PROGRAM REVIEW OF LABS AND CENTERS
Pilot Review – Phase I
Approved by the Academic Senate
May 12, 2009

The Program Review process should serve as a mechanism for the assessment of performance that recognizes and acknowledges good performance and academic excellence, improves the quality of instruction and services, updates programs and services, and fosters self-renewal and self-study. Further, it should provide for the identification of weak performance and assist programs in achieving needed improvement. Finally, program review should be seen as a component of campus planning that will not only lead to better utilization of existing resources, but also lead to increased quality of instruction and service. A major function of program review should be to monitor and pursue the congruence between the goals and priorities of the college and the actual practices in the program or service.

~Academic Senate for California Community Colleges

Name of Lab or Center:
Division:

I. **GENERAL PURPOSE OF THE LAB*** ***(Data resources: CSM Course Catalog; Course Outline of Record; department records)***
***Note: The term "lab" will be used to refer to centers as well as labs in this document.**

a. **Briefly describe the general purpose of the lab.**

The purpose of the Integrated Science Center (ISC) is to help CSM students of all science background levels to succeed in their science courses. The ISC offers a friendly, comfortable atmosphere for instructors to meet with students, to promote interdisciplinary cooperation and applications to help students discover how the different branches of science contribute to each other. The ISC encourages students to work with their professor and/or other students in study groups to improve their understanding of course materials. The ISC provides textbooks and computer resources for science course-related research, assignments for hour-by-arrangement, and printing of course materials. The ISC provides a place for science tutors to meet with students. By offering these programs and by measuring students learning outcomes, the Integrated Science Center of College of San Mateo serves to improve students' retention and success in science classes, contributing to students' academic success in general.

b. **List the courses that are linked to this lab.**

Students enrolled in any science course at CSM are welcome to the ISC. This includes all courses in Astronomy, Biology, Chemistry, Geology, Health Science, Horticulture, Mathematics, Oceanography, Paleontology, and Physics.

II. **STUDENT LEARNING OUTCOMES** ***(Data resources: SLOs listed on Course Outline of Record; records maintained by the department; CSM SLO/Assessment Coordinator; SLO Website – http://www.collegeofsanmateo.edu/sloac/; "Student Self-Assessment and Satisfaction Survey"; other lab surveys.)***

a. **Briefly describe the Student Learning Outcomes (SLOs) for the lab.**

SLOs for the ISC:

1-Improve retention and academic performance of students in CSM science classes, specifically achievement of course SLOs.
2-Improve student communication skills in science, including comprehension and analysis of science course concepts.
3-Improve students' quantitative skills in science courses, including problem solving, interpretation and analysis of data.
4-Enhance students' awareness of human diversity, respect for others, and ethical issues.

b. **If an assessment of the lab's SLOs has been completed, briefly describe this evaluation. Which support services for courses or programs were assessed? How were they assessed? What are the findings of the assessment? Based upon this assessment, what changes to the lab will be considered or implemented in the future?**

This Spring, 53 students responded to the new campus wide lab survey which incorporated some of our SLO specific questions. The survey asks for student self report of progress toward each SLO and for anecdotal comments. A summary of the Spring 2009 student response follows:

Question #11: "To what extent did your work in this lab help your academic performance in courses linked to the lab or supported by this lab?" (I.e., you use the Integrated Science Center and are also enrolled in a Science course.)

(n=53 respondents)

	Count	Percent
Very helpful	36	67.9%
Somewhat helpful	15	28.3%
Not helpful	2	3.8%
*I am not enrolled in a course linked to this lab	7	11.7%

QUESTION #12: "Based on your overall experience in the ISC this semester, please indicate the extent to which you have made gains or progress in the following learning objectives identified below:

I can...

