

Peralta Community College District



Annual Program Update

For

College of Alameda

Computer Information Systems Department



PCCD Template Final Version: May 20, 2016

Amended by COA College Council: May 27, 2017

Drafted by Alameda CIS Department: October 16, 2017

Finalize by Alameda CIS Department: November 6, 2017

Introduction and Directions

The Peralta Community College District has an institutional effective process which consists of the following components: a District-wide Strategic Plan which is updated every six years; Comprehensive Program Reviews which are completed every three years; and Annual Program Updates (APUs) which are completed in non-program review years. While there are individualized Program Review Handbooks for Instructional units, Counseling, CTE, Library Services, Student Services, Administrative units, and District Service Centers, there is one Annual Program Update template for use by everyone at the colleges which is completed in the Fall semester of non-program review years.

The Annual Program Update is intended to primarily focus upon planning and institutional effectiveness by requesting that everyone report upon the progress they are making in attaining the goals (outcomes) and program improvement objectives described in the most recent program review document. The Annual Program Update is therefore a document which reflects continuous quality improvement. Additionally, the Annual Program Update provides a vehicle in which to identify and request additional resources that support reaching the stated goals (outcomes) and program improvement objectives in the unit's program review.

Throughout this document, the term "program" is used to refer to all of these terms: discipline, department, program, administrative unit, or unit.

The following items are required in order to complete the Annual Program Update document at the colleges:

- The most recently completed comprehensive Program Review document.
- Any comments or feedback provided during the program review validation process.
- College Goals
- Institution Set Standards (Institutional Standards that are reported annually to ACCJC)
- College Institutional Effectiveness Indicators (reported to the State Chancellor's Office annually)
- College SSSP plan
- College Equity Plan
- College Basic Skills Plan
- PCCD Strategic Goals and Annual Institutional Objectives
- Data profiles which include but are not limited to disaggregated demographics (age, gender, ethnicity, special populations), enrollment, productivity, student success metrics (retention, completion, etc.), and comparisons of Distance Education versus face-to-face classes.

I. Program Information

Program Name: Computer Information Systems

Date: November 3, 2017

Program Type: Instructional Student Services Administrative Unit

College and District Mission Statement:

The Mission of **College of Alameda** to serve the educational needs of its diverse community by providing comprehensive and flexible programs and resources that empower students to achieve their goals.

Peralta Community College District Mission Statement: We are a collaborative community of colleges. Together, we provide educational leadership for the East Bay, delivering programs and services that sustainably enhance the region's human, economic, environmental, and social development. We empower our students to achieve their highest aspirations. We develop leaders who create opportunities and transform lives. Together with our partners, we provide our diverse students and communities with equitable access to the educational resources, experiences, and life-long opportunities to meet and exceed their goals. In part, the Peralta Community College District provides accessible, high quality, educational programs and services to meet the following needs of our multi-cultural communities:

- Articulation agreements with a broad array of highly respected Universities;
- Achievement of Associate Degrees of Arts and Science, and certificates of achievement;
- Acquisition of career-technical skills that are compatible with industry demand;
- Promotion of economic development and job growth;
- Foundational basic skills and continuing education;
- Lifelong learning, life skills, civic engagement, and cultural enrichment;
- Early college programs for community high school students;
- Supportive, satisfying, safe and functional work environment for faculty and staff; and
- Preparation for an environmentally sustainable future

CIS Department Mission:

To serve the educational needs of our diverse community by providing comprehensive and flexible programs and resources in COMPUTER INFORMATION SYSTEMS that empower our students to achieve their educational, career and life goals –

- (a) to transfer to four-year institutions,
- (b) to earn degrees and certificates in selected academic and occupational fields,
- (c) to prepare for positions in the workforce,
- (d) to improve basic learning skills, and
- (e) to expand their general knowledge.

Date of Last Comprehensive Program Review: 2013-2014

Date of Comprehensive Program Review Validation: 2013-2014

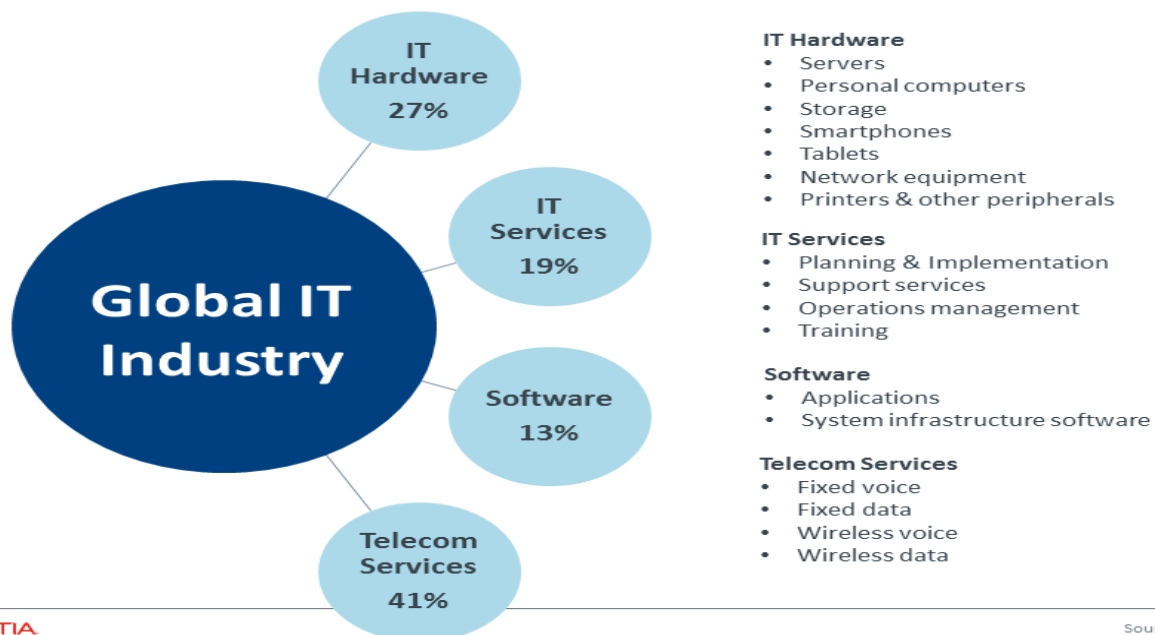
1.1 Information Technology (IT) JOB Outlook:

As of the end of September 2017, the Top Four most valuable companies in the world were all technology companies with **Apple** (791B), **Alphabet** which owns **Google** (664B), **Microsoft** (568B), **Amazon** (459B). IT job growth overtook energy, finance, healthcare, manufacturing (See https://en.wikipedia.org/wiki/List_of_public_corporations_by_market_capitalization#2017)

Although 2017 data from the U.S. Bureau of Labor Statics was not yet finalized as of this report, based upon available data, around **130,000 new tech-occupation jobs were created** in 2016, yielding a year-over-year **average growth of 2.5%**.

Tech Occupation Categories	2016 Jobs	YoY % Change
Software Developers, Applications	850,246	3.5%
Computer User (Desktop) Support Specialists – COA offers certificate	702,037	2.3%
Computer Systems Analysts	666,901	3.4%
Software Developers, Systems Software	437,816	2.8%
Network and Computer Systems Administrators	402,830	1.5%
Computer and Information Systems Managers	390,298	3.1%
Computer Programmers	373,820	0.8%
Web Developers – COA offers certificate	278,776	4.5%
Computer Occupations, All Other	274,516	1.5%
Computer Network Support Specialists	217,897	1.6%
Computer, ATM, and Office Machine Repairers	176,821	0.9%
Computer Network Architects	157,692	1.2%
Database Administrators	121,338	2.0%
Information Security Analysts	93,690	3.1%
Computer Hardware Engineers	80,129	1.6%
Computer and Information Research Scientists	27,976	2.6%
TOTAL	5,252,783	2.5%

Key Segments of the Global IT Market

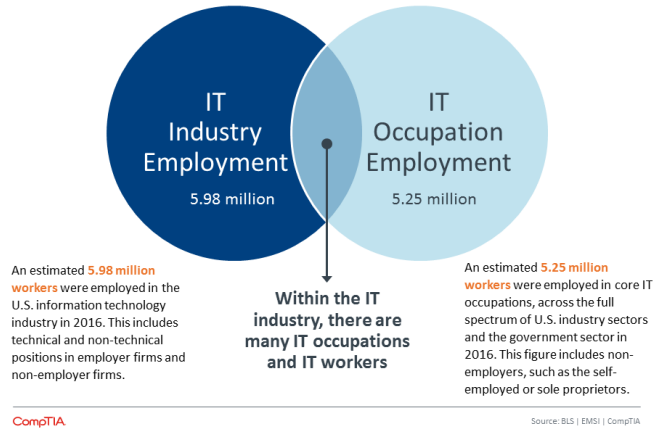


Sources: Bureau of Labor Statistics | Economic Modeling Specialists International | Computing Technology Industry Association
See: <https://www.comptia.org/resources/it-industry-trends-analysis-2017>

1.2 7-YEAR FORECAST on TECH JOBS

Bureau of Labor Statistics (BLS) projects 12% overall average growth in Tech employment by 2024 as compared to 6.5% overall average growth in all industries combined. This means 488,500 new Tech jobs, mostly in California. Various IT job sectors will benefit from this growth requiring new sets of Tech skills.

Two Distinct Components of the Tech Workforce

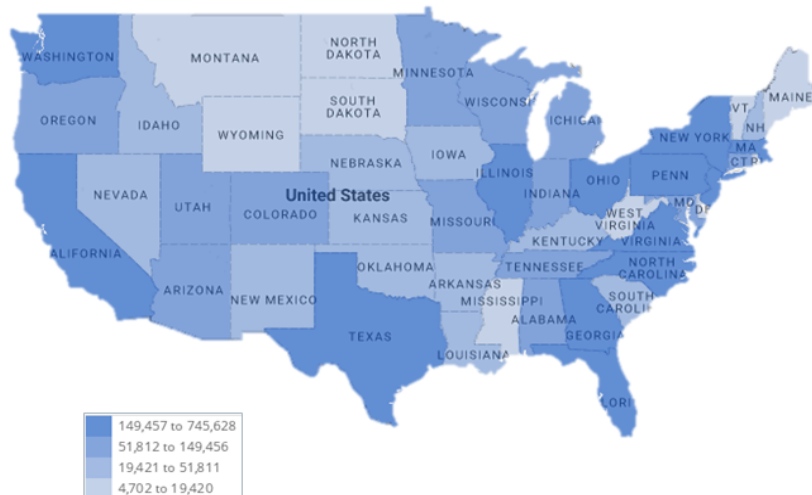


California leads the nation in the number of IT workers, followed by Texas, New York, Florida, and Virginia. The top 10 states account for 56 percent of IT workers employed in the United States. As such, College of Alameda and Peralta Community Colleges are in the best position to provide the supply (students) for the highest job demands.

