INSTITUTIONAL PROGRAM REVIEW 2015 – 2016
Program Efficacy Phase: Administrative Services
DUE: March 30, 2016

Purpose of Institutional Program Review

Purpose of 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 early so that your review team can work with you at the small-group workshops (March 4 and March 25, 2016). Final documents are due to the Committee co-chair(s) by **Wednesday, March 30** at midnight.

It is the writer's responsibility to be sure the Committee receives the forms on time.

The efficacy process now incorporates the EMP sheet, a curriculum report (if applicable), and SLO/SAO documentation. We have inserted the dialogue from the committee where your last efficacy document did not meet the rubric. SBVC's demographic data will be available on or before February 26. Below are additional links to data that may assist you in completing your document:

California Community College Chancellor's Office Datamart: http://datamart.cccco.edu/

SBVC Research, Planning & Institutional Effectiveness:
http://www.valleycollege.edu/about-sbvc/offices/office-research-planning

California Community Colleges Student Success Scorecard:
http://scorecard.cccco.edu/scorecard.aspx

Program Efficacy
2015– 2016

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

Program Being Evaluated

Campus Technology Services

Name of Division

Administrative Services

Name of Person Preparing this Report	**Extension**
Rick Hrdlicka	8656

Names of Department Members Consulted

Mark Byrd, Anselmo Escobedo, John Feist, Craig Ferguson, Jonathan Flaa, Steve Race, and Gabriel Roseli

Name of Reviewers (names will be sent to you after the committee meets on February 19)?

David Smith, Todd Heibel, and Rochelle Fender

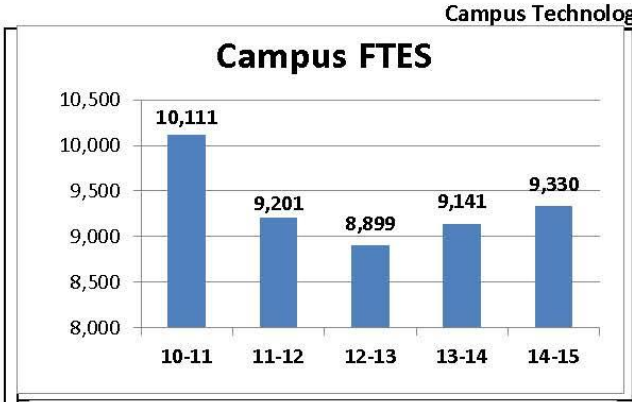
Work Flow	**Date Submitted**
Initial meeting with department	2/23/2016
Meeting with Program Review Team	3/25/2016
Report submitted to Program Review co-chair(s) & Dean	**by midnight on March 30, 2016**

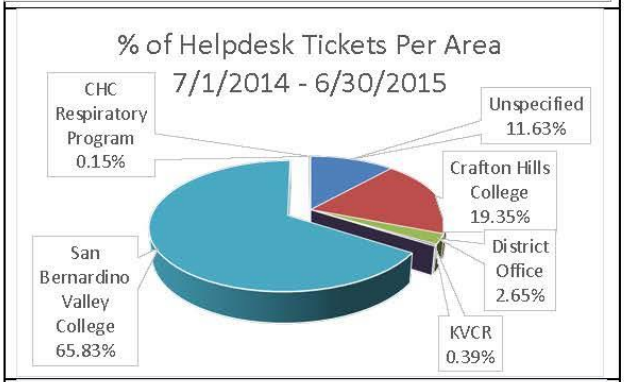
Staffing

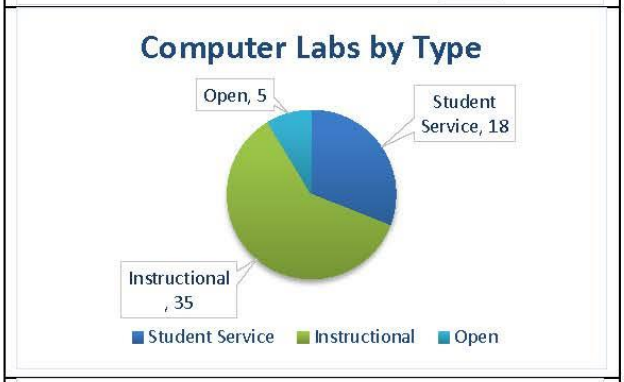
List the number of full and part-time employees in your area.

