CTE Full Review

PALO VERDE COLLEGE

COMPUTER INFORMATION SYSTEMS

REPORTING FALL 2014 TO SPRING 2018

1. PURPOSE OF THE PROGRAM

"Palo Verde College provides opportunities for personal and professional growth to a diverse community of learners in an academic environment committed to student success and equity by supporting student achievement of basic skills, certificate, degree, university transfer, and career goals." PVC Mission Statement 01/2016

a. **Describe the purpose of program and its mission.**

The CIS program at Palo Verde College is a comprehensive program designed to prepare students for continued higher education opportunities and entry into the world of work. The CIS program offers an AS degree in CIS, and 6 certificates. Each of these certificates is designed to integrate into the AS degree so that a student pursing the AS degree will exit the college with one or more certificates along with their Associate's Degree. These programs have been developed so that they are latticed and stackable, leading to completion and pursuit of numerous certificates as they pursue their AS Degree in CIS.

Program courses are available to students enrolled in CIS certificate programs, as well as other College programs and certificates. CIS courses are also available to others seeking to acquire or upgrade computer literacy skills for personal and career reasons. The CIS department also works collaboratively with Palo Verde High School to offer courses in the CIS field, through concurrent enrollment, to qualified high school students during their traditional school day.

The mission of the program is to promote rigorous curriculum and instruction, focusing on the technological software, hardware, and planning expected of a graduate and potential employee.

The CIS program serves students of all ages and demographics. There are traditional college students enrolled in the program, as well as incarcerated students, high school students who are concurrently enrolled, as well as adult learners. Each of these populations require different support and instruction methods.

b. **How has the program changed in the last two years? In major ways, minor, or no real changes to speak of? Explain.**

During the past two years, new grants have been written and accepted through the full-time CIS faculty. These grants included the CTE Enhancement Grant as well as the Prop 39 grant. Over $180,000 was acquired to develop curriculum and a certificate program in 3D printing, purchase 10 3D printers, miles of filament, 5 digitizers, and various tools and equipment to support this program.

3D Animation software has been updated and donations secured to continue offering students use of the latest professional animation software available.

A new office was acquired by the full-time CIS faculty member. This office has been transitioned into a "Makerspace", which is a 3D printing lab that students use in the 3D printing courses. Without this "Makerspace" the 3D printing supplies and hardware could not be protected.

The 29 computers in the CL130 classroom have been upgraded with additional memory/RAM, through the CTE Enhancement Grant.

Two servers were donated by the Social Security Office in Needles. These servers have been upgraded through the CTE Enhancement Grant. These servers are used to host the Computer Animation Software, 3D printing software, and provide network shares for student in the CIS programs.

The Computer Maintenance and Help Desk Support courses and program were put on inactive status because of lack of student enrollment and interest in the program.

Recently all CIS courses offered to incarcerated students were cancelled due to union issues at the California prisons. This has resulted in a drastic FTE reduction to Palo Verde College and also has affected student completion rates. In addition, numerous incarcerated have been displaced and will now not be able to complete their Associate's degree in Business and Technology as the technology component is no longer available to them. There are now hundreds of incarcerated students throughout the state that have been affected by this change during their progression towards earning this degree.

c. **How does the program support the College Mission?**
The CIS program supports the College Mission through offering quality programs and certificates in many of the CIS fields of study. These courses and programs promote personal and professional growth of its students through relevant and rigorous SLOs which have been identified and assessed for each course and program. In addition, this program supports the diversity of students that are enrolled at Palo Verde College as well as concurrently enrolled high school students from Palo Verde High School.

2. POPULATION(S) SERVED

a. **Describe the populations served by the program, identifying special populations, if any.**
Populations served by our programs include students in the A.S. Degree for Computer Information Systems, the Computer Applications Certificate, Computer Animation Certificate, Information Technology Literacy Certificate, Graphic Design and Web Content Certificate, Management Information Systems Certificate, 3D Printing and Rapid Prototyping Certificate, concurrently enrolled high school students, incarcerated students, lifelong learners, and students taking computer courses in order to obtain the skills that will make them successful in school, work, and personal environments.

b. **Describe other populations that should be served by the program and identify plans for serving them in the future.**
Incarcerted students were recently removed from Palo Verde College's CIS course offerings. The full-time CIS Instructor has already compiled data demonstrating the difference between the

SLOs of PVC's College level courses and the Office Worker program offered throughout California's prisons. The hope is that demonstrating the difference in both goals and outcomes of these programs will allow students to complete degrees involving CIS requirements and to continue offering Correspondence courses which now prevents many community students from being able to complete these courses or certificates due to the courses not filling up with just community students.

