### INSTITUTIONAL PROGRAM REVIEW 2010-11 Program Efficacy Phase, Spring, 2011

### **Purpose of Institutional Program Review**

Welcome to the Program Efficacy phase of the San Bernardino Valley College Program Review process. Program Review is a systematic process for evaluating programs and services annually. The major goal of the Program Review Committee is to evaluate the effectiveness of programs, and to make informed decisions about budget and other campus priorities.

The Institutional Program Review Committee is authorized by the Academic Senate to develop and monitor the college Program Review process, receive unit plans, utilize assessments as needed to evaluate programs, recommend program status to the college president, identify the need for faculty and instructional equipment, and interface with other college committees to ensure institutional priorities are met.

The purpose of Program Review is to:

- Provide a full examination of how effectively programs and services are meeting departmental, divisional, and institutional goals
- □ Aid in short-range planning and decision-making
- □ Improve performance, services, and programs
- □ Contribute to long-range planning
- □ Contribute information and recommendations to other college processes, as appropriate
- □ Serve as the campus' conduit for decision-making by forwarding information to or requesting information from appropriate committees

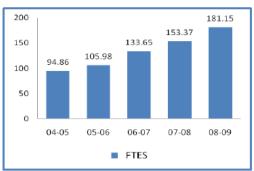
Our Program Review process is two-fold. It includes an annual campus-wide needs assessment in the fall, and an in-depth review of each program every three years that we call the Program Efficacy phase. Instructional programs are evaluated the year after content review, and every three years thereafter, and other programs are placed on a three-year cycle by the appropriate Vice President.

An efficacy team of two disinterested committee members will meeting with you to carefully review and discuss your document. You will receive detailed feedback regarding the degree to which your program is perceived to meet institutional goals. The rubric that the team will use to evaluate your program is included with this e-mail

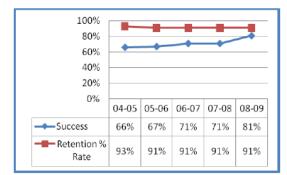
When you are writing your program evaluation, you may contact efficacy team assigned to review your department or your division representatives for feedback and input. The list of readers is being sent to you with these forms as a separate attachment.

Forms are due back to the Committee Chairs, Efficacy Team and Division Dean by March 17, 2011. *It is the writer's responsibility to be sure the Committee receives the forms on time.* 

In response to campus wide feedback that program review be a more interactive process, the committee piloted a new program efficacy process in Spring 2010 that included a review team who will interviews and/or tour a program area during the efficacy process. Another campus concern focused on the duplication of information required for campus reports. The efficacy process will incorporate the Educational Master Plan One-Page Summary (EMP Summary) and strive to reduce duplication of information while maintaining a high quality efficacy process.



	04-05	05-06	06-07	07-08	08-09
Duplicated Enrollment	450	380	471	548	664
FTEF	8.63	8.13	8.98	8.62	8.98
WSCH per FTEF	330	391	446	534	605



	04-05	05-06	06-07	07-08	08-09
Sections	64	72	71	72	73
% of online enrollment					
Degrees awarded	1	1		1	
Certificates awarded	6	0	13	8	3

#### Welding Technology

#### Description:

The welding department provides the very best training for students with an intensive college program that specializes in all phases of welding and welding inspection. All students are trained in accordance with the American Welding Society {AWS} standards. All certifications are performed according to the structural codes for steel, aluminum etc.

#### Assessment:

Our students are taking more than one welding class to complete their certificates and degrees. The WSCH is high due enrollment over cap in some classes. The success facor indicates a high rate, and the retention % is excellent due to welding licenses and certifications and instructor envolvement. The degree and certificates are low.

#### Program Goals:

Over the next five years, the goal will maintain current content review and increase job placement with the addition of new classes in light guage and reinforcemnt steel certifications and licenses. These goals will increase success and help us to meet industry standars in the areas of seismic testing. Equipment updates will also assure fully trained students.

