Enrollment trends continue to suggest Computer Science (CS) enrollment has increased 34%; with 321 students in Fall 2010-2012 to Spring 2010-2012 an increase of 432. With an Average Success Rate and Retention Rate in 2011-2012 57% to 2012-2013 66% an increase of 15.7%.

Enrollment in the Computer and Business Information Systems (CBIS) suggests a slight decrease 1752 overall in 2010-2011 to 1704 in 2011-2012 a-2.7% due to the merger with the Computer Applications & Office Technologies Department and the restructuring and re-numbering of course offerings. However, the Average Success Rate and Retention Rate 2010-2011 76% and 2011-2012 82% with an increase of 7.8%.

Improvements in the awards of AA, AS, and Certificates remain a high priority of the department, a decline in AA and AS degrees from 2011-2012 to 2012-2013 a negative percent of 50% once again due to the merger with Computer Applications & Office Technologies Department the restructuring and re-numbering of course offerings, however, an increase of Certificates awarded has increased from 2011-2013 with an 87% increase from 24 certificates awarded in 2011-2012 to 45 certificates awarded in 2012-2013.

We have two Program SLOs (PSLOs):

PSLO #1 - Choose the correct application for a given task
PSLO #2 - Problem solve common information technology failures

The Program SLOs are evaluated by taking numeric result the following selected course SLOs and averaging them. Our Criteria is to have 70% or higher for each PSLO.

The aggregate course SLOs results were measured from Fall 2010 till Fall 2012 for use in this report.

For PSLO #1: Choose the correct application for a given task

Course: COSA 50  - Intro to IT Concepts & Applications
Selected Course SLOs for Program level assessment: (from 757 student assessments)
-- 2. Design documents in a word processor showing an introductory level of skills. (62.7%)
-- 3. Design documents in a presentation program showing an introductory level of skills. (68.3%)
-- 5. Design and modify a simple database with a demonstration of introductory database concepts of design and use. (67.1%)

Course: COSN 3 - Operating System: Software & Hardware
Selected Course SLOs for Program level assessment: (from 95 student assessments)
-- 1. Relate command line functions and utilities to manage operating systems. (52.6%)
-- 2. Manage directories, subdirectories, files, and procedures for operation and securing files. (60.9%)
-- 4. Compose and establish Internet connectivity in an operating system. (67.4%)

The average for all course level SLO is then 63.2%.
The #2 PSLO FAILED our criteria of 70% for the #2 PLSO.

For PSLO #2: Problem solve common information technology failures

Course: COSN 3 - Operating System: Software & Hardware
Selected Course SLOs for Program level assessment: (from 95 student assessments)
-- 3. Analyze common operational usability problems and formulate an appropriate solution. (91.2%)

The average for all course level SLO is then 91.2%.
The #2 PSLO PASSED our criteria of 70% for the #2 PLSO.

We have two SLOs for the program:

#1 - Choose the correct application for a given task
#2 - Problem solve common information technology failures

Background: Since the program consist of four different degrees; the common core classes presented the only common learning outcomes we could use. Because of this the two outcomes you see are very general.
We assess every section of classes every semester, and have been doing since 2008. Our current assessment method is to ask every student a random question from a small test bank for each course SLO.

Our course SLO criteria/goal is that 70% percent or more of the students that earn a C or better answer the random question correctly.

To assess the Program level we picked individual SLOs from the core classes and average the SLO results into a program level SLO metric representing the average percent of students across all the selected course SLOs.

PSLO #1 failed our criteria of 70% and PSLO #2 passed our criteria.

The COSA 50 course level SLOs that failed the course criteria has resulted in us re-evaluating what we teach in the course, and we found that the SLO statements did not reflect the course design. And the course design is driven by external articulation and by the C-ID outline at the state level. We are in the process of changing the assessment to the new SLOs.

The problem with the COSN3 course level numbers was due to the assessment questions being written by someone who was not teaching the course, and was not aware of the depth for each objective. The questions were also somewhat poorly written and in some cases out of date with the course. New Questions are being integrated into the course to fix this.

At the program level, the department realized last year that having all four degrees on one curriculum guide had many disadvantages. And since we were also developing new degrees that would have been added to this guide, the department decided to split the guide up and have one guide per degree. This has had the effect that this program review is for a program that has ceased to be. And now since each new degree/program has its own SLO statements, the numeric results here will not affect the new program except in the changes to the class level as already mentioned.