	Major/Moderate Progress	Minor/No Progress
Express ideas and provide supporting evidence effectively in writing (n= 30)	76.7%	23.3%
Express ideas and provide supporting evidence effectively orally (n=30)	73.3%	26.7%
Comprehend, interpret, and analyze information I read (n=38)	86.8%	13.2%
Comprehend, interpret, and analyze information I hear (n=38)	76.3%	23.7%
Communicate effectively in a group or team situation (n=37)	78.4%	21.6%
Comprehend, interpret, and analyze numerical and or quantitative calculations (n=29)	72.4%	27.6%
Interpret graphical representations of quantitative information (e.g. graphs) (n=32)	81.3%	18.8%
Effectively identify, develop, and evaluate arguments (n=32)	81.3%	18.8%
Effectively assess the legitimacy or adequacy of different types of information (n=33)	78.8%	21.2%

Work effectively with others of diverse backgrounds (n=35)	77.1%	22.9%
Identify ethical issues and evaluate their consequences (n=30)	66.7%	33.3%
Acknowledge the value of diverse opinions and perspectives (n=36)	77.8%	22.2%

c. **If SLOs were assessed for courses or programs using the lab, briefly describe this evaluation. What are the findings of the assessment? Based upon this assessment, what changes to the lab will be considered or implemented in the future?**

Virtually all science and math courses assess SLOs and make changes according to their findings on a semester-by-semester or year-to-year basis. SLO assessment in science classes has not yet been related to the ISC.

d. **Using the results from the "Student Self-Assessment and Satisfaction Survey," summarize the findings in the grid below on how students rated their progress on general education Student Learning Outcomes.**

The column headings identify the GE-SLOs. The first row headings indicate the matrix/scale students used to self-assess progress.

GE SLOs→	**Effective Communication**	**Quantitative Skills**	**Critical Thinking**	**Social Awareness and Diversity**	**Ethical Responsibility**
Matrix/Scale:	**Combination of 12:a,b,e**	**Combination of 12:f,g**	**Combination of 12:c,d,h,i**	**Combination of 12:j,l**	**12:k**
Major / moderate Progress	**76%**	**77%**	**81%**	**73%**	**78%**
Minor/No Progress	**24%**	**23%**	**19%**	**27%**	**22%**

e. **If general education Student Learning Outcomes have been measured using another type of assessment, such as student surveys, summarize the findings in the grid below on how students rated their progress on these Student Learning Outcomes. (Please identify data sources.)**

Only the general assessment as described in d. has been measured at this point.

III. **DATA EVALUATION** ***(Data resources: "Student Self-Assessment and Satisfaction Survey"; other lab surveys; "Student Profile Data for Labs, Spring 2009"; "Core Program and Student Success Indicators" for department(s) using lab obtained from the Office of Planning, Research, and Institutional Effectiveness – see website at http://www.smccd.net/accounts/csmresearch/prie/program_review.html .)***

a. **Referring to all lab usage data available, evaluate the proportion of students using the facility versus the potential population of users. If data is available, indicate the number of users and specify whether this is a duplicated or unduplicated count. If applicable, discuss programmatic, course offering or scheduling changes being considered as a result of lab usage projections? Will any major changes being implemented in the program (e.g. changes in prerequisites, hours by arrangement, lab components) require significant adjustments to lab operations?**

CSM Lab & Learning Center: Student Profile Spring 2009

ISC/Total Number of Respondents: 53

Demographic Variable	Count	% of Total	Collegewide (%)
Ethnicity			
Asian	13	24.5	15.3
African American	0	0	3.8
Filipino	3	5.7	5.8
Hispanic	6	11.3	19.3
Native American	1	1.9	0.5
Pacific Islander	0	0	2.3
White	17	32.1	37.2
Other	0	0	0.1
Unrecorded	13	24.5	15.7
Total	**53**	**100**	**100**
Gender			
Female	30	56.6	47.7

Enrollment Profile	Count	% of Total	Collegewide (%)
Total Number of Courses Enrolled			
1	11	20.8	47.9
2	10	18.9	17.4
3	14	26.4	12.1
4	9	17	11.5
5	6	11.3	6.9
6	3	5.7	2.9
7	0	0	0.9
8	0	0	0.3
8+	0	0.0	0
Total	**53**	**100**	**100**
Total Units Enrolled			

Male	22	41.5	47.2
Unrecorded	1	1.9	5.1
Total	**53**	**100**	**100**

Age			
19 or less	11	20.8	20.4
20-24	17	32.1	27.4
25-29	10	18.9	12.4
30-34	3	5.7	8.1
35-39	2	3.8	6.2
40-49	3	5.7	10.4
50+	6	11.3	12.2
Unrecorded	1	1.9	2.9
Total	**53**	**100**	**100**

0.5 – 3.0	5	9.4	43.7
3.5 – 6.0	14	26.4	18
6.5 – 12.0	14	26.4	23.2
12.5+	20	37.7	15.1
Total	**53**	**100**	**100**

Day/Evening Course Enrollments*		
Day Courses	86.5	68.5
Evening Courses	13.3	31.2
Total	**100**	**100**

Since only 53 students completed surveys in Spring 2009, but 1313 unduplicated contacts used the ISC last year, the profile in the survey may not represent the student population that uses the ISC.