Mapping the IT Jobs Landscape

The top 25 states for IT occupations account for 88% of total IT jobs.

1. California
2. Texas
3. New York
4. Florida
5. Virginia
6. Illinois
7. Pennsylvania
8. Washington
9. New Jersey
10. Massachusetts
11. Ohio
12. Georgia
13. North Carolina
14. Maryland
15. Michigan
16. Colorado
17. Minnesota
18. Arizona
19. Missouri
20. Wisconsin
21. Oregon
22. Indiana
23. Tennessee
24. Connecticut
25. Utah



1.2.1 **#1 OVERALL JOB GROWTH – WEB DEVELOPMENT jobs** are forecasted to grow the most by **27%** to year 2024. By next year in 2018, here are the estimated annual salaries of those working in Web Development sector.

JOB TITLE	Low	Average	High Salary
Interface Design Director	\$137,166	\$164,985	\$190,455
Web Sr. Software Developer	\$74,615	\$96,170	\$118,580
Web App Developer	\$55,602	\$70,175	\$89,677

See: <http://www.modis.com/it-insights/infographics/top-it-jobs-of-2018/>

JOBs in this **WEB DEVELOPMENT** sector include (1) Automated QA Tester, (2) Content Engineer – Junior, (3) Content Engineer – Mid-Level, (4) Content Engineer – Senior, (5) Content Specialist, (6) Content Manager, (7) UX Designer – Junior, (8) UX Designer – Mid-Level, (9) UX Designer – Senior, (10) Front End Developer – Junior, (11) Front End Developer – Mid-Level, (12) Front End Developer – Senior, (13) Web Interaction Designer, (14) Web Interaction Designer – Senior, (15) Web Interaction Design Director, (16) Web Interface Developer, (17) Web Application Developer, (19) Web Software Developer, (20) Web Software Developer – Senior

See: <http://www.modis.com/clients/salary-guide/job-categories/web-development-administration/>

1.2.2 **#2 TECH JOB GROWTH – SYSTEMS ANALYST jobs** are forecasted to grow by **21%** to year 2024. By next year in 2018, here are the estimated annual salaries of those working in Program/Systems Analysis sector.

JOB TITLE	Low	Average	High Salary
Change Management Specialist	\$99,004	\$132,229	\$171,513
App Sr. Systems Analyst	\$93,651	\$121,130	\$149,251
App Jr. Systems Analyst	\$46,423	\$59,329	\$76,791

See: <http://www.modis.com/it-insights/infographics/top-it-jobs-of-2018/>

JOBs in this **ANALYSIS** sector include (1) Applications Systems Analyst I, (2) Applications Systems Analyst II, (3) Applications Systems Analyst III, (4) Applications Systems Analyst IV, (5) Applications Systems Analyst V, (6) Business Data Analyst I, (7) Business Data Analyst II, (8) Business Data Analyst III, (9) Business Systems Analyst I, (10) Business Systems Analyst II, (11) Business Systems Analyst III, (12) Business Systems Analyst IV, (13) Business Systems Analyst V, (14) Change Management Specialist, (15) Information Technology Auditor I, (16) Information Technology Auditor II, (17) Information Technology Auditor III, (19) Information Technology Auditor IV, (20) Interface Analyst, (21) Quality Control Analyst I, (22) Quality Control Analyst II, (23) Quality Control Analyst III, (24) Quality Control Analyst IV

See: <http://www.modis.com/clients/salary-guide/job-categories/analysts/>

1.2.3 **#3 TECH JOB GROWTH – TECH SECURITY jobs** are forecasted to grow by **18%** to year 2024. By next year in 2018, here are the estimated annual salaries of those working in Information Technology Security sector.

JOB TITLE	Low	Average	High Salary
Info Security Manager	\$93,622	\$119,417	\$147,918
Systems/App Security Analyst	\$65,819	\$90,024	\$117,670
Info Security Administrator	\$53,853	\$79,401	\$114,576

See: <http://www.modis.com/it-insights/infographics/top-it-jobs-of-2018/>

JOBs in this **SECURITY** sector include (1) Systems/Applications Security Analyst, (2) Cyber Security Analyst, (3) Cyber Security Architect, (4) Data Security Analyst, (5) Governance Risk & Compliance Auditor, (6) Information Security Administrator, (7) Information Security Analyst - Junior, (8) Information Security Analyst – Mid-Level, (9) Information Security Analyst - Senior, (10) Information Security Supervisor, (11) Information Security Manager, (12) Information Security Director, (13) Information Security Engineer - Junior, (14) Information Security Engineer – Mid-Level, (15) Information Security Engineer - Senior, (16) Information Security Risk Analyst, (17) Information Security Risk Manager, (19) Information Security Vice President, (20) Chief Information Security Officer

See: <http://www.modis.com/clients/salary-guide/job-categories/analysts/>

1.3 STRATEGIC GOALS

We have aligned our Computer Information Systems (CIS) Department goals with those of our College of Alameda (CoA) which are aligned with those of our Peralta Community College District (PCCD). For 2017-2018, we have identified our goals, objectives and the strategies to achieve them as described below.

A. Advance Student Access, Equity, and Success:

Our primary goal is to promote student success. We define success as students achieving their educational goals. As a community-based organization, the Peralta Community College District strives to be responsive to the communities in the East Bay region by providing a high level of access to education and promoting diversity. We are committed to ensuring that students from a wide variety of backgrounds have an equal chance to achieve their educational goals.

Strategic Goals (A)	Institutional Objectives
A: Advance Student Access, Equity, and Success	<p>A.1 Student Enrollment: Increase enrollment for programs and course offerings in the essential areas of basic computer skills, CTE and transfer to achieve the District target of 19,507 RES FTES.</p> <p>A.2 Student Advising: Increase students' participation in SSSP eligible activities by 50%, with specific emphasis on expanding orientations, assessments, academic advising and student educational plans.</p> <p>A.3 Student Leadership: Using baseline data, increase student engagement in activities such as student governance, student life activities, Student leadership development, service learning programs, learning communities, student employment, etc.</p> <p>A.4 Student Equity Planning: Address the achievement gap through fully developing and implementing the student success and equity plans at each campus.</p>

B. Engage and Leverage Partners:

Actively engage and partner with the community on an ongoing basis to identify and address critical needs and promote the health and economic vitality of the region.

Strategic Goals (B)	Institutional Objectives
B: Engage and Leverage Partners	<p>B.1 Internal Networks: Develop a District-wide database that represents our current strategic partnerships and relationships.</p> <p>B.2 External Partnerships: Expand partnerships with K-12 schools, community organizations, four-year institutions, local government, regional industries and businesses.</p>

C. Build Programs of Distinction:

Create high-quality educational programs and services. We are committed to providing the highest quality instructional programs and student support services using the best methods and technologies that support the success of a diverse student population.

Strategic Goals (C)	Institutional Objectives
C: Build Programs of Distinction	<p>C.1 District Student Distinction: Develop a District-wide first year experience/student success program.</p> <p>C.2 College Student Distinction: Develop an innovative student success program at each college.</p>

D. Strengthen Accountability, Innovation and Collaboration:

Implement best practices in communication, management, and human resource development. Our organizational processes play a critical role in student success and overall institutional effectiveness.

Strategic Goals (D)	Institutional Objectives
D: Strengthen Accountability, Innovation and Collaboration	<p>D.1 Service Leadership: Provide professional development opportunities for faculty, staff and administrators that lead to better service to our students and colleagues.</p> <p>D.2 Institutional Leadership and Governance: Evaluate and update policies and administrative procedures and the PBIM participatory governance structure.</p> <p>D.3. Institutional Effectiveness: Update the PCCD Strategic Plan, College Educational Master Plans, District-wide Technology Plan, District-wide Facilities Plan, Comprehensive Program Reviews and Annual Program Updates to ensure that outcomes and assessments are aligned with PCCD Strategic Goals and Institutional Objectives.</p> <p>D.4. Expand the Use of Technology: Provide opportunities for training in Moodle, use of library databases, online teaching and learning resources, online student support services, web-based educational software/applications, smart classrooms, and administrative applications.</p>

E. Develop and Manage Resources to Advance Our Mission:

Ensure that resources are used wisely to leverage resources for student and community success in a context of long-term environmental sustainability, fiscal accountability and integrity.

