

INSTITUTIONAL PROGRAM REVIEW 2013 – 2014

Program Efficacy Phase: Instruction

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.

For regular programmatic assessment on campus, the Program Review Committee examines and evaluates the resource needs and effectiveness of all instructional and service areas. These review processes occur on one-, two-, and four-year cycles as determined by the District, College, and other regulatory agencies. Program review is conducted by authorization of the SBVC Academic Senate.

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 appropriate committees

Our Program Review process includes an annual campus-wide needs assessment each Fall, and an in-depth efficacy review of each program on a four-year cycle. All programs are now required to update their Educational Master Plan (EMP) narrative each Fall. In addition, CTE programs have a mid-cycle update (2 years after full efficacy) in order to comply with Title 5 regulations.

Two or three committee members will be 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 embedded in the form. As you are writing your program evaluation, feel free to contact the efficacy team assigned to review your document or your division representatives for feedback and input.

Draft forms should be written (and submitted to the Dean) so that your review team can work with you at the small-group workshops (Mar 7, Mar 28, and Apr 11, 2014). Final documents are due to the Committee co-chair by Friday, April 14, 2014 at midnight.

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 work with the writer as they draft their documents during the efficacy process. Another campus concern focused on the duplication of information required for campus reports. As such, the efficacy process now incorporates the EMP sheet, a curriculum report, SLO/SAO documentation already generated elsewhere. The committee continues to strive to reduce duplication of other information while maintaining a high-quality efficacy process.

Program Efficacy 2013 – 2014

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

Program Being Evaluated

Machinist Technology

Name of Division

Applied Technology, Transportation, and Culinary Arts

Name of Person Preparing this Report

Eddie Sanker/Miguel Ortiz

Extension

Names of Department Members Consulted

Miguel Ortiz, Joe Radcliff and Biju Variyam

Name of Reviewers

Leslie Gregory, Sheri Lillard, Caleb Losee, Brandon Brown

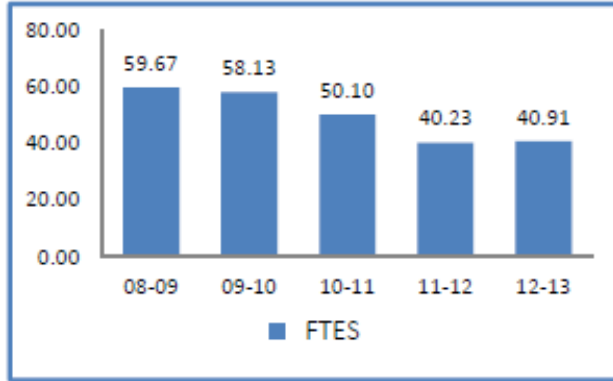
Work Flow	Due Date	Date Submitted
Date of initial meeting with department		
Final draft sent to the dean & committee		
Report submitted to Program Review Team		
Meeting with Review Team		
Report submitted to Program Review co-chair		

Staffing

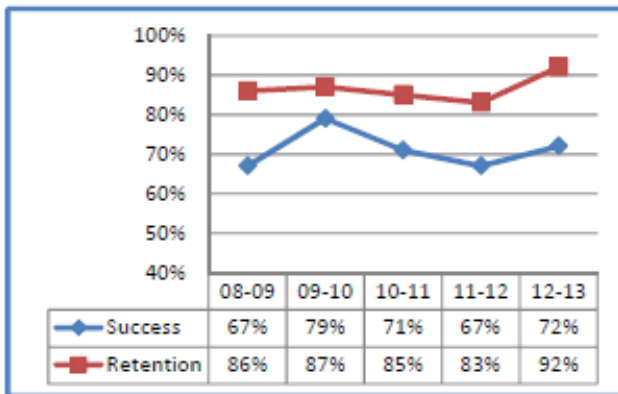
List the number of full and part-time employees in your area.

Classification	Number Full-Time	Number Part-time, Contract	Number adjunct, short- term, hourly
Managers	1	0	0
Faculty	0	0	4
Classified Staff	0	0	0
Total	1	0	4

Machinist Technology – 2012-2013



	08-09	09-10	10-11	11-12	12-13
Duplicated Enrollment	326	337	260	206	220
FTEF	5.36	5.15	4.69	3.02	3.08
WSCH per FTEF	334	339	320	400	399



	08-09	09-10	10-11	11-12	12-13
Sections	34	33	27	16	17
% of online enrollment	0%	0%	0%	0%	0%
Degrees awarded	2	0	2	0	2
Certificates awarded	11	12	8	10	21

Description:

The Machine Technology program offers courses in manual machining as well as Computer Aided Design/Computer Aided Machining (CAD/CAM). Classes are offered in the evening and weekends, as schedule depends on availability of adjunct faculty. The curriculum was updated two years ago but needs more work. The program was National Institute of Metalworking Skill (NIMS) certified but cannot maintain certification without a full time faculty. Both certificates and degree are offered.

