

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

INSTRUCTIONS

This *Annual Update for Program Review and Planning* is due each year that your *Comprehensive Program Review and Planning* report is not due.

(For information about program review cycles, see Instructional and Student Services program review rotation schedules posted online in their respective sections of the program review webpage: http://collegeofsanmateo.edu/prie/program_review/program_review.php)

Resources for Supporting Documentation:

A listing of resources and documents which provide data or information for each section is included at the end of this document, after the final signature page. These resources are posted online and their URLs are listed at the end of this document.

(You may delete this section, when you submit your final program review.)

Next Steps:

All *Annual* and *Comprehensive Program Review and Planning* reports are due March 25, 2010. This date is aligned with CSM's *Integrated Planning Calendar*. (See: http://collegeofsanmateo.edu/prie/institutional_documents.php.)

Upon its completion, please email this *Program Review and Planning* report to the Vice President of Instruction, the Vice President of Student Services, the appropriate division dean, the CSM Academic Senate President, and the Dean of Planning, Research, and Institutional Effectiveness (PRIE).

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Susan Estes, Vice President of Instruction, estes@smccd.edu
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DEPARTMENT OR PROGRAM: CIS

DIVISION: Business/Technology

1. BRIEF DESCRIPTION OF PROGRAM:

The Computer Information Science Department offers 26 separate courses and 22 sections for spring 2010 which includes introductory through advanced programming courses, internet programming courses and networking/computer forensics offerings. Of sections currently offered, 21 sections are either degree applicable and/or satisfy a certificate requirement and/or articulate with a 4-year University and prepare the student for transfer.

2. Based on the elements in your *Core Program and Student Success Indicators* (provided by PRIE for each program) and the goals stated in your most recent Program Review, please identify any key successes and challenges.

Enrollments increased over the 2008-2009 academic year, rising from 842 (07-08) to 872 in (08-09), as has departmental LOAD, 438 (07-08) to 486 (08-09). Full time Equivalent Faculty (FTEF) numbers remain consistent. Based on these successful enrollment numbers, established online courses have continued. Additional online course offerings (Computer Forensics) were anticipated in our most recent Program Review, and are currently being offered in the 09-10 academic year with increased enrollment in the Forensics area of our curriculum.

Overall retention has dropped, although not significantly, and still remains a challenge for the CIS faculty. Online retention falls below traditional class retention, as is the case nationwide. Student success (62%) still remains slightly lower than the college average (70%).

An additional challenge for the next academic year will be the addition of a returning full time faculty member. Maintaining LOAD numbers will require careful planning of course offerings.

3. Are you on track for meeting the goals/targets that your program identified in its most recent Program Review? If not, please explain possible reasons why. If needed, update your goal/targets based on these reasons.

Curricular goals planned in our last Program Review are on target; however funds for tutoring services, requested in our last program review, have not yet been realized. The department has long felt that the absence of tutoring for students enrolled in programming courses is a big factor in student attrition.

4. Have you identified any new goals or projects for the program to focus on during this next year? Please explain (grants, stipends, initiatives, etc.).

The study of computer games is an emerging field driven by advances in hardware and software technology. A number of the UC campuses offer courses in this area, and at least two offer B.S. degrees in computer gaming. During the 2010-2011 year, the CIS department will explore how CSM would be able to best serve transfer and non-transfer students in this area.

Additionally, the course in Visual Basic.NET, which has not been offered in two years, will be brought back in response to both student requests and industry popularity. If this course offering is successful, the return of banked courses will be considered.

5. Are there any critical issues you expect to face in the coming year? How will you address those challenges?

According to the PRIE data, retention in CIS is declining from 74% in 2008-09 to a projection of 71% in 2009-2010. This is below the college retention rate of 84% in 2008-09 with a projection of 83% in 2009-10. The CIS success rate in 2008-09 was 62% with a projection of 61% in 2009-10, while the college success rate in 2008-09 was 70% and is projected to be 69% in 2009-10. Attrition in computer science is traditionally high, but we must still make every effort to improve our rates of retention and success.