Strategic Goals (E)	Institutional Objectives
E: Develop and Manage Resources to Advance Our Mission	<p>E.1 FTES/FTEF Target: Achieve the District target FTES/FTEF within budget.</p> <p>E.2 Budget to Improve Student Success: Increase alternative funding sources including, but not limited to, the Peralta Colleges Foundation, non-RES tuition, grants, etc.</p> <p>E.3 Fiscal Oversight: Enhance communication between the District and the colleges; prudently manage fiscal resources (general fund, bonds, benefits, OPEB, etc.); enhance processes contained in administrative procedures.</p> <p>E.4 Support Quality Instruction: Increase investments in materials, equipment, and teaching and learning resources to enhance student learning outcomes.</p>

II. Reporting Progress on Attainment of Program Goals or Administrative Unit Outcomes

Program Goal or Administrative Unit Outcome (AUO) (As reported in the most recent program review; cut and paste the goal or AUO from the program review document)	Which institutional goals will be advanced upon completion? (circle all that apply)	Progress on goal or AUO attainment (choose one)	Explanation and Comments (If a goal or AUO is revised, please explain and describe the revision. Describe the impediments or detail what can be improved.)
Assessment	1. PCCD Strategic Goals (list the specific goal here) 2. College Goals : (list the specific goal here, same as above). 3. CIS Department Goals : (list the specific goal here, same as above). A.1, Student Enrollment D.4, Technology Expansion E.1, FTES/FTEF Target E.4, Support Quality Instruction	Completed: _____ (date) Revised: _____ (date) Ongoing: _____ (date)	A.1a. Create SLO's and assessment questions on all CIS courses on Taskstream A.1b. Record and discuss SLO results on Taskstream A.1c. Evaluate trend results and comment on success or suggested improvements D.4. Prepare transition from Moodle in 2017 to Canvas in 2018 E.1. Collaborate with Office of Research, Planning and Institutional Effectives (RPIE) to get latest FTES/FTEF Targets and Progress Results E.4. Research latest TED, CNet, Ziff-Davis, or other reviews of latest Technology hardware, software, network, database services to assess student learning outcomes
Curriculum (if applicable)	1. PCCD Strategic Goals (list the specific goal here _____). 2. College Goals : (list the specific goal here _____).	Completed: _____ (date) Revised: _____ (date)	A.1a. Reinstate CIS Major and Certificate of Achievement by activating 238A & CIS 238B (Word Processing I and II)

	<p>3. CIS Department Goals: (list the specific goal here, same as above).</p> <p>A.1, Student Enrollment A.2, Student Advising D.4, Technology Expansion E.1, FTES/FTEF Target E.4, Support Quality Instruction</p>	<p>Ongoing:</p> <p>_____</p> <p>(date)</p>	<p>A.1b. Reinstatement the Certificate of Proficiency by activating CIS233</p> <p>A.1c. Offer a new Certificate in Data Analytics</p> <p>A.1d. Promote CIS major and certificate programs to increase enrollment</p> <p>A.2. Meet and collaborate with academic counselors to prequalify students to CIS classes with prerequisites or recommended preparation</p> <p>D.4 Search for online alternatives of hard copy textbooks so students can learn on the go with their mobile devices</p> <p>E.1 Collaborate with Office of Research, Planning and Institutional Effectives (RPIE) to monitor FTES/FTEF Progress Results</p> <p>E.2 Evaluate textbook publishers if they have online materials and tests that are compatible with our new Canvas online system for instructor curriculum development</p>
<p>Instruction (if applicable)</p>	<p>1. PCCD Strategic Goals (list the specific goal here _____).</p> <p>2. College Goals: (list the specific goal here _____).</p> <p>3. CIS Department Goals: (list the specific goal here, same as above).</p> <p>A.1, Student Enrollment D.4, Technology Use Expansion E.1, FTES/FTEF Target E.4, Support Quality Instruction</p>	<p>Completed:</p> <p>_____</p> <p>(date)</p> <p>Revised:</p> <p>_____</p> <p>(date)</p> <p>Ongoing:</p> <p>_____</p> <p>(date)</p>	<p>A.1. Promote CIS major and certificate programs to increase enrollment</p> <p>A.2. Meet and collaborate with academic counselors to prequalify students to CIS classes with required or recommended prereqs.</p> <p>D.4 Search for online alternatives of hard copy textbooks so students can learn on the go with their mobile devices</p>

			<p>E.1 Collaborate with Office of Research, Planning and Institutional Effectives (RPIE) to monitor FTES/FTEF Progress Results</p> <p>E.2 Evaluate textbook publishers if they have online materials and tests that are compatible with our new Canvass system for student learning</p>
<p>Student Success and Student Equity</p>	<p>1. PCCD Strategic Goals (list the specific goal here)</p> <p>2. College Goals: (list the specific goal here)</p> <p>3. CIS Department Goals: (list the specific goal here, same as above).</p> <p>A.2, Student Advising A.3, Student Leadership A.4, Student Equity B.2, External Partnerships</p>	<p>Completed: _____ (date)</p> <p>Revised: _____ (date)</p> <p>Ongoing: _____ (date)</p>	<p>A.2. Meet and collaborate with academic counselors to guide students to proper CIS classes that will prepare them for the demands of Tech Jobs</p> <p>A.3. Meet and collaborate with Student Services to explore opportunities for CIS Faculty to participate at orientations, college transfers, job fairs or as club advisors</p> <p>A.4. Meet and collaborate with EOPS to insure that disabled students receive proper support for class note-taking and for reasonable test accommodations</p> <p>B.2. Seek partners who can provide job internships</p>
<p>Professional Development, Institutional and Professional Engagement, and Partnerships</p> <p>Attend, participate and present at local conferences about teaching and teaching Information. Develop relationships with high school teachers to learn about common core curriculum</p>	<p>1. PCCD Strategic Goals (list the specific goal here _____).</p> <p>2. College Goals: (list the specific goal here _____).</p> <p>3. CIS Department Goals: (list the specific goal here, same as above).</p> <p>B.1, Internal Networks B.2, External Partnerships D.1, Service Leadership</p>	<p>Completed: _____ (date)</p> <p>Revised: _____ (date)</p> <p>Ongoing: _____ (date)</p>	<p>B.1. Re-establish the PCCD CIS faculty network with Alameda, Berkeley, Laney, and Merritt.</p> <p>B.2. Re-establish the CIS business advisory team</p> <p>D.1 Fund CIS faculty for professional development and membership, e.g. Regional Joint Venture Bay Area Community College Consortium (RJV-BACCC)</p>

	D.2, Institutional Leadership		D.2 Support CIS faculty to run for leadership position in curriculum committee, technology committee, and academic senate in COA and PCCD
Other Program Improvement Objectives or Administrative Unit Outcomes	<p>1. PCCD Strategic Goals (list the specific goal here _____).</p> <p>2. College Goals: (list the specific goal here _____).</p> <p>_____.</p>	<p>Completed: _____ (date)</p> <p>Revised: _____ (date)</p> <p>Ongoing: _____ (date)</p>	
Other Program Improvement Objectives or Administrative Unit Outcomes	<p>1. PCCD Strategic Goals (list the specific goal here _____).</p> <p>2. College Goals: (list the specific goal here _____).</p> <p>_____.</p>	<p>Completed: _____ (date)</p> <p>Revised: _____ (date)</p> <p>Ongoing: _____ (date)</p>	

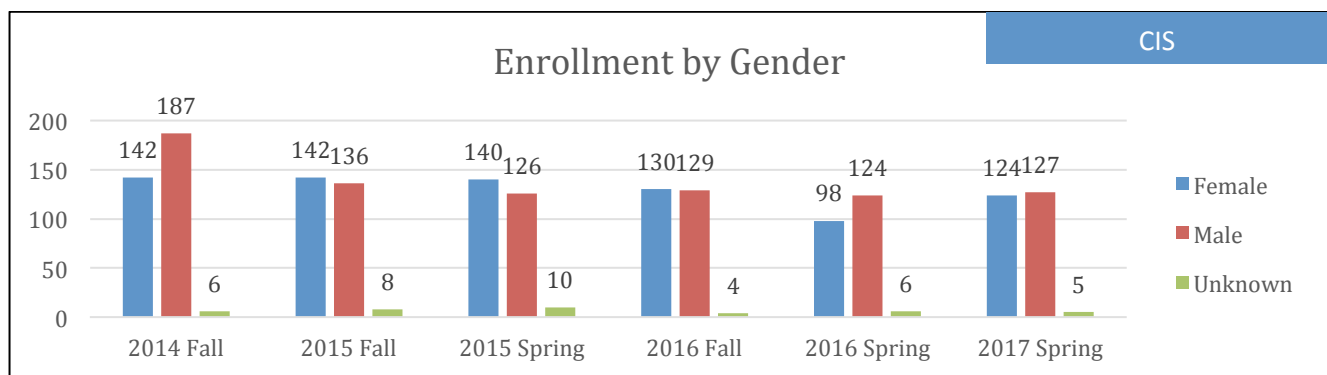
III. Data Trend Analysis

Please review and reflect upon the data for your program. Data is available via the hyperlinks below, on the COA Program Review page, as well as on your program's individual Program Review/APU webpage (accessible [here](#)) under Program Information. Then describe any significant changes in the following items and discuss what the changes mean to your program. Focus upon the most recent year and/or the years since your last comprehensive program review.

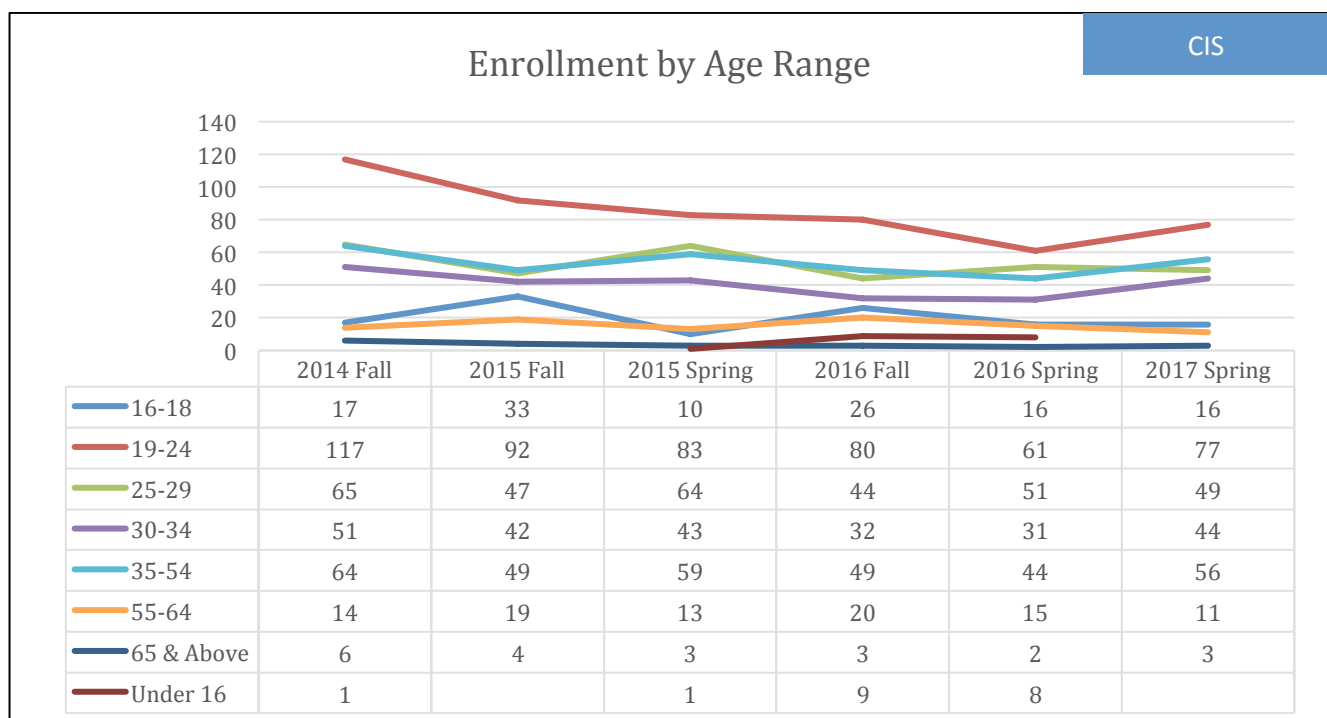
A. Student Demographics (age, gender, ethnicity, special populations). **Comments about changes:**

It's very interesting to see that among some of the demographics below, for "Enrollment by Gender" the big increase in female from 98 in Spring 2016 to 124 enrolled in Spring 2017, on the other hand, the male population only grew from 124 male in Spring 2016 to 127 in Spring 2017. We need to continue to push the enrollment for females but the male enrollment will also need to improve.

