Discipline headcount and FTES      55.48  
Number of sections offered by location/distance education    Lanc. 2808  
PT/FT faculty ratio by LHE      Fall 1.41, Spr. 1.65  
Efficiency (measured as FTES/FTEF)    Fall 12.12, Spring 11.95

- 2.1 Please review the five year headcount and FTES enrollment data provided on the web link. Comment on trends and how they affect your program

During the last 5 year period the Electrical Technology program has been consistent with enrollment, with a high of 194 to a low of 160 this semester due to a loss of the morning Codes class. The division average for section reduction was 15%. The Electrical program was asked to drop one class from our summer semester, but we were able to keep enrollment up without the offering.

- 2.2 Report and analyze program/area data showing the quantity of services provided over the past four years (e.g. number of students served, books sold, employees hired, acreage maintained).

The number of students served during the review period remained consistent. Most every class is full within the first few days of open registration and has either a wait list or numerous students trying to crash the class the first day. The large number of students trying to crash has increased and has often times caused students to have to return additional semesters to complete required courses.

- 2.3 Please review the five year data on sections offered, faculty ratios, and efficiency data provided on the web link. Comment on trends and how they affect your program.

The Electrical Technology program has run consistent through the years. We vary very little from year to year.

- 2.4 Using the discipline student success data provided by web link, please comment on any similarities or differences between race, gender, location, and modality groups in meeting the Institutional Standard of 68% for student success (students earning grades of A, B, C, Pass, or Credit). Identify what actions are planned to address trends and achievement gaps in the current academic year.

Electrical Technology students are performing above the district averages in relation to Race and Gender. The Electrical Technology program hired a female instructor in hopes to provide a role model for female students. The Electrical Technology program does not offer on-line classes, though traditional classroom instruction by subject is offered day and night varying by semester.

The Electrical Technology program has not expanded to the Palmdale Site

The success rate for retention and completion of the Electrical Program is at 75 %.

Students in the Electrical technology program fair better than the Division or District average. The Black and Pacific Islander are my lowest completion rates, 63.2% and 66.6% respectively, but each is higher than the average. My female students have a higher completion rate than my male students, possibly due to the small enrollment of female students.

There is no data available for the transfer to 4 year institutions as most students pursue employment opportunities upon completion. With the increase of solar generation plants in the Antelope Valley more students are being employed after completion of certificates.

There is a need to recruit more female students into the program. We also have a need to recruit more Adjunct instructors into the program and possibly another full time instructor.

- 2.5 Analyze and summarize trends in student progression through basic skills courses, if applicable.

Not Applicable

- 2.6 List degrees and certificates currently offered in the discipline. Analyze how resource adjustments or other changes during the past four years have impacted degree and certificate completion rates.

The Electrical Technology Program offers one Associates degree and one certificate. AVC is one of a very few Community Colleges offering a complete program approved through the Department of Apprenticeship services. Students that enroll in our program are eligible to apply for an Electric Trainee card through the state, this card will allow them to work in the Electrical Field.

The program averages 4 associate degrees and 11 certificates per year. With the hiring of the new CTE counselor the number of degrees and certificates will hopefully steadily go up.

- 2.7 Using the data provided by web link, please comment on transfer rates to four-year institutions, license exam results, and job placement/post testing. If applicable, cite examples of using additional resources (e.g. human, facilities/physical, technology, financial, professional development) or making other changes during the past four years that have resulted in improvements in transfer rates to four-year institutions, license exam results, and job placement/post testing.

Electrical Technology students that complete the Associate Degree or Certificate program are primary focused on careers versus transfer to four year institutions.

Many Electrical Technology students have been able to take advantage of the financial aid program to remain in school to be successful. These services are of a benefit to the serious student. In the area of counseling with the hiring of the CTE Counselor hopefully Electrical Technology students will be able to receive some consistent advice through that service. Until now Electrical students have heavily relied on the faculty to provide academic counseling to keep them focused.

- 2.8 Career Technical Education (CTE) programs: Review the labor market data on the California Employment Development Department website for jobs related to your discipline. Comment on the occupational projections for employment in your discipline for the next two years. Comment on how the projections affect your planning.

The labor projections indicate a projected need for 2010 Electricians per year for the next 7 years. This projection reflects full time employment. The Employment department also list Electrician helper, this quote is for 190 for the next 7 years. They do not list anything for Electrical Trainee or the different licensing for Electricians.

The Electrical Program is an approved school through the state and affords our students with the training that is required for them to enter the electrical field with the basic skills required to be successful.

### **Part 3 – Outcome Analysis and Use**

- 3.1 Analyze changes in **student learning outcome** (SLO) and **program learning outcome** (PLO) assessment findings over the past five years. Cite examples of using data during that time as the basis for resource allocation (e.g. human, facilities/physical, technology, financial, professional development) or making other changes that resulted in or correlate with improved learning outcome findings over the past four years.

There have not been any significant changes to the SLOs over the past five years. We are currently assessing student outcomes and projecting the needs of future students with the results of our findings. At this time we are not changing any of our SLO assessments, but are continuing to gather data.

- 3.2 Analyze changes in **operational outcomes** (OO) findings over the past five years. Cite examples of using data during that time as the basis for resource allocation (e.g. human, facilities/physical, technology, financial, professional development) or making other changes that resulted in or correlate with improved OO findings over the past four years.

Not Applicable

### **Part 4 - Stakeholder Assessment**

- 4.1 Assess how well the program serves the needs of the students, district, and community. Support statements with findings from student, employee, and/or community surveys. Include feedback from other sources if relevant (e.g. advisory committees, employers in the community, universities, scores on licensure exams, job placement).



The Electrical Technology program is meeting the needs of our students, as demonstrated by those that are successful in obtaining employment as Electrical Trainees. Members of the advisory committee want our grads to have more troubleshooting skills.

## Part 5 - Goals and Objectives

- 5.1 Review the goals identified in your most recent comprehensive self-study report and last year's annual report. Indicate which have been completed and which have been eliminated.

Goals and Objectives set in the most recent comprehensive program review are

- Form better relationships with local businesses. *Continuing*
- Build a more active Advisory Committee. *Struggling*
- Continued mentoring at the High School level. *Dropped*

- 5.2 List discipline/area goals and objectives related to **improving outcome findings and/or the success of the various learner populations** in completing courses, certificates, degrees, and transfer requirements. Discipline/area goals must be guided by district Strategic Goals and Plan Summaries in the Educational Master Plan (EMP). They must be supported by an outcome action plan, data analysis, national or professional standards, and/or a requirement or guideline from an outside agency (e.g. legislation, Chancellor's Office, accrediting body, professional board). Consider curriculum, instruction, assessments, program services, operations, collaborations, scheduling, location, technology, etc.

Current (up to three years)

Goal: Increase the number of students who complete the program and achieve a certificate and degree.

- Guided by district Strategic Goal(s) #1d
- **Objective 1d will strengthen the program through Tech Ed developed counseling. Both through the instructors and our new Tech Ed counselor.**

The Electrical instructors will network with the new Tech Ed counselor to have her do presentations to the students to help them with personal development, career planning, academic skills and employment skills. At this time the Electrical program averages a 74% completion rate.

Near Term (three to five years)

Goal: Increase the number of non-traditional students in the program.

- Guided by district Strategic Goal(s) # 3b

With the hiring of non-traditional instructors we hope to increase the non-traditional student draw into the program. This year in the Electrical program we have a total enrollment of 160 students; of this enrollment 6 are female. With the help of our new CTE counselor and non-traditional instructor we hope to see a rise in this number.

- 5.3 List discipline/area goals and objectives **directly related to advancing Strategic Goals**. Discipline/area goals must be guided by district Strategic Goals and Plan Summaries in the Educational Master Plan (EMP). They must be supported by data analysis or other documentation.

Current (up to three years)

Goal: Increase supply budget.

- Guided by district Strategic Goal(s) #7a
- Supporting data analysis or other documentation

The budget for the Electrical Programs was \$5000 a year. We have had our budget cut in the last couple of years, the \$5000 was almost impossible to make the program function. Now with less money we do not have the funds to keep all the materials we need to complete some labs. Our budget needs to increase not decrease, the cost of copper and motor control material is on a constant rise, but our budget is going in the opposite direction.

Near Term (three to five years)

Goal: Hire a second fulltime Instructor.

Guided by district Strategic Goal(s) #1g

- Objective 1g discusses class offerings.

The amount of classes offered and the students served would be more beneficial with a fulltime instructor.

Long Term (five to ten years)

Goal: Provide additional space for the program.

- Guided by district Strategic Goal(s) #7a
- Supporting data analysis or other documentation

We will need to lobby for additional space for the program. We are desperately short on class space and storage. The space needed to expand our program for alternative energy is more than what we currently have, much less the existing labs we already do not have enough space for.

## Part 6 - Resource Needs

Identify significant resource needs that should be addressed currently (up to three years), near term (three to five years), and long term (five to ten years). If there may be safety issues, enrollment consequences, or other important concerns if a resource is not provided please make this known.\*

6.1 List needed human resources. List titles in priority order. Identify which discipline/area goal(s) guides this need.

1. Full time instructor to expand course offerings.
2. Maintain an Adjunct instructor base with a wide variety of skills to ensure program continuity and have the ability to substitute an Instructor when the need arises. There is a need to add instructors to this pool who reflect the ethnicity and gender of our students.

6.2 List needed technology resources in priority order. Identify which discipline/area goal(s) guides this need.

1. The Electrical Technology program needs to acquire more realistic labs for the students, possibly a stick built house for the wiring practices required of our trainees. With the stick built we could also bring more alternative energy labs into the curriculum.
2. With the addition of another classroom/lab we would have room for more motor control, residential and commercial wiring labs.

6.3 List facilities/physical resources (remodels, renovations, or new) needed to provide a safe and appropriate student learning and/or work environment. List needs in priority order. Identify which discipline/area goal(s) guides this need.

1. Additional lab/classrooms
2. Alternative power labs
3. We need to develop more labs for Commercial/Industrial wiring classes.

The Electrical program has several class labs and needs many more, the problem we have is that there is nowhere to store these labs. The classroom has a small closet for storage and nothing else. We waste valuable class time having to disassemble projects due to the fact we are so limited on space.