Attendance is logged on a computer in the ISC that uses the SARS program. Dean Drumheller, the staff manager of the ISC at 25% time, prepared the summary of usage. Log-in and log-out compliance was about 90% in 2008-2009, meaning 10% of the users were not counted. This fall we are working to improve compliance, however when the ISC is busy, which is most of the time, there may still be students who are not logging in or out. Anecdotal experience of faculty in the first week of this Fall semester suggest there are numerous first-time users of the ISC, increasing the numbers who will use it this semester, but also increasing the need to instruct students about the importance of logging in.

According to numbers Dean Drumheller collected 2008-2009, the ISC had 17, 441 contacts in the 2008-2009 school year, 1313 unduplicated contacts. The greatest numbers of contacts were for Biology (4128, 408 unduplicated) and Chemistry (1510, 177 unduplicated). Approximately 500 students attended the ISC each week. Through Spring 2009 only general information on "reason" for using the ISC was collected, namely the science field (Biology, Chemistry, etc). Beginning Fall 2009 students will choose from their list of specific classes. This should provide more information that will suggest needed changes in programs or courses. In the future we hope to add a choice of "reasons" for ISC attendance, so students will choose from a list to distinguish hour-by-arrangement, study group, individual study, professor consultation, etc.

b. **Discuss staffing of the lab. Obtain FTE data for classified and certificated personnel assigned to staff the lab (available from division deans). Evaluate the current data and departmental projections as indicated on the "Core Program and Student Success Indicators." If applicable, how does the full-time and part-time FTE affect program action steps and outcomes? What programmatic changes do trends in this**

area suggest? If student assistants work in the lab, discuss hours of employment, job duties, and how they support program services and scheduling.

In 2008-2009 the ISC was open 35 hours per week. There was one classified staff at 25% (10 hours) and one student assistant (20 hours); in Spring 2009 faculty staffed the ISC 8.5 hours. Beginning Fall 2009 the ISC is staffed at all times by faculty, full-time or adjunct. This provides an appropriate academic environment for hour-by-arrangement assignments and other course-related work in the ISC. This Fall the ISC is open 31 hours per week, with 12 hours staffed by full-timers and 19 by adjuncts. Most of the full-timer hours are office hours, while adjunct hours are paid 0.7 FTE per hour (only 2 hours are paid outside of load for full-timers). Faculty staffing of the ISC is reflective of the student population using the ISC: the majority of hours are staffed by Biology, next Chemistry, next Physics faculty. The hours staffed by faculty, with their subjects, are posted for students. Management of the ISC facility, scheduling, supplies, assistance with computers and printer, and many other supporting and technical tasks are performed by classified staff at 25% and there will be a student assistant (10 hours). Faculty also perform several of these tasks, but must be available for office hours with students.

c. **Report on student satisfaction as indicated in the "Student Self-Assessment and Satisfaction Survey" and, if applicable, as indicated in other student surveys.**

Question #2: "Overall, how would you rate the quality of the lab services you received?"

(n =58 respondents)

	Count	Percent
Excellent	25	43.1%
Very Good	16	27.6%
Good	13	22.4%
Fair	2	3.4%
Poor	2	3.4%

Question #3: " Overall, was the lab staff helpful?"

(n=58 respondents)

	Count	Percent
Yes	53	91.4%
No	5	8.6%

Question #4: "Were the procedures for using the lab clear and easy to follow?"

(n=58 respondents)

	Count	Percent
Yes	56	96.6%
No	2	3.4%

Question #5: "Did you understand what lab activities were expected of you?"

(n=56 respondents)

	Count	Percent
Yes	49	87.5%
No	7	12.5%

Question #6: "Was the lab available when you needed it?"