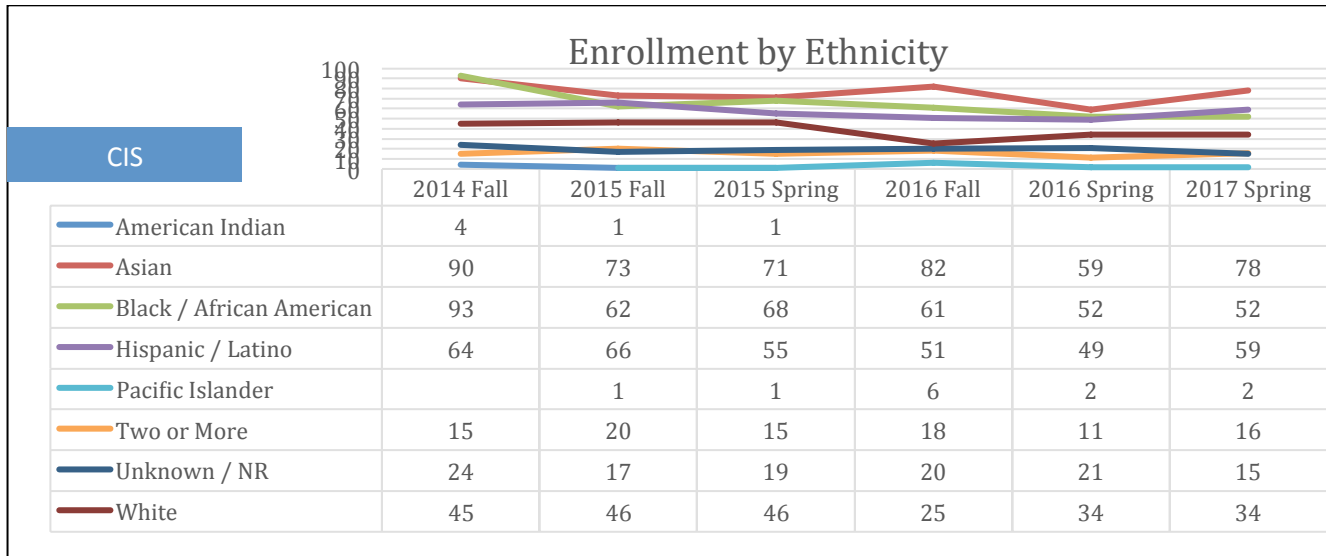
For **Enrollment by GENDER** (men/women are pretty even)



For **Enrollment by AGE**, most popular are those in the 19-24 (daytime) then in the 35-54 (evening students)



For **Enrollment by ETHNICITY**, predominant groups are Asians (78), Hispanics (59), and Blacks (52) minorities.

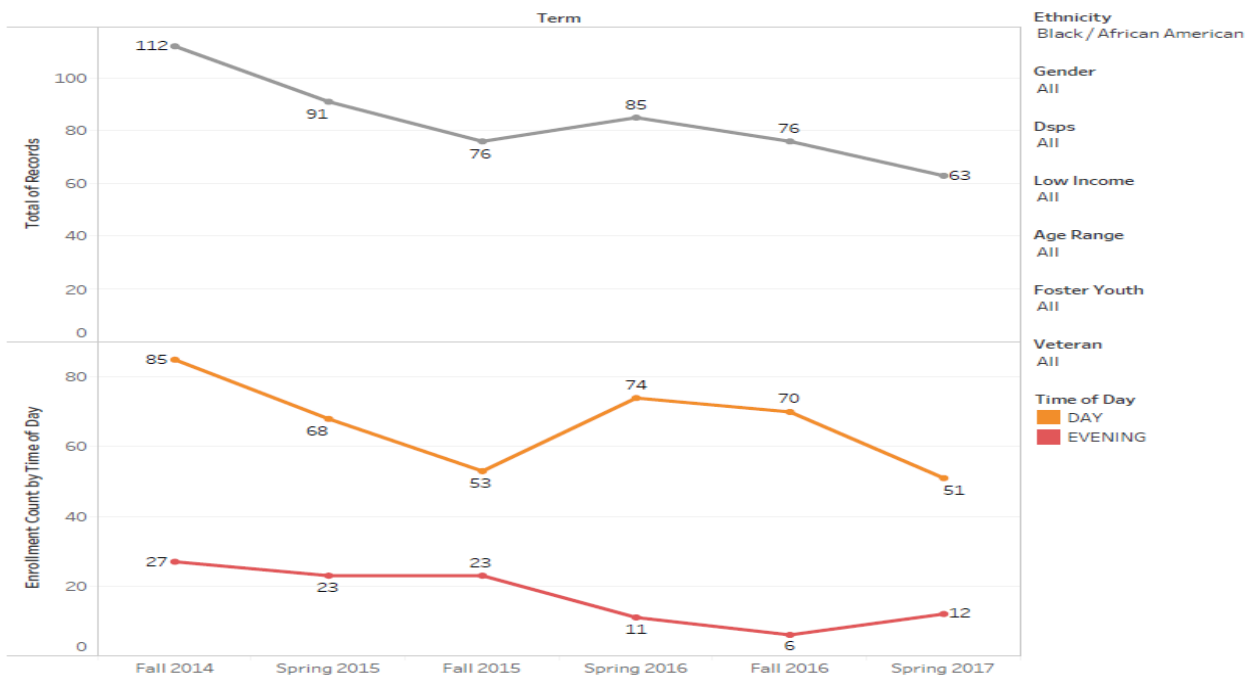


B. Enrollment (sections, course enrollment, [productivity](#), # of student contacts, etc).

Comments about changes:

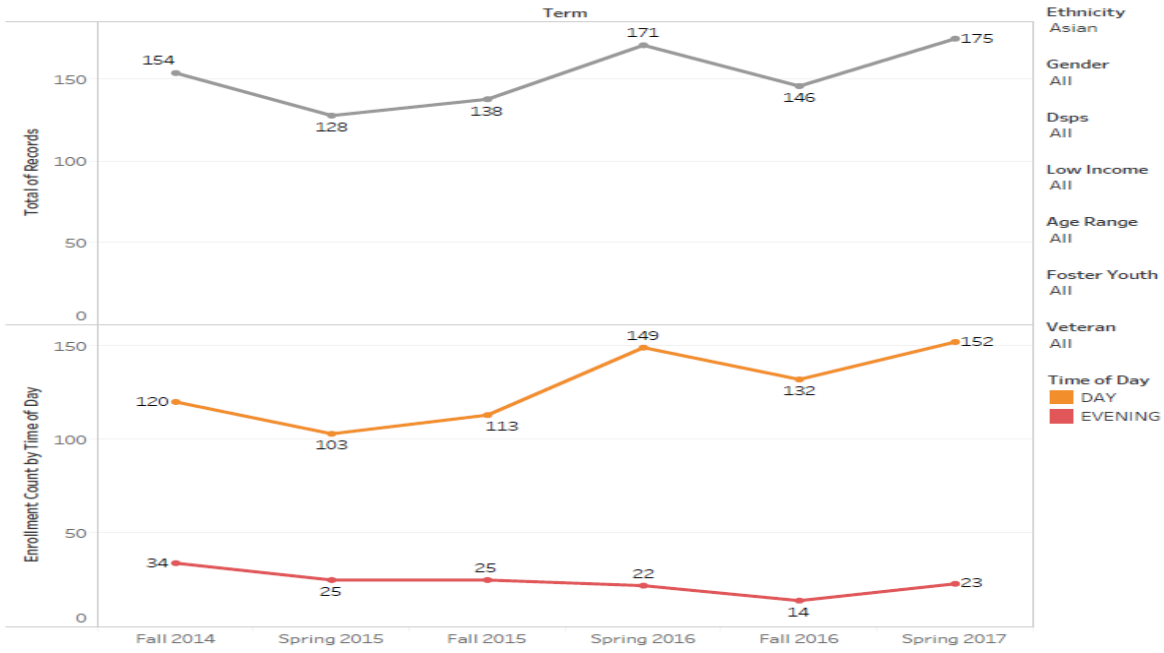
ENROLLMENT has declined from 2014 to 2017 due to removal of classes to complete the CIS Major (CIS 238a, CIS 238b) and the Web Publishing Certificate (CIS 233) and due to fewer classes offered with the departure of two full-time faculty members (Gary Perkins and Bob Grill)