6.4 List needed professional development resources in priority order. Identify which discipline/area goal(s) guides this need.

In Electrical Technology faculty are having problems maintaining their journeyman electrician status. The state does not recognize teaching classes equal to attending a class. The occasional conference can be addressed through Faculty Professional Development or Perkins.

- 6.5 List any other needed resources in priority order. Identify which discipline/area goal(s) guides this need.

There is a need to purchase samples of personal protective equipment to demonstrate for students. This would benefit all areas of instruction.

### **Part 7 - Recommendations and Comments**

- 7.1 List recommended changes to the Educational Master Plan to:
- Address external issues or mandates such as legislation, industry, and professional standards, etc.
    - Respond to outcome findings.
  - Reflect changes in technology, methodology, and/or disciplines.
  - Address student achievement gaps and/or meet other student needs.
- None**
- 7.2 What changes in the program review process would improve institutional effectiveness or make the results more helpful to the program?
- None**

## **Comprehensive Program Review Self-Study Report**

### **ELECTRONICS TECHNOLOGY**

2013

#### **Part 1 - Division or Area Overview**

1.40 Briefly describe how the division or area contributes to the district mission.

The mission of the Electronics Technology program is to provide a comprehensive and technical education to a diverse community of learners to prepare the student for employment as an electronic technician. Electronics Technology program takes pride in providing a quality, hands-on education to produce and develop top quality engineering technicians and electronic technicians. Our goal is our student success in today's fast growing technical and aerospace industry.

1.41 Place an "X" by each Institutional Learning Outcome (ILO) supported by the division or area.

- Analyze diverse perspectives from a variety of disciplines and experiences that contribute to the development of self-awareness.
- Value and apply lifelong learning skills required for employment, basic skills, transfer education, and personal development.
- Demonstrate a breadth of knowledge and experiences from the humanities, social and behavioral sciences, arts, natural sciences, and mathematics.
- Solve problems using oral and written communication, critical thinking and listening skills, planning and decision-making skills, information literacy, and a variety of technologies.
- Demonstrate good citizenship and teamwork through respect, tolerance, cultural awareness, and the role of diversity in modern society.
- Identify career opportunities that contribute to the economic well-being of the community.

#### **1.42 RICK MOTAWAKEL**

1.43 Names of all participants in this review

N/A

#### **Part 2 - Data Analysis and Use**

2.1 Please review the five year headcount and FTES enrollment data provided on the web link. Comment on trends and how they affect your program.\*

Full-time student enrollment for 2008-2009 was 109 with the headcount of 145 in 2013. The Electronics Technology program has experienced growth in the last five years. As a result, the completion rate has also increased for the students.

The Electronics Technology program has experienced significant growth in the last five years. As a result, the completion rates have also increased for the students in the program. Overall, the Electronics Technology program is doing an excellent job of serving the needs of the diverse student population of AVC and the community as a whole and preparing students for employment opportunities that exist in the Antelope Valley and do not require long commutes to the Los Angeles basin.

- 2.2 Report and analyze program/area data showing the quantity of services provided over the past four years (e.g. number of students served, books sold, employees hired, acreage maintained).

Annual district headcount decreased 21.9 percent from 2008-2009 to 2012-2013 and during that time, Electronics Technology headcount increased 70 percent. District FTES decreased 12 percent in the past five years while Electronics Technology FTES increased 40 percent. The program is only offered on the Lancaster campus and we do not hold online classes.

One of the most significant accomplishments is the increase of enrolment and completion rate in the program. The increase in certificate completers and degree completers in the past three years is a significant improvement.

Completer rates increased over 50% for certificate completers and 26% for degree completers. This increase is an indication that large increases are possible through encouraging students to get the awards that they have earned.

- 2.3 Please review the five year data on sections offered, faculty ratios, and efficiency data provided on the web link. Comment on trends and how they affect your program.

Sections offered by the district decreased 27.5 percent from 2008-2009 to 2012-2013. That reflects a 33 percent decrease in Lancaster sections, a 61 percent increase in Palmdale sections, and a 66 percent decrease in sections offered elsewhere. During and during that time sections in Electronics Technology increased 10 percent.

Fall district PT/FT faculty ratio increased 5.9 percent and spring district PT/FT faculty ratio increased 8.8 percent from 2008-2009 to 2012-2013. During that time Electronics Technology PT/FT ratio increased 10 percent.

District efficiency in the fall increased 15.9 percent and efficiency in the spring increased 6.7 percent over the past five years. Electronics Technology efficiency in the fall increased 18 percent and efficiency in the spring increased 19 percent over the past five years.

- 2.4 Using the discipline student success data provided by web link, please comment on any similarities or differences between race, gender, location, and modality groups in meeting the Institutional Standard of 68% for student success (students earning grades of A, B, C, Pass, or Credit). Identify what actions are planned to address trends and achievement gaps in the current academic year.\*

The success of Mexican/Central or South American students in the district increased from 68 percent to 72 percent between 2008-2009 and 2012-2013, similar to the increase in Other/Unknown which increased from 69 percent to 73 percent. The success of Asian and White students in the district was unchanged over the past five years at 78 and 76 percent respectively. The success of American Indians/AK Native students decreased from 68 to 67 percent and the success of Pacific Islander students decreased from 69 to 64 percent, both groups falling below the Institutional Standard of 68 percent.

69 percent of female students in the district were successful in 2008-2009; 71 percent were successful in 2012-2013. 68 percent of male students in the district were successful in 2008-2009; 69 percent were successful in 2012-2013.

2.5 Analyze and summarize trends in student progression through basic skills courses, if applicable. N/A

2.6 List degrees and certificates currently offered in the discipline. Analyze how resource adjustments or other changes during the past four years have impacted degree and certificate completion rates.

Degrees granted by the ELTE program increased by 48.5 percent from 2008-2009 to 2012-2013 (or increased by 32 percent from 2009-2010 to 2012-2013.)

2.7 Using the data provided by web link, please comment on transfer rates to four-year institutions, license exam results, and job placement/post testing. If applicable, cite examples of using additional resources (e.g. human, facilities/physical, technology, financial, professional development) or making other changes during the past four years that have resulted in improvements in transfer rates to four-year institutions, license exam results, and job placement/post testing.

Numbers for 2012-2013 are not available at writing time.

2.8 Career Technical Education (CTE) programs: Review the labor market data on the California Employment Development Department website for jobs related to your discipline. Comment on the occupational projections for employment in your discipline for the next two years. Comment on how the projections affect your planning.

For the next two years average annual job opening for the Electronics Technology students is 60% in the labor market demand with the CTE.

### **Part 3 – Outcome Analysis and Use**

3.1 Analyze changes in **student learning outcome** (SLO) and **program learning outcome** (PLO) assessment findings over the past five years. Cite examples of using data during that time as the basis for resource allocation (e.g. human, facilities/physical, technology,

financial, professional development) or making other changes that resulted in or correlate with improved learning outcome findings over the past four years.\*

The SLO and PLO data shows that all sections are performing above are goal, but all instructors have found that the lack of budget to purchase materials and hire an instructional assistant. The program needs an Electronics Technology Instructional Assistant. Student assistants are not used at the present time; they are useful to the program at this time. In the past, there was a 50% Instructional Assistant that was very valuable to the program.

Modernize Electronics Technology equipment and supplies.

We need new and upgraded technology for the class rooms and the laboratories.

Computers are 8 years old in the class room. The students use the computers for the lab work.

- Connect Elementary and Intermediate algebra students to Electronics Technology program.
- The program has been fulltime for seven years, the \$5000.00 a year budget is not adequate, and the cost of replacements and new technology is forcing us to update gear annually. A budget of \$10000.00 is a better amount for the needs of the program.
- Develop new strategies for building relationships with the high schools.
- The articulation agreements are in place with the high schools.
- Progress has also been made for significant improvements to equipment and tools for the Electronics Technology laboratory through the use of Perkins (VTEA) funding.

Unfortunately, TE1 is one of the older buildings on campus. The air conditioning is very noisy and it is not thermostatically controlled. It must be manually switched on and off. Currently, there is reference to Electronics laboratory in the Phase Two expansion of the TE7 Technology Building. This is one option for the program in the future. This would be even more attractive if it could be done in association with additional laboratories for Electrical Technology. Another option would be to plan for at least two electronics technology laboratories in an Aerospace Complex at the Palmdale Campus. The Electronics Technology program supports the aerospace industry in the Antelope Valley as most of the employers of Electronics Technicians here are aerospace related.

- 3.2 Analyze changes in **operational outcomes** (OO) findings over the past five years. Cite examples of using data during that time as the basis for resource allocation (e.g. human, facilities/physical, technology, financial, professional development) or making other changes that resulted in or correlate with improved OO findings over the past four years.\*  
N/A

#### **Part 4 - Stakeholder Assessment**

- 4.1 Assess how well the program serves the needs of the students, district, and community. Support statements with findings from student, employee, and/or community surveys. Include feedback from other sources if relevant (e.g. advisory committees, employers in the community, universities, scores on licensure exams, job placement).



The adjunct instructors are actively employed in the Aerospace industry. They provide an invaluable link between the college, the students, and the aerospace industry in this valley.

Advisory committee member from the FAA emphasized the teaching of basic electronic theory will help the students to relate with Robotics, and use the theory with the real world project. The FAA runs an extensive training program at their academy in Oklahoma City and they prefer individuals with basic electronics skills as trainees. The FAA selects approximately three students per year from Antelope Valley College and is currently offering only intern positions.

The subject of enrollments was discussed. The committee was pleased with the current state of enrollments.

Enrollments for the spring semester of 2013 are evidence of Rick Motawakel's hard work. Spring 2013 enrollments for particular courses in the Electronic Technology either approached or exceeded maximum limits.