3. ACCOMPLISHMENTS IN ACHIEVING GOALS

a. **Describe progress in achieving each goal outlined in the previous CTE Update, providing evidence documenting such achievements.**

New Certificates designed and updated as mentioned in the last program review:
The CIS Department has created new certificates in 3D Printing and Rapid Prototyping, updated the Computer Applications certificate, acquired donation of 3D Computer Animation Software, and has placed outdated, obsolete, or programs not demanded by students or industry on inactive status.

All courses and programs in the CIS discipline have updated Course Outlines which include measurable SLOs and PLOs. Each course and program is regularly assessed by the full time CIS instructor.

3D Printing and Rapid Prototyping added to AS degree:
3D Printing courses and courses of each of the other certificate programs are now a part of the AS degree in CIS.

Course Additions and Revisions:
The CIS department has revised all course outlines, placed numerous courses on inactive status, revised AS degree programs and certificates to reflect current labor market demand, and created new certificate programs.

The CIS department created new courses and certificates and put courses and programs on inactive status. Through this process, the CIS department revamped its AS degree to provide a program of study in which all courses directly support the mission of the department, reflect the input from the Advisory Committee, align to labor market data, and can be offered in a two year cycle so that students can complete an AS degree in a timely manner.

Testing Programs standardized for each course:
All courses have been developed to utilize a standardized entry and exit exam. Unfortunately, not all adjunct instructors adhere to this vision. All courses taught by the full-time instructor utilize the benchmark assessment and data is compiled to assist in program review and SLO/PLO assessment. The Instruction Office is now employing adjuncts which all utilize the same benchmark assessments for Pre and Post Tests.

SLO Assessment of all CIS courses:

The Computer Information System's curriculum has been rewritten to include Student Learning Outcomes (SLOs) and Program Level SLOs (PLOs) for each degree and certificate that is offered through the CIS department. The Introduction to Personal Computer Applications course (CIS 102) provides cross curriculum integration; students are able to create term papers, graphs and charts, databases, spreadsheets, and multimedia presentations for assignments in their other classes. The CIS department was one of the first programs to design, implement, and assess PLOs at Palo Verde College.

b. **Explain modifications, if any, of goals outlined in the previous CTE Update, providing evidence documenting such modifications.**

N/A

4. DEMAND FOR THE PROGRAM

Is the demand for the program high, adequate, or low? Support your answer with labor market data, advisory input, etc.

Identified in a regional labor market assessment (Spring 2016), by the Inland Empire Desert Regional Consortium, the top two occupational groups with the most workers in 2015 consisted of CIS related positions. In addition, the occupational groups with the highest median wage jobs and most job openings over five years included: Installation, Maintenance and Repair at number 4 in the list, and Office Administrative Support falling at number 5 in the list.

*Source: Bureau of Labor Statistics, Classification Principles and Coding Guidelines, 2010 SOC. http://www.bls.gov/soc/soc_2010_class_prin_cod_guide.pdf.

Demand for the CIS programs is evidenced through the consistent enrollment of students through face-to-face enrollment of community and concurrently enrolled high school students, and correspondence and distance education modalities. The demand for the CIS programs is also evidenced through the Advisory Committee Group membership, attendance, feedback, and input provided each year.