Campus Alameda	Semester Multiple values	Instruction Mode All	Subject CIS	Catalog Number All	Catalog Description All
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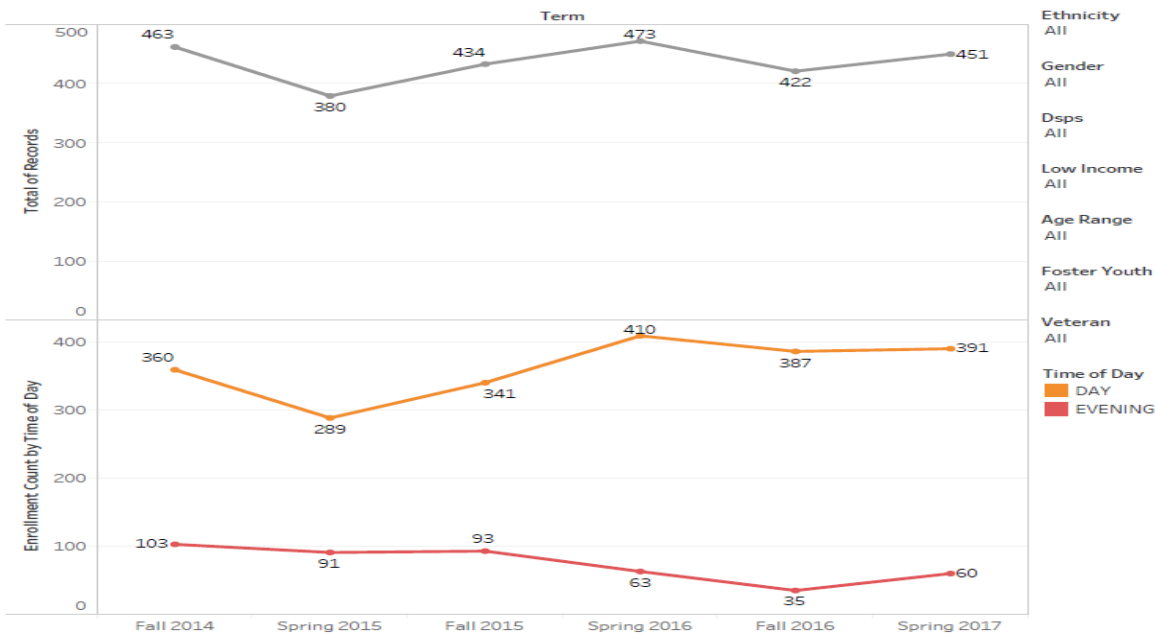
Enrollment of Asian students is increasing with full-time CIS faculty who both happen to be Asians (Anthony Villegas and Manny Uy) are assigned to teach more classes.

Campus	Semester	Instruction Mode	Subject	Catalog Number	Catalog Description
Alameda	Multiple values	All	CIS	All	All

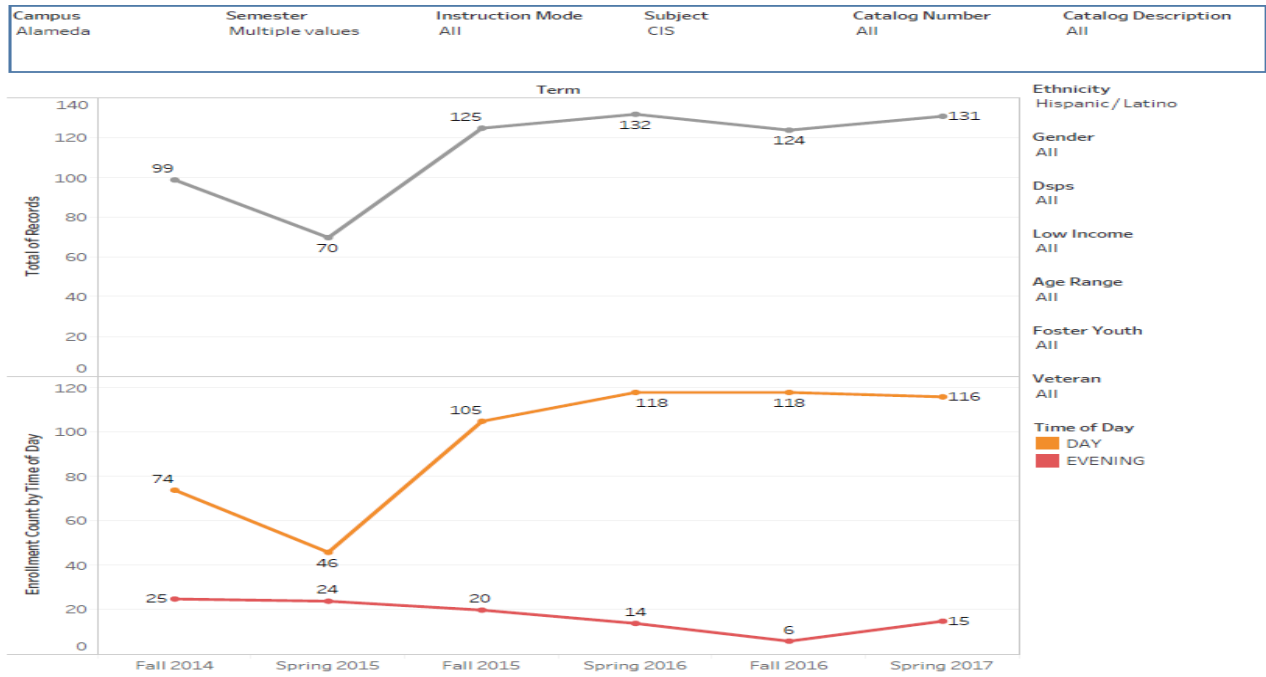


Overall CIS Enrollment is increasing, with new part-time faculty hired in 2016 (Irfan Ortak, Altantsetseg Erdenebaatar) in addition to senior part-time faculty (Fayez ElGiheny, Jesse Norman, and Marilyn Varnardo)

Campus	Semester	Instruction Mode	Subject	Catalog Number	Catalog Description
Alameda	Multiple values	All	CIS	All	All



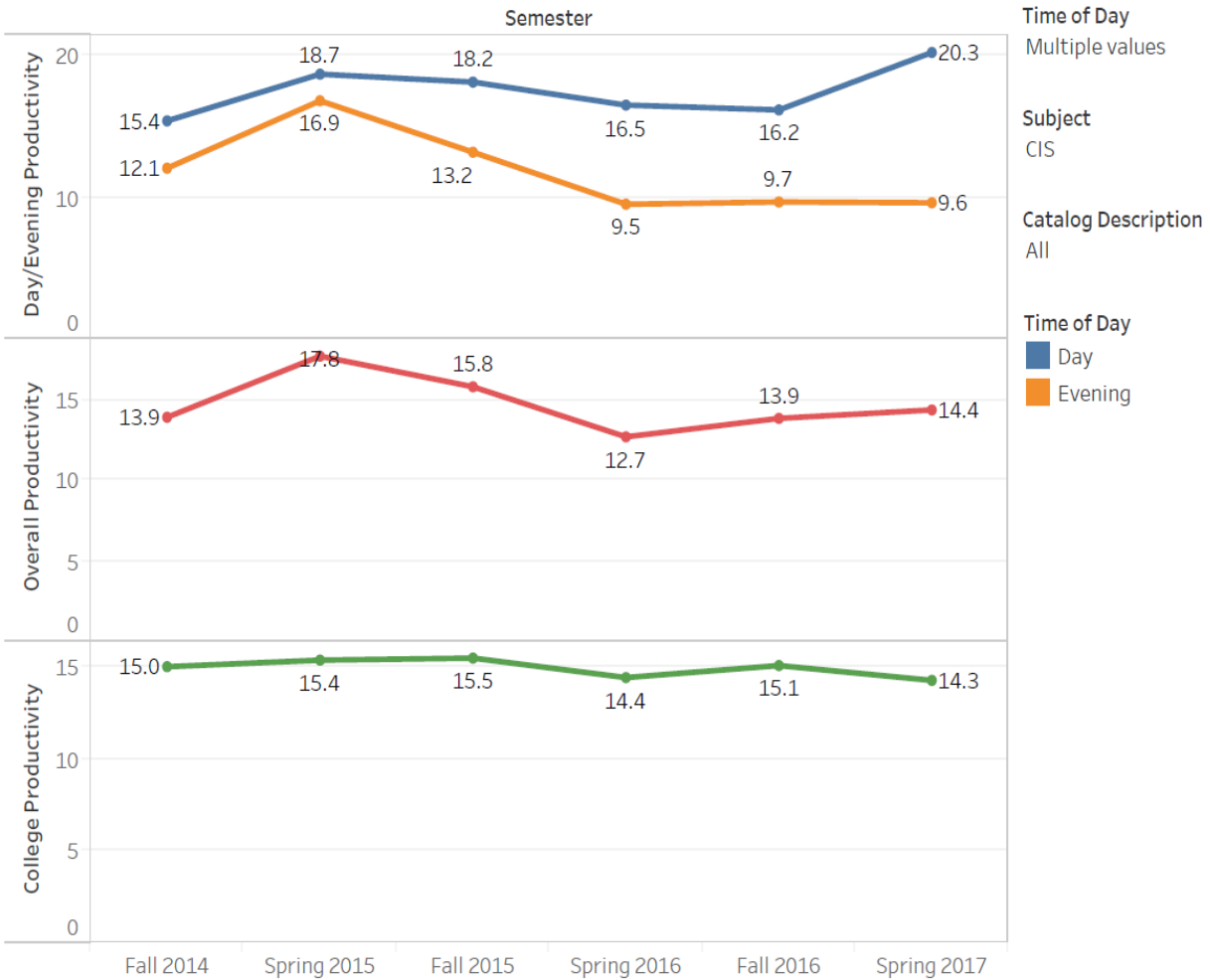
Enrollment of Hispanic students is increasing since Fall of 2016.



Enrollment of Spring semester daytime students has increased and remained level.



Productivity of CIS students has remained level between day and evening classes.



Productivity of full-time equivalent students (FTES) is correlated with full-time equivalent faculty (FTEF). As the number of FTEF declined the number of FTES declined as well. In 2014 we had 6.49 FTEF. In 2017, we declined by over 50% at 3.02. **We need to hire TWO full-time tenured track faculty** to replace our previous full-time faculty we lost from Fall 2014, namely Gary Perkins and Bob Grill. The addition of two full-time faculty will result in over 100% increase in our FTES as evidenced by the tally for Spring 2017 (43 students) and Fall 2014 (90 students).