(n=60 respondents)

	Count	Percent
Always	15	25.0%
Most of the time	28	46.7%
Sometimes	12	20.0%
Rarely	3	5.0%
Never	2	3.3%

Question #7: "Were you able to get help when you needed it in this lab?"

(n=52 respondents)

	Count	**Percent**
Always	20	38.5%
Most of the time	19	36.5%
Sometimes	9	17.3%
Rarely	3	5.8%
Never	1	1.9%
*Does not apply	9	14.8%

*Note: Percentages reported above exclude students who responded "Does not apply"

Question #8: "If applicable, were individual meetings with faculty helpful?"

(n=35 respondents)

	Count	**Percent**
Very helpful	28	80.0%
Somewhat helpful	7	20.0%
Not helpful	0	0%
*I did not have individual meetings	25	41.7%

*Note: Percentages reported above exclude students who did not have individual meetings

Question #10: "Were the learning resources (e.g., workbooks, course materials) you needed to complete your lab activities or classroom assignments readily available?"

(n=56 respondents)

	Count	**Percent**
Always	28	50.0%
Most of the time	24	42.9%
Sometimes	3	5.4%
Rarely	1	1.8%

Never	0	0%
*Does not apply	6	9.7%

*Note: Percentages reported above exclude students who responded "Does not apply"

Anecdotal comments by students included many positive comments, but also emphasized some lacks as well as misunderstanding by students of the ISC's purpose. Recurring complaints included:
--The ISC should be open 8-5 instead of only 9-4.
--Computers are very slow and may need upgrading. In addition they are dirty!
--There are no outlets for students to plug in their laptops. (It is very surprising and disturbing to the staff of the ISC that such a new building did not have code requirements for more electrical outlets).
--Several respondents thought that there should be more faculty assistance for the students. Students familiar with the Math lab were disappointed that not all faculty could help them with their studies. Hopefully the fact that faculty is always in attendance beginning Fall 2009 will provide more academic assistance to more students. In many cases Biology instructors can help with basic chemistry and physics problems, and vice versa.
--About equal numbers of respondents were happy that study groups can eat and talk in the ISC, as were unhappy with the lack of library-level quiet.

IV. STUDENT SUCCESS EVALUATION AND ANALYSIS *(Data resources: "Student Self-Assessment and Satisfaction Survey"; other lab surveys; "Student Profile Data for Labs, Spring 2009"; "Educational Master Plan, 2008" – see website at http://www.smccd.net/accounts/csmresearch/prie/institutional_documents.html ; student success data from departmental "Core Program and Student Success Indicators" – see website at http://www.smccd.net/accounts/csmresearch/prie/program_review.html ; previous Program Review and Planning reports; other department records.)*

a. **Based on findings from the "Student Self-Assessment and Satisfaction Survey" and other student surveys administered by the lab, briefly describe how effectively the lab addresses students' needs relative to overall college student success rates. If applicable, identify unmet student needs related to student success and describe programmatic changes or other measures the department will consider or implement in order to improve student success. (*Note that item IV b, below, specifically addresses equity, diversity, age, and gender.*)**

Please identify the survey instruments used and the number of respondents.

PRIE in the chart titled *CSM Lab & Learning Center: Student Profile Spring 2009.* Among the 53 voluntary respondents to the ISC survey, average success and retention rates were higher than campus wide. It is not clear whether this is statistically significant due to the small sample size and non-randomness of sampling.

CSM Lab & Learning Center: Student Profile Spring 2009

ISC/Total Number of Respondents: 53

Demographic		Column %	Respondent Count			Respondent Percentage			Collegewide Percentage		
Variable	Count		Success	Non-success	Retention	Success	Non-success	Retention	Success	Non-success	Retention