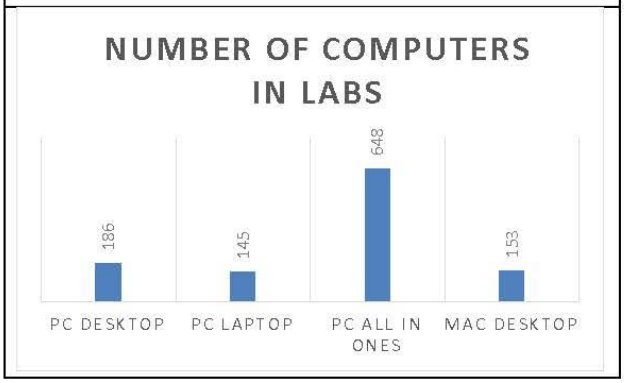
Classification	**Number Full-Time**	**Number Part-time, Contract**	**Number adjunct, short-term, hourly**
Managers	1	0	0
Faculty	0	0	0
Classified Staff	7	0	0
Total	8	0	0

Campus Technology Services 2015-16









Description:
The CTS Department is a service oriented department that supports all technology located on the SBVC campus. Installs, maintains, configures and services computer based hardware and software along with the network infrastructure that includes switches, cabling, servers, and other networking equipment. Uses the helpdesk system to support campus/district owned systems used by students, faculty and staff. Maintains all of the academic/service/open computer labs and classroom technology. Consults with the campus community as needed to evaluate, specify, and purchase software/equipment that is then deployed to the campus. Works with the technology committee to develop standards and procedures for technology.

Assessment:
Assessment of Campus Technology services is based on campus surveys and feedback from helpdesk tickets.

Department Goals:
Goals are set by the technology committee. These are the Goals from the 2013-2016 technology plan:
Goal 1. Provide exemplary technology resources and support while maintaining fiscal and environmental responsibility.
Goal 2. Support the Online Program Committee's Plans and Goals.
Goal 3. Encourage partnerships and promote awareness with businesses, other organizations, and the surrounding community.
Goal 4. Collaborate with the District on projects that are beneficial to all.
Goal 5. Work cooperatively through the Office of Professional Development to provide appropriate technology training.
Goal 6. Identify and meet accessibility standards set by Section 508.

Challenges & Opportunities:
- Use of technology continues to rise. Faculty, students, and staff are using multiple systems that require support.
- Many new systems need to be connected to the network and requires technical configuration. HVAC, security cameras, door locks, alarms, PA systems, and marquees are just a few of the items that only recently have been added to the campuses computer systems.
- Cloud computing is pushing more systems to the network these system require configuration.
- While budgets and demands for technology have increased staffing levels have remained the same.
- Many of the new grants and categorical programs (ecspecially in student services) come with funds for new equipment but no funds to support it.

Action Plan:
Continued support for technology is essential to our campus community. The department will continue to meet the needs of the community as well as it can with the resource it has. Increased staffing would go a long way toward implementing the technology needs of the Campus Community in a timely manner.

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 analysis 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 evidence 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.

Demographics - Academic Years - 2012-13 to 2014-15		
Demographic Measure	**Campus Technology Services**	**Campus-wide**
Asian	4.9%	4.9%
African-American	13.4%	13.4%
Hispanic	61.8%	61.8%
Native American	0.3%	0.3%
Pacific Islander	0.4%	0.4%
White	15.4%	15.4%
Unknown	0.6%	0.6%
Female	55.1%	55.1%
Male	44.7%	44.7%
Disability	5.6%	5.6%
Age Min:	15	15
Age Max:	83	83
Age Mean:	27	27

Program Review Committee will provide this on or before February 26.

Provide an analysis of how internal demographic data compare to the campus population. Alternatively provide demographics relative to the program that are collected. If internal data is not collected, describe plans to implement collection of data.

Technology is provided to all students, faculty and staff.

Wireless access has been installed in all buildings and in prominent outside areas of the campus.

Students with disabilities compose 5.6% of our population. Software has been purchased to provide access to computers and is installed in all open lab areas, DSPS labs, and instructional labs as needed. Also furniture that allows access to wheelchairs has been installed into all computer labs.

Software phones for the deaf and hard of hearing have been installed in the DSPS office, Library, Student Life, tutoring center and the adjunct office that supports the faculty who teach American Sign Language.

There are over 1900 computers on campus. The campus has 64 different student computer facilities containing 1326 computers that are dedicated for student use. Some of these systems have permanent locations whereas others are portable laptop systems. That is a 30% growth in the number of computer labs and a 19% increase in the number of computers in labs since our 2012 program review. These student systems can be divided into three categories:

1. Open labs – These are locations where students can use labs outside of classroom hours. These labs are not reserved for any classroom activities.
2. Instructional labs - These labs are tied to an instructional program and generally are not available for use outside the discipline.
3. Service labs – These labs are tied to service areas, such as EOPS, DSPS, Success Center, and Assessment.

