

**Program Efficacy Report
Spring 2016**

Name of Department: Chemistry

Efficacy Team: Stacy Meyer, Melinda Moneymaker, Kay Weiss

Overall Recommendation (include rationale): Continuation

The department continues to meet the needs of the student population (both STEM majors and GE breadth.) They use their strengths and challenges in the planning process. Success and retention have remained reasonably stable. With greater numbers of students participating in support services such as SI, those rates are expected to increase.

The department should develop a plan for evaluating PLOs and should explore, more deeply, industry trends, in addition to their review of educational trends.

Strategic Initiative	Institutional Expectations	
	Does Not Meet	Meets
Part I: Access		
Demographics	<i>The program does not provide an appropriate analysis regarding identified differences in the program's population compared to that of the general population</i>	<i>The program provides an <u>analysis</u> of the demographic data and provides an interpretation in response to any identified variance. If warranted, discuss the plans or activities that are in place to recruit and retain underserved populations.</i>
<p>Efficacy Team Analysis and Feedback: Meets</p> <p>The department seems to have a clear understanding of their demographics. They have analyzed more deeply by splitting out introductory courses and majors prep and recognized that there is still a gap in women entering the field as majors, and has worked to improve rates in under-represented groups. Examples include targeting specific groups (women of color) for learning communities.</p>		
Pattern of Service	<i>The program's pattern of service is not related to the needs of students.</i>	<i>The program provides <u>evidence</u> that the pattern of service or instruction meets student needs. If warranted, plans or activities are in place to meet a broader range of needs.</i>
<p>Efficacy Team Analysis and Feedback: Meets</p> <p>The program offers daytime, evening, weekend and online/hybrid courses as appropriate for the content as determined by the department faculty. They have worked to increase non-lab courses which support general ed, but not majors pathways in an attempt to rebuild the program following the economic downturn.</p>		
Part II: Student Success		
Data demonstrating achievement of instructional or service success	<i>Program does not provide an adequate analysis of the data provided with respect to relevant program data.</i>	<i>Program provides an <u>analysis</u> of the data which indicates progress on departmental goals. If applicable, supplemental data is analyzed.</i>

Efficacy Team Analysis and Feedback: Meets

The department has shown increased retention and has reported that students who participate in SI or other student support are more likely to be successful. As a result, they are working closely with the Math Department and the Student Success Center to provide continuing, ongoing support services to STEM students. Additionally, the department has incorporated StrengthsFinder to improve course engagement, partnered with counseling to provide workshops to reduce anxiety and improve skills such as notetaking and organization.

The department has evaluated its challenges, which include registration issues and ongoing funding. The department's goal is to continue to grow majors prep sections.

Student Learning Outcomes and/or Student Achievement Outcomes

Program has not demonstrated that they have made progress on Student Learning Outcomes (SLOs) and/or Service Area Outcomes (SAOs) based on the plans of the college since their last program efficacy.

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Efficacy Team Analysis and Feedback: Meets

The program provided meeting minutes demonstrating dialogue regarding chemistry SLOs. The department meets twice per year to discuss departmental issues regarding SLOs (August and January.) These minutes provide evidence that instructional improvement recommendations are made as a result of these meetings.

PLOs – Does Not Meet

PLOs are included and are mapped to courses within the program. These PLOs are assessed when course level assessment is completed. The department has not indicated when analysis of PLOs takes place and has provided no analysis of data from PLO evaluation.

Part III: Institutional Effectiveness**Mission and Purpose**

The program does not have a mission, or it does not clearly link with the institutional mission.

The program has a mission, and it links clearly with the institutional mission.

Efficacy Team Analysis and Feedback: Meets

The program has a clear statement of purpose which relates to the college mission

Productivity

The data does not show an acceptable level of productivity for the program, or the issue of productivity is not adequately addressed.

The data shows the program is productive at an acceptable level.