			s								
Ethnicity											
Asian	34	21.7	26	8	28	76.5	23.5	82.4	74	26	84.180
African American	0	0	0	0	0	0	0	0	58.4	41.6	.380
Filipino	8	5.1	5	3	5	62.5	37.5	62.5	67.6	32.4	.478
Hispanic	20	12.7	18	2	20	90	10	100	67.6	38.3	.482
Native American	5	3.2	5	0	5	100	0	100	64.1	35.9	.181
Pacific Islander	0	0	0	0	0	0	0	0	61	39	.183
White	44	28	40	4	43	90.9	9.1	97.7	71.5	28.5	.683
Other	0	0	0	0	0	0	0	0	73.7	26.3	89.583
Unrecorded	46	29.3	39	7	44	84.8	15.2	95.7	70.8	29.2	.8
Total	**157**	**100**	**133**	**24**	**145**	**84.7**	**15.3**	**92.4**	**68.7**	**31.3**	**82.2**
Gender											
Female	90	57.3	81	9	86	90	10	95.6	70.3	29.7	83
Male	63	40.1	48	15	55	76.2	23.8	87.3	66.4	33.6	81.1

Unrecorded	4	2.5	4	0	4	100	23.8	100	74.6	25.4	85.6
Total	**157**	**100**	**133**	**24**	**145**	**84.7**	**15.3**	**92.4**	**68.7**	**31.3**	**82.2**
Age											
19 or less	40	25.5	32	8	35	80	20	87.5	64.9	35.1	81.7
20-24	55	35	43	12	50	78.2	21.8	90.9	64.1	35.9	79.4
25-29	23	14.6	21	2	22	91.3	8.7	95.7	69.8	30.2	81.5
30-34	9	5.7	8	1	8	88.9	11.1	88.9	72.8	27.2	82.6
35-39	10	6.4	10	0	10	100	0	100	73.1	26.9	83.2
40-49	3	1.9	3	0	3	100	0	100	77.9	22.1	87.8
50+	13	8.3	12	1	13	92.3	7.7	100	79.9	20.1	88.1
Unrecorded	4	2.5	4	0	4	100	0	100	79.3	20.7	88.5
Total	**157**	**100**	**133**	**24**	**145**	**84.7**	**15.3**	**92.4**	**68.7**	**31.3**	**82.2**

b. **Briefly discuss how effectively the lab addresses students' needs specifically relative to equity, diversity, age, gender, disability and access. If applicable, identify unmet student needs and describe programmatic changes or other measures that will be**

considered or implemented in order to improve student success with specific regard to equity, diversity, age, and gender.

The following chart was provided by PRIE. The respondents to the survey do not differ significantly in ethnicities and gender from the collegewide.

CSM Lab & Learning Center: Student Profile Spring 2009

ISC/Total Number of Respondents: 53

Demographic Variable	Count	% of Total	Collegewide (%)
Ethnicity			
Asian	13	24.5	15.3
African American	0	0	3.8
Filipino	3	5.7	5.8
Hispanic	6	11.3	19.3
Native American	1	1.9	0.5
Pacific Islander	0	0	2.3
White	17	32.1	37.2
Other	0	0	0.1
Unrecorded	13	24.5	15.7
Total	**53**	**100**	**100**
Gender			
Female	30	56.6	47.7
Male	22	41.5	47.2
Unrecorded	1	1.9	5.1
Total	**53**	**100**	**100**
Age			
19 or less	11	20.8	20.4
20-24	17	32.1	27.4
25-29	10	18.9	12.4
30-34	3	5.7	8.1
35-39	2	3.8	6.2
40-49	3	5.7	10.4
50+	6	11.3	12.2
Unrecorded	1	1.9	2.9
Total	**53**	**100**	**100**

Enrollment Profile	Count	% of Total	Collegev (%)
Total Number of Courses Enrolled			
1	11	20.8	47.
2	10	18.9	17.
3	14	26.4	12.
4	9	17	11.
5	6	11.3	6.
6	3	5.7	2.
7	0	0	0.
8	0	0	0.
8+	0	0.0	
Total	**53**	**100**	**10**
Total Units Enrolled			
0.5 – 3.0	5	9.4	43.
3.5 – 6.0	14	26.4	1
6.5 – 12.0	14	26.4	23.
12.5+	20	37.7	15.
Total	**53**	**100**	**10**
Day/Evening Course Enrollments*			
Day Courses		86.5	68.
Evening Courses		13.3	31.
Total		**100**	**10**