## Part 5 - Goals and Objectives

- 5.1 Review the goals identified in your most recent comprehensive self-study report and last year's annual report. Indicate which have been completed and which have been eliminated.\*
- Provided support to the aviation and defense industries and it's on going
  - Working on an internship program with Edwards Air Force Base
  - The program need an ELTE Instructional Assistant
- 5.2 List discipline/area goals and objectives related to **improving outcome findings and/or the success of the various learner populations** in completing courses, certificates, degrees, and transfer requirements. Discipline/area goals must be guided by district Strategic Goals and Plan Summaries in the Educational Master Plan (EMP). They must be supported by an outcome action plan, data analysis, national or professional standards, and/or a requirement or guideline from an outside agency (e.g. legislation, Chancellor's Office, accrediting body, professional board). Consider curriculum, instruction, assessments, program services, operations, collaborations, scheduling, location, technology, etc.\*

Current (up to three years)

Goal #1: Decrease loss of tools and equipment, provide adequate supplies for instruction.

- Guided by district Strategic Goal(s) # 1-C, 3b
- Data: There has been a big loss of equipment do to transporting from storage room to the class room.

Objectives: We need shelves on the lab bench to keep equipment in the lab at all time, no need for moving it to the storage room.

Near Term (three to five years)

Goal#2: Improve technology resources for students.

- Guided by district Strategic Goal(s) # 5b & 7a
- Student evaluation of the lab mentioned issues with equipment and computers.

Objectives: Get a funding source for computers this training aid would allow us to save on materials while the students learn the proper electronic trouble-shooting methods on the simulator. The cost is \$20,000.00.

- 5.3 List discipline/area goals and objectives **directly related to advancing Strategic Goals.** Discipline/area goals must be guided by district Strategic Goals and Plan Summaries in the Educational Master Plan (EMP). They must be supported by data analysis or other documentation.

Goal #3: Increase the number of students who achieve certificates and degrees

- Guided by district Strategic Goal(s) # 1-C
- 17 degrees/certificates have been awarded in each of the past five years in ELTE.

Objectives: Planning on having the CTE counselor come into the class and help students with an educational plan.

Goal # 4: Increase the number of students who meet with a counselor to get educational plans.

- Guided by district Strategic Goal(s) # 1-D
- There is no baseline data for this. However, the faculty believe this is a need for our students so they stay on a career path.

Objectives: Continue to have relationships' with counselors and career advisors so the students can get information they need to succeed.

Goal#5: Provide a safe learning environment for electronics technology students.

- Guided by district Strategic Goal(s) # 5b
- With the size of the students in the lab during soldering we need proper ventilation in the class room.

Objectives: Assess the air vent in the class/lab area (Facilities Services). File work order for an air vent in the class/lab area.

## Part 6 - Resource Needs

Identify significant resource needs that should be addressed currently (up to three years), near term (three to five years), and long term (five to ten years). If there may be safety issues, enrollment consequences, or other important concerns if a resource is not provided please make this known.\*

- 6.1 List needed human resources. List titles in priority order. Identify which discipline/area goal(s) guides this need.  
 Instructor Assistant for the lab/class (Goal #1)  
 CTE counselor (Goals #3 & 4)  
 Hire an ELTE Instructional Assistant, the program currently has no dedicated assistant; instructor has to perform all upkeep and maintenance on equipment and shop.
- 6.2 List needed technology resources in priority order. Identify which discipline/area goal(s) guides this need.  
 Modernize Electronics Technology equipment (computers) and supplies.  
 (Goal #2)
- 6.3 List facilities/physical resources (remodels, renovations, or new) needed to provide a safe and appropriate student learning and/or work environment. List needs in priority order. Identify which discipline/area goal(s) guides this need.  
 Assess the air vent in the class/lab (Goal #5)  
 A new facility is needed before TE1 is demolished. ELTE is not included in the current Facilities Master Plan.
- 6.4 List needed professional development resources in priority order. Identify which discipline/area goal(s) guides this need.  
 N/A
- 6.5 List any other needed resources in priority order. Identify which discipline/area goal(s) guides this need.  
 Add shelves to the workbenches to prevent damaging the equipment's in both Electronics laboratories. (Goal #1)

#### Part 7 - Recommendations and Comments

- 7.1 List recommended changes to the Educational Master Plan to:
- Address external issues or mandates such as legislation, industry, and professional standards, etc.
  - Respond to outcome findings.
  - Reflect changes in technology, methodology, and/or disciplines.
  - Address student achievement gaps and/or meet other student needs.
- Refer to Division overview**
- 7.2 What changes in the program review process would improve institutional effectiveness or make the results more helpful to the program?  
 None

## Comprehensive Program Review Self-Study Report

Division/Area Name **Fire Technology**

Year **2013**

### **Part 1 - Division or Area Overview**

1.44 Briefly describe how the division or area contributes to the district mission.

The Fire Technology programs supports the district mission by providing Technical certificates and degrees that are designed to enhance students' knowledge and skills leading to employment.

1.45 Place an "X" by each Institutional Learning Outcome (ILO) supported by the division or area.

- Analyze diverse perspectives from a variety of disciplines and experiences that contribute to the development of self-awareness.
- Value and apply lifelong learning skills required for employment, basic skills, transfer education, and personal development.
- Demonstrate a breadth of knowledge and experiences from the humanities, social and behavioral sciences, arts, natural sciences, and mathematics.
- Solve problems using oral and written communication, critical thinking and listening skills, planning and decision-making skills, information literacy, and a variety of technologies.
- Demonstrate good citizenship and teamwork through respect, tolerance, cultural awareness, and the role of diversity in modern society.
- Identify career opportunities that contribute to the economic well-being of the community.

1.46 After completing Parts 2-7, prepare a one page summary of the division/area. Interpret the significance of the findings. Note successes in supporting district strategic goals and where improvements are needed.

1.47 Name of person leading this review

Thomas Hutchison

1.48 Names of all participants in this review

Bill Bailey

### **Part 2 - Data Analysis and Use**

Longitudinal data

District headcount and FTES	10455.88
Division headcount and FTES	983.54
Discipline headcount and FTES	132.60

Number of sections offered by location/distance education Lanc. 36  
PT/FT faculty ratio by LHE Fall 1.53, Spr. 1.76  
Efficiency (measured as FTES/FTEF) Fall 10.87, Spr 7.87

- 2.1 Please review the five year headcount and FTES enrollment data provided on the web link. Comment on trends and how they affect your program

During the last 5 year period the Fire Technology program has seen a 10.3 percent decline in enrolment from a high in 2010-11 of 398 to a low in 2012-13 of 357. This trend can be traced to the decline in college budget over that period of time and FTE reductions of a greater percentage of the Fire Tech program to facilitate the survival of other smaller programs in the division. The division average for section reduction was close to an average of 15%. These FTE reductions resulted in not offering several courses which traditionally attracted students employed by Fire Protection Agencies which we have offered in a compressed or short course format.

During the last five years the Antelope Valley College Firefighter 1 Academy has ranged from a high of 40 students per semester in 2009 to a low of 24 students per semester in 2008. There is no long-term data to make conclusions about the program due to its 7 year existence. However it seems that local economic stability has had an effect on student enrollment due to the cost of the program. This is seen by a corresponding decline in enrollment with the decline in the local economy.

- 2.2 Report and analyze program/area data showing the quantity of services provided over the past four years (e.g. number of students served, books sold, employees hired, acreage maintained).

The number of students served during the review period declined beginning in the 2011-12 academic year. This decline is directly related in the reduction of class sections. Most every class is full within the first few days of open registration and has either a wait list or numerous students trying to crash the class the first day. The large number of students trying to crash has increased due to the number of reduced sections and has often times caused students to have to return additional semesters to complete required courses.

The in the Firefighter I academy the number of students served over the last four years is 137 with an average enrollment of 34. The low was in 2012 with 26 students. There are several possible factors for the declining number in 2012 but most significant was program cost which is averaging \$2500 per year. Requirements placed on the program entrance are also a factor with current costs for pre academy medical screening and the cost of the Candidate Physical Ability Test.

- 2.3 Please review the five year data on sections offered, faculty ratios, and efficiency data provided on the web link. Comment on trends and how they affect your program.

The fire technology program had a 22.4 % reduction in class sections during the review period of the last 5 years from a high of 49 sections to the 2012-13 level of 38, when compared with the 2007-08 years offering of 55 sections that percentage jumps to a reduction of 30.9%. This trend has resulted in some students leaving AVC to either attend other local community colleges where they were able to enroll in classes or simply dropping out of school to seek employment.

The fire Academy has not been affected in this area as there was no reduction in the class size (the Firefighter I Academy course offerings is included in the overall Fire Technology course offering numbers) or student to instructor ratio. We remain consistent with an 8 to 1 student to instructor ratio in the Firefighter I academy to meet State standards in this area.

- 2.4 Using the discipline student success data provided by web link, please comment on any similarities or differences between race, gender, location, and modality groups in meeting the Institutional Standard of 68% for student success (students earning grades of A, B, C, Pass, or Credit). Identify what actions are planned to address trends and achievement gaps in the current academic year.

Overall the Fire Technology students are performing well above the district averages in relation to Race and Gender with the exception of Black or African American students. There is a need to recruit Instructors into the Fire Technology programs that are Black or African American and women to provide role models for these two groups of students. The Fire Technology program does not offer on-line classes, though traditional classroom instruction by subject is offered day and night varying by semester. The Fire Technology program has not expanded to the Palmdale Site primarily due to the lack of sections we can offer and the number of available faculty. Students in the fire technology program tend to be highly motivated to achieve personal success by obtaining employment as a firefighter.. This we believe is attributed to their ability to obtain employment upon completing one of the career options offered through the program here at AVC.

The success rate for retention and completion of the California State Firefighter 1 Academy through Antelope Valley College is at 94 % program completion. The 94% completion rate translates to 154 students with Certificate completion. There is no data available for the transfer to 4 year institutions as most students pursue employment opportunities upon completion. The AVC Fire Academy has an outstanding job placement record with over 52 students placed in either Career Firefighter positions, Seasonal Firefighter positions or full and part time EMS positions for a 34% placement rate.

There is a need to recruit more female and African American students into the program, possibly through our own AVC athletic programs. We also have a need to recruit African American and Females as Adjunct instructors into the academy teaching cadre.

- 2.5 Analyze and summarize trends in student progression through basic skills courses, if applicable.

Not Applicable

- 2.6 List degrees and certificates currently offered in the discipline. Analyze how resource adjustments or other changes during the past four years have impacted degree and certificate completion rates.