Computer Lab Facilities 2011

		Quantity of Computers
Open Lab	5	126
Instructional Lab	25	733
Service Lab	15	219
	45	1078

Computer Lab Facilities 2016

		Quantity of Computers
Open Lab	5	157
Instructional Lab	38	881
Service Lab	21	288
	64	1326

Computers have been provided to all faculty and staff either as a dedicated system or in shared use areas. For example, computers are made available to adjunct faculty in facilities around the campus. The number of these spaces have been increased as buildings are built or have been remodeled.

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.

Campus Technology Services provides support to the entire campus community. Campus Climate surveys were sent to faculty, students, staff, and managers. Information collected from the portions of those surveys that relate to technology is listed below. Some questions are not consistent from year to year. Survey data has been evaluated below each table.

SBVC Faculty Campus Climate Survey					
	Strongly Agree	Agree	Disagree	Strongly Disagree	No Opinion
The availability of computers and software on campus is adequate for me to do my job.					
2014 N=46	20.0%	62.5%	10.0%	7.5%	0.0%
2013 N=50	30.0%	47.5%	15.0%	7.5%	0.0%
2011 N=70	21.4%	44.3%	20.0%	7.1%	5.0%
The availability of computers, software, multimedia, and other technologies is sufficient to support teaching and learning.					
2012 N=56	21.0%	43.0%	21.0%	9.0%	5.0%
Campus technology support is adequate.					
2014 N=46	21.1%	42.1%	15.8%	21.1%	0.0%
2013 N=50	20.0%	50.0%	25.0%	5.0%	0.0%
2011 N=69	17.4%	47.8%	17.4%	11.6%	5.8%
The computers and others resources on campus are adequate to meet the needs of my students.					
2014 N=46	17.5%	40.0%	20.0%	17.5%	5.0%
2013 N=50	17.9%	43.6%	23.1%	15.4%	0.0%
2011 N=68	15.7%	50.0%	22.9%	4.3%	7.1%
The college systematically reviews and updates its technological infrastructure and equipment to meet program needs.					
2012 N=56	16.0%	48.0%	13.0%	5.0%	18.0%
Technology planning is integrated with institutional planning.					
2012 N=55	13.0%	55.0%	6.0%	1.0%	11.0%

The number of faculty that feel they are not provided with appropriate technology on average has fallen over the past four years. While this number is not as low as we would like it to be, it has improved. CTS is given a budget to keep much of the equipment we have replaced on a 5-year cycle. However, this does not allow us to increase the technology available. New or expanded technologies must go through the Program Review technology needs request process. Funding is then allocated by College Council when available.

Campus technology support is rated and trending lower according to faculty. This is most likely a result of the increasing number of computer labs and computers on campus without an increase in support staff. CTS has been ranked at or near the top for staff augmentation for at least the last 5 years. We still have not received any additional staff to address this need.

Faculty feel that we are not providing adequate technology for their students. While this number has improved it is something that needs to be addressed in the future. When you compare this with the surveys to students the numbers do not line up. A large majority of the students surveyed feel satisfied with the technology they are provided in computer labs. Less than 2% were dissatisfied.

Data also shows that faculty believe that technology planning and infrastructure upgrades are integrated with planning and meet the needs of their programs.

SBVC Student Campus Climate Survey					
	1-Totally Satisfied	2	3	4	5-Totally Dissatisfied
Campus computer laboratories provide me with adequate access to computers.					
2014 N=598	71.0%	19.0%	8.0%	1.0%	1.0%
2013 N=481	57.7%	26.3%	10.9%	1.8%	0.6%
2012 N=221	54.0%	25.0%	12.9%	4.5%	2.2%
2011 N=697	44.5%	24.5%	19.9%	3.5%	4.2%
Campus computer laboratories provide me with adequate access to the Internet.					
2014 N=598	62.0%	24.0%	9.0%	2.0%	2.0%
2013 N=481	60.5%	24.1%	9.5%	1.6%	1.2%
2012 N=221	57.6%	25.4%	12.5%	0.9%	1.8%
2011 N=697	45.6%	26.0%	17.3%	2.6%	4.7%
User-friendly website					
2014 N=598	58.0%	28.0%	10.0%	2.0%	1.0%
2013 N=481	57.9%	27.3%	10.1%	1.6%	0.4%
2012 N=221	59.4%	24.6%	11.6%	0.4%	1.3%
2011 N=697	38.0%	31.3%	14.7%	5.4%	5.7%
Access to online courses					
2014 N=598	58.0%	28.0%	9.0%	3.0%	2.0%
2013 N=481	54.7%	25.5%	9.5%	2.2%	1.4%
2012 N=221	55.4%	24.1%	12.1%	2.2%	0.9%
2011 N=697	36.3%	26.0%	19.5%	6.8%	5.8%

Student surveys show that a large majority of students are satisfied with access to computers and Internet. They also find the campus website friendly and overall are happy with access to online courses.