Regional Labor Market Data Assessment: Desert/Inland Empire Region 2016

SOC	SOC Title	2015 Jobs	5-Yr Change	5-Yr % Change	Annual Replacements	Annual Openings
27-1024	Graphic Designers	2,180	74	3%	54	69
15-1151	Computer User Support Specialists	3,472	371	11%	48	122
15-1142	Network and Computer Systems Administrators	1,992	160	8%	29	61
15-1134	Web Developers	993	149	15%	14	44
15-1152	Computer Network Support Specialists	966	95	10%	13	32
15-1143	Computer Network Architects	303	23	8%	8	12
51-4011	Computer-Controlled Machine Tool Operators, Metal and Plastic	917	113	12%	30	53

**Regional Labor Market Assessment: Desert/Inland Empire Region. Michael Goss. Centers of Excellence. September 2016*

Data Sources

Labor market and educational supply data compiled in this report covers the Inland Empire region. Data were drawn from external sources, including the Economic Modeling Specialists, Inc., the California Community Colleges

Chancellor's Office Management Information Systems Data Mart, and the National Center for Educational Statistics (NCES) Integrated Postsecondary Education Data System (IPEDS).

5. EXTERNAL ISSUES, STRENGTHS, WEAKNESSES

a. **Cite relevant legislation, Chancellor's Office mandates, VTEA, Tech Prep, CalWORKs, WIA, BIG career ladders, etc. that are contributing positive or negative factors for the program. Explain each mitigating factor and the impact on the program.**

The Palo Verde College CIS Department offers some of its CIS courses during the Palo Verde High School traditional school day. Students at PVHS can take college courses concurrently during their school day at no cost. These high school students typically make up 40-50% of the enrollment in these courses. For this reason, PVC will need to continue marketing their programs to PVHS students and parents through events such as Career Day, Financial Aid events at PVHS Campus, and through other community events. Having a good working relationship with the Unified School District Administration and at the local high schools is vital to the success of this task. Transportation is typically paid by Palo Verde College.

Continued support for transportation will be needed. Dialog regarding PVC's Calendar and the PV Unified School District Calendar will need to continue being addressed.

Having a dedicated full-time CTE counselor has been vital to the success of these tasks. The CTE counselor makes regular visits to the PVHS campus to support CTE students enrolled in PVC courses and to market and provide counseling to high school students. Continued funding of this dedicated position is vital to all CTE programs offering concurrent instruction to local high school students.

Having access to accurate and readily available data from our MIS system will be necessary for informed decision making, planning, and grant reporting.

Through Perkins I-C funding and involvement in activities supported by CTE Transitions funding, the CIS department is able to grow and flourish. New technologies are able to be purchased and tools and supplies to support the CIS programs are able to be obtained in order to support the goals of the CIS department and the goal of the grants.

b. **List and comment on the major strengths of the program.**

The program is popular among students at Palo Verde College. Many of the graduates each year that cross the stage at graduation represent the CIS Department. The CIS department has demonstrated a high level of success in regards to completion and retention. Many of the concurrently enrolled high school students from Palo Verde High School attend PVC upon graduation and many continue pursuing courses in CIS.

Having state of the art technology such as the 3D printing lab helps draw students into this cutting-edge technology.

Having acquired a 3D Animation and Modeling Software donation from "Maxon" worth roughly $250,000 has been a strength of the Computer Animation Program.

c. **List and comment on the major weaknesses of the program.**

One of the major weaknesses relates to the loss of FTES and completers due to the loss of course offerings to California prisons. This has left incarcerated students stuck in the pipeline when they had already started an Associate's program through PVC and now are unable to complete the Associate's degree. The full-time CIS instructor has already composed documentation comparing the "outcomes" of the prison office worker program and the College Level program in Computer Information Systems through Palo Verde College. The result demonstrates that these programs differ greatly in rigor, purpose, mission, and outcome. This loss will affect all aspects of the CIS program as well as the BCT, AUT, and WEL programs.

Another external issue affecting the CIS program is not having a secure designated "Makerspace" for the program. The CIS program has specialized hardware and software that are vital to the program. These items need to be located in a secure location/classroom where other instructors and students are not able to damage or improperly utilize the technology. In addition, this designated lab is a place where CIS students can come to practice their skills outside of designated class-time. Finally, most CTE programs at other campuses and on the PVC campus have their own designated classroom and lab for their program.

6. CURRICULUM HISTORY

a. **List all the courses in the program. Of the courses constituting the program, identify those that have not been successfully offered at least once during the preceding eight (8) semesters**.