Although both the college and the CIS department have declining retention and success rates since 2006-07, because ours are below the college averages it is important that we work on reversing this trend. Retention and success would both be improved by offering tutoring services to our students. If funding will not be available to pay tutors, perhaps we could find volunteer tutors. Aides working in the CIS lab already do informal tutoring during their lab shifts. Having students volunteer 1-2 hours a day could be of huge benefit to students struggling in their courses.

We have an additional fulltime faculty member who will return to our department in fall 2010 after serving several years as a dean. It might be difficult to find a fulltime load for four fulltime instructors in a small department, especially if courses are cancelled. Traditionally fulltime instructors would take over courses taught by part-time instructors but if courses taught by part-time instructors are eliminated, fulltime instructors would be forced to take over courses taught by other fulltime instructors with less seniority.

If required courses are eliminated due to budgetary constraints, especially those offered only once a year, students might have to wait up to two years to take a required course. This has a deleterious effect on completion of our certificate/degree programs, as students often vote with their feet when they cannot take required courses in a reasonable amount of time. These courses should not be cancelled because this endangers the future of our department as well as other departments (such as Multimedia/DGME and Administration of Justice) that have elective and required CIS courses for their degrees and certificates.

6. STUDENT LEARNING OUTCOMES (SLOs) AND ASSESSMENT FOCUS FOR THIS YEAR:

- a. Academic areas: Identify at least one course SLO on which to focus. Describe the assessment strategies you will use and your method of reflection and documentation for this cycle.

Students in both sections of CIS 254 were surveyed at the end of the fall 2009 semester regarding the course SLOs. After evaluating the survey responses we will focus on one SLO with the lowest response rate:

Students can develop and use program testing data and techniques

The response to this was the lowest: only 23 out of 30 students taking the survey responded in the affirmative. This means that 23.3% of students did not feel confident developing test data and testing their programs. This could be addressed by creating lab assignments in which students develop test data and document the results when using their test data. Students could also have code given to them with subtle bugs and they would have to develop test data to help them find and debug the code. In addition, programming assignments could easily be expanded to include the development of test data and documentation of the test results. Although students are always expected to test and debug their programs, making them formally document testing results would be beneficial.

As Software Tester is often an entry-level position for CIS graduates from four-year institutions, it is vital that we do more to emphasize this important area of computer programming in our entry-level course.

b. Student services areas:

The transfer program is in need of tutoring services, especially for students in the introductory programming class CIS 254. Students have remarked that when they struggle with Math or English assignments they can readily get help in Math or English labs, but CIS does not have drop-in tutoring services available in the computer lab. In addition, the college does not provide individual tutoring services. We need to request funding to hire students to provide drop-in and individual tutoring services. We believe that students will stay in courses if they can get the help that they need in a timely manner.

We have still not received funding for tutoring services as requested in our 2009 Comprehensive Program Review but hope that, if there is restoration of funds to the community college system, there might be available funds in the future.

7. **SUMMARY OF RESOURCES NEEDED TO REACH PROGRAM ACTION STEPS**

(Data resources: Educational Master Plan, 2008, Institutional Priorities, 2008-2011, College Index, 2009-2010, GE-SLOs, SLOs; department records; Core Program and Student Success Indicators; previous Program Review and Planning reports)

- a. In the matrices below, itemize the resources needed to reach program 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 program changes or plans. Ideally, SLOs are assessed, the assessments lead to planning, and the resources requested link directly to those plans.

Full-Time Faculty Positions Requested	Expected Outcomes if Granted and Expected Impact if Not Granted	If applicable, <u>briefly</u> indicate how the requested resources will link to achieving department action steps based on SLO assessment.
None	Input text here.	Input text here.

Classified Positions Requested	Expected Outcomes if Granted and Expected Impact if Not Granted	If applicable, <u>briefly</u> indicate how the requested resources will link to achieving department action steps based on SLO assessment.
See Resources Requested	Input text here.	Input text here.

