Program Efficacy Report
Spring 2015

Name of Department: Computer Science

Efficacy Team: Christie Gabriel-Millette, Kent Melancon, Kay Weiss

Overall Recommendation (include rationale): Continuation

The program serves a diverse population of students, training for a growing labor market and transfer education. Department faculty have evaluated the program's strengths and challenges and incorporate those into its planning processes. The department is working with other departments to ensure minimal conflicts for students with regard to required coursework (particularly math and physics.) An AS-T degree has been submitted, and the department is working to address state concerns.

An ongoing cycle of SLO data collection and assessment are needed to fully meet expectations.

Strategic Initiative	Institutional Expectations	
	Does Not Meet	**Meets**
Part I: Access		
Demographics	*The program does not provide an appropriate analysis regarding identified differences in the program's population compared to that of the general population*	*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.*

Efficacy Team Analysis and Feedback: Meets

An analysis of the demographics explains the variance in ethnic groups between the program and campus-wide population. Although female students only comprise 19% of the students in the program, a comparison to U.S. females employed in any STEM field shows that the females in this program actually comprise a higher percentage than those employed in the STEM industry throughout the United States. The program has also reached out to young women through a partnership with the Girl Scouts.

	The program's pattern of service is not related to the needs of students.	*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.*

Efficacy Team Analysis and Feedback: Meets

The program has promoted a schedule that allows for greater participation of students by offering a majority of lab courses in a hybrid format. It changes the pattern from daytime to evening to hybrid so that students can complete the program based on their scheduling needs.

Part II: Student Success		
Data demonstrating achievement of instructional or service success	*Program does not provide an adequate analysis of the data provided with respect to relevant program data.*	*Program provides an <u>analysis</u> of the data which indicates progress on departmental goals.* *If applicable, supplemental data is analyzed.*

Efficacy Team Analysis and Feedback: Meets

The program analyzes its success data and recognizes that transfer rates are low primarily because of limited offerings. Analysis of performance data is well evidenced for the changes between 09-10 and 10-11, but evidence (fill rates) should be provided to support the hypothesis that class/enrollment size between 12-13 and 13-14 is the reason for the rate declines. The success and retention rates for 09-10, 11-12 and 13-14 are almost equal, but there is a big increase of approximately 10% in success and retention during 12-13. This may be interesting to explore. What was happening during this time to possibly cause the large increase in both measures?
The program has also has submitted an AS-T degree, which was denied at the state level. The program is working with other departments to address the state requirements. The labor market charts are great, but perhaps a mention about the variety of occupations that are possible for CS graduates/transfers would add more evidence to the program's importance in the preparing students for the workplace.

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.	Program has 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.

Efficacy Team Analysis and Feedback: Does Not Meet

The program has struggled to obtain valid SLO data as a result of changing curriculum, limited course offerings, and inconsistent methodologies. With the move to the SLO cloud, the department has an identified goal to improve data collection and assessment. The department has mapped PLOs to courses.

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 CS mission relates to the college mission in that it provides quality education. The department may want to consider including something related to diversity within its mission.
The department may want to create a follow-up survey of graduates to better document academic achievement at the university level.

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.

Efficacy Team Analysis and Feedback: Does Not Meet

Part II states that classes were moved from portables to larger labs between 12-13 and 13-14; however in this section, which refers back to the performance measures in table 2 of the EMP, it states that the decline is due to the business classes moving to the portables in 12-13. This does not account for the continuous decline in WSCH per FTEF in 13-14, when classes moved into larger labs in the new Business Building. In 13-14, FTEF is at its highest point in 5 years, yet the productivity measure is at its lowest. Perhaps this should be researched further. Are there any other issues that could be investigated, such as time needed to rebuild program, curriculum changes, etc…?

Relevance, Currency, Articulation	*The program does not provide evidence that it is relevant, current, and that courses articulate with CSU/UC, if appropriate.* *Out of date course(s) that are not launched into Curricunet by Oct. 1 may result in an overall recommendation no higher than Conditional.*	*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.*

Efficacy Team Analysis and Feedback: Does Not Meet

Two courses are not current, though they are in "pending" status within the curriculum process. One course needs to be deleted from the catalog as it is no longer offered, based on the goals of the AS-T degree. Courses articulate as appropriate.

The catalog is current.

Part IV: Planning		
Trends	*The program does not identify major trends, or the plans are not supported by the data and information provided.*	*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.*

Efficacy Team Analysis and Feedback: Meets
The department has identified employment growth trends and anticipates larger enrollments; however, incoming students are often limited by a lack of mathematics preparation. The program is working with both math and physics departments to avoid scheduling conflicts to help students progress through the program.

Accomplishments	*The program does not incorporate accomplishments and strengths into planning.*	*The program incorporates substantial accomplishments and strengths into planning.*

Efficacy Team Analysis and Feedback: Meets

The department's strengths appear to be addressed in club activity. The club participates in an annual Cyber Defense Competition and national Cyber League. The department is building a new NetLab which will allow students greater time to prepare for these competitions.

Weaknesses/challenges	*The program does not incorporate weaknesses and challenges into planning.*	*The program incorporates weaknesses and challenges into planning.*

Efficacy Team Analysis and Feedback: Meets

The department has identified plans to address weaknesses and challenges and is making progress towards improvement. Data references from other report sections (such as the EMP in section 1) should be made available for reference in the section(s) in which they are referred.

Part V: Technology, Partnerships & Campus Climate		
	Program does not demonstrate that it incorporates the strategic initiatives of Technology, Partnerships, or Campus Climate. *Program does not have plans to implement the strategic initiatives of Technology, Partnerships, or Campus Climate.*	*Program demonstrates that it incorporates the strategic initiatives of Technology, Partnerships and/or Campus Climate.* *Program has plans to further implement the strategic initiatives of Technology, Partnerships and/or Campus Climate.*

Efficacy Team Analysis and Feedback: Meets

The program is, by nature, addressing technology, but mention of the large percentage of online courses would provide added evidence. Faculty training in online teaching (4.2.2) is not mentioned. The partnership with CSUSB through the five year HSI-STEM PASS GO grant addresses the partnership with universities (1.6.1), but not with feeder high schools (1.6.2), nor increasing the number of overall partnerships (2.8, 3.7).

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): N/A

No deficiencies were addressed in the last review.