

Program Review Report Support Offices and Services Sierra College, Spring 2009

Unit Name: Sciences and Mathematics Division

Date Submitted: June 1, 2009

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Please limit responses to 100 words or fewer, unless otherwise directed. Refer to the detailed instructions when completing this form. District data has been attached to the back of this form for your use if appropriate.

1) Relevancy

- **Department Mission Statement:**

Not Applicable.

- **How does the program align with the District Mission Statement?**

“Sierra College provides a challenging and supportive learning environment for students having diverse goals, abilities, and needs interested in transfer, career and technical training, and life long learning. The College’s programs and services encourage students to identify and to expand their potential. Sierra College students will develop the knowledge, skills and abilities to become engaged and contributing members of the community.”

The Sciences and Mathematics division aligns with the District Mission Statement in every way, offering a diverse set of programs from 13 departments leading to 19 associate degrees and 6 certificates designed to serve students wishing to transfer to a four year college, meet general education requirements in science and math, upgrade job skills or pursue life-long learning. In addition, the division offers basic skills courses in chemistry, math and physics for those students who are not ready to begin college-level studies. Throughout the division's programs, emphasis is placed on critical thinking and the moral and ethical awareness of ecological principles and issues.

- **List the major functions or service performed by the office:**

1. Solving problems.
2. Resolving student issues.
3. Resolving faculty issues.
4. Providing information to students, staff, faculty, and community.
5. Scheduling and staffing classes.
6. Assigning and coordinating faculty loading.
7. Managing facilities.
8. Managing budgets.
9. Initiating and verifying payroll.
10. Evaluating faculty and staff.
11. Hiring new faculty and staff.
12. Analyzing and planning for the progress and growth of individual programs.
13. Supervising faculty and staff.
14. Assessment and planning.
15. Completing tasks assigned by the Office of Instruction.
16. Participating in shared governance.
17. Participating in public outreach activities.
18. Assisting other divisions and campuses.

- **Is the office intended to serve a special population or clientele? If so, please describe the end user:**

Not Applicable.

- **How does the program align with the District's Strategic Goals?**

- I. ***Educational Effectiveness*** – *Programs and services of the District will effectively promote and support student opportunity, success and achievement*
- II. ***Organizational Effectiveness*** – *The District will manage its resources to best meet its multiple missions within the constraints of its resources*
- III. ***Resource Development*** – *The District will focus on securing new resources to align with strategic goals*
- IV. ***Focused Access*** – *The District will target outreach and access efforts to best serve its community*

The Sciences and Mathematics division has implemented all of the District's Strategic Goals. Programs are regularly assessed and evaluated on a departmental level through the Curriculum Review and Program Review processes with changes implemented through the ePAR process. Furthermore, a Department Chair Council was established in August, 2008 consisting of all the division's department chairs and deans to specifically address the District's Strategic Goals in a collaborative, interest-based structure.

- **List the current goals of the office**

- To promote interest in science and technology and an awareness of their value to society.
- To maximize the efficient use and effectiveness of the Sciences and Mathematics division's resources.
- To support the increase of the Sciences and Mathematics division's retention and success rates.
- To promote a sound scientific, moral and ethical awareness of ecological principles, issues and problems.
- To achieve a high level of employee job satisfaction and enthusiasm for work for all members of the division.
- To promote and support the Sciences and Mathematics division's programs at the Rocklin, Roseville-Gateway, Nevada County and Tahoe-Truckee campuses.

- **Describe the strategies and activities intended to achieve the goals:**

- Promote transparency, teamwork and collaboration among all the division's departments through the formation of a Department Chair Council as previously described.
- The Department Chair Council will be involved in implementing all of the following strategies:
 1. Assess the division's budget.
 2. More effectively use the division's FTEF.
 3. Use the latest and most innovative technology to support pedagogy.
 4. Improve each department's equipment and supply resource.
 5. Add an English 1A readiness prerequisite to courses that show a significant correlation to success and retention.
 6. Increase the number of full-time faculty.
 7. Create an Environmental Studies and Sustainability program.
 8. Promote and support Earth Day, People and Cultures Day, Dinosaur Day, Science Club, AMSA, and the ECOS club.
 9. Promote and support community events such as those offered by the Sierra College Natural History Museum and the Astronomy Planetarium program.
 10. Conduct a detailed assessment of all Sciences and Mathematics programs currently being offered at the four campuses.
 11. Promote and support autonomy at the three campuses.
 12. Support the planning and implementation of the construction projects at NCC and TT.
- Formation of the division's Social Committee whose purpose is to plan and implement a variety of social events for all members of the division such as the Christmas party and the spring picnic.
- Assess the assignment and distribution of duties among the AA's in the division office.