The Fire Technology offers two Associates degrees, one in Fire Technology which addresses the requirements of those students that are following a career track toward the Municipal fire service. The other Associates Degree offered is in Wildland Fire Technology which addresses the requirements for students wishing to pursue that career track. AVC is only one of a very few Community Colleges offering this degree in California. The Program also offers a State Certified Firefighter One Academy which provides the student with their California State Firefighter One Qualification. Also offered are low unit certificates in Both Fire Technology and Wildland Fire Technology as well as a Wildland Firefighter Academy which is the only one of its kind in the state.

The Antelope valley College State Firefighter 1 Academy offers a California State Fire Marshal Basic Firefighter 1 Academy Certificate upon completion of the 480 hour course.

- 2.7 Using the data provided by web link, please comment on transfer rates to four-year institutions, license exam results, and job placement/post testing. If applicable, cite examples of using additional resources (e.g. human, facilities/physical, technology, financial, professional development) or making other changes during the past four years that have resulted in improvements in transfer rates to four-year institutions, license exam results, and job placement/post testing.

Fire Technology students that complete the Associate Degree or Certificate program are primarily focused on careers vs transfer to four year institutions. Students who are successful in obtaining employment in the profession as firefighters averages between 20 to 35 per year. The fire program maintains Wildland Firefighting crew that is beneficial in giving students hands on real life experience while being employed by the U.S. Forest Service as an emergency hire firefighter. This experience leads to several students being hired during the fire season as replacements of ones that are either injured or are no longer employed.

The Firefighter 1 Academy Graduates have been pursuing employment in the career field upon completion of the academy. They are prepared for employment in the municipal and wildland firefighting arenas.

Many fire technology students have been able to take advantage of the financial aid program to remain in school to be successful. These services are of a benefit to the serious student. In the area of counseling with the hiring of the CTE Counselor hopefully Fire Technology students will be able to receive some consistent advice through that

service. Until now FTEC students have heavily relied on the faculty to provide academic counseling to keep them focused.

- 2.8 Career Technical Education (CTE) programs: Review the labor market data on the California Employment Development Department website for jobs related to your discipline. Comment on the occupational projections for employment in your discipline for the next two years. Comment on how the projections affect your planning.

The labor projections indicate a projected need for 1140 firefighters per year for the next 10 years. This projection reflects full time firefighter's employment. The Fire Technology program is very successful in placing current students and graduates into seasonal Wildland Firefighter positions every year. These positions provide the students with work experience in the fire protection field, which is critical to be successful in competing for firefighter positions either in the wildland or municipal arena. Currently Antelope Valley Colleges Fire Technology Program is one of three in the state which has an emergency hire wildland fire crew. This program aids students in gaining skills for future employment. This crew has about 60 people on the roster and loses well over 50% every year due to job placements with fire agencies.

The Firefighter I Academy provides students with the skills and knowledge to successfully attain a firefighter position with local governments. Those successful students that graduate from this program are usually hired between 2-4 years after completion depending on the frequency the agencies will test. For example Los Angeles City Fire Department has not tested for several years and just recently tested many AVC Academy Graduates who are presently in this hiring process.

The job projections and current results indicate that we are about where we need to be for frequency of course offerings though there is a strong need to Fire Technology program to return to a more predictable and varied offering of courses over the next few years. The long term scheduling was thrown off due to the reduction of budget and number of sections offered. This has caused about 10% of the students to have to remain one or more additional semesters to complete a course. In the spring of 2014 we anticipate hiring additional adjunct faculty to increase the number of faculty available as well as to increase the number of sections offered to increase the FTES in the fire technology program.

### **Part 3 – Outcome Analysis and Use**

- 3.1 Analyze changes in **student learning outcome (SLO)** and **program learning outcome (PLO)** assessment findings over the past five years. Cite examples of using data during that time as the basis for resource allocation (e.g. human, facilities/physical, technology, financial, professional development) or making other changes that resulted in or correlate with improved learning outcome findings over the past four years.

There have not been any significant changes to the SLOs over the past five years other than clarifying the measurability of the individual SLO through establishing a success rate



for all courses of 70% on standardized test by 70% of those enrolled. The exception of this is the Firefighter I Academy which is using the State Fire Marshal's Office standard of 80%. We have seen a change in the student's performance in classes. Discussions with faculty in regard to SLO measurement indicate that those students who are not successful tend to have two common threads. First that they are not prepared to be in a college level course and lack basic writing, reading and comprehension skills when entering college. Second they often enroll in courses that do require some basic prerequisite level of understanding to be successful. An example of this is that a student may currently enroll in a 200 level Fire Behavior course without the 100 level knowledge to be successful. This situation was created for the student when all prerequisites were removed from classes as they were interpreted as barriers to student success several years ago. Today the lack of prerequisites is a barrier to student success because they do not have a baseline knowledge level of a subject to be successful in higher level courses.

- 3.2 Analyze changes in **operational outcomes** (OO) findings over the past five years. Cite examples of using data during that time as the basis for resource allocation (e.g. human, facilities/physical, technology, financial, professional development) or making other changes that resulted in or correlate with improved OO findings over the past four years.

Not Applicable

#### **Part 4 - Stakeholder Assessment**

- 4.1 Assess how well the program serves the needs of the students, district, and community. Support statements with findings from student, employee, and/or community surveys. Include feedback from other sources if relevant (e.g. advisory committees, employers in the community, universities, scores on licensure exams, job placement).

The Fire Technology program is meeting the needs of our student, as demonstrated by those that are successful in obtaining employment as Firefighters. Often times the success in the Municipal portion of the program does not show an immediate result. Due to the nature of entry level positions in the fire service there is a time lag, often times of several years before the student is successful in their pursuit of permanent employment. Though many Firefighter I graduates do obtain temporary employment as seasonal Wildland firefighters as they continue the testing process. Those students in the Wildland portion of the program tend to see results sooner due to the nature of Wildland firefighter positions which are mostly seasonal and then bridge to career jobs. The Fire Technology advisory committee members and employees of Fire Agencies consistently report that the quality of the AVC Fire Technology students they are employing are very high quality employees and bring strong discipline, knowledge and skills to the work place. Recently One of the Professors in the Fire Safety Program at CSULA remarked that AVC has the best Wildland Fire program in the State.

#### **Part 5 - Goals and Objectives**

- 5.1 Review the goals identified in your most recent comprehensive self-study report and last year's annual report. Indicate which have been completed and which have been eliminated.

Goals and Objectives set in the most recent comprehensive program review are

- Hiring of two to three Adjunct Instructors for the Firefighter I Academy *Done and dropped from list.*
- Hiring One additional Full time instructor (for a total of 3). *Not Completed*

- 5.2 List discipline/area goals and objectives related to **improving outcome findings and/or the success of the various learner populations** in completing courses, certificates, degrees, and transfer requirements. Discipline/area goals must be guided by district Strategic Goals and Plan Summaries in the Educational Master Plan (EMP). They must be supported by an outcome action plan, data analysis, national or professional standards, and/or a requirement or guideline from an outside agency (e.g. legislation, Chancellor's Office, accrediting body, professional board). Consider curriculum, instruction, assessments, program services, operations, collaborations, scheduling, location, technology, etc.

Current (up to three years)

Goal: A specific target

- Guided by district Strategic Goal(s) # 1
  - **Objective 1a increase the number of degrees granted by 100% to 6 by the end of the 2015-16 academic year**
  - Supporting action plan, data analysis, or other documentation
- Objectives: Significant steps or actions needed to achieve the goal.

Faculty will network with the newly hired CTE Counselor to guide Fire Technology students into a Fire Technology degree track instead of a general education type track.

Near Term (three to five years)

Goal: A specific target

- Guided by district Strategic Goal(s) # 3
  - **Objective 3b increase employer outreach for participation on advisory committees in the Fire Technology in occupational related work experience and job placement. During Academic years 2014 through 2018**
  - Supporting action plan, data analysis, or other documentation
- Objectives: Significant steps or actions needed to achieve the goal.  
Full time and Adjunct faculty to bring additional representatives to Fire Technology Advisory committee meetings from agencies that are not currently represented in the Advisory Committee.

Long Term (five to ten years)

Goal: A specific target

- Guided by district Strategic Goal(s) # 5
- **Objective 5b identify program equipment and facility needs**
- Supporting action plan, data analysis, or other documentation  
Objectives: Significant steps or actions needed to achieve the goal

The Fire Technology program continues to identify facility and equipment needs related to program delivery. There is a need for the Fire program to have a functional Fire Engine on campus for hands on manipulative training and exercises in conjunction with skills portions of courses.

Facility wise the program needs an additional classroom facility and shower locker rooms for the Firefighter I Academy.

The Fire Technology program needs to have a stable operating budget which will adequately support the supply needs of the program to maintain a sufficient supply of safe useable state of the art equipment to the Wildland and Municipal fire programs.

- 5.3 List discipline/area goals and objectives **directly related to advancing Strategic Goals**. Discipline/area goals must be guided by district Strategic Goals and Plan Summaries in the Educational Master Plan (EMP). They must be supported by data analysis or other documentation.

**This section not applicable**

## **Part 6 - Resource Needs**

Identify significant resource needs that should be addressed currently (up to three years), near term (three to five years), and long term (five to ten years). If there may be safety issues, enrollment consequences, or other important concerns if a resource is not provided please make this known.\*

- 6.1 List needed human resources. List titles in priority order. Identify which discipline/area goal(s) guides this need.

The Fire Technology program needs to add a third full time instructor to expand course offerings during the traditional daytime hours for specialty skills courses which have been taught during evening due to the availability of the specialized skill/qualifications of instructors needed for these classes. Examples of these classes are Hazardous Materials and Rescue Systems.

The program needs to maintain an adjunct instructor base with a wide variety of skills to ensure program continuity and have the ability to substitute an Instructor when the need arises. There is a need to add instructors to this pool who reflect the ethnicity and gender of our students through the hiring of African American and women instructors.

- 6.2 List needed technology resources in priority order. Identify which discipline/area goal(s) guides this need.