V. REFLECTIVE ASSESSMENT OF INTERNAL AND EXTERNAL FACTORS AND PROGRAM/STUDENT SUCCESS *(Data Resources: "Student Self-Assessment and Satisfaction Survey"; other lab surveys; "Student Profile Data for Labs, Spring 2009"; "Educational Master Plan, 2008"; "2008-2013 College of San Mateo Strategic Plan" – see website at http://www.smccd.net/accounts/csmresearch/prie/institutional_documents.html ; student success data from departmental "Core Program and Student Success Indicators" – see website at http://www.smccd.net/accounts/csmresearch/prie/program_review.html ; previous Program Review and Planning reports; department records; other environmental scan data.)*

a. **Using the matrix provided below and reflecting on the lab relative to students' needs, briefly analyze the lab's strengths and weaknesses and identify opportunities for and possible threats to the lab (SWOT). Consider both external and internal factors. For example, if applicable, consider changes in our community and beyond (demographic, educational, social, economic, workforce, and, perhaps, global trends); look at the demand for the lab; review program links to other campus and District programs and services; look at similar labs at other area colleges; and investigate auxiliary funding.**

Note: Please indicate the source of the data that was used to complete this section.

	INTERNAL FACTORS	EXTERNAL FACTORS
Strengths	Faculty and Staff; Division Dean is supportive; pleasant facility & environment, accessible to students; popular with students	
Weaknesses	Not all faculty can assist students in all sciences; open hours limited	Under-staffing: State Budget – funding of classified position, student tutors, faculty load
Opportunities	Encourage more faculty participation so two faculty are present most times of the day (this was a very positive attribute of the original ISC in the old building 10: students could see faculty in different fields interacting, and discussions took place that revealed the interdisciplinary nature of science). Base formal (approved) tutors in the ISC so that students can get help with basic course work.	State funding for college to hire needed full-time science faculty
Threats	Full time faculty are overloaded with campus/division/department committee work, thus "volunteer" time in the MRC is severely restricted. Adjunct faculty are scrambling to teach on multiple campuses, thus hours of availability for assignment to the MRC are restricted. Slow computers.	Calamitous State Budget – funding of student tutors, faculty positions; funding of computer upgrades State definition of HBA and associated rules

b. **If applicable, discuss how new positions, other resources, and equipment granted in previous years have contributed towards reaching program action steps and towards overall programmatic health (you might also reflect on data from Core**

Program and Student Success Indicators). If new positions have been requested but not granted, discuss how this has impacted overall programmatic health (you might also reflect on data from Core Program and Student Success Indicators).

This discussion can be found in the program reviews of all Science departments.

VI. Action Steps and Outcomes *(Data Resources: "Student Self-Assessment and Satisfaction Survey"; other lab surveys; "Student Profile Data for Labs, Spring 2009"; "Educational Master Plan, 2008"; "2008-2013 College of San Mateo Strategic Plan" – see website at http://www.smccd.net/accounts/csmresearch/prie/institutional_documents.html ; student success data from departmental "Core Program and Student Success Indicators" – see website at http://www.smccd.net/accounts/csmresearch/prie/program_review.html ; previous Program Review and Planning reports; department records; other environmental scan data.)*

a. **Identify the lab's action steps. Action steps should be broad issues and concerns that incorporate some sort of measurable action and should connect to the *"Educational Master Plan, 2008"; "2008-2013 College of San Mateo Strategic Plan";* the Division work plan; and GE- or certificate SLOs.**

1. Continue to evaluate student usage every semester, feedback every year 2. Increase hours of operation from 9-4 to at least 8-5 3. Increase faculty staffing to expand hours and so that two faculty are present during peak hours. 4. Investigate funds and means to provide tutoring 5. Seek funding to upgrade computers

b. **Briefly explain, specifically, how the lab's action steps relate to the Educational Master Plan.**

Goal 1: Program and Services – CSM will match its programs and services – and the manner in which they are delivered – to the evolving needs and expectations of our students. Steps 1, 2, 3. More direct interactions between students and faculty outside of classroom time in concert with student feedback evaluation will respond to community needs as they change. **Goal 2: Enrollment Management - CSM will develop and implement a comprehensive research-based enrollment management initiative that addresses all the states of enrollment management, including marketing, outreach, recruitment, and retention.** Steps 1, 2, 3, 4, 5 all contribute to retention, by improving student success in science courses. Promotion of the services of the ISC by the college and by word of mouth (students to prospective students) improve recruitment. **Goal 3: Diversity – CSM will promote a diverse learning and working environment that encourages tolerance, mutual respect, and the free exchange of ideas.** Steps 2, 3 allow students to observe and practice mutual respect between colleagues, student-student, and faculty-student. **Goal 4: Assessment – CSM will ensure continuous quality improvement by integrating and promoting evidence-based assessment throughout the institution.** Step 1 will ensure that the ISC makes changes in accordance with assessment of student need and responses to conditions in the lab.