Campus Climate Survey for SBVC Managers					
	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Sure
Computers and software are up-to-date.					
2014 N=11	45.5%	54.5%	0.0%	0.0%	0.0%
2011 N=13	6.7%	60.0%	13.3%	6.7%	0.0%
Computer support services are prompt and efficient.					
2014 N=11	36.4%	54.5%	0.0%	0.0%	0.0%
2011 N=13	6.7%	66.7%	13.3%	6.7%	0.0%
Technology planning is integrated with institutional planning.					
2013 N=7	14.0%	71.0%	1.0%	0.0%	0.0%
2012 N=7	17.0%	33.0%	17.0%	0.0%	33.0%
The availability of computers, software, multimedia, and other technologies is sufficient to support teaching and learning.					
2013 N=7	29.0%	43.0%	29.0%	0.0%	0.0%
2012 N=7	33.0%	33.0%	0.0%	17.0%	17.0%
The college systematically reviews and updates its technological infrastructure and equipment to meet programs and services.					
2013 N=7	14.0%	71.0%	0.0%	1.0%	0.0%
2012 N=5	60.0%	40.0%	0.0%	0.0%	0.0%

The number of managers that respond to campus climate surveys is very low. This can easily skew the results. Managers felt that their computers and software are up to date. Data shows no issues with support services, planning, or technology infrastructure updates in the most recent survey.

Campus Climate Survey for Classified Staff					
	Strongly Agree	Agree	Disagree	Strongly Disagree	No Opinion
Technology development is included into campus planning.					
2014 N=55	13.0%	52.0%	6.0%	6.0%	13.0%
2013 N=49	14.0%	47.0%	8.0%	6.0%	24.0%
Technology planning is integrated with institutional planning.					
2011 N=35	17.0%	31.0%	14.0%	6.0%	31.0%
I am satisfied with the email system.					
2014 N=55	19.0%	70.0%	9.0%	0.0%	2.0%
2013 N=49	25.0%	58.0%	4.0%	8.0%	4.0%
I am satisfied with the help desk services.					
2014 N=55	13.0%	49.0%	15.0%	15.0%	8.0%
2013 N=49	12.0%	51.0%	12.0%	12.0%	12.0%
The college systematically reviews and updates its technological infrastructure and equipment to meet the needs of campus programs.					
2014 N=55	9.0%	28.0%	8.0%	6.0%	25.0%
2013 N=49	12.0%	47.0%	8.0%	8.0%	24.0%
2011 N=35	8.0%	50.0%	8.0%	8.0%	25.0%
Computers and software are sufficiently available for me to do my job.					
2013-14 N=55	26.0%	65.0%	0.0%	7.0%	2.0%
2012-13 N=49	27.0%	51.0%	8.0%	4.0%	10.0%
There is adequate availability of computers and software to do my job.					
2010-11 N=35	22.0%	67.0%	6.0%	3.0%	3.0%
I am satisfied with the technical support I receive from on-campus staff.					
2014 N=55	28.0%	33.0%	2.0%	4.0%	6.0%
2013 N=49	31.0%	53.0%	0.0%	8.0%	8.0%

Classified Staff have more technology questions in their campus climate survey than any other area. The area that ranked the lowest is around the helpdesk. We currently contract for helpdesk support services. The employees at the helpdesk do not know our environment very well and this can limit their ability to resolve issues via the phone. Many calls need to be elevated to District or Campus Technology Services support staff for resoltution. This results in longer resolution times.

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 analysis of the data provided with respect to relevant program data.	Program provides an analysis of the data which indicates progress on departmental goals. If applicable, supplemental data is analyzed.
Service Area Outcomes (SAOs)	Program has not demonstrated that they are continuously assessing Service Area Outcomes (SAOs) based on the plans of the program since their last program efficacy. Evidence of data collection, evaluation, and reflection/feedback, and/or connection to area services is missing or incomplete.	Program has demonstrated that they are continuously assessing Service Area Outcomes (SAOs) based on the plans of the program since their last program efficacy. Evidence of data collection, evaluation, and reflection/feedback, and connection to area services is complete.

Explain how the services in the program support student success.

Centralization of services:
After much planning by the Technology Committee, in October 2009 with the hiring of a Director of Campus Technology Services the department was born. Prior to that time technology systems and services on the SBVC campus functioned within silos. There were four Technology Support Specialists each working for different Instructional Divisions on campus and each with their own network of computers. This left many areas uncovered in the area of technology support. Also Audio Visual services were under the supervision of the Library. Support for staff and faculty was conducted on a hit or miss basis. District Computing Services supported some staff but not all of them and it did not support faculty at all. There were loose agreements with the Technology Specialists to support the faculty in nearby divisions. Technology on campus grew faster than the support structures could handle and something had to be done to bring the system into balance.