Assessment

- In five years, the number of sections offered has been cut by 50% and the enrollment has reduced by 33%
- WSCH/FTEF has improved by 19%
- The number of stacked classes offered has been reduced
- Customized, not-for-credit training, is not reflected in the for-credit-course data that is provided
- Certificate awarded has doubled
- Program suffered when SBVC slated it for discontinuance while a private company started the same program at the SB airport

Program Goals:

- Hire a full time faculty with subject matter expertise
- Add curriculum for a Maintenance Mechanic program
- Update the curriculum with appropriate pre-requisites and logical course flow that leads to degree and certificate completion
- Add ceiling to the classroom so that the acoustics improve
- Add sound proofing in the Computer lab to muffle noise from the adjoining Welding lab
- Hire a lab assistant to set up and maintain labs and tools

Challenges and Opportunities:

- The department does not have a full time faculty, lab assistant
- Computer Numerical Control (CNC) machines cost over \$30,000
- The lecture and lab spaces need improvement
- Some district grant resources fund competing private school for activities such as middle school outreach program and not-for-credit training
- Paid internship/training program with industry partner CSI was successful and needs to be replicated

Action Plan:

- Hire a full time instructor with subject matter expertise to lead the program
- Update the curriculum to add courses and certificate in Machine Maintenance
- Solicit industry for a CNC machine on loan to SBVC
- Update labs to meet current acceptable standard
- Hire classified staff for outreach services and increase the number of not-for-credit courses to keep district resources in-house
- Increase internships with industry partners

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.

Strategic Initiative	Institutional Expectations	
	Does Not Meet	Meets
Part I: Access		
Demographics	The program does not provide an appropriate analysis regarding identified differences in the program's population compared to that of the general population	The program provides an <u>analysis</u> of the demographic data and provides an interpretation in response to any identified variance. If warranted, discuss the plans or activities that are in place to recruit and retain underserved populations.
Pattern of Service	The program's pattern of service is not related to the needs of students.	The program provides <u>evidence</u> that the pattern of service or instruction meets student needs. If warranted, plans or activities are in place to meet a broader range of needs.

Program (%)	Demographics Spring 2010 – Spring 2013	Campus (%)
6.6%	Asian	4.5
12.1%	African-American	19.1
0.9%	Filipino	1.9
41.4%	Hispanic	50.0
1.5%	Native American	1.0
0.6%	Pacific Islander	0.7
34.4%	White	20.6
2.4%	Other/Unknown	2.2
7.6%	Female	54.3
92.4%	Male	45.7
4.5%	Disability	5.7
33.9	Average Age	29.2

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?

No, the program population does not reflect the college's population in the female population which is larger than the male population on campus. This trade has been historically dominated by white males. Currently white males are the second largest population in our program, no additional steps are required to attract white males. Without a connection to local high schools, industry, and publicity of the program the female population will probably remain the same. We would like to reach out to high school campuses, STEM programs, female organizations, female mentors, and marketing resources to attract more females and a more diverse population. However, without a full time professor to initiate a campaign to attract female students and a more diverse population into the program attracting students will prove to be difficult. (Adjunct instructors may not have time and resources to recruit students)

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.

SBVC serves a community of blue collar workers. Machine Trades education is a much needed skill for our blue collar worker majority and local industries. Currently we only offer evening and weekend classes that serve the working community where students are capable of achieving certificates and degrees. We would like to offer morning classes as well to serve other students, but without a full-time instructor or hiring additional adjunct faculty the number of classes being offered cannot be increased. All of our instructors are adjuncts who have full-time jobs or are working at their maximum FTEs.

Part II: Questions Related to Strategic Initiative: Student Success

Strategic Initiative	Institutional Expectations	
	Does Not Meet	Meets
Part II: Student Success – Rubric		
Data/analysis demonstrating achievement of instructional or service success	Program does not provide an adequate <u>analysis</u> of the data provided with respect to relevant program data.	Program provides an <u>analysis</u> of the data which indicates progress on departmental goals. If applicable, supplemental data is analyzed.