- 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, <u>briefly</u> indicate how the requested resources will link to achieving department action steps based on SLO assessment.
<p>Funding for drop-in and scheduled tutoring services</p> <p>Student Assistant Salary Level D (Technical) Pay rate: 13.25 – 14.25/hr A minimum of 15 hours /week would be scheduled.</p> <p>The overflow area of the CIS Computer lab would be sufficient to accommodate tutoring, so no additional facility is requested.</p>	<p>Higher retention in transfer-track programming courses.</p> <p>If we cannot offer tutoring services then we will continue to experience current attrition and non-success rates.</p>	<p>We could increase the number of students successfully attaining all expected learning outcomes, especially in the introductory CIS 254 class. Even if students have poor math skills, a tutor could work with students in their problem areas. Tutoring has traditionally played a significant role in increasing student success.</p>

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

8. PROGRAM REVIEW PARTICIPANTS AND SIGNATURES

Date of this *Annual Update for Program Review and Planning* evaluation: March 25, 2010

Please list the department's *Annual Update for Program Review and Planning* report team [as appropriate](#):

Primary program contact person: Melissa Green
Phone and email address: 650.574.6374 greenm@smccd.edu
Full-time faculty: Stacey Grasso
Part-time faculty:
Administrators:
Classified staff:
Students:

Primary Program Contact Person's Signature	Date
Full-time Faculty's Signature	Date
Part-time Faculty's Signature (as appropriate)	Date
Administrator's Signature (as appropriate)	Date
Classified Staff Person's Signature (as appropriate)	Date
Student's Signature (as appropriate)	Date
Dean's Signature	Date

**Annual Program Review
RESOURCES FOR SUPPORTING DOCUMENTATION**

This section contains a listing of sources for data and key documents referred to in this *Annual Update* along with other resources. Contact information for relevant people is also included.

Academic Senate

<http://www.collegeofsanmateo.edu/academicsenate/>

Contact: csmacademicsenate@smccd.edu

Diana Bennett, President, bennettd@smccd.edu, (650) 358-6769

College Catalogs and College Class Schedules are archived online:

<http://collegeofsanmateo.edu/schedule/archive.asp>

Course Outlines are found at:

<http://collegeofsanmateo.edu/articulation/outlines.asp>

Committee on Instruction

<http://www.smccd.net/accounts/csmcoi>

Contact: Laura Demsetz, Chair, demsetz@smccd.edu, (650) 574-6617.

Program Review Resources (includes forms, data, and completed program reviews for both instructional and student services program review)

Core Program and Student Success Indicators (see links for "Quantitative Data for Instructional Programs")

Distance Education Program Review Data

Glossary of Terms for Program Review

Listing of Programs Receiving Program Review Data from PRIE

Rotation Schedule for Instructional Program Review, 2008-2014

http://collegeofsanmateo.edu/prie/program_review/program_review.php

Office of Planning, Research, and Institutional Effectiveness (PRIE)

<http://collegeofsanmateo.edu/prie/>

Contact: John Sewart, Dean, sewart@smccd.edu, (650) 574-6196

Contact: Milla McConnell-Tuite, Coordinator, mcconnell@smccd.edu, (650)574-6699

At PRIE Website:

College Index, 2009-2010, http://collegeofsanmateo.edu/prie/institutional_documents.php

Comprehensive Listing of Indicators and Measures, 2009-2010

http://collegeofsanmateo.edu/prie/institutional_documents.php

Division/Department Workplans, Spring 2009 (only)

http://collegeofsanmateo.edu/prie/institutional_documents.php

Educational Master Plan, 2008, <http://collegeofsanmateo.edu/prie/emp.php>

Institutional Priorities, 2008-2011

http://collegeofsanmateo.edu/prie/institutional_documents.php

Student Learning Outcomes (SLOs) website:

<http://www.collegeofsanmateo.edu/sloac/>

Contact: Frederick Gaines, Interim SLO Coordinator, gainesf@smccd.edu, (650)574-6183