

**BUDGET NEEDS ASSESSMENT APPLICATION**  
**Fall 2016**

Name of Person Submitting Request:	<b>Sheri Lillard</b>
Program or Service Area:	<b>Chemistry</b>
Division:	<b>Science</b>
Date of Last Program Efficacy:	<b>2016</b>
What rating was given?	<b>Continuation</b>
Amount Requested:	<b>\$15,000</b>
Object Code:	4300
Strategic Initiatives Addressed: (See <a href="http://www.valleycollege.edu/about-sbvc/office-of-president/college_planning_documents/documents/strategic-plan-report-working-doc-8-25-15-2.pdf">http://www.valleycollege.edu/about-sbvc/office-of-president/college_planning_documents/documents/strategic-plan-report-working-doc-8-25-15-2.pdf</a> )	1.8 Access (Transfer Courses) 2.5 (Student Success)

*Note: To facilitate ranking by the committee, please submit separate requests for each general area of budget augmentation needed. Do not request a lump sum to encompass many different areas.*

One-Time                          Ongoing       

Does program or service area have an existing budget?    Yes            No       

Are there alternative funding sources? (for example, Department, Budget, Perkins, Grants, etc.)

Yes                          No       

If yes, what are they: \_\_\_\_\_

1. Provide a rationale for your request (Give a detailed explanation of why this budget increase is needed.)

The Chemistry department budget has been effectively cut by at least \$10,000 in the past several years, and we were fortunate to receive additional money last year, which helped restore some of these cuts. The department operated with its own budget as well as continuous rollover money from a lottery fund for a total around \$20,000 for the last few years. Our budget history for instructional supplies is:

2011-2012    \$22,600  
2012-2013    \$20,374  
2013-2014    \$12,825  
2015-2016    \$13,466 (plus \$30,000 in additional funding)  
2016-2017    \$13,466

In addition, our full-time faculty load has grown to between 13 and 14 FTEF per semester, up from 12 FTEF four years ago. The added classes have primarily been in major's preparation courses: General Chemistry and Organic Chemistry. These courses have a higher rate of supply usage and the materials are more expensive. Plus, we have seen significant increases in chemical prices in the past year (sometimes doubling, tripling, or more) for reagents used in standard experiments. We seek alternatives, but sometimes they are not available or a modified experiment does not provide the same learning opportunity. We currently offer 51 labs per week, but with the increase in degree-seeking students, we have nearly doubled the number of major's preparation classes that require the most attention for preparation. And, of course, the cost of glassware, chemicals, and transportation of chemicals increases every year with inflation. With more students taking chemistry classes, the amount of breakage in glassware also increases.

2. Indicate how the content of the department/program's latest Efficacy Report and/or current EMP supports this request and how the request is tied to program planning. (*Directly reference the relevant information from your latest Efficacy Report and/or current EMP in your discussion.*)

Biology's Anatomy & Physiology sequence has incorporated a CHEM 101 prerequisite to the A&P sequence (BIOL 250) This has increased the pressure for additional CHEM 101 sections, which is the entry-level to the allied health sequences including Nursing. In response to CSU's change in nursing requirements, we have added a new course, CHEM 105, that is a combination of CHEM 104 and CHEM 101 in one semester, but with lab that meets twice per week (i.e., the same number of labs as 101 and 104 combined). In addition, we have increased the number of General and Organic Chemistry sections requiring specialized chemicals and increasing cost.

The trends for allied health and STEM (Science, Technology, Engineering and Math) pathways were identified in the last program efficacy (Efficacy, pp. 27-28). We see more students with an interest in pursuing a STEM career and/or allied health pathway. In addition, UC-Riverside's medical school and its spotlight on the lack of medical providers in the Inland Empire has spurred even more interest in the community for STEM preparation. We continue to support major's preparation evening classes (p. 8) for students pursuing STEM pathways while working during the day, and one-day Fri and Sat sections of CHEM 101 for working students. The tremendous growth in general chemistry (150/151 – 9 sections FA16), and organic chemistry (212/21 – 5 sections FA16) reflects this trend. General chemistry is required for all STEM pathways, and organic chemistry is required for chemistry and biology pathways.

3. Indicate any additional information you want the committee to consider (*for example, regulatory information, compliance, updated efficiency, student success data, or planning, etc.*).

To improve degree awards, we have increased the number of Organic Chemistry sections also, as correlated to the EMP data. This increase necessitates the use expensive specialized chemicals that do not have a long shelf-life and must be replaced regularly.

4. Indicate any related costs (including any ongoing maintenance or updates) and department/program plans to support those costs.

This request is really a return to prior funding levels that were cobbled together from various transient accounts. As some of those accounts have depleted all funding, it would be useful to have a consistent supply budget that is in line with demand for laboratory needs. Last year, we received an additional allocation, which permitted us to restore previous years' deficits. However, this year's budgeted amount is the same as that for 2015-16. It is not rational to operate this way and could be more cost effective if we purchased all the supplies we need for the year with a stable budget.

5. What are the consequences of not funding this budget request?

Student learning is directly affected by the laboratory experience. The laboratory experience is a necessary preparation for the well-prepared transfer student. Without an appropriate budget to secure consumable supplies, student learning suffers. It is difficult to train students in scientific thought and reasoning if the laboratory glassware is not available or the chemicals have decomposed and degraded causing unexpected (or no) results.