#### Challenges and Opportunities:

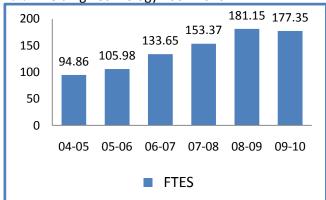
One challenge will be to increase certificates and degrees. The opportunity we need to take advantage of is the number of students coming back to school for upgrade training and new skill development. New classes , welding certifications and licenses will enable our students to be ready for the next explosion in the job market.

#### Action Plan:

We plan to grow the program in the areas of new courses, new welding certifications and licenses. We also plan to have our advisory committee help with industry needs that are essential for job placement in the community. Renewed effort will be conducted to replace old equipment with new technology.

Educational Master Plan, 2010: San Bernardino Valley College -Preliminary Draft (5/7/2010)-

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# UPDATED EIS Data: Welding Technology 2004-2010

	FTES
	FIES
04-05	95
05-06	106
06-07	134
07-08	153
08-09	181
09-10	177

	04- 05	05-06	06-07	07-08	08-09	09-10
Duplicated Enrollment	450	380	471	548	664	624
FTEF	8.63	8.13	8.98	8.62	8.98	8.56
WSCH per FTEF	330	391	446	534	605	622

100% 90% 80% 70% 60% 50% 40% 30% 20%	<b>•</b>						
	04-	05-	06-	07-	08-	09-	
	05	06	07	08	09	10	
Success	66%	67%	71%	71%	81%	81%	
Retention %	93%	91%	91%	91%	91%	89%	

	Success	Retention % Rate
04-05	66%	93%
05-06	67%	91%
06-07	71%	91%
07-08	71%	91%
08-09	81%	91%
09-10	81%	89%

	04- 05	05-06	06-07	07-08	08-09	09-10
Sections	64	72	71	72	73	66
% of online enrollment						
Degrees awarded	1					2
Certificates awarded	6	0	13	4	8	6

Data includes: SBVC, SOFF and SBBHS

## Program Efficacy, Spring 2011

Extension

Complete and attach this cover sheet as the first page of your report.

## **Program Being Evaluated**

Welding

## Name of Division

Applied Technology, Transportation and Culinary Arts

## Name of Person Preparing this Report

Jesse Galaviz

## Name of Department Members Consulted

Jesse Galaviz Rene Contreras Jose Victoria

### Name of Reviewers

Dena Murillo-Peters; Deanne Rabon, Jim Hanson

## Program Review Committee Representatives

Jesse Galaviz; Kevin Kammer

Work Flow	Due Date	Date Submitted
Date of initial meeting with department		
Final draft sent to the dean		
Report submitted to Program Review Team		
Meeting with Review Team		

## Staffing

List the number of full and part-time employees in your area.

Classification	Number Full-Time	Number Part-time, Contract	Number adjunct, short- term, hourly
Managers	1		
Faculty	1	6	
Classified Staff			2
Total			

# Part I. Questions Related to Strategic Initiative: Access

Use the demographic data provided to describe how well you are providing access to your program by answering the questions below. **Demographic Information** Welding 2007-2010

Gender							
		Frequency	Percent	Valid Percent	Cumulative %		
Valid	-	70	2.0	2.0	2.0		
	F	79	2.2	2.2	4.2		
	М	3364	95.8	95.8	100.0		
	Total	3513	100.0	100.0			

Ethn	icity							
		Frequency	Percer	nt	Valid Percer	nt	Cumulative %	6
Valie	d	428	1	2.2	12	2.2	12	2.2
	А	68		1.9	1	1.9	14	1.1
	В	279		7.9	7	7.9	22	2.1
	F	18		.5		.5	22	2.6
	н	1512	4	3.0	43	3.0	65	5.6
	Ν	61		1.7	1	1.7	67	7.3
	0	28		.8		.8	68	3.1
	Р	4		.1		.1	68	3.3
	W	983	2	8.0	28	3.0	96	6.2
	х	132		3.8	3	3.8	100	0.0
	Total	3513		0.0	100	0.0		
-			Disab			-	1	1
	Disability	r Frequ	Frequency De		pt. Percent	C	ampus Pct.	
Ē	No disability		3306		94.1%		95.5%	
1	Disabled		207		5.9%		4.5%	
-	Total		3513		100%		100%	

Age								
Average Age	Ν	Youngest	Oldest	Avg. Age Dept.	Avg. Age Campus			

3513	14	74	32.23	29.1

Does the program population reflect the college's population? Is this an issue of concern? If not, why not? If so, what steps are you taking to address the issue?