The Fire Technology program needs to acquire a water pumping truck for manipulative training for hose evolutions and demonstrations for day and night classes on campus. Student surveys consistently indicate the need for this teaching tool. Presently exposure to this key component of firefighter training occurs through a field trip the Los Angeles County Fire Dept. training center which is impractical for normal classroom times.

- 6.3 List facilities/physical resources (remodels, renovations, or new) needed to provide a safe and appropriate student learning and/or work environment. List needs in priority order. Identify which discipline/area goal(s) guides this need.

The existing classroom in TE2-120 needs to have the HVAC system replaced to provide a comfortable useable classroom for student learning. There is also a need to install a suspended ceiling in the room for noise and to assist in climate control. Summer daytime temperatures in this room frequently reach the high 80s and morning and evening temperatures in winter frequently drop to the high 40s low 50s

Move the Fire Academy to the location of the closed Sheriff's Academy facilities will greatly improve the delivery of that portion of the Fire Technology program and increase the effectiveness of that Academy. By utilizing this facility the students physical training and academic program will be blended into one facility.

The available time created in the TE2-120 room would then be used for other fire technology courses, and free up additional classrooms for other programs on campus.

- 6.4 List needed professional development resources in priority order. Identify which discipline/area goal(s) guides this need.

In Fire Technology all faculty are either current or retired firefighters who maintain their currency either on their full time firefighter jobs or through involvement in professional organizations. The occasional conference may be needs on an infrequent basis and can be addressed through Faculty Professional Development.

- 6.5 List any other needed resources in priority order. Identify which discipline/area goal(s) guides this need.

There is a strong need to develop a personal protective equipment cache for the Firefighter I Academy to facilitate the recruitment of economically challenged students into the Academy. Annually there are students who wish to participate but do not have the financial ability to incur the additional costs of the required Personal Protective equipment ensemble.

## **Part 7 - Recommendations and Comments**

7.1 List recommended changes to the Educational Master Plan to:

- Address external issues or mandates such as legislation, industry, and professional standards, etc.

State and National standards for fire protection and qualifications change frequently many annually. Many of these occur in a short time frame and are difficult to foresee.

- Respond to outcome findings.

Some of the achievement findings in the SLOs indicate a decline in student success, this is due in part to the discussion on SLOs in section 3.1 the Fire Technology program will be doing a restructure of the program degrees and courses in the next academic year to address this decline.

- Reflect changes in technology, methodology, and/or disciplines.
- Address student achievement gaps and/or meet other student needs.

The largest student achievement gap in the Fire Technology program appears to be with African American students which is a college wide concern as to their success rates. The faculty believes that with hiring African American instructors as a role model will generate a greater success rate in this group of students.

7.2 What changes in the program review process would improve institutional effectiveness or make the results more helpful to the program?

The only change that would be suggested to improve the effectiveness in the program review process is that something meaningful is generated in the classroom to improve the students' performance and their success rates. Increase the number of instructors reduce the student faculty ratio particularly in Technical Education, and provide the faculty with the tools needed to be able to get results. This division is hands on and is training students to be able to have more one on one time with the faculty. The best success that the Fire Technology program is having is when we can get the ratio of students to instructors down to about 8 to 1 particularly in field lab type situations. The Fire Service learned a long time ago that the most effective supervisor/leader/teacher to student ratio is 5 to 7 students to 1 supervisor.

## Comprehensive Program Review – October 2103

**Division/Area Name:** Technical Education/Interior Design

**Year:** 2013

### Part 1- Division or Area Overview

1.1 Briefly describe how the division or area contributes to the district mission

The Interior Design (ID) Program contributes to the mission of the district by providing career-focused opportunities to a diverse community of learners as documented in the current FTES diversity, ethnicity and race numbers. The program is best aligned with three of the goals from the Educational Master Plan (EMP).

1. Goal #1 - The Interior Design program provides educational opportunities to a highly diverse student base. A highly skilled faculty comprised of one full time instructor and adjunct employees support student success through the application of real-world business experience in a learning environment.
2. Goal #3 – The Interior Design program provides career focused technical education.
3. Goal #6 – The Interior Design Program maintains strong partnerships with the local business community through the program’s advisory committee and linkage to design specific businesses in the Antelope and Santa Clarita Valleys.

1.2 Place an “X” by each Institutional Learning Outcome (ILO) supported by the division or area.

Analyze diverse perspectives from a variety of disciplines and experiences that contribute to the development of self-awareness.

Value and apply lifelong learning skills required for employment, basic skills, transfer education, and personal development.

Demonstrate a breadth of knowledge and experiences from the humanities, social and behavioral sciences, arts, natural sciences, and mathematics.

Solve problems using oral and written communication, critical thinking and listening skills, planning and decision-making skills, information literacy, and a variety of technologies.

Demonstrate good citizenship and teamwork through respect, tolerance, cultural awareness, and the role of diversity in modern society.

Identify career opportunities that contribute to the economic well-being of the community.

1.3 After completing Parts 2-7, prepare a one page summary of the division/area. Interpret the significance of the findings. Note successes in supporting district strategic goals and where improvements are needed.

Summary – Technical Education – Interior Design

Significant Findings: The Interior Design program is stable regarding its utilization by district students. While both Headcount and FTES are down for the program over the five year analysis

period, the drop is less than what was observed at the district level. Furthermore, the drop in these two reporting areas can be directly correlated with summer session no longer being offered in the program area.

There has been a precipitous drop in the achievement success of Black/African American students within the program, with the current success level less than the Institutional Standard of 68%. This drop within Black/African American student success occurred at the same time Asian and AK Native/American Indian subgroups exceed the Institutional Standards for the first time. It is difficult to draw conclusions when some groups show improved learning outcomes while another group displays decreasing success rates.

Through observations made of testing, assignments and student presentation, it is clear that many students enter the ID program with only the most basic educational skills required to succeed at the college level. Promoting the use of Basic Learning Skill and ESL course work to ID students who come to AVC with a marginal educational skill set could help improve learning outcomes within the program. Use of the Basic Skills and ESL courses support EMP Goal #4.

Successes: The ID program continues to maintain steady enrollment even as the number of course offerings has decreased and cost per unit of education has increased. This supports EMP Goal #1, Objective 1e.

ID has a strong and engaged Advisory Committee to help tailor the needs of the program to future employment opportunities. In the program's capstone class there is an opportunity for student to make design presentation before Advisory Committee members, who use this opportunity to evaluate student skills, provide business-based critical feedback and consider students for future employment opportunities. This supports EMP Goal #3, Objective 3b and EMP Goal #6.

Improvements: The ID program needs to work to assure that all student subgroups meet the Institutional Learning standard of 68%. Through the Annual Program Review process a tracking mechanism is in place to evaluate if the current trend of decreasing success for the Black/African American subgroup continues into the future. Monitoring supports EMP Goal #1, Objective 1c.

A more visual link between the Interior Design program and job placement or transfer to higher education institutes needs to be established. Without a clear indication of how the ID program supports future life options, student participation within the program is expected to decrease as student move to areas of study with greater future advantages. Building stronger links with local employers and working with Counseling Services to track student placement after AVC, would allow instructors in the ID program to document how the educational investment can translate into better life options in the future. This supports EMP Goal #1, Objective 1a; Goal #2, Objective 2c; Goal #3, Objective 3b.

1.4 Name of person leading this review

Leslie Baker

1.5 Names of all participants in this review

Not applicable

## **Part 2 - Data Analysis and Use**

- 2.1 Please review the five year headcount and FTES enrollment data provided on the web link. Comment on trends and how they affect your program.\*

Annual district headcount decreased 21.9 percent from 2008-2009 to 2012-2013 and during that time headcount in the Interior Design (ID) program decreased 15.1 percent. This is a reflection of summer session not being offered as of 2010. District FTES decreased 12 percent in the past five years while a 9.5 percent decrease is noted in ID. This again reflects the influence of no summer session being offered in the program. ID numbers for both headcount and FTES are stable when summer sessions are factored out of the data.

- 2.2 Report and analyze program/area data showing the quantity of services provided over the past four years (e.g. number of students served, books sold, employees hired, acreage maintained).

Not applicable to the ID program

- 2.3 Please review the five year data on sections offered, faculty ratios, and efficiency data provided on the web link. Comment on trends and how they affect your program.

Sections offered by the district decreased 27.5 percent from 2008-2009 to 2012-2013. That reflects a 33 percent decrease in Lancaster sections, a 61 percent increase in Palmdale sections, and a 66 percent decrease in sections offered elsewhere. During that time sections in Interior Design decreased 25 percent, slightly lower than the decrease seen at the Lancaster campus as a whole. Course material is only presented at the Lancaster campus.

Fall district PT/FT faculty ratio increased 5.9 percent and spring district PT/FT faculty ratio increased 8.8 percent from 2008-2009 to 2012-2013. During that time the spring PT/FT ratio decreased 19.4 percent while the fall ratio for Interior Design decreased 23.8 percent.

District efficiency in the fall increased 15.9 percent and efficiency in the spring increased 6.7 percent over the past five years. During this same time period Interior Design efficiency in the fall increased 9.4 percent and efficiency in the spring increased 1.6 percent.

The only full time staff is currently instructing a higher percentage of the courses in the program as fewer sections are offered; therefore fewer sessions are available to offer part-time staff.

- 2.4 Using the discipline student success data provided by web link, please comment on any similarities or differences between race, gender, location, and modality groups in meeting the Institutional Standard of 68% for student success (students earning grades of A, B, C, Pass, or Credit). Identify what actions are planned to address trends and achievement gaps in the current academic year.\*



The table below compares the ID program with the district as a whole. The ID program exceeds district success outcomes in all categories with the exception of Pacific Islands where a very limited number of ID students skew the data. Groups falling below the Institutional Standard of 68 percent are Black-African American and the Pacific Islanders.

Given this mix of results in student success, no pattern can be drawn from the data, as success is both increasing and decreasing by race. The decreasing success trend identified for the Mexican/Central/South American populations may be attributed to an increasing number of students who are not native English speakers (personal observation).