CIS 101 (Intro to Computers)
CIS 102 (Personal Computer Applications)
CIS 123 (Web Design Using HTML)
CIS 124 (Web Page Design Tools)
CIS 130 (Intro. To 3D Computer Anim.)
CIS 131 (Animation Princ. and Prod. I)
CIS 132 (Animation Princ. and Prod. II)
CIS 133 (Advanced 3D Comp. Anim.)
CIS 201 (Intro. To 3D Printing)
CIS 202 (3D Printing: Basic Model Making)
CIS 203 (3D Printing: Basic Model Finishing)
CIS 204 (Advanced 3D Computer Animation)
CIS 248 (Systems Analysis and Design)
CIS 260 (Desktop Publishing)
CIS 265 (Adobe Photoshop)

Every course in the program is offered within the two-year program cycle, but most courses are offered each year or each semester.

b. **Explain in specific terms why these courses were not successfully offered. Provide a strategy for improving their success, or explain why they should not be removed from the program.**

N/A

7. COURSE SCHEDULING AND AVAILABILITY

Describe how the scheduling of classes in the program optimizes class availability and supports student success.

During the time of this program review, the CIS program offered courses in the face-to-face modality, correspondence education modality, and online modality. Through offering a variety of courses at different times or through various modalities students were able to benefit from what the CIS program at Palo Verde College offers. All of the CIS courses have been designed to be offered within the 2 year program cycle with many courses being offered each term or each year. This allows students to enter the CIS program at any time and still be able to complete their program of study within a 2 year time period.

Time will tell what the outcomes are for losing correspondence education through the California Department of Corrections. Now community students and students looking for a course in CIS throughout the state in the correspondence modality will potentially not be able to complete the course or programs affected by this change due to lack of enrollment. Discussions and remediation plans are already being discussed for how the CIS Department will address these changes. Academic Senate, Curriculum Committee, and the Instruction Office all play a role in the future of these courses.

8. STUDENT LEARNING OUTCOMES (SLO)

SLO QUANTITATIVE DATA

Using the Program Level CLO Worksheets, aggregate data annually. Identify all Courses within that Program that have CLOs which map to PLO #1 in the first column of the table below. For each academic year since your last full program review, enter the % of Successful Students for the CLOs that map to PLO #1. Do the same for each PLO within the program.

Average Percentage Program Learning Outcome #1 A.S. Degree in Computer Information Systems				
Acquired fundamental grounding in communications, science, mathematics, humanities, the social sciences and self-development in preparation for an occupation, and possible transfer to a four-year institution.				
Course IDs within the Program that map to PLO#1	**% Successful Students 2014-2015**	**% Successful Students 2015-2016**	**% Successful Students 2016-2017**	**% Successful Students 2017-2018**
CIS 101	**95.9**	**92**	**98**	**N/A**
CIS 123	**N/A**	**87**	**88.2**	**N/A**
CIS 130	**100**		**84**	**N/A**
Average % of Successful Students by Year	**97.95**	**89.5**	**90.06**	**N/A**

Average Percentage Program Learning Outcome #2 A.S. Degree in Computer Information Systems				
Demonstrated knowledge of technology applicable to the field, and a proficiency in appropriate software; be competent evaluators and users of hardware; adapt to technological changes and select a current solution for a given problem.				
Course IDs within the Program that map to PLO#2	**% Successful Students 2014-2015**	**% Successful Students 2015-2016**	**% Successful Students 2016-2017**	**% Successful Students 2017-2018**
CIS 101	**90.6**	**73.8**	**80**	**N/A**
CIS 131	**93.75**	**N/A**	**92**	**N/A**
CIS 248	**90.9**	**81.8**	**83**	**N/A**
Average % of Successful Students by Year	**91.75**	**77.8**	**85**	**N/A**

From the each of the tables above enter the "AVERAGE % of Successful Students by Year" in the appropriate box below.