• The students in the welding department do reflect the composition of the students at Valley College and the surrounding Inland Empire. The students represent a diverse, cultural and ethnic background. I do not believe this is an issue of concern because we are serving all the students to attend our college and the employers like the product we are delivering. We have set up two partnerships, one with San Bernardino Steel and the other with TTX a railroad company who like the quality students we send them. Their comments are "Valley welding students are very well trained and reliable and perform in an excellent manner"

### Pattern of Service

How does the pattern of service and/or instruction provided by your department serve the needs of the community? Include as appropriate hours of operation/pattern of scheduling, alternate delivery methods, weekend instruction/service.

All welding classes are taught in three formats: day classes, evening classes and weekend classes. We cover all the times students need to take classes to complete certificates, degrees and licenses. This program attracts mainly working students in the trades. The classes are taught by highly skilled faculty both full-time and adjunct. All instructors and professors help in job placement and all are certified welders with the American Welding Society {AWS} and licensed through the cities of San Bernardino and Los Angeles. The Inland Empire of Southern California added 56,700 jobs in 2006 according to the California Employment Development Department. This marked the second straight year the region has led in statewide job growth. John Husing an economist based in Redlands suggests that this growth in the construction areas will continue for the next two years. Welding is one of the fastest growing fields in the area as well.

Enrollment over the last three years is as follows: 2004- Sp, fall and Summer sessions-520. 2005- Sp, fall and summer sessions-480 and 2006- Sp, Fall and Summer sessions- 510. These numbers are expected to increase according to the demand for welder's nation wide. The AWS has projected that by the year 2010, less than three years we will need over 200,000 welders. This is due to the baby boomers retiring and the schools are not filling the demand. At SBVC we are doing everything possible to increase the output of trained students from new equipment to new classes at target the industry need. One example is the certificate on welding inspection. This new certificate will enable our students to start in the welding inspection area at a minimum of \$42.00 an hour.

## Part II: Questions Related to Strategic Initiative: Student Success

Provide a brief analysis of the data and narrative from the program's EMP Summary and discuss what it reveals about your program. (Use data from the second two charts of the EMP One-Sheet on page 2 of this form)

• The welding department's population consists of a predominately male student-95% and female-5%. The female population has been increasing lately do to role models and advertisement. The largest ethnicity in the department is Hispanic-42%. I think this is do to the area we serve. The white group comprises 25% and Black 22%, Asian-5% and other the remaining percentage. The disabled student percentage is 5%, which is also rising slowly do to the demands of the industry for individuals who can do the job no matter what their walk of life. Most students have a high school education but we still receive and large number coming from the legal system and drug court. These students happen to be some of the best students because they know they need to make a change in their lives and Valley College is making it happen. Most students have a goal of completing their certificate and becoming certified and licensed to find a job in the local area. We are currently placing 80% of our graduates in jobs ranging from the steel companies to the railroads. The average age of a welding student is approximately 28. This works well in that the people who hire our welders are looking for mature workers, who have good attendance and a positive attitude.

## Supplemental Data

Provide any additional information such as job market indicators, standards in the field or licensure rates that would help the committee to better understand how your program contributes to the success of your students.

Our welders are staying and completing their classes and receiving their licenses and certificates and getting good paying jobs

The certificate count and degrees over the last three years total: Certificates 38 and Degrees 5. These numbers will have a large increase in the coming year due to 5 new certificates in welding and Inspection. These new certificates will average between 7 and 13 units and allow students to achieve these certificates faster.

Job placement over the past three years has been exceptional in the welding department with over 80% of our students being placed in jobs. These include the Railroad, Local Steel Companies and private contractors.