<p>Student Learning Outcomes (SLOs)</p>	<p>Program has not demonstrated that they are continuously assessing Student Learning Outcomes (SLOs) based on the plans of the program since their last program efficacy.</p> <p>Evidence of data collection, evaluation, and reflection/feedback, and/or connection to student learning is missing or incomplete.</p>	<p>Program has demonstrated that they are continuously assessing Student Learning Outcomes (SLOs) based on the plans of the program since their last program efficacy.</p> <p>Evidence of data collection, evaluation, and reflection/feedback, and connection to student learning is complete.</p>
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Provide an analysis of the data and narrative from the program's EMP Summary and discuss what it reveals about your program. (Use data from the Charts 3 & 4 that address Success & Retention and Degrees and Certificates Awarded")

1. In five years, the number of sections offered has been cut by 50%. However, the enrollment has only reduced by 33%.
2. WSCH/FTEF has improved by 19%
3. Student success 72% is at its highest over the last 5 years.
4. Student retention 92% is at its highest over the last 5 years.
5. Certificate awarded (21) has doubled; even though program made significant cuts.
6. Reduced program is still able to provide quality service to community

As the unemployment has risen the need for training also rose: a streamlining of the courses and faculty availability so that students may attend nights and weekends as well as the willingness of different interim Dean's to trust in adjunct faculty recommendations to approve waivers for unneeded prerequisite/ Co-requisites have contributed to the success and retention of students in the program.

We would like to remove unnecessary prerequisite/co-requisites from courses that do not require them and add additional courses to continue better serve students who cannot attend nights or weekends

Without a full-time instructor to update curriculum and remove unneeded prerequisite/ co-requisites current classes and any additional courses that can be added will continue struggle to fill or not achieve the maximum enrollment. Hiring a full-time and additional adjunct faculty is needed to increase the number of classes that can be offered.

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.

Trained and qualified machinist are always in high demand. The market indicators* show an employment increase change of 13.1 % for machining and 17.4 % for CNC machining through 2020. Our machine trades instructors have years of teaching and current industry experience they have been able to work with our current software and equipment to teach to the standards in the field, however many improvements need to be made in upgrading and maintaining new and old equipment especially in CNC machining where the largest projected increase of employment in machining will come from and is where we lack the most amount of CNC equipment.

*California labor market SOC codes : (51 – 4041, 51 – 4012)

Student Learning Outcomes

Course SLOs. Demonstrate that your program is continuously assessing Course Student Learning Outcomes (SLOs), based on the plans of the program since the last efficacy review. Include evidence of data collection, evaluation, and reflection/feedback, and describe how the SLOs are being used to improve student learning (e.g., faculty discussions, SLO revisions, assessments, etc.). This section is required for all programs. **(INSERT SLO COURSE GRID)**

See [Strategic Initiative 5.1](#)

Division: Applied Technology, Transportation and Culinary Arts						
Machine Trades			Next Evaluation			Comments
Department	Courses	Last Evaluation	12/13	13/14	14/15	
MACH	021	SP 09		X		
MACH	022				X	Next offered Fall 14
MACH	061	SP 09				Not Offered
MACH	070	SP 09		X		
MACH	071	SP 09		X		
MACH	072	SP 09		X		
MACH	073	SP 09		X		
MACH	074	SP 09			X	
MACH	075	SP 09		X		
MACH	090			X		
MACH	120	SP 09				
MACH	123	SP 09		X		
MACH	124	SP 09			X	
MACH	129	SP 09		X		
MACH	160					Not Offered

Program has been on hiatus. Resumed teaching all courses on full rotation in Spring 13. Will assess all courses offered in 13/14 this year (3 Year Evaluations are due in October). Will assess 022; 074 & 124 in 14/15. MACH 061 and 160 have not been offered for several years.

Data Collection for Fall 2013 was completed for all courses.