	District			Interior Design		
	2008-2009	2012-2013	% Change	2008-2009	2012-2013	% Change
Mexican/Central/South American	68	72	+4	89	78	-11
Other - Unknown	69	73	+4	89	86	-3
Black – African American	55	57	+2	72	58	-14
Asian	78	78	0	56	87	+31
White	76	76	0	84	89	+5
American Indians – AK Natives	68	67	-1	63	71	+8
Pacific Islander	69	64	-5	No data	33	N/A
Female	69	71	+2	85	85	0
Male	68	69	+1	86	83	-3

Classes are not offered on-line or at locations other than the Lancaster campus.

2.5 Analyze and summarize trends in student progression through basic skills courses, if applicable.

Not Applicable to the Interior Design program

2.6 List degrees and certificates currently offered in the discipline. Analyze how resource adjustments or other changes during the past five years have impacted degree and certificate completion rates.

Interior Design offers both an Associates of Arts degree and a Certificate in Interior Design based on completing 33 core units within the program. During the past 5 years the rate of degrees and certificates awarded have been highly variable with a average of 5.2 degrees awarded (median = 5) and an average of 9.4 certificates awarded (median = 11). Trend analysis indicates that both the number of degrees and certificates issues is on a downward trend. This mirrors the district wide trend which indicates a district decline in the number of degrees issued of 29.9 percent from 2008-2009 to 2012-2013.

The reasons behind the declining number of degrees and certificates issues are highly speculative. However, as the number of overall classes offered by the district decreased over the previous three years, more students looking for general education units were enrolling in Interior

Design courses. These students had limited interest in the Interior Design profession and were simply seeking general education credits regardless of course content. The shift in the kind of students enrolled in ID classes has potentially affected the number of degrees and certificates awarded.

- 2.7 Using the data provided by web link, please comment on transfer rates to four-year institutions, license exam results, and job placement/post testing. If applicable, cite examples of using additional resources (e.g. human, facilities/physical, technology, financial, professional development) or making other changes during the past four years that have resulted in improvements in transfer rates to four-year institutions, license exam results, and job placement/post testing.

The district transfer rate decreased 38.4 percent from 2008-2009 to 2011-2012. Numbers for 2012-2013 are not available at writing time. No specific data regarding transfer rates for Technical Education or the Interior Design program is available.

- 2.8 Career Technical Education (CTE) programs: Review the labor market data on the California Employment Development Department website for jobs related to your discipline. Comment on the occupational projections for employment in your discipline for the next two years. Comment on how the projections affect your planning.  
<http://www.labormarketinfo.edd.ca.gov/Content.asp?pageid=1011>

Employment Development Department data does not provide outlook data on a two year basis, however the 2010 to 2020 occupational outlook of Interior Design Professionals is positive, as data suggests an increase of 23% state-wide, while data for Los Angeles County indicates 23.5% increase over this same time period.

This data provides positive re-enforcement that for students who wish to pursue their education in the field. The skills identified within the job search function of the website matched those currently being offered within the program. However, data suggests an emphasis on kitchen and bath design skills. These areas can be further developed within existing curriculum to meet what appears to be an area of expanding demand.

### **Part 3 – Outcome Analysis and Use**

- 3.1 Analyze changes in **student learning outcome** (SLO) and **program learning outcome** (PLO) assessment findings over the past five years. Cite examples of using data during that time as the basis for resource allocation (e.g. human, facilities/physical, technology, financial, professional development) or making other changes that resulted in or correlate with improved learning outcome findings over the past four years.\*

During the 2009-2010 academic year discussions regarding SLO's and PLO's were held with Technical Education Dean, Margaret Drake (retired). The discussion focused on the need to secure new instructional materials and computer software to assure that students in the ID

program were being provided the skills required to successfully transfer to 4-year programs or enter the workforce with the skills identified by the California Council for Interior Design Certificate program. Perkins IV grant funding was the vehicle of choice to address these needs. Based on the Perkins Grant request, approximately \$20,000 was awarded the ID program to support the cost associated with software licensing and material/storage acquisition.

This funding set the stage for the development of the first software driven course within the ID program and also deferred material costs for students enrolled in the ID program, as supplies purchased with Perkins grant funds provided students free in many ID courses.

The allocation of the grant funding allowed the program to better meet:

1. SLO #2 – ID-110, *“create accurate drawings in several views ...”*
2. SLO #1 – ID-120, *“analyze and apply design concepts and requirements related to color in design”*
3. SLO # 3 – ID-220, *“present design solutions incorporating construction techniques, lighting solutions and accepted universal design practices.*
4. SLO # 3 – ID-260, *“create and present design solutions incorporating effective space planning concepts”*
5. PLO #1 – *“Identify and solve problems pertaining to aesthetics and function ...”*
6. PLO #3 – *“Demonstrate proper business, technical and communication skills ...”*.
7. PLO #4 – *“Analyze lifestyles, historical perspectives, environmental requirements and universal design influences that affect design practitioners”*

- 3.2 Analyze changes in **operational outcomes** (OO) findings over the past five years. Cite examples of using data during that time as the basis for resource allocation (e.g. human, facilities/physical, technology, financial, professional development) or making other changes that resulted in or correlate with improved OO findings over the past four years.\*

Not applicable to the Interior Design program.

#### **Part 4 - Stakeholder Assessment**

- 4.1 Assess how well the program serves the needs of the students, district, and community.

Support statements with findings from student, employee, and/or community surveys.

Include feedback from other sources if relevant (e.g. advisory committees, employers in the community, universities, scores on licensure exams, job placement).

The program is well integrated with the local business community associated with the interior design profession. Professional relationships and support with materials and/or participation as Advisory Committee members has been established with Lenton Construction (kitchen/bath remodeling), Metro Floors, Century Draperies, Avens Furniture, Valencia Lighting and California Tile. With input from these local businesses the structure of the ID program redesigned to better address pre-requisites and the flow of the courses within the program. These stakeholders have also helped to identify weaknesses in the current offerings, which lead to the proposal to add a Computer Aided Design course in 2014.

The program has participation from local businesses at student presentations. Serving as technical experts for the presentations made by students in the capstone ID-260 course, these stakeholders provide valuable unbiased feedback to the student who may soon be entering the job market. These presentations also serve as an informal interview mechanism for students as local businesses are able to identify students with the knowledge, skills and abilities to succeed as employees in their specific business.

An annual presentation is made available to all students from a representative of the *California Council for Interior Design Certification* to provide students with the most current information on the educational certification requires for Interior Designers in the State of California. This unique opportunity assures that interested students are knowledgeable of the State mandated educational requirements of the Interior Design profession.

## Part 5 - Goals and Objectives

- 5.1 Review the goals identified in your most recent comprehensive self-study report and last year's annual report. Indicate which have been completed and which have been eliminated.\*

Goal: Development and implementation of a computer aided drafting course. **COURSE HAS BEEN SUBMITTED TO ACADEMIC POLICIES AND PROCEDURES**

Goal: Revise Course Outlines of Record (COR) to include additional learning objectives for the understanding and application of building codes associated with residential and commercial design. **ONGOING**

Goal: Begin the evaluation of the effects of resequencing courses in the program on student success. **ONGOING**

- 5.2 List discipline/area goals and objectives related to **improving outcome findings and/or the success of the various learner populations** in completing courses, certificates, degrees, and transfer requirements. Discipline/area goals must be guided by district Strategic Goals and Plan Summaries in the Educational Master Plan (EMP). They must be supported by an outcome action plan, data analysis, national or professional standards, and/or a requirement or guideline from an outside agency (e.g. legislation, Chancellor's Office, accrediting body, professional board). Consider curriculum, instruction, assessments, program services, operations, collaborations, scheduling, location, technology, etc.\*

Current (up to three years)

*Goal:* Utilize new full time Career Technical Education Counselor to assist students with identification of their personal skill gaps and suggest educational opportunities to fill these learning gaps.

- Guided by district Strategic Goal(s) #1, Objective 1d.

- Supporting action plan, data analysis, or other documentation – AVCCD Educational Master Plan, 2013-2016

*Objectives:* Significant steps or actions needed to achieve the goal (1) Become aware of the services offered by the Career Technical Education Counselor – (2) Inform students of the availability of counseling services specifically focused on Technical Education – (3) Follow-up with the counselor to evaluate usage of service by Interior Design students. Strategize on mechanisms to promote student learning outcomes through coordination with counseling services.

Near Term (three to five years)

*Goal:* Promote enrollment in Basic Skills and ESL courses by Interior Design students in need of improved learning skills to increase program learning outcomes.

- Guided by district Strategic Goal(s) #4
- Supporting action plan, data analysis, or other documentation - AVCCD Educational Master Plan, 2013-2016.

*Objectives:* Significant steps or actions needed to achieve the goal (1) Develop relationship with AVC Basic Skills/ESL coordinator– (2) Develop a strategy to channel appropriate students to Basic Skills/ESL courses – (3) Evaluate with the Basic Skills/ESL staff, utilization of these classes by Interior Design students. Evaluate if learning outcomes are increasing based on data available for Annual Program Reviews.

Long Term (five to ten years)

*Goal:* Increase the use of tablets and computers within the Interior Design curriculum in order to provide students with an improved learning environment and to promote increases in learning outcomes.

- Guided by district Strategic Goal(s) #2
- Supporting action plan, data analysis, or other documentation - AVCCD Educational Master Plan, 2013-2016.

*Objectives:* Significant steps or actions needed to achieve the goal (1) Begin revision of curriculum to include the use of commonly used design software programs. (2) Investigate licensing requirements for commercial software. (3) Work with AVC IT to assure compatibility of software (4) Investigate availability of tablets/laptops from large software/hardware companies which could be donated to the ID program for use (5) Establish a pilot course for software use, potentially ID-260 (6) Provide for professional development of ID staff assigned to software intensive courses (7) Evaluate effectiveness of the software introduction as a learning tool.

- 5.3 List discipline/area goals and objectives **directly related to advancing Strategic Goals.** Discipline/area goals must be guided by district Strategic Goals and Plan Summaries in the Educational Master Plan (EMP). They must be supported by data analysis or other documentation.

Current (up to three years)

*Goal:* Go live with Computer Aided Design course currently with AP&P.