This department is licensed through the cities of San Bernardino and Los Angeles to issue welding licenses to individuals who pass the welding test. Last year we issued 400 welding certifications and licenses to our welding students. This is an increase of over 30 certifications from 2008. These certifications indicate a 98% pass rate. These certifications and licenses also enable our students to find the best paying jobs in the local and national markets.

## **Student Learning Outcomes**

Vī	an Bernardino alley College arming Outcomes (SLO)
Prospective Students	Current Students Online College Instructional Programs Student Services
San Bernardino Va	alley College - Student Learning Outcomes (SLO)
bome » Applied Tec	hnology & Transportation » WELD
Previous Directory	
WELD 060.doc	WELD 066A.doc
WELD 061.doc	WELD 067A.doc
WELD 062.doc	WELD 068.doc
WELD 063.doc	WELD 070x4.doc
WELD 064x4.doc	WELD 077x4.doc
WELD 065A.doc	WELD CERT.DEGREE.doc
Dire	Schedule of Classes   Library   Apply & Register   News & Events   ctory   College Offices   College Facilities   Employment   Help Desk   o Valley College, 701 South Mount Vernon Ave. San Bernardino, CA 92410, 909 384-4400. San Bernardino Community College District

### The list above shows the courses that have SLOs on file with the Office of Instruction.

If you have courses for which SLOs have not been developed, explain why. What are your plans to remedy this?

The welding department is in a continuous cycle of updating the welding code information as it changes at the State and National levels. These updates are coordinated with the student learning outcomes the department recently completed. All the SLO's for the welding department have been completed and are currently on the college's web site. The benchmarks for student performance and success are being assessed in accordance with these criteria. For example "Students will demonstrate the ability to interpret the chemical composition of structural steel by referencing the material to the structural welding code". This SLO is being assessed and tracked in the department by students taking the welding exam, both the practical and the written and recording the pass rates. The pass rate for this exam is currently 98%. The advisory committee is actively involved with discussions regarding student success and performance standards. This input has resulted in a program that meets industry needs and is highly

successful for all students.

Employer feedback from steel companies like San Bernardino Steel relates that the type of the student we send them is of a very high quality. The core competencies are also completed and are discussed at department and advisory committee meetings. This has helped instructors in assessing and teaching the correct areas for all classes

## Attach your three-year plan for assessing SLOs.

What progress has the program made in its three-year plan? Have you implemented any program changes based on assessment results?

We are working with the VTEA council to fund new equipment and also the possibility of setting up a robotic welder. This is an area where the Advisory committee suggested that we might want to expand because of the demand in the local area for this type of welding. Another challenge is to keep and attract qualified adjunct faculty members. We are constantly looking for experienced welders. We advertise with the cities of San Bernardino and Los Angeles and by word of mouth. We have a great reputation and for now are meeting this need. The challenge in the future is to meet the growing demand for certified welders. We are working with industry and the college to update equipment and secure funding to meet this need.

# Part III. Questions Related to Strategic Initiative: Institutional Effectiveness

## **Mission and Purpose:**

SBVC Mission: San Bernardino Valley College provides quality education and services that support a diverse community of learners.

What is the purpose of the program?

The welding department provides the very best training for students with an intensive college program that specializes In all phases of welding and welding inspection. Students are trained in accordance with the American Welding Society (AWS) standards. All certifications are performed according to the structural codes for steel ,aluminum, stainless steel, Light gauge, and reinforcing steel. Licenses are provided by both the cities of San Bernardino and Los Angeles. Students come for career options and from varied cultural and ethnic backgrounds. This career path provides for continuing education and advanced training once students complete the program. Students are encourage to work and earn a welding certification so they can have an employable skill.

How does this purpose relate to the college mission?

The department's mission correlates with the college's mission in that its main purpose is to provide highly skilled training for students to succeed in business, industry and related areas of

the welding career field. The training and the jobs it provides allows students to secure a quality of life that supports themselves and their families. We make tax payers out of our students.