Average Percentage for all Program Learning Outcomes A.S. Degree in Computer Information Systems				
PROGRAM LEARNING OUTCOME	*% Successful Students* **2014-2015**	*% Successful Students* **2015-2016**	*% Successful Students* **2016-2017**	*% Successful Students* **2017-2018**
PLO #1	**97.95**	**89.5**	**90.06**	**N/A**
PLO #2	**91.75**	**77.8**	**85**	**N/A**
Average % of Successful Students by Year	**94.85**	**83.65**	**87.53**	**N/A**

Average Percentage Program Learning Outcome #1 Computer Applications Certificate of Career Preparation				
Acquire and validate resources to solve technical problems; use information resources to gather discipline specific information or materials.				
Course IDs within the Program that map to PLO#1	**% Successful Students** **2014-2015**	**% Successful Students** **2015-2016**	**% Successful Students** **2016-2017**	**% Successful Students** **2017-2018**
CIS 101	**92**	**94**	**80**	**N/A**
CIS 102	**100**	**82.4**	**N/A**	**N/A**
CIS 124	**84**	**82**	**N/A**	**N/A**
Average % of Successful Students by Year	**92**	**86.13**	**80**	**N/A**

Average Percentage Program Learning Outcome #2 Computer Applications Certificate of Career Preparation				
Demonstrated understanding of the basics of computers and applications, including web page design and desktop publishing.				
Course IDs within the Program that map to PLO#2	**% Successful Students 2014-2015**	**% Successful Students 2015-2016**	**% Successful Students 2016-2017**	**% Successful Students 2017-2018**
CIS 101	**90.6**	**95.7**	**94**	**N/A**
CIS 133	**85.7**	**85.7**	**N/A**	**N/A**
CIS 265	**100**	**N/A**	**100**	**N/A**
Average % of Successful Students by Year	**92.1**	**90.7**	**97**	**N/A**

From the each of the tables above enter the "AVERAGE % of Successful Students by Year" in the appropriate box below.

Average Percentage for all Program Learning Outcomes Computer Applications Certificate of Career Preparation				
PROGRAM LEARNING OUTCOME	*% Successful Students* **2014-2015**	*% Successful Students* **2015-2016**	*% Successful Students* **2016-2017**	*% Successful Students* **2017-2018**
PLO #1	**92**	**86.13**	**80**	**N/A**
PLO #2	**92.1**	**90.7**	**97**	**N/A**
Average % of Successful Students by Year	**92.05**	**88.42**	**88.5**	**N/A**

Average Percentage Program Learning Outcome #1 Information Technology Literacy Certificate of Career Preparation				
Acquire and validate resources to solve technical problems; use information resources to gather discipline specific information or materials.				
Course IDs within the Program that map to PLO#1	**% Successful Students 2014-2015**	**% Successful Students 2015-2016**	**% Successful Students 2016-2017**	**% Successful Students 2017-2018**
CIS 101	**90.6**	**94**	**94**	**N/A**
CIS 102	**100**	**100**	**N/A**	**N/A**
CIS 248	**100**	**97.5**	**100**	**N/A**
Average % of Successful Students by Year	**96.87**	**97.17**	**97**	**N/A**

Average Percentage Program Learning Outcome #2 Information Technology Literacy Certificate of Career Preparation				
Demonstrated understanding of the basics of computers and applications; including hardware, software and office productivity tools.				
Course IDs within the Program that map to PLO#2	**% Successful Students 2014-2015**	**% Successful Students 2015-2016**	**% Successful Students 2016-2017**	**% Successful Students 2017-2018**
CIS 101	**66.6**	**76**	**80**	**N/A**
CIS 102	**100**	**97**	**N/A**	**N/A**
CIS 248	**90.9**	**78**	**83**	**N/A**
Average % of Successful Students by Year	**85.83**	**83.67**	**81.5**	**N/A**

From the each of the tables above enter the "AVERAGE % of Successful Students by Year" in the appropriate box below.