Productivity - Data Table

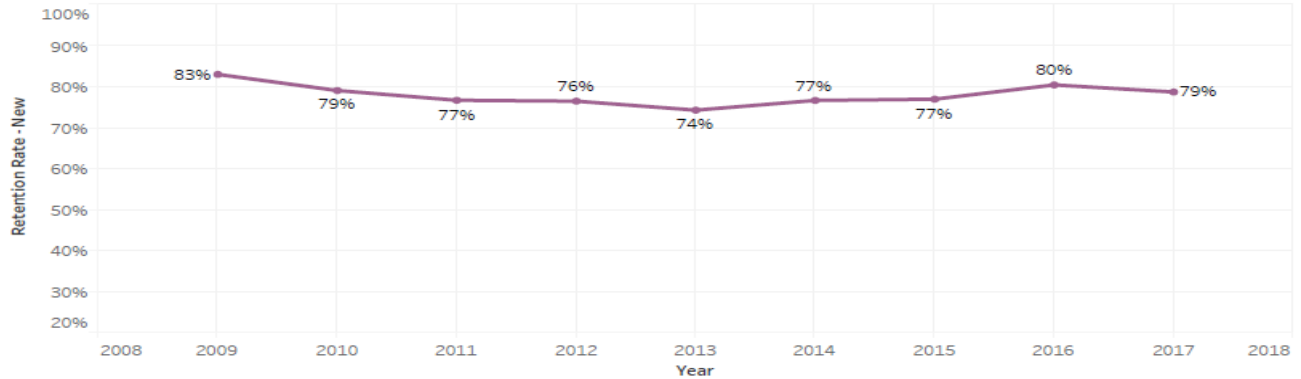
	Fall 2014	Fall 2015	Fall 2016	Spring 2015	Spring 2016	Spring 2017
Productivity	13.9	15.8	13.9	17.8	12.7	14.4
FTEF Total	6.49	5.28	3.65	4.15	3.96	3.02
FTES Total	90.52	83.62	50.67	73.60	50.38	43.46

C. **Student Success** ([retention](#) and [completion](#) rates, # of student contacts, etc.). **Comments about changes:**

Retention of CIS students has remained level within the range of 74% and 83% in 2013 and 2009 respectively.

Group 1	Campus College of Alameda	Department CIS	Catalog Description All	Catalog Number All	Distance Education All	
Age Range All	Gender All	Ethnicity All	Dsps All	Low Income All	Veteran All	Foster Youth All

Retention Comparison - Group 1

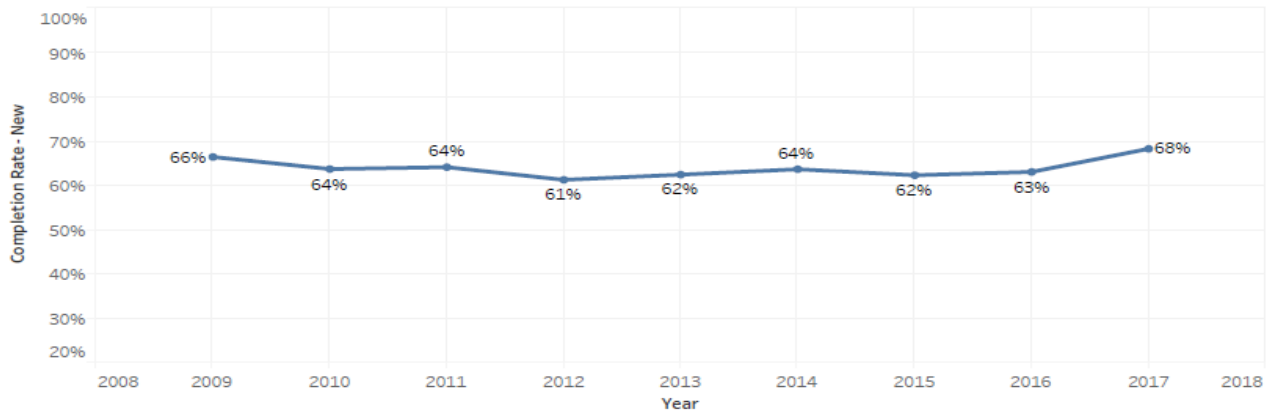


	2009	2010	2011	2012	2013	2014	2015	2016	2017
Retention Rate - New	83%	79%	77%	76%	74%	77%	77%	80%	79%
Retention Count	606	839	879	865	809	749	772	819	355
Total Graded	730	1,061	1,146	1,131	1,089	977	1,003	1,018	451

Completion of CIS classes by students has remained level within the range of 61% and 68% in 2012 and 2017 respectively. We can review and implement steps to elevate rates to 80% and above by collaborating with guidance counselors, EOPS, library, lab tech and tutors to provide students with much needed resources and support.

Group 1	Campus College of Alameda	Semester All	Department CIS	Catalog Description All	Catalog Number All	Distance Education All
Age Range All	Gender All	Ethnicity All	Dsps All	Low Income All	Veteran All	Foster Youth All

Completion Comparison - Group 1



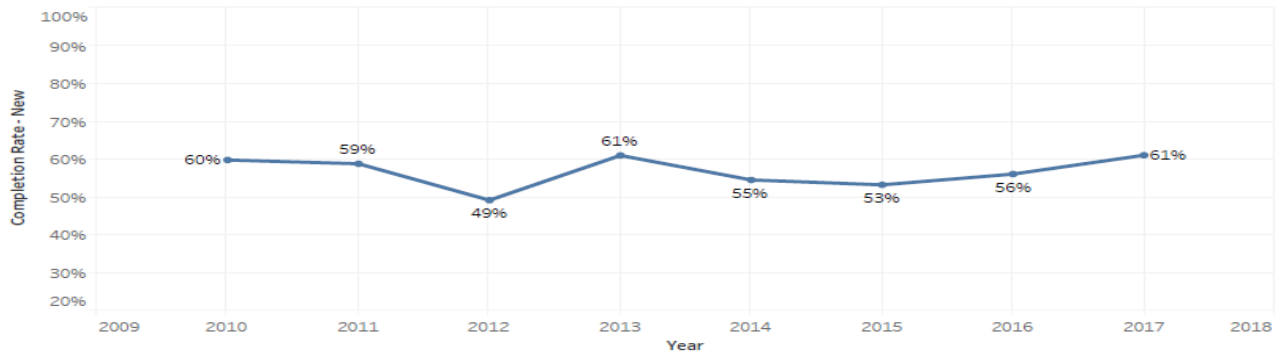
	2009	2010	2011	2012	2013	2014	2015	2016	2017
Completion Rate - New	66%	64%	64%	61%	62%	64%	62%	63%	68%
Success Count	485	676	735	693	680	622	625	642	308
Total Graded	730	1,061	1,146	1,131	1,089	977	1,003	1,018	451

**D. [Student Success](#) in Distance Education/Hybrid classes versus face-to-face classes (if applicable).
Comments about changes:**

Completion rate for 100% ONLINE classes remain level around 60% from 2010 to 2017. We need to find ways of improving these numbers to 80% and higher. We need better teacher-student engagement with audio-visual content. We suggest for us to establish an on-campus audiovisual recording studio and post-production technical support. This way instructors can produce rich content (videos, webcasts, podcasts, videocasts, etc.). Part of the vast audio-visual room can be the location for this recording and post-production studio.

Group 1	Campus College of Alameda	Semester All	Department CIS	Catalog Description All	Catalog Number All	Distance Education 100% online
Age Range All	Gender All	Ethnicity All	Dsps All	Low Income All	Veteran All	Foster Youth All

Completion Comparison - Group 1



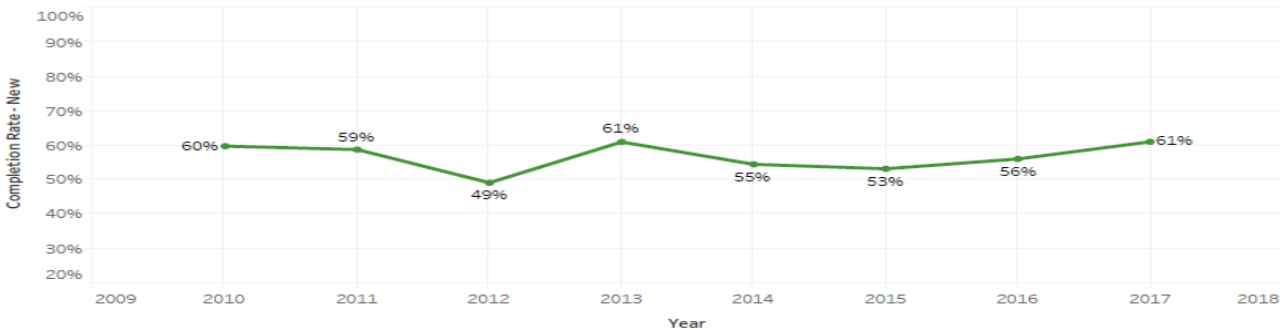
	2010	2011	2012	2013	2014	2015	2016	2017
Completion Rate - New	60%	59%	49%	61%	55%	53%	56%	61%
Success Count	275.0	291.0	229.0	197.0	224.0	224.0	370.0	152.0
Total Graded	460.0	495.0	466.0	323.0	411.0	421.0	660.0	249.0

The charts above and below are similar. Group 1 are full-time students. Group 2 are part-time students.

	2010	2011	2012	2013	2014	2015	2016	2017
Completion Rate - New	60%	59%	49%	61%	55%	53%	56%	61%
Success Count	275.0	291.0	229.0	197.0	224.0	224.0	370.0	152.0
Total Graded	460.0	495.0	466.0	323.0	411.0	421.0	660.0	249.0

Group 2	Campus College of Alameda	Semester All	Department CIS	Catalog Description All	Catalog Number All	Distance Education 100% online
Age Range All	Gender All	Ethnicity All	Dsps All	Low Income All	Veteran All	Foster Youth All

Completion Comparison - Group 2



	2010	2011	2012	2013	2014	2015	2016	2017
Completion Rate - New	60%	59%	49%	61%	55%	53%	56%	61%
Success Count	275.0	291.0	229.0	197.0	224.0	224.0	370.0	152.0
Total Graded	460.0	495.0	466.0	323.0	411.0	421.0	660.0	249.0

E. Other program specific data or unplanned events that reflect significant change in the program.

MISTAKES FROM THE PAST:

From 2011 to 2015, certain classes required for the CIS major and for Web Publishing Certificate were seriously neglected from class schedule. When the time came to deactivate classes from the catalog for budget purposes, those classes were deactivated. Without those classes gone, then we cannot award Degree with a CIS major. Without a CIS major, students will leave Alameda to go to Berkeley, Laney, or Merritt to finish their AA degree in CIS. Without CIS students, our CIS Department will cease to exist.