## Productivity

Provide additional analysis and explanation of the productivity data and narrative in the EMP Summary, if needed. (Use data from the first two charts of the EMP One-Sheet on page 2 of this form)

The occupational outlook data reveals that there is a growing need for certified and licensed welders. This follows the growth in the welding and construction areas of California and the Inland Empire. The indicators show a 20% growth. Employer feedback is a continuous process that comes not only from advisory committee members but welding inspectors themselves. This past year the department completed the content review process through currilnet and has a Board approved entire curriculum with update course content and evaluation processes that track our student successes. All welding courses are updated every two years to implement AWS codes into the curriculum, thus keeping the courses relevant and timely. The welding department produces and has an average of 95.82 FTES per semester.

## Relevance and Currency, Articulation of Curriculum

If applicable to your area, describe your curriculum by answering the following questions.

The Content Review Summary from Curricunet indicates the programs current curriculum status. If curriculum is out of date, explain the circumstances surrounding the error and plans to remedy the discrepancy.

Technology, Transportation & Culinary Arts					
Welding Technology					
Course	Status	Last Content Review	Next Review Date		
WELD023 Oxy-Acetylene Welding	Active	12/08/2006	12/08/2012		
WELD027 Strength of Materials Testing: Destructive	Active	12/04/2006	12/04/2012		
WELD028 Strength of Materials Testing: Non-Destructive	Active	12/08/2006	12/08/2012		
WELD045 Shielded Metal Arc Welding	Active	12/04/2006	12/04/2012		
WELD046 Intermediate Arc Welding	Active	12/04/2006	12/04/2012		
WELD047 Intermediate Shielded	Active	12/04/2006	12/04/2012		

Metal Arc Welding			
WELD060 Layout Fitter I	Active	12/04/2006	12/04/2012
WELD061 Layout Fitter II	Active	12/04/2006	12/04/2012
WELD062 Consolidated Welding	Active	12/04/2006	12/04/2012
WELD063 Consolidated Welding	Active	12/04/2006	12/04/2012
WELD064X4 Consolidated Welding	Active	12/04/2006	12/04/2012
WELD065B Welding Inspection Visual	Active	12/04/2006	12/04/2012
WELD066B Los Angeles City Welding Certification	Active	12/04/2006	12/04/2012
WELD067B Structural Steel Special Inspection (ICBO)	Active	12/04/2006	12/04/2012
WELD068 Los Angeles City Reinforcing Steel and Structural Sheet Steel (Light Gauge)	Active	10/12/2009	10/12/2015
WELD070X4 TIG Welding	Active	12/07/2006	12/07/2012
WELD077X4 Continuous Wire Welding	Active	12/04/2006	12/04/2012
WELD098 Welding Work Experience	Active	11/23/2009	11/23/2015

At the present time all curriculum is current and up to date. The department is planning to expand the area of weld inspection to keep current with industry demands. We can do this by offering classes in Non-destructive testing in specific areas such as dye Pentrant testing, Magnetic Particle testing and Ultrasonic testing.

# **Articulation**

List Courses above 100 where articulation is <b>not</b> occurring	With CSU	With UC
N/A		

Describe your plan to articulate these classes.

N/A

## **Currency**

Review the last college catalogue data given below. OR

Follow the link below and review the last college catalog data. Welding begins on p. 203. <u>http://www.valleycollege.edu/Instruction/Files/Catalog/2010-2011/SBVC\_Catalog\_1011\_Complete.pdf</u>

Is the information given accurate? Which courses are no longer being offered? (Include Course # and Title of the Course). If not, how does the program plan to remedy the discrepancy?

N/A

## Planning

What are the trends, external to the institution, impacting your student enrollment/service utilization? How will these trends impact program planning?

We are working with the Perkins funds new equipment and also the possibility of setting up a Improving the areas of destructive and non-destructive as well as visual inspection. This is an area where the Advisory committee suggested that we might want to expand because of the demand in the local area for this type of welding. Another challenge is to keep and attract qualified adjunct faculty members. We are constantly looking for experienced welders. We advertise with the cities of San Bernardino and Los Angeles and by word of mouth. We have a great reputation and for now are meeting this need. The challenge in the future is to meet the growing demand for certified welders. We are working with industry and the college to update equipment and secure funding to meet this need.

