

**FACULTY NEEDS ASSESSMENT APPLICATION**  
**Fall 2015**

Name of Person Submitting Request:		<b>John Stanskas &amp; Amy Avelar</b>
Program or Service Area:		<b>Chemistry Department</b>
Division:		<b>Science</b>
Date of Last Program Efficacy:		<b>2011</b>
What rating was given?		<b>Continuation</b>
# of FT faculty: <b>5</b>	# of Adjuncts: <b>28</b>	Faculty Load: <b>14.40 (FA15) / 15.20 (SP16)</b>
Positions Requested:		<b>Full-Time Faculty (2 requested)</b>
Strategic Initiatives Addressed: (See Appendix A: <a href="http://tinyurl.com/l5oqoxm">http://tinyurl.com/l5oqoxm</a> )		Access, Student Success

1. Provide a rationale for your request.

This request is for **TWO** full-time Chemistry faculty. The demand for Chemistry courses at both the introductory level and major's preparation has increased significantly. For Spring 2015, given the demand to continue to grow FTES, it is only possible to cover 33% of the offerings with full-time faculty. Even with two additional full-time faculty hires, we could only cover 47% of our offerings this year. For the last three years we have relied upon a waiver of the 67% rule and asked Human Resources for permission to allow part-time faculty to teach above the cap simply because we were unable to staff classes. While chemistry has always had a limited pool of adjunct, the last two years the institution hired part-time faculty and approved a waiver the week before classes began to avoid cancelling full classes. The employment opportunities for those meeting minimum qualifications in the discipline are excellent (<http://www.bls.gov/oes/current/oes192031.htm#>) and part-time hourly work cannot compete with the opportunities available in the field. In addition, the restructuring of the allied-health track at SBVC requiring students to complete a prerequisite of Introductory Chemistry before taking the Anatomy & Physiology sequence has strained the resources of the department to accommodate demand. The increased interest in transfer programs in STEM fields has pushed demand for major's preparation, also. The department is simply unable, given current staffing levels, to meet demand for career paths at the associate's and bachelor's degree levels for qualified students.

2. Indicate how the content of the latest Program Efficacy Report and current EMP data support this request. How is the request tied to program planning? (*Reference the page number(s) where the information can be found on Program Efficacy.*)

The trends for allied health and STEM (Science, Technology, Engineering and Math) pathways were identified in the last program efficacy (p. 15). Since that report, we have seen more and more students with an interest in pursuing a STEM career and/or allied health pathway. In addition, UC-Riverside's new 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. 6) for students pursuing STEM pathways while working during the day. The tremendous growth in general chemistry – 7 sections this FA15 – reflects this trend. General chemistry is required for all STEM pathways.

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

To address the drop in efficiency, we have added more sections of major's preparation Chemistry classes last year. The lower cap on these classes reduces efficiency, but improves the number of degrees granted as the general and organic chemistry sequences are required for the Chemistry Associate's Degree.

Chemistry is the central science and the entry level courses for pathways in nearly all Allied Health Career Technical Education (CTE) and transfer programs and all Science, Technology, Engineering and Mathematics (STEM) transfer programs. Restructured Anatomy and Physiology has resulted in Chemistry being the first course to multiple subsequent courses along the allied health pathway. General Chemistry is required preparation for all chemistry, biochemistry, biology, ecology, microbiology, geology, earth sciences, physics, and engineering transfer students. General Chemistry is also required for medical, pharmacy, dental and other allied health professional schools. It is usually the first course at the university level due to prerequisite sequencing of other majors or mathematics prerequisites to begin a sequence. When Chemistry is unable to provide sufficient sections, all areas of science and allied health feel the consequences of too few students in the pipeline. This impacts the efficiency and degree attainment of the institution. We have grown as fast as possible to accommodate demand and support the mission of the college, but we have reached the limit of our adjunct pool. We will generate an average faculty load (FTEF) of 14.5 or more full-time equivalent faculty this academic year (14.4 FTEF for FA15, 15.2 FTEF scheduled for SP16) with five full-time positions.

The district has asked us to grow our FTES generation; we have done so by 8% this fall compared to last fall. This is not a sustainable activity at our current staffing level. Currently the college is supposed to grow by 4% this year and according to the latest EIS snapshot we are up by 1%. This is a program that can help us achieve the growth required to capture more state funding.

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4. What are the consequences of not filling this position?

We will need to cancel more classes due to lack of qualified instructors. This semester we have three part-time faculty teaching more than 67%. Last spring we cancelled three sections due to lack of a qualified instructor and we hired a part-time faculty three days before a late-start class was scheduled to begin. We cannot maintain instructional quality. We will have to scale back our offerings without full-time faculty. This means the institution will have fewer degrees granted in all STEM fields, decreasing the transfer-readiness of our students and providing fewer qualified students to the allied health (nursing) pipeline.