

College of San Mateo

ANNUAL UPDATE PROGRAM REVIEW & PLANNING

Form Approved 9/2/2008:
Governing Council
Revised: 2/21/2010

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).

Diana Bennett, Academic Senate President, bennettd@smccd.edu

Susan Estes, Vice President of Instruction, estes@smccd.edu

Jennifer Hughes, Vice President of Student Services, hughesj@smccd.edu

John Sewart, Dean (PRIE), sewart@smccd.edu

DEPARTMENT OR PROGRAM: Astronomy

DIVISION: Math/Science

1. **BRIEF DESCRIPTION OF PROGRAM:**

The Astronomy Department offers labs and courses in introductory astronomy. These courses and labs enable students to discover and critically analyze the universe around them. The student will get a basic understanding of the universe and all that is contained within it. All of the courses and labs are UC and CSU transferrable.

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.**

Improved and expanded our observational and imaging technology and methodology for our students.
Increased our enrollment.
Increased the number of sections.
Increased our outreach program to the community.
Students are participating in a NASA sponsored program to bring research experiences into the classroom.

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.**

We have exceeded our goals and expectations from the last program review.

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.).**

One goal is to upgrade our planetarium. All of the astronomy classes and labs are taught within it. In addition, we offer many planetarium shows to the general public. It is therefore, essential that our planetarium has the most up-to-date resources and shows.

A second goal is to upgrade our observatory to reflect the present techniques used to gather and analyze astronomical data. This will train students for today's methodology in astronomy and makes full usage of our telescopes and other equipment.

A third goal is to implement the teaching and applicability of spectral energy distributions or (SEDs) into astronomy classes and labs. Among other strategies, students would learn how an SED can be used to determine the amount and concentration of dust inherent in the interstellar medium. This would help students to understand the nature of star birth. The NASA funded program, NITARP, NASA/IPAC Teacher Archive Research Program, is being used by the department, to implement this pedagogy.

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

The main critical issue is the uncertainty in the community college budget. Student class size and equipment funding are directly dependent on decisions made in Sacramento. In addition, the lighting system in the planetarium is failing and needs to be addressed as soon as possible.

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.

The Astronomy 100 course SLO to be identified and assessed is:
"Assess the role of dark energy in determining the eventual fate of the universe".
There will be several questions pertaining to this SLO during a midterm exam in each section of Astronomy 100. Using a Scantron, the correct and incorrect answers will be tabulated and percentages derived.

- b. Student services areas: TBD

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 requested	N/A	N/A

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.
None requested	N/A	N/A

- 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>Item: LED Cove lighting system** Number: 1 Vendor: TBD Unit price: TBD Total Cost: TBD Status*: repair, maintenance and upgrade of planetarium equipment ** We know that this is not equipment per se, but, the lighting system is deteriorating and needs to be taken care of immediately.</p>	<p>Our present lighting system is showing its age, several banks of lights are no longer working. Replacements are not possible, since the manufacturer of our system is no longer in business.</p> <p>If we do not receive this upgrade, the planetarium experience³ for students and the general public will be diminished.</p>	
<p>Item: Digistar 4 digital planetarium system Number: 1 Vendor: E&S Unit price: TBD Total Cost: TBD Status*: Upgrade of planetarium equipment</p>	<p>The acquisition of this upgrade, will put our planetarium on par with other digital planetaria. The ease of use, afforded by this upgrade, will streamline planetarium presentations, and give us access to the most complete set of astronomical data ever assembled, including the NASA supported Digital Universe Atlas.</p>	
<p>Item: ST10XME CCD Camera w/CFW-9 Filter Wheel and LRGB Filters Number: 1 Vendor: SBIG Unit price: \$5,590 Total Cost: \$6107.13 including tax Status*: New</p>	<p>The acquisition of this camera will facilitate imaging in our Observational Astronomy Lab. We presently have two telescopes, outfitted with one CCD camera, that are used by students for astro imaging. Outfitting the second telescope with this camera, will increase student productivity. It will update our lab experiments to be on par with other institutions.</p>	<p>Enables students to do hands on experiments, gather and analyze astronomical data.</p>

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.
Item: Planetarium shows Number: 2 Vendor: TBD Unit price: TBD Total Cost: TBD Status*: Upgrade of planetarium visuals	The present planetarium shows that we have, are somewhat dated. Acquisition of one or two new shows would be concurrent with present astronomical knowledge and be more attractive to students and the general public	
Item: Overflow Room Implementation Number: 1 Vendor: TBD Unit price: TBD Total Cost: TBD Status*: Upgrade of planetarium equipment	ITS would enable Rm 109 to be an overflow room for the planetarium. If we had a large planetarium lecture, that would overfill the seating capacity of the planetarium, the availability of this room, would ensure that none of the general public would be turned away.	

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

8. PROGRAM REVIEW PARTICIPANTS AND SIGNATURES

Date of this Annual Update for Program Review and Planning evaluation:

Please list the department's Annual Update for Program Review and Planning report team as appropriate:

Primary program contact person:

Phone and email address:

Full-time faculty:

Part-time faculty:

Administrators:

Classified staff:

Students:

Primary Program Contact Person's Signature

Date

3/25/10

Full-time Faculty's Signature

Date

3/25/10

Part-time Faculty's Signature

Date

(as appropriate)

Administrator's Signature

Date

(as appropriate)

Dean's Signature

Date