PR 3C - SLO - action/ change based on results:

Since this program is ceasing to exist, and has been broken up into several new programs, there will be no direct result from these findings to the new program except to the course level as explained.

PR 4A - Goals - development and change:

COS has two general goals of preparing students for the job market and transfer to four year degree program in Computer Science or Information System. The vocational goal of preparing students for the job market is a constant challenge depending on the skills currently deemed employable by the local economy. The Department has constantly made modifications to each of our content classes to make sure concepts and skills taught are current and reflect industry standards and demand. For classes, this has resulted in the updating of our labs’ operating systems, application software, as well as the textbooks used in the classroom. Classes such as COSN 3, COSN 10 and COSN 205, 210, and 215 (Networking and Linux Operating System) have had to be updated and modified to reflect changes to industry certifications such as CompTIA A+, Network+ and Linux+. Instructors, as a consequence, have also had to update their skills and in some cases, get recertified to teach those classes.

The department was one of the first in the state to have a direct transfer curriculum in Computer Science with UC Irvine. With over 400 students enrolled, the department expects to transfer more students to UC Irvine and CSU Dominguez Hills Computer Science Departments.

PR 4B - Goals - results:

The COS department successfully conducted an Advisory Committee meeting this past November 2013. Over 30 business and industry participants attended and commented and advised the department on its current curriculum. The participants also gave the department recommendation on which need modifications and new classes to prepare students for the job market. The advisory committee members also highly recommended that the department continue the effort to develop the new cyber-security program.

The department’s participation in Microsoft’s Academic Alliance and certification program also shape the vocation direction of the curriculum. The department will continue to improve the number of students getting Microsoft certified before they leave school. This alliance with Microsoft will definitely improve the department’s job placement numbers in the future.

PR 4C - Goals - future plans:

The original CBIS program was recently restructured and after extensive review divided into 4 separate programs. The department also plans to further review its core classes’ program student learning outcomes. Recent changes were made to COSA50 to reflect learning outcomes specified by the State Model Transfer Curriculum (C-ID transfer model standards). Changes were also made to COSA50’s SLOs to reflect the discontinuation of teaching presentation software.

For another core class in the program, the SLOs for COSN3 had to be rewritten. The issue was keeping the class current with the CompTIA A+ certification objectives and what was actually taught in the class. The department plans to continually require that instructors keep their skills and certifications current. The department also plans set up a regular review process to make sure class SLOs accurately reflect what is should be taught in the classroom. The Department also plans to work more closely with members of the Department’s Advisory Committee to identify areas where improvements to classes can be made and which new classes should be added to the program. The Department will also seek to establish stronger ties with various University Computer Science programs. Want to see more of our students transfer to UC Irvine and CSU Dominguez Hills Computer Science programs.

PR 5 - Dept - how does it fit into big picture?:

Several steps were taken to integrate CBIS and COATC departments into one COS department. Courses and curriculum guides were realigned, renamed, and restructured. New course nomenclature was identified and implemented, including: BCOM, COSA, COSK, COSN, COSP, COSS, COSW and CS. We expect to continue this work to ensure that the courses offered under new programs are easily identifiable and integrated with the certificate and
After reviewing SLOs for COSA50 and COSN3, these SLOs will not have any negative impact on our new programs. We will have four or five separate programs replacing the older program. Furthermore, new SLOs are written and aligned with those programs. We have replaced existing SLOs and have created exit skills-based SLOs. Our department has been running SLO-based assessments for our courses by using online surveys for many years now. With the experience we have, we would be tweaking these surveys to accommodate changes, as discussed in 3A, 3B, and 3C, above. These changes will further strengthen our programs and the SLO-based assessments.

We are also expecting to offer new certificates and degrees, which may include mobile app development, cyber-security, among others. This will allow us to increase the number of certificates in computer competency and literacy. New SLOs will be written for these new offerings as well. We have also either hired new faculties or incorporated faculties from our departments, which further positions our programs to make new course offerings, especially in the area of cyber-security and database management system.

Our programs are designed to ensure incremental growth in student literacy and competency. Our programs are constantly reviewed and modified to accommodate technology transformations by offering latest software and hardware to our students. By following this pattern, our programs are supporting college’s overall mission, vision, and goals. Moreover, this trend will increase student success, transfer and graduation rate, and SLO results.

Projects/ Strategies and Resources Needed