CTS is composed of seven classified staff and one manager that supports all of the technology on campus.

This new organizational model has allowed everyone on the campus to get equal technology and support. Since our last Program Review all CTS staff have moved to the portables vacated by Middle College High School. This has allowed for the department to grow into a team. Regular meetings and daily interactions make for a more cohesive team with clear roles and responsibilities.

Mobile internet access has become key to providing the services needed by our faculty, students, staff, and guests. We are in the process of deploying our third new wireless system since 2003. This new system will provide faster data access and meet all FCC standards for outdoor wireless access

points. As an added benefit we will soon be able to provide access to more campus resources via the wireless system. This will including printing from mobile devices.

We have developed a web page for the CTS department. This web page has a FAQ section with answers to important technology related questions. There is a section with vendor discounts for students, faculty, and staff.

The ongoing deployment of computer systems and classroom technology has a positive impact on the college's image.

Demonstrate that your program is continuously assessing Service Area Outcomes (SAOs) based on the plans of the program since the program's last efficacy report. Include evidence of data collection, evaluation, and reflection/feedback, and describe how the SAOs are being used to maintain and improve area services (e.g., discussions, revisions, assessments, etc.). Refer to EMP.

Service Area Outcome (SAO) Assessment 2015-2016
EXECUTIVE SUMMARY: Administrative Services

Manager	Rick Hrdlicka
Service Area	Campus Technology Services
Objectives	What the CTS department does is guided by the Campus Technology Strategic Master Plan. Listed below are the Technology vision, mission, and guiding principles as written in the 2013-2016 Plan. Technology Vision Students, faculty, and staff will have universal access to the tools and resources of current and emerging technologies, and the expertise to use them effectively for the process of learning. Technology Mission The Technology Committee is the bridge that crosses the digital divide for students, faculty, and staff by providing and implementing a plan for universal access to technology. Technology Guiding Values We value: • Effective training and professional development • Development of technologically literate students, staff and faculty • Effective use of technology that will positively influence the community • Partnerships with our community • A climate of continuous improvement • Exploration of emerging technologies

	• That the District and Campus Technology Services provide exemplary support to the campus community • Fulfilling the technological needs of the campus community
Defined or rewritten SAO (s) 2010-2011	• Provide our students, staff and faculty with current technology resources and support to help them achieve their educational goals.
Assessment	Productivity is measure based on the amount of new equipment deployed each year and the number of Helpdesk tickets completed in a year. Campus Climate surveys were sent to faculty, students and staff the results of these surveys show customer satisfaction with Campus Technology Services. Program Review Process
Evaluation of Assessment Findings	Valley College technical staff resolved an average of 925 helpdesk tickets over the past 6 years. The Valley College CTS staff are not the only ones working to resolve tickets. A large majority of issues are resolved by the Helpdesk. District and CHC also resolve a number of tickets. All of our work is not defined by helpdesk tickets. Much of our work involves lab replacement and maintenance. Also AV request come via phone or email. This work is in addition to helpdesk requests. District funding a five-year technology equipment rotation has been put into place. The campus has been allocated 533 thousand dollars to replace 1/5 of the computers, and other aging technology on campus. Overall the students that responded to the survey are satisfied with access to computer labs and the Internet. Staff and Faculty had slightly lower satisfaction rates. Program Review status “Continuation”
Response to Findings	As of our 2012 program review our computer to technician ratio is substantially high at 330:1. That is 330 computers for each technician to support. If Audio Visual personnel (who are not currently classified computer support personnel) as are included in the ratio it is still high at 237:1. ISTE lists a ratio between 75:1 and 150:1 to meet satisfactory efficiency. To address this discrepancy, we will need to add staffing in the technology department.

See Strategic Goal 2.11

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	The program does not provide evidence that it is relevant, current, and that courses articulate with CSU/UC, if appropriate. Out of date course(s) that are not launched into Curricunet by Oct. 1 may result in an overall recommendation no higher than Conditional.	The program provides evidence that the curriculum review process is up to date. Courses are relevant and current to the mission of the program. Appropriate courses have been articulated or transfer with UC/CSU, or plans are in place to articulate appropriate courses.

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 or purpose of the program?

What the CTS department does is guided by the Campus Technology Strategic Master Plan. Listed below are the Technology vision, mission, and guiding principles as written in the 2013-2016 Plan.

Technology Vision
Students, faculty, and staff will have universal access to the tools and resources of current and emerging technologies, and the expertise to use them effectively for the process of learning.