c. **Identify and explain the lab's outcomes, the measurable "mileposts" which will allow you to determine when the action steps are reached.**

Results of student surveys and reports on student usage as recorded by log-in (SARS) will indicate whether students perceive the value of the ISC. Other mileposts are fairly concrete: Schedules will clearly show increased hours and more faculty participation, and student surveys will reveal whether this has a positive impact on their benefits. Computer upgrades and tutoring schedules will show these goals have been reached.

VII. SUMMARY OF RESOURCES NEEDED TO REACH LAB ACTION STEPS *(Data Resources: "Student Self-Assessment and Satisfaction Survey"; other lab surveys; "Student Profile Data for Labs, Spring 2009"; "Educational Master Plan, 2008"; "2008-2013 College of San Mateo Strategic Plan" – see website at http://www.smccd.net/accounts/csmresearch/prie/institutional_documents.html ; student success data from departmental "Core Program and Student Success Indicators" – see website at http://www.smccd.net/accounts/csmresearch/prie/program_review.html ; previous Program Review and Planning reports; department records; other environmental scan data.)*

a. **In the matrices below, itemize the resources needed to reach lab action steps and describe the expected outcomes for program improvement.* Specifically, describe the potential outcomes of receiving these resources and the programmatic impact if the requested resources cannot be granted.**

***Note:* Whenever possible, requests should stem from assessment of SLOs and the resulting lab changes or plans. Ideally, SLOs are assessed, the assessments lead to planning, and the resources requested link directly to those plans.**

Faculty Time Requested	Expected Outcomes if Granted and Expected Impact if Not Granted	If applicable, briefly indicate how the requested resources will link to achieving lab action steps based on SLO assessment.
More faculty time for longer hours open and more faculty-faculty and student-faculty interactions	Increased student success, retention vs status quo	

Classified Positions Requested	Expected Outcomes if Granted and Expected Impact if Not Granted	If applicable, briefly indicate how the requested resources will link to achieving lab action steps based on SLO assessment.

b. **For instructional resources including equipment and materials, please list the exact items you want to acquire and the total costs, including tax, shipping, and handling.**

Include items used for instruction (such as computers, furniture for labs and centers) and all materials designed for use by students and instructors as a learning resource (such as lab equipment, books, CDs, technology-based materials, educational software, tests, non-printed materials). Add rows to the tables as necessary. If you have questions as to the specificity required, please consult with your division dean. Please list by priority.

Resources Requested	Expected Outcomes if Granted and Expected Impact if Not Granted	If applicable, briefly indicate how the requested resources will link to achieving lab action steps based on SLO assessment.

**** Status = New, Upgrade, Replacement, Maintenance or Repair.***

VIII. Course Outlines – for labs that are discrete courses *(Data Resources: department records; Committee On Instruction website – http://www.smccd.net/accounts/csmcoi ; Office of the Vice President of Instruction; Division Dean)*

a. **If applicable to the lab, list by course number (e.g. CHEM 210) all department or program courses included in the most recent college catalog, the date of the current Course Outline for each course, and the due date of each course's next update.**

Course Number	Last Updated	Six-year Update Due

Upon its completion, please email this Program Review of Labs and Centers report to the Vice President of Instruction, the appropriate division dean, and the CSM Academic Senate President.

Date of evaluation: August 29, 2009

Please list the department's Program Review of Labs and Centers report team:

Primary program contact person: Kathleen Diamond
Phone and email address: 574-6602 diamondk@smccd.edu

Full-time faculty: Kathleen Diamond
Part-time faculty:
Administrators: Charlene Frontiera, Dean of Math-Science Division
Classified staff: Dean Drumheller, Astronomy and ISC lab
Students:

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Faculty's signatures ***Date***

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Dean's signature ***Date***