As I have stated before the major trend is to fill the demand for qualified, certified welders. In order to maintain an optimal level of service we will need to update equipment and secure supply funding to meet this growing need. We are working is high schools with articulation and Industry for donations of steel scrap. We have the finest faculty who are totally committed to student success. We will continue to supply the very best welder in the area to industry. I have also invited the Railroad companies to come and talk to our students on jobs. Last year, we had Three companies come and present their needs to all the students. Field trips also help in allowing students to get a first hand experience to what they will face as employees. The future is a very bright one for any student entering our program.

## Accomplishments and Strengths

Referencing the narratives in the EMP Summary, provide any additional data or new information regarding the accomplishments of the program, if applicable. In what way does your planning address accomplishments and strengths in the program?

The strength of the welding department lies in its instructors and the quality of the overall program offered to the students. The curriculum has been enhanced with new certificates that allow the students to complete them in small overall units. For example: The shielded metal arc welding certificate requires only 9 units, the Gas metal arc welding-7units, the Flux core arc welding – 10 units and the Gas tungsten arc welding-10 units, these new certificates will enable the student to achieve success in smaller blocks of instruction. One other new certificate that was added just this semester was in the area of- welding inspection .This was added as a direct

result of coordination with the welding advisory committee. The need was to have a program that certified welders could further their skills in the inspection field. The pay for Welding Inspectors start at \$42.00 an hour.

## Weaknesses

Referencing the narratives in the EMP Summary, provide any additional data or new information regarding planning for the program. In what way does your planning address trends and weaknesses in the program?

The department weakness lie with the recruitment of non-traditional students. I have recently recruited Mrs. Stacy Davis to teach our Visual Inspection class in the fall. She will also being teaching weld 028 the Non-destructive class in the spring. Mrs. Davis has a strong back ground in Non-destructive testing and is also a Certified welding Inspector license through the American Welding Society (AWS). The welding department is working on a new brochure depicting women on the front cover performing welding tasks.

• This department attracts more male than female as stated above, but we are taking steps to increase this percentage. Last year I attended a conference in Sacramento on "California Special Populations" The main focus was on "Careers have no gender". We hope to increase the number of women in technology by focusing attention to top paying jobs that most women never consider. Another program we have instituted is that of partnerships and field trips to cities and companies to allow students to receive first hand what it is like to work as a certified welder. This has proved to be very successful in attracting women as well as other minorities.

# V. Questions Related to Strategic Initiative: Technology, Campus Climate and Partnerships.

Describe how your program has addressed the strategic initiatives of technology, campus climate and/or partnerships.

The welding department has completed the institutional core competencies for all classes and has used this data to complete all the Student learning outcomes for all our classes. We have been able to evaluate the extent of how these objectives are met by using the assessment statements we have written and applying those criteria to measurement. For example one of the areas in one SLO requires that students pass a welding certification test. The department gives this test and records the results as to pass and failure rates. Another way to evaluate the outcome is to record the number of students who complete their licenses. We also monitor this by feedback from the cities of San Bernardino and Los Angeles. Finally the results of these tests are shared with the faculty and the advisory committee and suggestions are made to improve the lesson or purchase a new piece of equipment that will improve student learning. We have

created several new articulations agreements, 1 with the department of Building & Safety city of Los Angeles to administer the examinations here at Valley College and with Pomona Adult education to give students who continue their education here at Valley College credit for welding classes taken at Pomona Adult education. This year we are able to purchase several large items. 1<sup>st</sup> a Plasma Cam which will enable students to cut materials using the latest Plasma machines, also 2 up-grades to both 60 and 120 thousand pound tensile tester. With the up-grades students will have a better understanding how the stress/strain curve works with material under stress. Last we purchase 6 cases containing weld replicas to enhance students learning and understanding to weld discontinuities and reference back to the welding code to determine whether they are acceptable or not.