Technology Mission
The Technology Committee is the bridge that crosses the digital divide for students, faculty, and staff by providing and implementing a plan for universal access to technology.

Technology Guiding Values
We value:

- Effective training and professional development
- Development of technologically literate students, staff and faculty
- Effective use of technology that will positively influence the community
- Partnerships with our community

- A climate of continuous improvement
- Exploration of emerging technologies
- That the District and Campus Technology Services provide exemplary support to the campus community
- Fulfilling the technological needs of the campus community

How does this purpose relate to the college mission?

The CTS Mission: San Bernardino Valley College Campus Technology Services (CTS) provides the campus community with exemplary technology resources and support.

SBVC Mission: San Bernardino Valley College maintains a culture of continuous improvement and a commitment to provide high-quality education, innovative instruction, and services to a diverse community of learners. Its mission is to prepare students for transfer to four-year universities, to enter the workforce by earning applied degrees and certificates, to foster economic growth and global competitiveness through workforce development, and to improve the quality of life in the Inland Empire and beyond.

Productivity

Explain how your program defines and measures satisfaction and productivity. What do these measures reveal about your program over a three year period?
Include data that is relevant to your program. Examples of data may include:

- Relative status of the department at SBVC in comparison to the same department at other multi-campus districts in terms of
    i. staffing levels
    ii. compliance with state, local, and federal regulations
- Average time to respond to requests for service
- Average time to respond to complaints
- Results of user satisfaction surveys
- Results of employee satisfaction/staff morale surveys
- Additional identified benchmarks of excellence for the department, and department standing relative to these benchmarks of excellence

SBVC CTS Tickets - Yearly Report (1/1/2010 - 12/31/2015)

	2010	2011	2012	2013	2014	2015	Total
Total	509	1112	930	952	1001	1048	5552

Helpdesk Yearly Tickets - Yearly Report (1/1/2010 - 12/31/2015)

Location	2010	2011	2012	2013	2014	2015	Total
Unspecified	71	642	2074	1998	1600	1237	7622
CHC	1860	3657	3410	2576	2677	3224	17404

District	276	343	381	343	325	449	2117
KVCR	25	48	70	46	51	44	284
SBVC	7368	13282	12576	9777	8795	11575	63373
CHC RP	0	9	35	20	21	26	111
Total	9600	17981	18546	14760	13469	16555	90911

Productivity is difficult to measure just based on the amount of new equipment deployed each year and the number of Helpdesk tickets completed in a year.

From the data in the two tables above you can see that over the last six years 63,373 tickets were generated by the helpdesk. Of those tickets 5,552 we handled by SBVC CTS staff. The remaining were handled by the helpdesk itself, district technology staff, or the Admissions office.

However, these numbers do not provide the whole picture. We consistently receive requests for assistance that do not include a ticket. For instance, we go to a site to fix one problem and end up fixing 2, 5, 10, or more issues. Many employees who need technological assistance do not want to take the time to fill out a ticket. Also, no one wants to wait for staff to show up after a ticket is created. Some tickets include replacement of whole labs of computers. Other tickets may involve reloading all the software in a set of labs. For example over summer break we reloaded all of the software in 5 business labs, the library, the new readings labs, RTVF, 2 new labs in PS, nursing lab, Art, and others. These jobs were only listed in 5 tickets. An example of such a ticket is shown below:

Ticket Summary

Ticket #:	8146-15512
Status:	**L2: Closed**
Date Created:	4/28/2011 9:15 AM PDT
Last Updated:	6/12/2011 12:46 PM PDT

Customer Info

Entered By:	**Rick Hrdlicka**
Customer:	Rick Hrdlicka
Email Notification (Customer):	On
Assigned Technician:	John Feist

Ticket Description

Ticket Origin:	SBCCD - Walk In
User Type:	Staff
Location:	San Bernardino Valley College
Request Details:	<< 5-26-11 to 6-15-11>> Remove all old equipment from Old PS and Chem Buildings.
Request Type:	Hardware
Request Type Detail:	Equipment Request
Building & Room Number:	Old PS and Chemistry Buildings

Solution

Solved: (6/9/2011 12:42 PM PDT)	Removed all equipment and furniture per your instructions and guidance.

The campus climate survey does not ask questions about satisfaction with the on campus technical support that employees receive. The surveys that are sent out after a Helpdesk ticket is resolved ask about user satisfaction of the Helpdesk, but not the on-campus technical support staff.

When looking for industry standards in technology in relation to education we found that the International Society for Technology in Education (ISTE) provides assessment and guidelines for educational institutions internationally. In September of 2011 the Director of CTS ran the ISTE Profile for San Bernardino Valley College. This profile very clearly evaluates and makes recommendations to schools in the area of technology. Overall the profile for SBVC is rated at "Satisfactory Efficient". However some areas of improvement and recommendations were provided. **Since this report ISTE has since changed their model of providing access to this data. The now charge for access to their system. Therefore a new report was not generated.** Some of the recommendations are below others will be used elsewhere in this document.

