

INSTITUTIONAL PROGRAM REVIEW 2010-2011

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, Reviews and Division Dean by **March 28, 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.

Program Efficacy, Spring 2011

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

Name of Program:

Math and Science Student Success Center (MSSSC)

Name of Division

Mathematics, Business and Computer Technology

Name of Person Preparing this Report

Adam H. Littig

Extension

8655

Name of Department Members Consulted

Ethel (Faye) Epps, Dr. Jeremiah Gilbert, Virginia (Susie) Dorfman

Name of Efficacy Team

Celia Huston, Romana Pires

Program Review Committee Representatives

Michael Mayne, David Smith

Work Flow	Due Date	Date Submitted
Date of initial meeting with department		2/15/2011
Final draft sent to the dean		3/1/2011
Report submitted to Program Review Team		3/19/2011
Meeting with Review Team		

Program In Brief

Program Being Evaluated

Math and Science Student Success Center (MSSSC)

Program Description

Please use the space provided below to briefly describe the services and/or instruction provided by your department.

The Math and Science Student Success Center (MSSSC) bulges with students on a near daily basis. Students routinely seek free drop-in tutoring (one-on-one) and scheduled, focused workshops (small-group) in math, chemistry, physics, and biology from currently twenty (20) student tutors and workshop facilitators. Additionally, the MSSSC's part-time counselor is available for drop-in and by-appointment counseling services. The MSSSC is currently supported through funding granted by a Department of Education CCRAA HSI Grant.

Staffing

Please 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	0	0	0
Faculty	1 (Coordinator)	0	1 (Counselor)
Classified Staff	0	1 (Clerical II)	0
Short-term Substitutes	0	0	20 (Tutors)
Total			

Part I. Questions Related to Strategic Initiative: Access

Access

How does the department provide access to the college for students, staff, and the community?

During the MSSSC's normal operating hours (see Pattern of Service for details), student tutors are available for free drop-in tutoring and scheduled, focused workshops in math, chemistry, physics, and biology. Additionally, the MSSSC's part-time counselor is available for drop-in and by-appointment counseling services.

Pattern of Service

Describe the pattern of service and/or instruction provided by your department, and how it serves the needs of the community.

In order for the MSSSC to fully cover the needs of the students and the community, the MSSSC would need to be open whenever classes are in session. Classes are in session Monday - Friday, from 7:00 AM to 10:00 PM, and Saturday, from 7:30 AM to 4:30 PM!! With limited staffing, tight budgets, and supervision requirements, this kind of schedule is not feasible; however, the MSSSC's hours of operation do serve students enrolled in morning, afternoon, evening and weekend courses.

Hours of operation/pattern of scheduling

Currently the MSSSC is open for drop-in tutoring Tuesdays from 10:30 AM to 8:30 PM, Wednesdays, and Thursdays from 10:30 AM to 5:30 PM, Fridays from 8:00 AM to 6:00 PM, and Saturdays from 8:00 AM to 2:00 PM. Although course-specific workshops are available every day that the MSSSC is open, most of these workshops are available on Fridays and Saturdays to better accommodate students enrolled in courses during regularly scheduled Monday through Thursday course blocks. Drop-in and by-appointment counseling is available Tuesdays, Wednesdays, and Thursdays from 10:30 AM to 5:30 PM.

Alternate Delivery Methods

Alternate Delivery Methods are beyond the funded scope of the grant supporting the MSSSC and are not used to tutor our students. An experimental, online tutoring service supported by a different grant is currently being piloted on campus with math department participation.

Weekend and evening services

The MSSSC is currently experimenting with evening and weekend hours. In Spring 2011, the MSSSC is open Tuesday evenings until 8:30 PM and on Saturdays from 8:00 AM to 2:00 PM. Evening and weekend student attendance has been high. Other services on campus like the Learning Center and the Library are currently closed on evenings and weekends potentially driving increased demand for the services of the MSSSC.

Part II. Questions Related to Strategic Initiative: Student Success

Please explain how the services in your program support student learning.

The Math and Science Student Success Center (MSSSC) supports students via free, one-on-one, drop-in tutoring and scheduled, focused, small-group workshops who are enrolled in the following math, chemistry, physics, and biology courses:

SBVC Courses Supported by the MSSSC			
Math	Chemistry	Physics	Biology
90	101	102	50
95	104	150A	100
102	150	150B	140
103	151	200	201
108	205	201	202
115	212		250
151	213		261
250			270
251			
252			
265			
266			

One-on-one and small group peer tutoring like that offered by the MSSSC has been researched extensively and shown to be extremely effective in supporting student learning.