Average Percentage for all Program Learning Outcomes Information Technology Literacy Certificate of Career Preparation				
PROGRAM LEARNING OUTCOME	*% Successful Students* **2014-2015**	*% Successful Students* **2015-2016**	*% Successful Students* **2016-2017**	*% Successful Students* **2017-2018**
PLO #1	**96.87**	**97.17**	**97**	**N/A**
PLO #2	**85.83**	**83.67**	**81.5**	**N/A**
Average % of Successful Students by Year	**91.35**	**90.42**	**89.25**	**N/A**

Average Percentage Program Learning Outcome #1 Computer Animation Certificate of Career Preparation				
Acquire and validate resources to solve technical problems; use information resources to gather discipline specific information or materials.				
Course IDs within the Program that map to PLO#1	**% Successful Students** **2014-2015**	**% Successful Students** **2015-2016**	**% Successful Students** **2016-2017**	**% Successful Students** **2017-2018**
CIS 130	**87**	**N/A**	**84**	**N/A**
CIS 132	**81.8**	**N/A**	**79.8**	**N/A**
CIS 133	**85.7**	**N/A**	**62.5**	**N/A**
Average % of Successful Students by Year	**84.83**	**N/A**	**75.43**	**N/A**

Average Percentage Program Learning Outcome #2 Computer Animation Certificate of Career Preparation				
Demonstrate understanding of 3D Animation principles and procedures in 3D production through the use of software, projects, analysis, and peer review.				
Course IDs within the Program that map to PLO#2	**% Successful Students 2014-2015**	**% Successful Students 2015-2016**	**% Successful Students 2016-2017**	**% Successful Students 2017-2018**
CIS 130	**100**	**N/A**	**100**	**N/A**
CIS 132	**68.2**	**N/A**	**76**	**N/A**
CIS 133	**85.7**	**N/A**	**75**	**N/A**
Average % of Successful Students by Year	**84.63**	**N/A**	**83.67**	**N/A**

From the each of the tables above enter the "AVERAGE % of Successful Students by Year" in the appropriate box below.

Average Percentage for all Program Learning Outcomes Computer Animation Certificate of Career Preparation				
PROGRAM LEARNING OUTCOME	*% Successful Students* **2014-2015**	*% Successful Students* **2015-2016**	*% Successful Students* **2016-2017**	*% Successful Students* **2017-2018**
PLO #1	**84.83**	**N/A**	**75.43**	**N/A**
PLO #2	**84.63**	**N/A**	**83.67**	**N/A**
Average % of Successful Students by Year	**84.73**	**N/A**	**79.55**	**N/A**

Average Percentage Program Learning Outcome #1 Graphic Design and Web Content Certificate of Career Preparation				
Acquire and validate resources to solve problems; use information resources to gather discipline specific information or materials.				
Course IDs within the Program that map to PLO#1	**% Successful Students 2014-2015**	**% Successful Students 2015-2016**	**% Successful Students 2016-2017**	**% Successful Students 2017-2018**
CIS 123	**N/A**	**87**	**N/A**	**84**
CIS 124	**N/A**	**82**	**N/A**	**76**
CIS 265	**N/A**	**100**	**N/A**	**100**
Average % of Successful Students by Year	**N/A**	**89.67**	**N/A**	**86.67**

Average Percentage Program Learning Outcome #2 Graphic Design and Web Content Certificate of Career Preparation				
Demonstrate knowledge of technology applicable to the field, and a proficiency in appropriate software; be competent evaluators and users of hardware; adapt to technological changes and select a current solution for a given problem.				
Course IDs within the Program that map to PLO#2	**% Successful Students 2014-2015**	**% Successful Students 2015-2016**	**% Successful Students 2016-2017**	**% Successful Students 2017-2018**
CIS 123	**N/A**	**75**	**N/A**	**88**
CIS 124	**N/A**	**100**	**N/A**	**100**
CIS 265	**N/A**	**88**	**N/A**	**85**
Average % of Successful Students by Year	**N/A**	**87.67**	**N/A**	**91**

From the each of the tables above enter the "AVERAGE % of Successful Students by Year" in the appropriate box below.