Recommendation: The support costs for technology equipment rise exponentially when it is left in service beyond its normal expected life. Most school districts continue investing in older technology equipment even at extraordinary cost and limited capability because a systematic replacement cycle has not been adopted. An adopted cycle (3-5 years), either through equipment leasing or by purchase and replace is recommended for your school district.
Cost: Significant

Recommendation: Decades of funding issues in schools has created a culture that uses every resource to the very end of its life. Unfortunately with technology when equipment has reached the end of its reasonable life it begins to cost the district enormous resources to keep it in service. Even if no support is provided, staff time for troubleshooting and other indirect resources are substantial. Like textbooks that are replaced and surplussed on a cycle, technology should be surplussed after its usable life even if the equipment may still work. This strategy can be challenging for districts that have a culture of extreme frugality or do not have an adopted upgrade cycle.
Cost: Neutral

Recommendation: In many organizations up to 25% of the supported technology devices may be peripherals (printers, digital cameras, scanners, etc.). Even with strong computer standards, peripheral standards are required to minimize support challenges. This is especially true of peripherals that are accessed on the network (printers). It is recommended that peripheral standards are put into place with limited models so that effective support can be provided. Further, consumer products that are not designed for an enterprise networked environment should be discouraged.
Cost: Minimal

Recommendation: Every software application introduces a new set of variables for support personnel. In addition to application functionality, each software application interacts with the operating system and all of the features of the district's technology solution. Each application that is used should be tested before it is introduced for full deployment. A list of tested applications and the known issues should be made available to users. To completely contain technical issues, installation of applications that are not on the list should not be permitted.
Cost: Neutral

Recommendation: Certainly the most challenging (and costly) issue related to technology support in schools is staffing. Most private industries staff technical support with a technician for every 50 to 100 computers. School districts, on the other hand, will commonly see ratios of 250:1 or greater. It is recommended that technology staffing is prioritized to ensure that downtime is minimized and that staff and students can readily depend upon the district's technology.
Cost: High

Recommendation: Unlike the business environment that supports a relatively limited number of software applications, in education there are hundreds of titles. In today's environment it is impossible to fully support every product. It is important to establish guidelines for support that will help guide in the purchase of software, and will establish reasonable expectations for staff. This typically results in a list of software with different categories of support and expected action. So that support activity matches employee expectations, it is recommended that a supported software list and protocols is put into place.
Cost: Neutral

Each of the items above impact the ability for the CTS Department to provide efficient services. The department and the campus will need to look at ways to address these recommendations if we desire to have a more efficient department.

Relevance and Currency, Articulation of Curriculum

If applicable to your area, describe your curriculum (e.g., seminars, workshops, presentations, classes, etc. for Administrative Services).

N/A

If applicable, describe your formal 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.

N/A

Articulation and Transfer

List Courses above 100 where articulation or transfer is **not** occurring	With CSU	With UC

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?

N/A

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 identifies and describes 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?

The current greatest trends in technology are:

- Cloud computing – The process of moving computing environments into the Internet or intranet. This allows for anywhere anytime access to resources that include data and software applications.
- Mobile computing – The proliferation of smart phones and tablets (including Android, iPads, iPhones) has changed the definition of a computer. The users of these devices are demanding that the organizations that they interact with have applications that work with all of their devices.
- Internet of things – many devices are wanting to connect to the network either wired or wireless.
- Virtualized servers – Not too far in the past we purchased new server hardware for each server we wanted to deploy. Replacing this equipment was difficult and time consuming. With the rapid growth of computing power we are able to run multiple virtual servers on one piece of hardware. This lowers the cost of equipment and energy while making it easier to move services between hardware seamlessly.
- Virtualized desktops – This is the next step after virtualized servers. Many relate this to the computing days in the past where all of the computing happened on a server. This technology allows organizations to use their high-end server systems to provide their clients with a reliable, repeatable computing experience in a secure way.
- Virtualized applications – Installing and configuring applications on desktop computers can be tedious. By moving to virtualized applications the user gets a full desktop experience and the individual applications get processed on the server.
- Electronic books – Electronic books are taking shape in many different formats. We can access electronic books via web pages, mobile devices, specialized readers, or personal computers. It is still uncertain which technology will prevail.