PRESENT RESOLUTION:

For the reinvigoration of our Computer Information Systems (CIS) Department, we seek HELP in reviving our CIS Degree major and our Certificate of Achievement in CIS by activating

CIS 238a – Word Processing I (4 units)

CIS 238b – Word Processing II (4 units)

We also seek to activate the deactivated class CIS 233 – Internet and Social Media (2 units) so we can award Certificates in Web Publishing to over 20 students who already completed the 4 required classes.

We have designed and will be introducing a new Certificate Program in Data Analytics which combines disciplines in science, technology, engineering and mathematics. This will prepare our school to meet the demands of the industry.

IV. Equity

- Please review the [student success data](#) for your program and comment upon it. Do performance gaps exist in the student success or achievement rates for disproportionately impacted students, including African-American, Hispanic/Latino, Filipinos/Pacific Islanders, foster youth, veterans, students with disabilities or other groups not listed here? If differences exist, please detail the differences and describe the activities your program is making to address the differences? How will your program evaluate the effectiveness of these activities?

[Overall, enrollment grew led by Filipinos and Asians while retention and completion remained level.](#)

- Please review the SSSP plan, Equity plan, and Basic Skills plans at your college – these plans are available online [here](#) under Program Planning & Assessment. How does your program address or participate in the information and activities presented in these plans? Are there resources available in these plans that can be utilized by your program or the students accessing your program?

[Overall, we wish to improve student success by collaborating with our COA academic guidance counselors, EOPs, library learning resources, tutors, and student services.](#)

V. Curriculum and Assessment Status

What curricular, pedagogical or other changes has your department made since the most recent program review?

We have identified our Student Learning Objectives for our Computer Information Systems (CIS) classes.

Our Method of Assessment involves multiple choice questions that are included in student exams.

Number of questions equal the number of Student Learning Objectives.

Student Learning Outcome

CIS 1 – Intro to Computer Information Systems

SLO 1. Windows Environment

Demonstrate the ability to understand computer vocabulary & concepts, perform operating system functions, and accomplish complex information processing tasks with a computer

SLO 2. Design and Create Word Documents

Design, create, modify, and assemble documents using industry standard word processing software.

SLO 3. Design and Create Spreadsheets

Design, create, modify, and assemble spreadsheets using industry standard spreadsheet processing software.

SLO 4. Design and Create Databases

Design, create, modify, and assemble databases using industry standard database management system.

SLO 5. Design and Create Presentations

Design, create, modify, and assemble presentations to industry standards.

Questions for Assessing the SLO's for CIS 1

Q1. Which of the following are components/functions of a networked computer?

- A) Input, Output
- B) Input, Process, Output
- C) Input, Process, Output, Storage
- D) Input, Process, Output, communication
- E) Input, Process, Output, Storage, Communication

Q2. Which of the following is not a built-in feature of WORD 2013 software?

- a) Synonym Checking Spelling and Grammar Checking
- b) Sound Editing
- c) Multiple Column Layout
- d) Graphic ClipArts Inserting
- e) Thesaurus

Q3. Which of the built-in feature of PowerPoint 2013 software do we use to get objects to move across the screen during a slideshow presentation?

- a) Insert Clip Art
- b) Insert Movie
- c) Design Background Styles
- d) Animation
- e) Slide Show Rehearse Timings

Q4. The most efficient and accurate command in EXCEL 2013 software to ADD the values 100 in cell B2, 200 in cell B3, 300 in cell B4, 400 in cell B5, and 500 in cell B6 is _____?

- a) =B2+B3+B4+B5+B6
- b) = 100+200+300+400+500
- c) = SUM(B2,B3,B4,B5,B6)
- d) = SUM(B2..B6)
- e) = SUM(B2:B6)

Q5. What feature of ACCESS 2013 software visually displays the LINK of two separate tables with common columns in retrieving data?

- a) Query
- b) Form
- c) Report
- d) Switchboard
- e) Macro

Answer Keys to above Test Questions - 1 e, 2 b, 3 d, 4 e, and 5 e

RESULTS of SLO Assessments for CIS 1
Taskstream Extract 2016-2017
Finding per Measure

SLO 1 – Outcome: WINDOWS ENVIRONMENT

Demonstrate the ability to understand computer vocabulary & concepts, perform operating system functions, and accomplish complex information processing tasks with a computer

Measure: **Basic computer system knowledge**

Direct - Exam

Details/Description: **See below**

Criteria for Successful: **70% passing rate**

Performance: **See below**

How will you collect this information?: **Give quiz questions below**

Contact Person: **Manny T. Uy**

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Assess student responses to specific quiz questions following

1. Distinguish the five components of a computer system.
2. Distinguish the two main types of software.
3. Infer the components of communications among computer

Criteria for Successful Performance:

- 70% or more of students should achieve passing performance on specific quiz questions testing the ability to understand computer vocabulary & concepts, perform operating system functions, and accomplish complex information processing tasks with a computer
- Assess quiz results to determine if the course gives students the ability to understand computer vocabulary & concepts, perform operating system functions, and accomplish complex information processing tasks with a computer

Findings for Basic computer system knowledge

Summary of Findings: **SUCCESS**

Results: **72%**

Actual Performance Data:

Out of 115 students from 5 sections tested, 83 correctly answered the question for a success rate of 72 %.

Successful Performance Target Met?: **Met**

The test results from 5 sections with a total of 115 students showed that 83 answered the SLO test question successfully for a performance completion rate of 72 %.

Use of Results/Plan of Action:

Instructors should review their curriculum and instruction on BASIC COMPUTER and INTERNET OPERATIONS for pedagogy and andragogy to improve student success rate above 75 %.

SLO 2 – Outcome: WORD DOCUMENTS

Design, create, modify, and assemble documents using industry standard word processing software.

Measure: **Design and Create Word Documents**

Direct - Exam

Details/Description: **See below**

Criteria for Successful: **70% passing rate**

Performance: **See below**

How will you collect this information?: **Give quiz question below and collect WORD LAB**

Contact Person: **Manny T. Uy**

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Criteria for Successful Performance:

- 70% or more of students should achieve passing performance on specific quiz questions testing the ability to understand concepts and techniques in creating, editing, saving, and printing a Word Document
- Assess quiz results to determine if the course gives students the ability to understand presentation concepts & techniques

Findings for WORD Documents

Summary of Findings: **SUCCESS**

Results: **86 %**

Actual Performance Data:

Out of 118 students from 5 sections tested, 102 correctly answered the question for a success rate of 86 %.

Successful Performance Target Met?: **Met**

The test results from 5 sections with a total of 115 students showed that 102 answered the SLO test question successfully for a performance completion rate of 86 %.

Use of Results/Plan of Action:

Instructors should review their curriculum and instruction on WORD DOCUMENTS for pedagogy and andragogy to improve student success rate above 90 %.

SLO 3 – Outcome: EXCEL SPREADSHEETS

Design, create, modify, and assemble spreadsheets using industry standard spreadsheet processing software.

Measure: **Design and Create EXCEL SPREADSHEETS**

Direct - Exam

Details/Description: **See below**

Criteria for Successful: **70% passing rate**

Performance: **See below**

How will you collect this information?: **Give quiz question below and collect EXCEL LAB**

Contact Person: **Manny T. Uy**

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Criteria for Successful Performance:

- 70% or more of students should achieve passing performance on specific quiz questions testing the ability to understand concepts and techniques in creating, editing, saving, and printing a Word Document

- Assess quiz results to determine if the course gives students the ability to understand presentation concepts & techniques

Findings for EXCEL Documents

Summary of Findings: **SUCCESS**

Results: **83 %**

Actual Performance Data:

Out of 115 students from 5 sections tested, 96 correctly answered the question for a success rate of 83 %.

Successful Performance Target Met?: **Met**

The test results from 5 sections with a total of 115 students showed that 96 answered the SLO test question successfully for a performance completion rate of 83 %.

Use of Results/Plan of Action:

Instructors should review their curriculum and instruction on EXCEL SPREADSHEETS for pedagogy and andragogy to improve student success rate above 90 %

SLO 4 – Outcome: ACCESS DATABASE

Design, create, modify, and assemble databases using industry standard database management system.

Measure: **Design and Create ACCESS DATABASE**

Direct - Exam

Details/Description: **See below**

Criteria for Successful: **70% passing rate**

Performance: **See below**

How will you collect this information?: **Give quiz question below and collect ACCESS LAB**

Contact Person: **Manny T. Uy**

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Criteria for Successful Performance:

- 70% or more of students should achieve passing performance on specific quiz questions testing the ability to understand concepts and techniques in creating, editing, saving, and printing an ACCESS Tables, Forms, Reports.
- Assess quiz results to determine if the course gives students the ability to understand presentation concepts & techniques

Findings for ACCESS Database

Summary of Findings: **SUCCESS**

Results: **71 %**

Actual Performance Data:

Out of 116 students from 5 sections tested, 82 correctly answered the question for a success rate of 71 % which is above the 70% target objective.

Successful Performance Target Met?: **Met**

The test results from 5 sections with a total of 115 students showed that 82 answered the SLO test question successfully for a performance completion rate of 71 %.

Use of Results/Plan of Action:

Instructors should review their curriculum and instruction for ACCESS DATABASE pedagogy and andragogy to improve student success rate above 75 %

SLO 5 – Outcome: POWERPOINT PRESENTATION

Design, create, modify, and assemble presentations to industry standards.

Measure: **Design and Create ACCESS DATABASE**

Direct - Exam

Details/Description: **See below**

Criteria for Successful: **70% passing rate**

Performance: **See below**

How will you collect this information?: **Give quiz question below and collect POWERPOINT LAB**

Contact Person: **Manny T. Uy**

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Criteria for Successful Performance:

- 70% or more of students should achieve passing performance on specific quiz questions testing the ability to understand concepts and techniques in creating, editing, saving, and printing an ACCESS Tables, Forms, Reports.
- Assess quiz results to determine if the course gives students the ability to understand presentation concepts & techniques

Findings for ACCESS Database

Summary of Findings: **SUCCESS**

Results: **74 %**

Actual Performance Data:

Out of 115 students from 5 sections tested, 85 correctly answered the question for a success rate of 74 %.

