

BUDGET NEEDS ASSESSMENT APPLICATION
Fall 2017

Name of Person Submitting Request:	Dr. Sheri Lillard
Program or Service Area:	Chemistry
Division:	Science
Date of Last Program Efficacy:	2016
What rating was given?	Continuation
Amount Requested:	\$15,000
Object Code:	4300
Object Codes	
Object Code Guidelines	
State specifically how this budget will be used:	Purchase Supplies for Chemistry Labs
Strategic Initiatives Addressed:	Access, Institutional Effectiveness, Student Success
Strategic Directions + Goals	

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 was effectively cut by at least \$10,000 in 2013. 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 2011-2013 fiscal 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
2017-2018	\$13,466

Cost of glassware and chemicals has increased substantially over the last 4 years while our budget has remained the same. As of October 2017, we have roughly \$1000 left to purchase supplies for the remainder of the fiscal year. We simply cannot support our labs with the budget we currently have and have to request additional funds every year in order to continue to offer chemistry labs. For example, the cost of iodine and iodine salts has nearly doubled since 2014 when the DEA began controlling it. We use a substantial amount of iodine salts in our labs.

In addition, our full-time faculty load has grown to approximately 14 FTEF per semester, up from 12 FTEF five 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 56 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.*)

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 – 10 sections FA17), and organic chemistry (212/21 – 5 sections FA17) 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 number of degrees awarded (which have doubled from 7 to 14; 2014-15 to 2016-17), 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 was 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. Currently, in order to have sufficient supplies in the spring terms, we have gone to College Council for emergency requests to buy needed supplies. It is not rational to operate this way and could be more cost-effective if we purchased all 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.