See page 12

Instructional Program SLOs. If your program offers a degree, certificate, or TMC, describe how the SLOs are being used to improve student learning at the program level (e.g., faculty discussions, SLO revisions, assessments, etc.). Include a discussion of how the **courses are mapped to the program**, and how this set of data is either being evaluated or is planned to be evaluated. If your program does not offer a degree, certificate, or TMC, this section is optional (but encouraged). **(INSERT MAPPING GRID & RECENT PROGRAM EVAL FORM)**

See [Strategic Initiative 5.1](#)

	A	B	C	D	E	F	G	H
1		Machinist Technology Certificate	Properly use hand grind cutting tools in machine tool cutting operations	Set up a lathe to cut an external thread	Demonstrate metrology utilizing precision measuring tools including steel rule, callipers, micrometer, surface plate, height gage, test indicators, etc.	Calculate angles for work set-up	Set up and operate a rapid indexing head	Set part in surfacegrinder and grind a compound angle
2	CLASSES							
3	MACH 021	X	X	X	X	X	X	
4	MACH 022	X	X	X	X	X	X	
5	MACH 090	X			X			
6	MACH 120	X						
7	MACH 123	X	X	X	X	X	X	
8	MACH 124	X	X	X	X	X	X	X

Spring 2009 identified:

Need for field trips; faculty have been taking students on field trips to Westech, Aerodef, and national manufacturing day in which industry opens its doors to students. Although the courses have not been assessed since department, moved off hiatus, faculty indicates that students show more interest in the field and retention has increased.

Spring 2009 evaluation of Mach 075 recommended offering classes at later times would increase outcomes. Schedule was changed for working students to complete hours for lecture and lab. This was implemented Fall 2013. Assessment showed an 8% increase in outcome assessment results.

Spring 2009 of Mach 072 Assessment suggested that adding additional hands-on experience would benefit student learning. Mach 090, a sequentially related class, adopted this suggestion and incorporated practical application of theories taught in class. 94% of students met the SLO.

Following the recommended goals from Dr. Marshall's workshops to have program mapping completed by 4/28/14 and Program Evaluations by 9/1/14. Dr. Marshall said he would work with individual department in Fall 2014 to go over program assessment and evaluation.

Practical applications in the lab to provide SLO objectives: 1) Use of Haas Machine Tool, 2) Master Cam

(computer aided manufacturing), 3) Solid Works (computer aided design), 4) Design parts from lecture, video, Machine Trade e-books, testing, online tutorials.

Institutional SLOs/Core Competencies. Complete the Core Competency grid below (**INSERT CORE COMPETENCY GRID**). Describe how the Institutional SLOs/Core Competencies are being used to improve student learning in your program (e.g., faculty discussions, SLO revisions, assessments, etc.). This section is required for all programs.

See [Strategic Initiative 5.1](#)

Core Competency Grid

Adjunct Faculty has had brief discussions about Core Competencies. Looking at Course SLO assessment results from 2009 and 2013 and the Core Competency grid for Machines Trades one thing that stands out is that several of the course assessment suggest that students would be more successful if they had better math skills and if some Machine Trades courses emphasize math they should be mapped to Core Competency 7, Quantitative Reasoning, campus in Spring 15, the Department will remap after the revision is complete.

See Page

Part III: Questions Related to Strategic Initiative: Institutional Effectiveness

Strategic Initiative	Institutional Expectations	
	Does Not Meet	Meets
Part III: Institutional Effectiveness - Rubric		
Mission and Purpose	The program does not have a mission, or it does not clearly link with the institutional mission.	The program has a mission, and it links clearly with the institutional mission.
Productivity	The data does not show an acceptable level of productivity for the program, or the issue of productivity is not adequately addressed.	The data shows the program is productive at an acceptable level.
Relevance, Currency, Articulation	<p>The program does not provide evidence that it is relevant, current, and that courses articulate with CSU/UC, if appropriate.</p> <p>Out of date course(s) that are not launched into Curricunet by Oct. 1 may result in an overall recommendation no higher than Conditional.</p>	<p>The program provides evidence that the curriculum review process is up to date. Courses are relevant and current to the mission of the program.</p> <p>Appropriate courses have been articulated or transfer with UC/CSU, or plans are in place to articulate appropriate courses.</p>

Mission and Purpose:

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

What is the mission statement of the program?

SBVC Machine Trades Department offer a quality education and training program to a diverse community of students in Machine Trades.

How does this purpose relate to the college mission?

Machine trades offers students quality of education with knowledge and skills needed to succeed in business, industry, and their chosen professions to a diverse population and is representative of our community.

Productivity

Provide additional analysis and explanation of the productivity data and narrative in the EMP Summary, if needed. (Use data from charts 1 and 2 (FTEs; Enrollment; FTFE and WSCH per FTFE) on page 3 of this form). Explain any unique aspects of the program that impact productivity data for example; Federal Guidelines, Perkins, number of workstations, licenses, etc.

1. 2012-13 FTEs has improved over last year 2011-12
2. WSCH per FTEF has increased to its highest of 399 in 2012-13 over the last five years.