Successful Performance Target Met?: **Met**

The test results from 5 sections with a total of 115 students showed that 85 answered the SLO test question successfully for a performance completion rate of 74 %.

Use of Results/Plan of Action:

Instructors should review their curriculum and instruction on POWERPOINT SLIDES for pedagogy and andragogy to improve student success rate above 80 %

Overall Recommendation

Review of Curriculum (textbooks and course content), Instruction (technology and teaching methods), and Assessments (tests, labs, homework, projects, etc.) can uncover ways to help students to be more engaged, to learn and to succeed. Since technology continually changes, CIS instructors must continually learn and adapt new tools and new ways of teaching for student learning.

Overall Reflection

Overall, the SLO's for Word Processing and Spreadsheet exceeded expected threshold of 70% of students achieving successful performance with 86% and 83%, respectively, and those for Networked Computer Systems, Presentation, and Database barely met the expected 70% threshold with 72%, 74%, and 71%, respectively. However, it needs to be pointed out that the achievement rates of the students in the five sections vary noticeably. So a review of the teaching methods and contents by the respective instructors could further improve the success rates.

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Attach a summary depicting the program's progress on assessment of course and program level outcomes (SLOs and PLOs). Please evaluate your program's progress on assessment. What are the plans for further assessments in the upcoming academic year? Please include a timeline and/or assessment plan for the future.

[See above](#)

What does your program do to ensure that meaningful dialogue takes place in both shaping and assessing course and program level outcomes? Where can one find the evidence of the dialogue?

[See above](#)

Describe your plans for improvement projects based upon the assessment results. Attach evidence (the assessment report from TaskStream, departmental meeting notes, or the assessment spreadsheet showing these results).

[See above](#)

VI. Additional Questions

A. For CTE:

Please describe any recommendations resulting from advisory committee meetings that have occurred since your last program review.

Is your discipline/department/program working with a Deputy Sector Navigator? If so, in which sector? Briefly describe your discipline/department/program's work with the Deputy Sector Navigator. **N/A**

Is your discipline/department/program currently participating in any grants? Please discuss your progress in meeting the stated goals in the grant. **N/A**

B. For Counseling:

What has the counseling department done to improve course completion and retention rates? What is planned for the future? **N/A**

What has the counseling department done to improve SSSP counseling services? Please discuss your progress in improving SSSP counseling services. **N/A**

C. For Library Services:

Please describe any changes in the library services, collections or instructional programs since the last program review or annual program update and fill in the information below. **N/A**

	This Academic Year:	Previous Academic Year(s)	Explanation of Changes
Library Open Hours Per Week			
Library Visits (gate count)			
Other Library Usage			
Total Library Materials Expenditures			
Total Print Book Collection (titles)			
Total E-book Collection (titles)			
Total Database Subscriptions			
Total Media Collection (titles)			
Total Print Periodical Subscriptions			
General Circulation Transactions			
Reserve Circulation Transactions			
In-house circulation Transactions (optional)			
Media Circulation Transactions (optional)			
E-book Circulation Transactions- Describe – (optional)			
Other Circulations Transactions – Describe – (optional)			

Total Circulation Transactions			
--------------------------------	--	--	--

D. For Student Services and/or Administrative Units:

Briefly describe the results of any student satisfaction surveys or college surveys that included evaluation and/or input about the effectiveness of the services provided by your unit. How has this information informed unit planning and goal setting?

N/A

Briefly describe any changes that have impacted the work of your unit.

N/A

VII. Prior-Year Resource Utilization Self-Evaluation

Please review your total resource allocations and expenditures from the last academic year and evaluate your use of those funds. A link to the actual revenues and expenses for your program can be found on [your program's page](#) – see the Prior Year Resource Utilization Self Evaluation **Template**.

Funding Source	2016-17 Funding Allocated	2016-17 Funding Expended	Net Expended	Please describe the impact of these expenditures on your <u>Program Goals</u>	If you have quantitative evidence of the impact of these expenditures, please provide it here	Please describe the impact of these funds on your <u>students' outcomes</u>	If you were not able to utilize all of your resources last year, please explain	With which of the College's 10 college goals do these expenditures best align? (See tab below)
General Fund								
Instructional Equipment								
Instructional Supplies	\$0	\$0	\$0					
Fund 10								
Measure A								
Strong Workforce	\$46,936	\$1,603.84	\$45,332.16					
Perkins	\$15,861	\$9,577.25	\$6,283.75					
Equity								
Basic Skills								
Work-Study								
Other								
TOTAL								

VIII. New Resource Needs Not Covered by Current Budget

Human Resources: If you are requesting new or additional positions, in any job classification, please explain how new positions will contribute to increased student success.

WE NEED Two Full-Time Tenured Track CIS Instructors to replace retired Gary Perkins (in 2013) and Bob Grill (on leave sine 2013). We also should hire Instructional Student Assistants at the computer labs and Student Tutors to assist our CIS students with their lab and homework assignments.

Human Resource Request(s)	Already Requested in Recent Program Review?	Program Goal (cut and paste from program review)	Connected to Assessment Results and Plans?	Contribution to Student Success	Alignment with College Goal (list the goal)	Alignment with PCCD Goal (A, B, C, D, or E) (list the goal)
<p>NEW</p> <p>1) 3 Student Assistant – Tutor / Assignment Support</p> <p>-Web Skills -CIS Skills -Technical Support</p>	1) No	1) N/A	1) N/A	1) Direct Support for Student Learning	1) Increase retention and persistence	1) A1, A2, A3 & A4, B1, & D1
2) 0.50 Staff CIS Support to Manage student and provide administrative support for CIS Technology	2) No	2) No	2) No	2) Direct Support for Student Learning	2) Increase access to college programs	2) A1, A2, A3 & A4, B1, & D1
3) TWO Full-Time Tenure Tract CIS Instructors	3) No	3) No	3) Yes	3) More classes available for student to complete major and certificates	3) Design and teach courses, help with committees and governance	3) C1, C2, & E4

Technology and Equipment: How will the new technology or equipment contribute to student success?

WE NEED Web Authoring software for CIS 234D and other tools for our other CIS classes. We need CISCO networking equipment (routers, switches, cables, terminators, wires, tools, etc.) to conduct classes leading to Network+, A+, Security+, and Cisco Certified Network Associate certifications). We need more class space and a rich, multimedia learning classroom.

Technology and Equipment Request(s)	Already Requested in Recent Program Review?	Program Goal (cut and paste from program review)	Connected to Assessment Results and Plans?	Contribution to Student Success	Alignment with College Goal (list the goal)	Alignment with PCCD Goal (A, B, C, D, or E) (list the goal)
NEW 1) Web Authoring Software (40 Licenses) e.g. Dreamweaver	1) No	1) No	1) Yes	1) Hands-on lab experience for students in CIS 234d Web Authoring class	1) Increase retention and success toward CIS Certificate in Web Publishing	1) A1, A4, B1, C1, C2, D4, E1, & E4
2) Networking Routers, Switches, and other CISCO equipments	2) No	2) No	2) Yes	2) Hands-on lab for students seeking Network+ and CCNA certifications	2) Increase retention and success toward Network+ and CCNA certifications	2) A1, A4, B1, C1, C2, D4, E1, & E4
3) Computer Projectors and screens with mounting ceiling brackets	3) No	3) No	3) Yes	3) Improve quality of learning with addition of student work space and rich audiovisual experience	3) increase partnership	3) E4

Facilities: Has facilities maintenance and repair affected your program in the past year? How will this facilities request contribute to student success?

WE NEED offices for our Part-Time instructors to conduct office hours for our CIS students.

Facilities Resource Request(s)	Already Requested in Recent Program Review?	Program Goal (from program review)	Connected to Assessment Results and Plans?	Contribution to Student Success	Alignment with College Goal (list the goal)	Alignment with PCCD Goal (A, B, C, D, or E) (list the goal)
NEW 1) Dedicated location for Learning Lab for Network Routing Equipment, preferably A238 where previous CCNA classes were offered (1998-2008)	1) No	1) No	1) Yes	1) Directly for hands-on labs	1) Increase community and education partnership	1) A1, A4, B1, C1, C2, D4, E1, & E4
2) Need space for part-time instructor to meet with students for office hours, extra room inside D114 or part of room A238	2) No	2) No	2) Yes	2) Directly for enhancing student-teacher interaction beyond classroom	2) Increase community and education partnership	2) A1, A4, B1, C1, C2, D4, E1, & E4

Professional Development or Other Requests: How will the professional development activity contribute to student success? What professional development opportunities and contributions make to the college in the future?

WE NEED to expand our subject matter knowledge in order to design and teach classes to meet massively growing job demands in Internet of Things (IoT) or micro-electro-mechanical systems (mems) and in our proposed Certificate in Data Analytics.

Professional Development or Other Request(s)	Already Requested in Recent Program Review?	Program Goal (from program review)	Connected to Assessment Results and Plans?	Contribution to Student Success	Alignment with College Goal (list the goal)	Alignment with PCCD Goal (A, B, C, D, or E) (list the goal)
NEW 1) Professional development of CIS Faculty on Internet of Thing (IOT)	1) No	1) No	1) Yes	1) Develop class to help CIS students gain skills in (IOT)	1) Develop Learning and Teaching skills in (IOT)	1) A1, A4, B1, C1, C2, D4, E1, & E4
NEW 2) Professional development of CIS Faculty on Data Analytics or Data Science	2) No	2) No	2) Yes	2) Develop class to help CIS students gain skills in Data Analytics	1) Develop Learning and Teaching skills in Data Analytics	1) A1, A4, B1, C1, C2, D4, E1, & E4

Approved by the District Academic Senate, May 20, 2016
 Endorsed by the Planning and Budgeting Council, May 27, 2016
 Drafted by COA Computer Information Systems Department, October 16, 2017
 Finalized by COA Computer Information Systems Department, November 7, 2017