- Guided by district Strategic Goal(s) #1
- Supporting action plan, data analysis, or other documentation – AVCCD Educational Master Plan, 2013-2016

*Objectives:* Significant steps or actions needed to achieve the goal (1) Secure curriculum approval from AP&P – (2) Assure course inclusion in ID schedule – (3) Implement 1<sup>st</sup> class and identify problems/issues; refine course material as required.

Near Term (three to five years)

*Goal:* Establish student cooperative work relationships with Lowes, Home Depot design centers in the Antelope Valley to increase post-certificate student employment rates.

- Guided by district Strategic Goal(s) #3
- Supporting action plan, data analysis, or other documentation - AVCCD Educational Master Plan, 2013-2016.

*Objectives:* Significant steps or actions needed to achieve the goal (1) Develop relationship with Lowes, Home Depot regional management for support and to secure access to local store decision makers – (2) Investigate the potential use of an unpaid intern program to facilitate student placement and learning opportunities – (3) Transition qualified interns in full-time paid positions.

Long Term (five to ten years)

*Goal:* Increase the use of tablets and computers with the Interior Design curriculum in order to provide students with an enhanced skill set for transfer to 4-year programs and for entering the workforce.

- Guided by district Strategic Goal(s) #2
- Supporting action plan, data analysis, or other documentation - AVCCD Educational Master Plan, 2013-2016.

*Objectives:* Significant steps or actions needed to achieve the goal (1) Begin revision of curriculum to include the use of commonly use design software programs. (2) Investigate licensing requirements for commercial software. (3) Work with AVC IT to assure compatibility of software (4) Investigate availability of tablets/laptops from large software/hardware companies which could be donated to the ID program for use (5) Establish a pilot course for software use –ID260 (6) Provide for professional development of ID staff assigned to software intensive courses (7) Evaluate effectiveness of the software introduction as a learning tool.

## Part 6 - Resource Needs

Identify significant resource needs that should be addressed currently (up to three years), near term (three to five years), and long term (five to ten years). If there may be safety issues, enrollment consequences, or other important concerns if a resource is not provided please make this known.\*

- 6.1 List needed human resources. List titles in priority order. Identify which discipline/area goal(s) guides this need.
  - Professional development for full time staff to remain current with the increasing use of technology in the interior design profession (Section 5.1, first Goal)
  - Resource assistant – part time – to assist in the management of the administrative requirements of the Interior Design program (Section 5.1, second and third Goals)
- 6.2 List needed technology resources in priority order. Identify which discipline/area goal(s) guides this need.
  - IT support for Computer Aided Design course currently in development (5.1, first Goal)
  - IT planning support for increased use of tablets/computers in the ID program (5.3 – Long Term)
- 6.3 List facilities/physical resources (remodels, renovations, or new) needed to provide a safe and appropriate student learning and/or work environment. List needs in priority order. Identify which discipline/area goal(s) guides this need.
  - Wireless technology available in the classroom for student use (5.3 Long Term).
- 6.4 List needed professional development resources in priority order. Identify which discipline/area goal(s) guides this need.
  - Fund attendance at design focused conferences to assure that curriculum meets established professional standards (EMP 2013-2016, Objective 5d).
  - Procure single license design software for instructor use in preparation for transition to more software driven curriculum (EMP 2013-2016, Objective 5d & 5.3, Long Term).
- 6.5 List any other needed resources in priority order. Identify which discipline/area goal(s) guides this need.
  - Provide additional paid staff time, decrease instruction load, to allow for development of professional relationships with designed focused employers in the local area ( EMP 2013–2016, Goal 6 & 5.3 Near Term)

## Part 7 - Recommendations and Comments

- 7.1 List recommended changes to the Educational Master Plan to:
  - Address external issues or mandates such as legislation, industry, and professional standards, etc.
    - N/A
  - Respond to outcome findings.
    - N/A

- Reflect changes in technology, methodology, and/or disciplines.
  - Goal #5 - creates a new Objective of increasing the availability of wireless technology for students within the classroom to support technology driven instruction.
- Address student achievement gaps and/or meet other student needs.
  - N/A

7.2 What changes in the program review process would improve institutional effectiveness or make the results more helpful to the program?

- N/A



## **Comprehensive Program Review Self-Study Report**

Division/Area Name: Technical Education/Welding

Year: 2013-14

### **Part 1 - Division or Area Overview**

1.49 Briefly describe how the division or area contributes to the district mission.

1.50 Place an "X" by each Institutional Learning Outcome (ILO) supported by the division or area.

- Analyze diverse perspectives from a variety of disciplines and experiences that contribute to the development of self-awareness.
- Value and apply lifelong learning skills required for employment, basic skills, transfer education, and personal development.
- Demonstrate a breadth of knowledge and experiences from the humanities, social and behavioral sciences, arts, natural sciences, and mathematics.
- Solve problems using oral and written communication, critical thinking and listening skills, planning and decision-making skills, information literacy, and a variety of technologies.
- Demonstrate good citizenship and teamwork through respect, tolerance, cultural awareness, and the role of diversity in modern society.
- Identify career opportunities that contribute to the economic well-being of the community.

1.51 After completing Parts 2-7, prepare a one page summary of the division/area. Interpret the significance of the findings. Note successes in supporting district strategic goals and where improvements are needed.

1.52 Name of person leading this review: Dr. Karen Cowell

1.53 Names of all participants in this review: Jerome Udager, Thomas Olivares, Gary Wheeler

### **Part 2 - Data Analysis and Use**

2.1 Please review the five year headcount and FTES enrollment data provided on the web link. Comment on trends and how they affect your program.\*

FTES in Welding fell from 48.06 in 2008-09 to 32.52 in 2010-11, and it has been stable at approximately 32 FTES since 2010-11.

The division no longer offers welding courses in intersession and summer sessions. It does not have a full time faculty member and a welding assistant. Adjunct instructors are

difficult to attract to the teaching profession. One adjunct retired due to illness in spring 2013 and the division was fortunate to find an instructor who had taught at AVC previously and who could fill the remainder of his assignment. This severely limits the number of students who can be served.

- 2.2 Report and analyze program/area data showing the quantity of services provided over the past four years (e.g. number of students served, books sold, employees hired, acreage maintained).

Enrollment in Welding courses dropped from a high of 198 in the last five years (2008-09) to a low of 126 in 2012-13.

- 2.3 Please review the five year data on sections offered, faculty ratios, and efficiency data provided on the web link. Comment on trends and how they affect your program.

The section count in Welding fell from a high of 36 in 2008-09 to 23 in 2012-13, primarily due to the loss of the full-time faculty member and the budget crisis that began in 2008-09. The division offers 65.7% of the sections that were offered in 2008-09. Classes are full and have wait lists at the beginning of each semester, but no classes are offered in intersession or summer.

There are no full-time faculty in the Welding discipline. All classes are taught by the three adjunct instructors. The efficiency ratio is extremely high when compared to other disciplines because of the lack of full time faculty.

It is a tribute to the dedication of the adjunct faculty who are committed to maintaining the program and filling the roles of both faculty and instructional aide, which annually saves the District a considerable amount of money—approximately \$35,000 plus benefits for the instructional aide position and \$56,000 plus benefits for the full time instructor position. In comparison, the adjunct faculty salaries for one year are \$42, 789.

- 2.4 Using the discipline student success data provided by web link, please comment on any similarities or differences between race, gender, location, and modality groups in meeting the Institutional Standard of 68% for student success (students earning grades of A, B, C, Pass, or Credit). Identify what actions are planned to address trends and achievement gaps in the current academic year.\*

Success by Ethnicity: Analysis of Hispanic and non Hispanic student success does not show a trend. In some years, Hispanic students are successful at a higher rate and in other years, non Hispanic students are more successful than Hispanic students. Student success has exceeded the institutional standard from 2009 to present.

Success by Gender: Males are more successful than females, as few females enroll in welding courses. The female students who enroll in welding courses generally have a background in welding, usually through family connections.

Success by Race: African American and American Indian/Alaska Native students have been less successful than students of other races. Their performance mirrors that of students of these ethnicities college-wide.

Retention for students of all ethnicities and races exceeds the institutional standard. Students who are attracted to welding like the hands-on aspect of the craft. Retention of female students lags retention of male students significantly, partly because of low numbers of female students enrolled in welding courses and partly because of their unfamiliarity with the craft on entering the welding courses.

The faculty attempt to retain female, African American and Native American/Alaska Native students by encouraging them to stay in college and finish their courses. The program adjunct faculty held an open house in September 2013 that was widely advertised on the college website. The program was also highlighted in an ad that played in local movie theaters.

- 2.5 Analyze and summarize trends in student progression through basic skills courses, if applicable.

NA

- 2.6 List degrees and certificates currently offered in the discipline. Analyze how resource adjustments or other changes during the past four years have impacted degree and certificate completion rates.

One or two degrees were awarded in welding each year of the last five years. One to six certificates were awarded in welding in each of the last five years. The faculty has distributed the pathway to attaining a degree or certificate to the class. However, certificates and degrees are not necessary for employment in welding. Many students fall into the category of “skills builders” who attain a level of skill that leads to employment or advancement in their current jobs without the certificate or degree.

- 2.7 Using the data provided by web link, please comment on transfer rates to four-year institutions, license exam results, and job placement/post testing. If applicable, cite examples of using additional resources (e.g. human, facilities/physical, technology, financial, professional development) or making other changes during the past four years that have resulted in improvements in transfer rates to four-year institutions, license exam results, and job placement/post testing.

For the past two years, the written LA City structural welding test was administered at AVC. Six of eight students passed in 2012 and 11 of 12 students passed in 2013. Students must travel out of the area (to College of the Canyons) to take the certification practical (skills) test. It is a goal of the faculty to have AVC become a testing center for Los Angeles City Department of Building and Safety structural steel welding certification.

- 2.8 Career Technical Education (CTE) programs: Review the labor market data on the California Employment Development Department website for jobs related to your discipline. Comment on the occupational projections for employment in your discipline for the next two years. Comment on how the projections affect your planning.  
<http://www.labormarketinfo.edd.ca.gov/Content.asp?pageid=1011>

Labor Market Demand for structural, sheet metal and pipe welders is strong in the Los Angeles-Long Beach-Glendale metropolitan area. From the California EDD website:  
Welders, solderers & brazers: 12.1% increase or 225 jobs per year  
Sheet metal workers: 4% increase or 47 jobs per year  
Structural iron & steel workers: 12.4% increase or 37 jobs per year  
Structural metal fabricators & fitters: 19.6% or 70 jobs per year  
Welding, soldering & brazing workers: 7.6% or 19 jobs per year  
Pipe layers: 20% increase or 24 jobs per year; Workers are being imported from China to do pipelaying work in California this year.