<p>Efficacy Team Analysis and Feedback: Meets</p> <p>Though productivity is down from its high in 11-12 (523) the department indicates this is partially due to the increases in lab-based courses which, by contract (and ACS safety guidelines.) The department has made efforts to mitigate some of the efficiency loss by offering “double sections” which double lecture while maintaining safe environments in the lab. Fill rates, department wide, remain consistent between 72 and 82%.</p>		
<p>Relevance, Currency, Articulation</p>	<p><i>The program does not provide evidence that it is relevant, current, and that courses articulate with CSU/UC, if appropriate.</i></p> <p><i>Out of date course(s) that are not launched into Curricunet by Oct. 1 may result in an overall recommendation no higher than Conditional.</i></p>	<p><i>The program provides evidence that the curriculum review process is up to date. Courses are relevant and current to the mission of the program. Appropriate courses have been articulated or transfer with UC/CSU, or plans are in place to articulate appropriate courses.</i></p>
<p>Efficacy Team Analysis and Feedback: Meets</p> <p>The program is mostly current, though CHEM 085 has not been offered for several years. They indicate they may delete it, pending review with Crafton Hills College faculty. Through the Program Review process, the department learned that the independent study courses are out of date. They have launched them for content review at this time.</p> <p>All appropriate courses currently articulate with UC and CSU</p>		
<p>Part IV: Planning</p>		
<p>Trends</p>	<p><i>The program does not identify major trends, or the plans are not supported by the data and information provided.</i></p>	<p><i>The program <u>identifies and describes</u> major trends in the field. Program addresses how trends will affect enrollment and planning. Provide data or research from the field for support.</i></p>
<p>Efficacy Team Analysis and Feedback: Meets</p> <p>The program recognizes trends, which include increased national attention on preparation for employment in STEM fields, changes in requirements for related fields, such as nursing, and the hiring of full-time chemists which is having a detrimental effect on the pool of qualified adjunct faculty.</p> <p>Greater exploration regarding trends in the chemistry profession and careers for those receiving AA degrees vs. transfer students should be included. How do these trends impact programmatic planning and enrollments?</p>		
<p>Accomplishments</p>	<p><i>The program does not incorporate accomplishments and strengths into planning.</i></p>	<p><i>The program incorporates substantial accomplishments and strengths into planning.</i></p>
<p>Efficacy Team Analysis and Feedback: Meets</p> <p>The department has reported that their transfer students are well prepared as a result of the rigor required for completion of the program. Full-time and part-time faculty regularly engage in discussions about pedagogy and student learning. The department plans to ensure this trend continues through continued, regular dialogue each semester about student learning, instructional strategies and curriculum. Further, the department has improved function in the chemistry labs through streamlined stockroom and lab preparation and the incorporation of additional student workers.</p>		

Weaknesses/challenges	<i>The program does not incorporate weaknesses and challenges into planning.</i>	<i>The program incorporates weaknesses and challenges into planning.</i>
<p>Efficacy Team Analysis and Feedback: Meets</p> <p>The department has indicated challenges with physical space (faculty office space, Tutoring/SI space and laboratory space). The space issue has greatly impacted planning. Examples include the planning of purchase of supplies and equipment necessary for students transferring to be successful. Enrollment growth has impacted the department in very serious ways as supply funding has not kept pace with the enrollment targets.</p> <p>The department sees their success rates at %55 as not acceptable. They have incorporated this into their planning with the addition of student support services such as SI and workshops and other communications with part-time faculty</p>		
Part V: Technology, Partnerships & Campus Climate		
	<p><i>Program does not demonstrate that it incorporates the strategic initiatives of Technology, Partnerships, or Campus Climate.</i></p> <p><i>Program does not have plans to implement the strategic initiatives of Technology, Partnerships, or Campus Climate.</i></p>	<p><i>Program demonstrates that it incorporates the strategic initiatives of Technology, Partnerships and/or Campus Climate.</i></p> <p><i>Program has plans to further implement the strategic initiatives of Technology, Partnerships and/or Campus Climate.</i></p>
<p>Efficacy Team Analysis and Feedback: Meets</p> <p>The department has begun to offer online/hybrid courses to better meet the needs of allied health majors whose schedules do not permit campus visits more than once per week. Additionally, the department plans to update its instruments, providing experiences for students not found at other community colleges. Additionally, laptops are employed in chemistry laboratories.</p> <p>The department has hired a lab technician who has taken on the role of co-sponsor of the Veteran's Club and is working to raise funds for the club while generating interest in the chemistry program. There is a STEM club, in which chemistry faculty actively participate. The department has partnered with REU (Research Experience for Undergraduates) and has developed an Allied Health Track.</p>		

Part VI: Previous Does Not Meets Categories

Program does not show that previous deficiencies have been adequately remedied.

Program describes how previous deficiencies have been adequately remedied.

Efficacy Team Analysis and Feedback (N/A if there were no “Does not Meets” in the previous efficacy review):