We have already deployed virtualized servers and some faculty members have begun electronic books in their classes. We have the technology in place to support this development. We have deployed virtualized desktops in several locations around campus. All SARS machines, Library databases and 2 computer labs have been converted to virtualized desktops. We have had great success with these systems. We have deployed tablet computing in GIS, Biology, and Health Sciences. Some of these technological developments will impact the program in the way we deploy services and equipment. These new technological improvements will allow for new methods of instruction and instructional delivery.

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?

As part of the campus's support for Copiers/Printers was centralized in the CTS department. Prior to this, each area purchased and maintained its own copiers and printers. This created much inefficiency including inconsistent brands, contracts, overstocking of supplies, under budgeted repairs, and infrequent maintenance. Since moving to this new model, all copiers on the campus are under one lease and maintenance program budgeted for in the CTS budget. Campus departments purchase their toner directly from the CTS department. This model encourages the departments to use the copiers for printing.

Since the development of the CTS department. we have been able to leverage the idea of bulk buying. We have relationships with Dell, Microsoft, Apple and other vendors that provide discounts when buying in bulk.

Classroom technology is modifying the way Audio Visual staff within the department function. Previously, AV staff delivered technology to the classroom as needed. We have now installed technology in a majority of the classrooms. This equipment is more computerized and requires that staff that used to just deliver equipment to the classroom, now work more with the computer systems that support this technology. This is a change in job duties and will require a change in job classification at some time in the near future.

District funding a five-year technology equipment rotation was put into place. The campus has been allocated 533,000 dollars to replace 1/5 of the computers, and other aging technology on campus. This has allowed us to get all labs and office computers within the 5 year cycle.

Challenges

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?

Our computer to technician ratio is substantially high at 330:1. That is 330 computers for each technician to support. If Audio Visual personnel (who are not currently classified computer support personnel) as are included in the ratio it is still high at 237:1. ISTE lists a ratio between 75:1 and 150:1 to meet satisfactory efficiency. To address this discrepancy, we will need to add staffing in the technology department. See ISTE Recommendation below:

Recommendation: Certainly the most challenging (and costly) issue related to technology support in schools is staffing. Most private industries staff technical support with a technician for every 50 to 100 computers. School districts, on the other hand, will commonly see ratios of 250:1 or greater. It is recommended that technology staffing is prioritized to ensure that downtime is minimized and that staff and students can readily depend upon the district's technology.
Cost: High

Computer labs around campus are owned by specific departments, divisions, or programs. This creates a several challenges. One challenge is listed above in the lack of CTS department owned lab space. Another is that much of this lab space sits unused because it is not offered or allowed to other departments for use. Moving toward computer lab space that is assigned to classes as needed would make for better use of existing resources and would reduce the need to expand the number of computer lab facilities.

Older buildings provide many challenges. Lack of electrical and network locations, and infestation of rodents are destroying network cabling are two major issues. Furthermore classrooms are not designed to allow installation of smart classroom technologies comparable with that in new buildings. Ideally, these buildings will be replaced or remodeled in the near future. If that does not happen, funds will need to be identified to keep these systems running or to update them.

New buildings also present a challenge in that the equipment in those buildings is more expensive to maintain and replace. A budget will need to be identified to maintain the new smart classroom technologies that have been deployed.

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		
	Program does not demonstrate that it incorporates the strategic initiatives of Technology, Partnerships, or Campus Climate. Program does not have plans to implement the strategic initiatives of Technology, Partnerships, or Campus Climate	Program demonstrates that it incorporates the strategic initiatives of Technology, Partnerships and/or Campus Climate. Program has plans to further implement the strategic initiatives of Technology, Partnerships and/or Campus Climate.

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?

The CTS department's goals are based on the Campus Technology Master Plan which was used to strategic initiatives.

We **partner** with the districts Technology and Educational Support Services (TESS) committees to develop district wide technology plans and goals. The Director of CTS meets bi-weekly with the other technology managers district-wide to ensure that we are all working toward common goals and procedures. Those managers include the Executive Director of TESS, Director District Computing Services, Director of Campus Technology Services – Crafton Hills, and Director of Printing Services.

By centralizing purchasing with three major vendors (Microsoft, Dell, and Apple) we have increased our bulk buying power, and we are able to get these vendors to offer **technology** discounts to our students and employees.

The Director of CTS is a member of the local group of **CETPA (California Educational Technology Professionals Association)** This **partnership** consists of K-20 technologists from Southern California including the K-12 community and higher education.

Below is a list of some of the **Technology** Vendors with which we work:
Apple
Best Golf
CDWG
Cisco
Computer Comforts

Computerland of Silicon Valley
D&D Security
Dell
eInstruction
Extreme
Faronics
Freedom Scientific
Grainger
Intratek
AIS
Lifetime Memory Products
Microsoft
EPCIT
Spinitar
Troxell
Others

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.

Program Review 2012 team efficacy report does not identify any department deficiencies.