Relevance and Currency, Articulation of Curriculum

If applicable to your area, describe your curriculum by answering the questions that appear after the Content Review Summary from Curricunet.

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

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Machine Technology				
	Course	Status	Last Content Review	Next Review Date
	MACH010x2 Test Review for National Industry Metal Skills (NIMS) Certification	Active	12/08/2008	12/08/2014
	MACH021 Machine Shop I	Active	02/07/2011	02/07/2017
	MACH022 Machine Shop II	Active	02/07/2011	02/07/2017
	MACH061 Jig and Fixture Machining	Active	12/06/2010	12/06/2016
	MACH070 Computer Numerical Control Machining I	Active	12/06/2010	12/06/2016
	MACH071 Computer Numerical Control Machining II	Active	12/06/2010	12/06/2016
	MACH072 Computer Aided Design and Manufacturing I	Active	02/28/2011	02/28/2017
	MACH073 Computer Aided Design and Manufacturing II	Active	02/28/2011	02/28/2017
	MACH074 Set-up and Operation of CNC Machines	Active	02/28/2011	02/28/2017
	MACH075 Introduction to Computer Aided Design/SolidWorks	Active	12/06/2010	12/06/2016
	MACH090 Mechanical Print Reading, Geometric Dimensioning and Tolerancing	Active	12/06/2010	12/06/2016
	MACH120 Machine Shop Theory	Active	02/07/2011	02/07/2017

	MACH123 Machine Shop III	Active	02/07/2011	02/07/2017
	MACH124 Machine Shop IV	Active	02/07/2011	02/07/2017
	MACH129 Manufacturing Processes	Active	03/21/2011	03/21/2017
	MACH160 Tool and Die	Active	02/28/2011	02/28/2017

Articulation and Transfer

List Courses above 100 where articulation or transfer is not occurring	With CSU	With UC
N/A		

Describe your plans to make these course(s) qualify for articulation or transfer. Describe any exceptions to courses above 100.

N/A

Currency

Follow the link below and review the last college catalog data.

<http://www.valleycollege.edu/academic-career-programs/college-catalog.aspx>

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

Since the retiring of the only machine trades full time faculty, reduction of adjunct faculty and sections being offered, MACH 061 and 160 have not been offered for several years. All other courses are still being offered over a two year period rotation.

SLOs identified the need for students to take a separate NIMS course. Mach 10 was developed and first offered in Fall 09. It has been offered infrequently since then. The class does not fill since costs associated with the NIMS certification make the course cost prohibitive for students. NIMS certification is still an important part of the program

We would like to add more sections to include MACH 061 and 160 and revise the curriculum to embed NIMS information into the Machine Trades program.

Machine trades courses curriculum needs to be updated to include NIMS information so that students can become certified

However without a full-time instructor and additional staff to update and include NIMS information into the machine trades program curriculum it will be difficult to remedy this discrepancy.

Part IV: Planning

Strategic Initiative	Institutional Expectations	
	Does Not Meet	Meets
Part IV: Planning – Rubric		
Trends	The program does not identify major trends, or the plans are not supported by the data and information provided.	The program <u>identifies and describes</u> major trends in the field. Program addresses how trends will affect enrollment and planning. Provide data or research from the field for support.
Accomplishments	The program does not incorporate accomplishments and strengths into planning.	The program incorporates substantial accomplishments and strengths into planning.
Challenges	The program does not incorporate weaknesses and challenges into planning.	The program incorporates weaknesses and challenges into planning.

What are the trends, in the field or discipline, impacting your student enrollment/service utilization? How will these trends impact program planning?

A current trend is an influx of students wanting to enroll into high technology courses (computer aided drafting, computer aided manufacturing, computer numerical control and multi axis technology) un-needed Prerequisite/Co-requisites, outdated curriculum, outdated equipment, lack of work experience, reduction of sections offered, and the inability to retake a course to gain mastery of skill sets have impeded, disqualified and discouraged students from enrolling in to the program

We would like to add sections, update the curriculum, allow students to retake courses to master skill sets and add work experience courses so that students can have the opportunity to meet the minimum work experience hour’s industry requires to get hired. Currently most employers are seeking a minimum of five years’ experience.

However without a full-time faculty dedicated to program planning of additional sections and update curriculum student enrollment will continue to be impacted

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?

1. Though the program does not have a full-time instructor and day classes there is still a large population of students and not for credit courses that are served through our Machine Trades Program
2. Department has received District Machine Trades Trailer and grant funds to promote programs to local middle schools.
3. Paid internship/training with industry partner CSI was successful and needs to be replicated.