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 mission of the MSSSC is to increase student success in transferable math, chemistry, physics, and biology courses leading to an increased number of student transfers to four year institutions of higher learning and to an increased number of students receiving associates degrees in math, chemistry, physics, and biology.

How does this purpose relate to the college mission?

The MSSSC provides free quality educational support services including academic counseling and tutoring and to any of SBVC's diverse community of learners.

Productivity

How does you department measure productivity and customer satisfaction? What does the data reveal about the productivity of your program over a three year period? Include data that is relevant to your program such as:

- 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

Productivity:

The district began the implementation of SARS (Scheduling and Reporting System)—a standardized and streamlined electronic data collection program for all student-contact-driven areas—in Fall 2009. That system was fully implemented in Fall 2010 (with various bugs affecting data collection that were resolved throughout Fall 2010). As of Spring 2011, the MSSSC’s SARS installation is functioning properly. Prior to SARS, student contact data was collected by hand on paper. Transferring that data to a usable electronic format requires a significant amount of time. As a result, some of the data over the years has not been tabulated or analyzed. Spring 2011 will be the first semester where SARS is fully functional. Tabulated data is below:

	2006-2007		2007-2008		2008-2009		2009-2010		2010-2011	
	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring**
Students	80		ND***		696		974	ND***	677+*	458
Visits									3993	1411
Hours									6632	1821
Minutes									26	33

*The MSSSC served a minimum of 677 students generated from all visits organized by student name. It represents a minimum number because single students can visit the MSSSC for Biology, Math, Chemistry, and Physics but will only be counted once in this report. The MSSSC served a maximum of 1047 students based on other methods of analyzing the student contact data for Fall 2010. The number of visits, hours, and minutes are correct. This data collection issue has been corrected in Spring 2011.

**Spring 2011 data has been tabulated through February 25, 2011

***Collected paper data was not tabulated or analyzed for Fall 2007, Spring 2008, Fall 2008, and Spring 2010.

Customer Satisfaction:

All student tutors collect a minimum of five student evaluations every semester. Thirty student evaluations were randomly selected from the Fall, 2010 semester and the overall average scores were calculated below:

Professionalism	Average Score*
Starts on Time	4.87
Uses time effectively	4.90
Understands the tutor/tutee relationship	4.83
Attire, Appropriately dressed	4.87
Interactive Skills	
Shows enthusiasm when working	4.87
Addresses your needs of subject	4.87
Offers words of encouragement when appropriate	4.80
Cultural Sensitivity	4.73
Preparedness	
Knows material	4.90
Has a planned session or follows	4.70
Tutoring Skills	
Attentive to the session objectives	4.83
Ability to stay focused.	4.90
Performance Appraisal	
Objectives are being met	4.77
Overall job performance	4.83

*(5 = Exceptional, 4 = Above Average, 3 = Average, 2 = Below Average, 1 = Unacceptable)

Planning

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

Higher community college enrollment, the down-turn in the economy, under-prepared high school graduates, and community college budget cuts are external trends to the institution and are increasing student demand at the MSSSC. MSSSC planning has attempted to mitigate these external pressures through the following measures:

- Although student services throughout SBVC have generally reduced their schedules, the MSSSC has extended hours on Fridays from 8:00 AM to 6:00 PM, evening hours on Tuesdays until 8:30 PM, and weekend hours on Saturdays from 8:00 AM to 2:00 PM. The MSSSC is often the only student service open on campus during many of these hours resulting in high student attendance.
- In order to deal with space issues, the MSSSC has built a creative schedule designed to maximize productivity and to minimize space issues. The MSSSC has reduced the number of course-specific workshops; however, the remaining workshops have been carefully scheduled into more student-friendly timeslots. With careful scheduling to minimize overlap, more students can be served with less space impact.
- The MSSSC has also been involved in planning activities related to a new, larger space to house the MSSSC in the new physical science building. SBVC has been extremely supportive in these planning efforts.

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?

In spite of the budgetary challenges, external pressures, and space issues, the MSSSC is proud of its accomplishments and strengths:

- The MSSSC has maintained a diverse workforce of student tutors possessing both breadth and depth within their respective disciplines. The MSSSC continues to hire short-term employees because it allows the MSSSC to hire both SBVC students and students from surrounding universities. Although tutor turnover is a necessary consequence of low wages and limited hours, most of the MSSSC tutors stay with the MSSSC for a year or more leaving only when they transfer to a school out of the local area. Many of our tutors continue to return to the MSSSC even though they are CSUSB, Cal Poly Pomona, and UCR students. The MSSSC also has a reputation for maintaining a positive work environment which continues to attract well-qualified students to replace those tutors who do eventually move on.
- As a grant-funded program, the MSSSC is required collect data in order to justify both current grant funding and to request future grant funding. The MSSSC has worked tirelessly with the Distributed Education & Technology Services on the installation and configuration of SARS for the MSSSC. The MSSSC’s SARS installation went live for student use in Summer 2010—the first tutoring center installation on the SBVC campus. After addressing various bugs, the MSSSC’s SARS installation is fullt-functional as of Spring 2011. The MSSSC used the student contact data gathered to administer a student satisfaction survey to all students served by the MSSSC in Fall 2010. Planned SARS data analysis enhancements will give the MSSSC the power to fully document the effect of the MSSSC on student success.
- SBVC students are enjoying increasing retention and success rates in math and science:

	Retention Rate		Success Rate	
	Spring 2009	Spring 2010	Spring 2009	Spring 2010
Biology	69%	77%	54%	62%
Chemistry	68%	75%	54%	60%
Math	71%	77%	54%	64%
Physics	85%	88%	81%	88%

Although there is no way to directly connect the increase in student retention and success rates to the MSSSC’s tutoring services (without the planned SARS data analysis enhancements), the MSSSC is proud to be part of SBVC’s student success.

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 MSSSC's most pervasive weakness is the uncertainty surrounding continued funding. Although the MSSSC was at one time partially supported by SBVC, the infusion of grant funds from the Department of Education allowed SBVC to reallocate those funds to other areas. The grant funding also allowed the MSSSC to expand significantly. With growing budgetary challenges and diminishing grant funds, the MSSSC has worked closely with the SBVC grant office and college administration to write and submit three grant applications (NSF REESE, NSF TUESTYC, and NSF STEP). Given the budgetary challenges and external pressures across the country, the competition for grant funding is extremely heavy. Two of the three applications were unsuccessful. The last grant application is still being reviewed.

Part IV. Currency

Follow the link below and review the last college catalog data. Is the information about your program correct? If not, how does the program plan to remedy the discrepancy?

http://www.valleycollege.edu/Instruction/Files/Catalog/2010-2011/SBVC_Catalog_1011_Complete.pdf

Mathematics and Science Student Success Center

The Math and Science Student Success Center (MSSSC) supports students taking mathematics and/or science courses. The MSSSC has tutoring on a drop-in basis for Biology, Chemistry, Mathematics and Physics. There are weekly workshops for transfer level courses in Biology, Chemistry, Mathematics and Physics. In addition, there are regularly scheduled workshops on special Algebra topics. Workshops are constructed, with faculty input and guidance, focused on the concepts and information being presented in class. The facilitators and tutors are trained to help students define their learning styles and to strengthen their study skills. For more information, visit the MSSSC located upstairs in the Chemistry building, room 208, or call (909) 384-8651.

This information is correct.

Part 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.

Strategic Initiative—Campus Climate & Culture: *“We are committed to a safe, welcoming, culturally-rich, learning-centered environment.”*

In Summer 2011, the MSSSC plans to move into the learning center space in the new Physical Science building currently being built. The learning center space has been specifically designed for tutoring and has several small, medium, and large group conference rooms that can be used for workshops and subject-specific tutoring. There is a large central area for tutoring and a large outside area for tutoring as well. The MSSSC plans to reopen in its new location in Fall 2011 contingent upon funding.

Strategic Initiative—Partnership: *“We are committed to community involvement and dialog.”*

The MSSSC is committed to developing and supporting a community of learners. The MSSSC implemented the first Math And Science Success Cohort in Fall 2009. The cohort was designed to provide students with a shared learning experience building a strong foundation for future learning and achievement. In Fall 2010, this program was revamped into a partnership with math and science faculty members called the MSSSC Lead Faculty Advisor Program. As content experts in STEM fields, MSSSC Lead Faculty Advisors offer content-specific knowledge about STEM programs through workshops and presentations to the MSSSC tutors and the MSSSC counselor who in turn transfer those benefits to the students, mentor students and MSSSC tutors in career selection, transfer school recommendations, and receive feedback from MSSSC tutors on areas of student interest, problem areas for students, course structure, and other information. In Fall 2011, the MSSSC is planning to implement some form of the MSSSC Lead Faculty Advisor Program contingent upon funding.

Strategic Initiative—Technological Advancements: *“We are committed to an educational environment which utilizes state-of-the-art technology.”*

The MSSSC tutors and staff routinely utilize graphing calculators, lab PCs, the internet, email, text messages, campus WiFi, smart phones, and other state-of-the-art technology. The learning center space in the new Physical Science Building will be technologically advanced. Smart group conference rooms will be equipped with data projectors, etc. and wireless laptops will replace large PCs.