- **Describe how achievement of the goals will be assessed (approximately 1-3 measures):**

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| <ol style="list-style-type: none"> 1. Analysis of data such as retention and success rates, productivities, transfer rates, and the number of degrees and certificates awarded. 2. Regular evaluation of all members of the division. 3. Regular communication between the deans and all members of the division through the use of email, group and individual meetings. 4. Regular inspection of all the division's facilities. 5. Completion of annual program review by all of the division's departments. |
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- **Provide and define appropriate office use trend data as available. Comment on any significant information that emerges from the data:**

Not Applicable.

- **Describe the mechanisms used to monitor the unit's effectiveness:**

1. Contractual evaluation processes for all members of the division.
2. Regular meetings of the division's Department Chair Council that includes all the division's department chairs and deans.
3. Weekly division office meetings attended by all division office personnel.
4. Assignment of specific departments to the three deans as a primary responsibility.
5. Regular meetings of the 13 departments that are attended by all members of that department along with the dean who has the primary responsibility of that department.
6. Regular visits to all departments by the dean who has the primary responsibility.
7. Daily meetings between the division's deans.
8. Regular staff access to the division's deans.
9. Regular student access to the division's deans.

2) Currency

- **Describe any efforts to support continual improvement and maintain currency:**

1. As previously mentioned, the formation of a Department Chair Council that meets on a monthly basis.
2. The development of a division maintenance procedure that has simplified and expedited facilities maintenance.
3. The development and implementation of a division wide no-cancellation class schedule that is just beginning to be used by some disciplines in other divisions.
4. The deletion or redistribution of several underperforming and/or outdated programs including Forestry, Natural Resources and Environmental Horticulture.
5. The formation and implementation of our newest program, Environmental Studies and Sustainability.
6. The recent hiring of nine full-time and tenured track faculty for the 2009-10 school year.
7. The assessment and course restructuring of the Agriculture program, set to take effect in the fall semester of 2009.

3) Resource Data

Science/Math Division	1000	2000	3000	4000	5000	6000	7000	Total Budget
06-07 Actual	\$246,902	\$238,817	\$119,456	\$66,544	\$12,586	\$0	\$0	\$684,305
07-08 Actual	\$256,663	\$234,887	\$116,852	\$9,702	\$14,843	\$0	\$0	\$632,947

1000 – Certificated Salaries, 2000 – Classified Salaries, 3000 – Staff Employee Benefits, 4000 – Books, Supplies & Equipment, 5000 – Other Operating Expenses & Service, 6000 – Capital Outlay, 7000 – Other Outgo

06-07 and 07-08 data includes TOPS Codes: 601400, 614001, 709014

(If these TOPS codes do not correctly reflect your department budget, please let us know.)

- **Considering the data provided above, comment on the adequacy of the program’s equipment and technology funding level:**

The funding level for the immediate future (1 to 2 years) is adequate to maintain the current level of operation. However, a significant amount of equipment is old and/or outdated and needs to be replaced. Therefore, the current budget may not be adequate to perform the necessary repairs.

- **Considering the data provided, comment on the adequacy of the program’s management, classified and student help staffing levels:**

Management and student help staffing levels are currently adequate. We do have a significant need for an additional full-time Administrative Assistant for the division office. This request has been included in our ePAR.

- **Comment on the adequacy of facilities:**

We are very close to maximizing the use of our facilities. With a 98% fill rate this past spring semester, and very few available rooms throughout the day, future growth is significantly limited. In addition, three of the four buildings for which we have primary scheduling rights are very old and in varying condition and need of repair.

4)

Summary/Closing

- **Evaluate the program's strengths, weaknesses, opportunities/future directions, challenges (Limit response to 250 words or fewer.):**

The Sciences and Mathematics division has undergone considerable change over the past two years with new management, the occupation of the new V-building, the discontinuance of several programs, the creation of a new program, new personnel and the implementation of a no-cancellation schedule. As a result, the division's programs have never been stronger and are able to meet the needs of our students. Strengths include the division's staff (management, faculty and classified), the variety and quality of programs and services, available degrees and certificates, the use of technology, community programs and the division's management structure. Weaknesses include the lack of adequate facilities (with the exception of the V-building), the need for two more classified positions and the shortage of qualified part-time faculty. The Agriculture program was recently reorganized and its focus concentrated to better serve the needs of the local community. The Engineering and Environmental Studies and Sustainability (ESS) programs are targeted for growth and have received the necessary resources including new full-time faculty positions (Engineering last year and ESS this coming year). All other departments could easily grow if given additional resources, the most important of which being facilities. A new science building is the District's top priority and a proposal has been submitted to the state for consideration. For the immediate future, the division's efforts will continue to focus on hiring more full-time faculty and classified staff to support the continued growth of the division, budget augmentation to replace aging equipment, and improvement of our existing facilities through maintenance and repair.