Machine Trades Trailer & grant funds: Machine Trades faculty will work with Wendy Zinn to coordinate visits to middle in San Bernardino

Paid Internships: Explore creating an internship based on the CSI model with local machining business such as Walker Corporation, Prestige Mold, and Sorenson Engineering.

Department will pursue funding for FT Faculty & Staff through Program Review Needs Assessment. Without a dedicated FT Faculty it will be difficult to achieve our planning agenda. Machine Trades will also ask for CNC machines and other necessary equipment through program review. Machine Trades was not able to participate in the Needs Assessment process while on Hiatus.

Challenges

Referencing the narratives in the EMP Summary and/or your data, 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?

1. The department does not have a full time faculty, or lab assistant
2. Computer Numerical Control (CNC) machines cost over \$30,000
3. Need for additional state of the art equipment
4. The lecture space need improvement
5. Some district grant resources funds competing private school for activities.

Renovations of the Tech Building and improved lecture space are a part of the campus Bond Measure project. Our understanding is Tech Building needs may be addressed after the Physical Education renovation and building are complete. Department will pursue funding for FT Faculty & Staff through Program Review Needs Assessment. Without a dedicated FT Faculty it will be difficult to achieve our planning agenda. Machine Trades will also ask for CNC machines and other necessary equipment through program review. Machine Trades was not able to participate in the Needs Assessment process while on Hiatus.

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

Strategic Initiative	Institutional Expectations	
	Does Not Meet	Meets
Part V: Technology, Partnerships & Campus Climate		
	<p>Program does not demonstrate that it incorporates the strategic initiatives of Technology, Partnerships, or Campus Climate.</p> <p>Program does not have plans to implement the strategic initiatives of Technology, Partnerships, or Campus Climate</p>	<p>Program demonstrates that it incorporates the strategic initiatives of Technology, Partnerships and/or Campus Climate.</p> <p>Program has plans to further implement the strategic initiatives of Technology, Partnerships and/or Campus Climate.</p>

Describe how your program has addressed the strategic initiatives of technology, campus climate and/or partnerships that apply to your program. What plans does your program have to further implement any of these initiatives?

1. Department has increased visibility of programs by working with District to employ Machine Trades students and faculty to promote vocational skills awareness to local middle schools.
2. Department has renewed partnership with CSI to run a paid internship for Machine Trades students for summer semester 2014.

VI: Previous Does Not Meets Categories

Listed below, from your most recent Program Efficacy document, are those areas which previously received "Does Not Meet." Address each area, by either describing below how your program has remedied these deficiencies, or, if these areas have been discussed elsewhere in this current document, provide the section where these discussions can be located.

N/A. Program put on hiatus 2010/2011.

San Bernardino Valley College Department: <u>Machine Trades</u> For each course, use an x to identify the core competencies that are given a major emphasis and are measured.		MACH 160A	MACH 124A	MACH 123	MACH 120A	MACH 097A	MACH 096A	MACH 095A	MACH 094A	MACH 093A	MACH 092A	MACH 091A	MACH 090A	MACH 074B	MACH 073B	MACH 072B	MACH 071A	MACH 070A	MACH 062X3	MACH 061A	MACH 022B	MACH 021B	
Commun.	1.1 Read and retain information				X							X								X			
	1.2 Write clearly																						
	1.3 Speak clearly																						
	1.4 Employ vocabulary of the subject studied																						X
	1.5 Demonstrate active listening skills																						
Info Comp	2.1 Find and interpret information	X	X	X	X						X	X	X	X	X	X	X	X	X	X	X	X	X
	2.2 Evaluate authority and bias of information																	X					
	2.3 Utilize technology to organize and present information													X									X
	2.4 Demonstrate working knowledge of basic computer function													X	X	X	X	X	X	X	X	X	X
Critical Thinking	3.1 Evaluate strengths, weaknesses and fallacies of logic																						
	3.2 Locate, evaluate and select evidence to support or discredit an argument																						
	3.3 Construct a persuasive argument																						
	3.4 Apply learned knowledge to new situations	X	X	X	X	X	X	X	X														X
	3.5 Apply principles of scientific reasoning to solve problems												X										X
	3.6 Defend a logical hypothesis to explain observed phenomenon																						
Ethics	4.1 Accept responsibility for own actions																						
	4.2 Demonstrate respect for a diversity of ideas and the rights of others																						