In the Antelope Valley, BYD (manufacturer of motor coaches, buses and subway cars) anticipates hiring 40 aluminum welders in each of the next three years as it builds its workforce. The faculty has responded by researching the type of welding materials that BYD uses in its manufacturing processes and integrating it into the curriculum. The faculty has also researched the types of materials and equipment used in pipe laying and has a plan for requesting the appropriate equipment through Perkins funding in 2013-14.

### Part 3 – Outcome Analysis and Use

- 3.1 Analyze changes in **student learning outcome** (SLO) and **program learning outcome** (PLO) assessment findings over the past five years. Cite examples of using data during that time as the basis for resource allocation (e.g. human, facilities/physical, technology, financial, professional development) or making other changes that resulted in or correlate with improved learning outcome findings over the past four years.\*

WELD 110: SLO achievement for all three has increased since 2009-10.

WELD 120: SLO achievement for two of the three SLOs has been stable. SLO #1 (measured by a standardized exam) was not achieved in fall 2012.

WELD 130: SLO achievement for both SLOs has been stable.

WELD 230: Achievement of both SLOs has increased over the past four years.

WELD 260: Achievement of both SLOs has increased over the past four years.

The SLO data for WELD 110 was used to justify the purchase of a virtual welding simulator from Perkins funding in 2013-14.

Although students achieved the PLOs at a high rate (86 to 100%), the PLOs need to be assessed regularly so that trends can be determined.

- 3.2 Analyze changes in **operational outcomes** (OO) findings over the past five years. Cite examples of using data during that time as the basis for resource allocation (e.g. human, facilities/physical, technology, financial, professional development) or making other changes that resulted in or correlate with improved OO findings over the past four years.\*

NA

#### **Part 4 - Stakeholder Assessment**

- 4.1 Assess how well the program serves the needs of the students, district, and community. Support statements with findings from student, employee, and/or community surveys. Include feedback from other sources if relevant (e.g. advisory committees, employers in the community, universities, scores on licensure exams, job placement).

The advisory meeting minutes of December 2013 indicate that participants believe that the program is meeting the needs of students and the community. Participants at that meeting included industry representatives and high school counselors.

The Perkins IV Core Indicators for the welding program show that 95% of students in the program attain Core 1 (skills attainment), but 42.86% complete the program (below the state goal of 80.41% for Core 2), 78.95% persist in the program (slightly below the state goal of 85.80% for Core 3), 57.14% achieve employment (below the state goal of 71.54% for Core 4) 5% of non traditional students participate in the program (below the state goal of 22% for Core 5a) and no non traditional students completed the program (state goal is 25% for Core 5b). These statistics need to be viewed in the context that the count for each Core Indicator is less than ten students for each CI except Core 1 and Core 3.

#### **Part 5 - Goals and Objectives**

- 5.1 Review the goals identified in your most recent comprehensive self-study report and last year's annual report. Indicate which have been completed and which have been eliminated.\*
- 5.2 List discipline/area goals and objectives related to **improving outcome findings and/or the success of the various learner populations** in completing courses, certificates, degrees, and transfer requirements. Discipline/area goals must be guided by district Strategic Goals and Plan Summaries in the Educational Master Plan (EMP). They must be supported by an outcome action plan, data analysis, national or professional standards, and/or a requirement or guideline from an outside agency (e.g. legislation, Chancellor's Office, accrediting body, professional board). Consider curriculum, instruction, assessments, program services, operations, collaborations, scheduling, location, technology, etc.\*

Current (up to three years)

Goal #1: Increase the number of students who achieve a certificate or degree by 200% in the next three years.

- Guided by district Strategic Goal(s) #\_1a & 1d\_\_
- The program has a low number of students who achieve a certificate or degree.

Objectives: Collaborate with the CTE counselor to assist students to develop educational plans to achieve graduation or completion.

Goal #2: Increase the number of sections offered by 50%.

- Guided by district Strategic Goal(s) #\_1g\_\_
- Classes in welding are closed early in the registration period, especially in the beginning welding classes.

Objectives: Work with the dean to hire additional adjunct faculty and increase sections of WELD 110 and 120.

Goal #3: Add additional instruction in aluminum welding and orbital/pipe welding to the curriculum.

- Guided by district Strategic Goal(s) #\_1h\_\_
- Local industry demands additional professionals in these fields.

Objectives: Implement aluminum welding course in Corporate and Community Services. Develop a plan for curriculum enhancement. Acquire equipment and supplies to teach aluminum and pipe welding. Collaborate with College of the Canyons to share resources for pipe welding instruction.

Goal #4: Become a testing center for Los Angeles City Department of Building and Safety structural steel certification.

- Guided by district Strategic Goal(s) #\_1h\_\_
- Local industry demands certified professionals in these fields.

Objectives: Have welding equipment certified. File application to become a testing site. Encourage instructors to become certified as testers.

Near Term (three to five years)

Goal #5: Expand the welding shop to accommodate one welder per student.

- Guided by district Strategic Goal(s) #\_7a\_\_
- Provides more practice for students to achieve skills, which is a common thread throughout student evaluation of the welding course.

Objectives: Identify funding and equipment needed to achieve this goal.

5.3 List discipline/area goals and objectives **directly related to advancing Strategic Goals**. Discipline/area goals must be guided by district Strategic Goals and Plan Summaries in

the Educational Master Plan (EMP). They must be supported by data analysis or other documentation.

Current (up to three years)

Goal #6: Hire a full time welding instructor.

- Guided by district Strategic Goal(s) #\_\_1\_\_
- See action plan for PLOs, spring 2013.

Objectives: Persuade the Technical Education division faculty that this position needs to be re-instated to insure student success, to grow the program, and to meet local industry needs.

Goal #7: Hire a full time welding assistant.

- Guided by district Strategic Goal(s) #\_\_1\_\_
- See action plan for PLOs, spring 2013.

Objectives: Persuade the Budget & Finance Subcommittee that this position needs to be re-instated for the health of the program.

Goal #8: Continue to improve the equipment in the welding shop.

- Guided by district Strategic Goal(s) #\_\_5b\_\_
- See action plan for PLOs, spring 2013.

Objectives: Using Perkins funding and Prop 20 funds, bring the equipment in the shop up to current industry standards. Purchase two new welders and two portable welders, a fume extractor and welding booths.

Goal #9: Restore District supply budget.

- Guided by district Strategic Goal(s) #\_\_1\_\_
- See action plan for PLOs, spring 2013. Metals used in the program are expensive yet essential for student success.

Objectives: Work with division faculty and dean to advocate for the restoration of the supply budget for the welding program.

Goal #10: Upgrade the electrical capacity, HVAC system, and storage space of the welding shop in TE 2.

- Guided by district Strategic Goal(s) #\_5b\_\_
- At times, electrical supply to the shop is sporadic. Surges have caused equipment to fail. Newer methods of teaching (such as robotic welding and virtual welding simulators) require a steady and reliable supply of electricity.

Objectives: Work with Facilities Services and Maintenance and Operations to assure a stable electrical supply including at least four new circuits and a 220 circuit for plasma cam. Repair HVAC system (FS).

Near Term (three to five years)

Goal #11: Expand space for the welding program.

- Guided by district Strategic Goal(s) #\_5b\_\_

- Student and industry demand for welding and welders as well as labor market data drives this goal.

Objectives: Collaborate with other disciplines and Facilities Services to identify potential instructional spaces for the program to expand. Convert storage space to instructional space.

## Part 6 - Resource Needs

Identify significant resource needs that should be addressed currently (up to three years), near term (three to five years), and long term (five to ten years). If there may be safety issues, enrollment consequences, or other important concerns if a resource is not provided please make this known.\*

- 6.1 List needed human resources. List titles in priority order. Identify which discipline/area goal(s) guides this need.

Although the Welding Program has excellent adjunct instructors, a full time instructor and an instructional aide are sorely needed for this program to function.

Priority: Full time instructor (goal #6)  
Instructional Aide (goal #7)

- 6.2 List needed technology resources in priority order. Identify which discipline/area goal(s) guides this need.

In 2012-13, the faculty developed a two year plan to improve the instructional resources for students in the welding shop. Some of the plan is being implemented in 2013-14. Yet to be implemented: Add four welding booths, four welding machines, fume extractors, orbital welding/pipe welding materials..

- 6.3 List facilities/physical resources (remodels, renovations, or new) needed to provide a safe and appropriate student learning and/or work environment. List needs in priority order. Identify which discipline/area goal(s) guides this need.

Identify new instructional space or remodel of interior of Welding Shop (TE 2) &/or convert storage space into instructional space (goal #11).

Stabilize electrical supply to the current welding shop (goal #10)

- 6.4 List needed professional development resources in priority order. Identify which discipline/area goal(s) guides this need.

Faculty would like to become certified testers for various types of welding certifications to enhance employment opportunities for students.



- 6.5 List any other needed resources in priority order. Identify which discipline/area goal(s) guides this need.

District supply budget (goal #9)

Funds to apply to become a LA City Department of Building and Safety structural steel certification test center (goal #4)

## **Part 7 - Recommendations and Comments**

- 7.1 List recommended changes to the Educational Master Plan to:
- Address external issues or mandates such as legislation, industry, and professional standards, etc.
  - Respond to outcome findings.
  - Reflect changes in technology, methodology, and/or disciplines.
  - Address student achievement gaps and/or meet other student needs.

None

- 7.2 What changes in the program review process would improve institutional effectiveness or make the results more helpful to the program?

Define “efficiency” and explain its significance. It appears that the class fill rate is irrelevant to Program Review, yet this nebulous concept of “efficiency” deserves comment. CTE programs are always going to lag in efficiency unless only adjunct instructors teach in the programs. In addition, CTE courses have low enrollments due to safety concerns, so efficiency is not relevant if safety of students is our first priority.