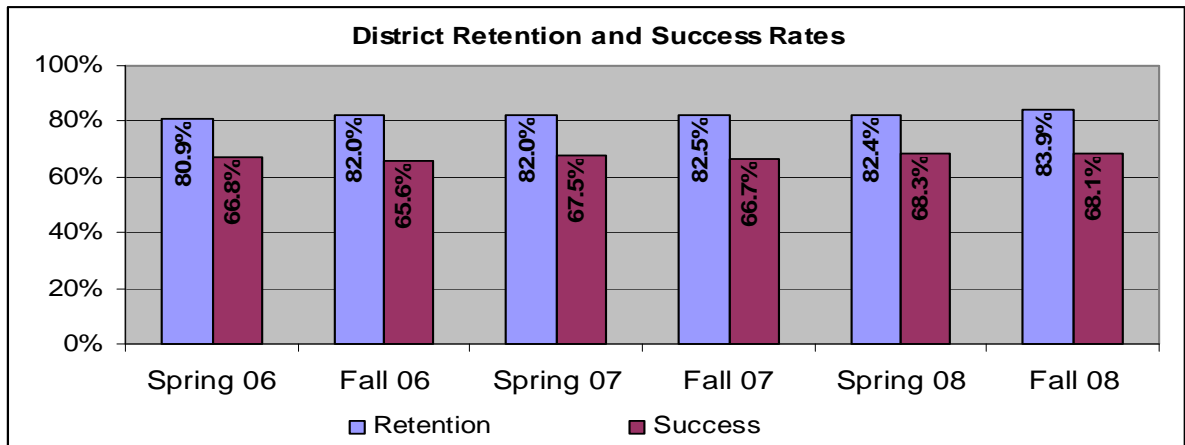
- **Please provide any other information the Program Review Committee should consider:**

Beginning this fall semester, the Photovoltaic program (currently housed within the Business and Technology division) begins with three sections of ESS 30 that will enroll 48 students. ESS 32 is scheduled for the following spring 2010 semester, with ESS 34 to follow in the fall 2010 semester. The program was awarded \$468,600 (matching grant) in Industry Driven Regional Collaborative (IDRC) funding by the California Community College Chancellor's Office for this coming school year (see the Sierra College website/Programs/Innovative Programs/Energy Technology for more detail) and will become part of the Environmental Studies and Sustainability department beginning in the 2010 - 11 school year. Students can earn a Photovoltaic Technician's certificate whose final approval by the Chancellor's office is expected before the beginning of the upcoming fall semester.

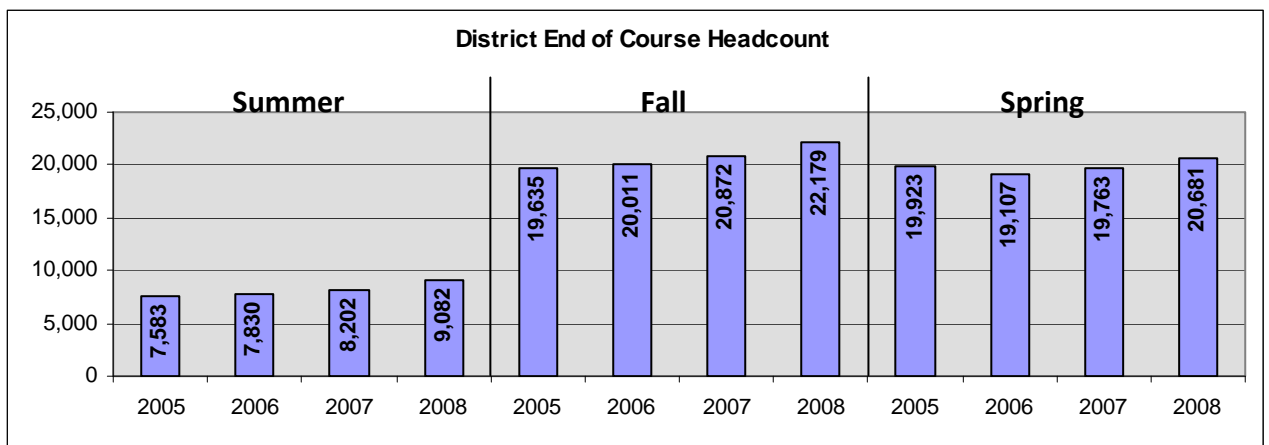
The Engineering program is also offering two new certificates this coming fall semester: one in Civil Engineering Technology and one in General Engineering Technology. Final approval by the Chancellor's office is expected this summer.

District Data Elements

- **Retention and Success**



- **Enrollment Trends**



- **Productivity**