Average Percentage for all Program Learning Outcomes Graphic Design and Web Content Certificate of Career Preparation				
PROGRAM LEARNING OUTCOME	*% Successful Students* **2014-2015**	*% Successful Students* **2015-2016**	*% Successful Students* **2016-2017**	*% Successful Students* **2017-2018**
PLO #1	**N/A**	**89.67**	**N/A**	**86.67**
PLO #2	**N/A**	**87.67**	**N/A**	**91**
Average % of Successful Students by Year	**N/A**	**88.67**	**N/A**	**88.84**

Average Percentage Program Learning Outcome #1 Management Information Systems Certificate of Career Preparation				
Acquire and validate resources to solve technical problems; use information resources to gather discipline specific information or materials.				
Course IDs within the Program that map to PLO#1	**% Successful Students** **2014-2015**	**% Successful Students** **2015-2016**	**% Successful Students** **2016-2017**	**% Successful Students** **2017-2018**
CIS 101	**95.9**	**92**	**100**	**N/A**
CIS 248	**100**	**97.5**	**100**	**N/A**
Average % of Successful Students by Year	**97.95**	**94.75**	**100**	**N/A**

Average Percentage Program Learning Outcome #2 Management Information Systems Certificate of Career Preparation				
Demonstrate knowledge of technology applicable to the field, and a proficiency in appropriate software related to managing information systems; adapt to technological changes and select a current solution for a given problem in today's business environment.				
Course IDs within the Program that map to PLO#2	**% Successful Students 2014-2015**	**% Successful Students 2015-2016**	**% Successful Students 2016-2017**	**% Successful Students 2017-2018**
CIS 101	**66.6**	**76**	**83**	**N/A**
CIS 248	**95**	**97**	**100**	**N/A**
Average % of Successful Students by Year	**80.8**	**86.5**	**91.5**	**N/A**

From the each of the tables above enter the "AVERAGE % of Successful Students by Year" in the appropriate box below.

Average Percentage for all Program Learning Outcomes Management Information Systems Certificate of Career Preparation				
PROGRAM LEARNING OUTCOME	*% Successful Students* **2014-2015**	*% Successful Students* **2015-2016**	*% Successful Students* **2016-2017**	*% Successful Students* **2017-2018**
PLO #1	**97.95**	**94.75**	**100**	**N/A**
PLO #2	**80.8**	**86.5**	**91.5**	**N/A**
Average % of Successful Students by Year	**89.38**	**90.63**	**95.75**	**N/A**

Average Percentage Program Learning Outcome #1 3D Printing and Rapid Prototyping Certificate of Career Preparation				
Acquire and validate resources to solve technical problems; use information resources to gather discipline specific information or materials.				
Course IDs within the Program that map to PLO#1	**% Successful Students 2014-2015**	**% Successful Students 2015-2016**	**% Successful Students 2016-2017**	**% Successful Students 2017-2018**
CIS 201	**N/A**	**N/A**	**100**	**100**
CIS 202	**N/A**	**N/A**	**85**	**92**
CIS 204	**N/A**	**N/A**	**100**	**98**
Average % of Successful Students by Year	**N/A**	**N/A**	**95**	**96.67**

Average Percentage Program Learning Outcome #2 3D Printing and Rapid Prototyping Certificate of Career Preparation				
Demonstrate understanding of appropriate 3D printing related tools, equipment, and software to create functional 3D printed objects.				
Course IDs within the Program that map to PLO#2	**% Successful Students 2014-2015**	**% Successful Students 2015-2016**	**% Successful Students 2016-2017**	**% Successful Students 2017-2018**
CIS 201	**N/A**	**N/A**	**100**	**100**
CIS 202	**N/A**	**N/A**	**100**	**100**
CIS 204	**N/A**	**N/A**	**95**	**92**
Average % of Successful Students by Year	**N/A**	**N/A**	**98.33**	**97.33**

From the each of the tables above enter the "AVERAGE % of Successful Students by Year" in the appropriate box below.

Average Percentage for all Program Learning Outcomes 3D Printing and Rapid Prototyping Certificate of Career Preparation				
PROGRAM LEARNING OUTCOME	*% Successful Students* **2014-2015**	*% Successful Students* **2015-2016**	*% Successful Students* **2016-2017**	*% Successful Students* **2017-2018**
PLO #1	**N/A**	**N/A**	**95**	**96.67**
PLO #2	**N/A**	**N/A**	**98.33**	**97.33**
Average % of Successful Students by Year	**N/A**	**N/A**	**96.67**	**97**

SLO ACTION PLANS

In the table below, describe the action plans that your department has made since your last program review. These action plans should be in identified in the Program Level CLO Worksheets.

Program Name	Associated PLO #	Course IDs Affected	Identified Gap	Action Plan(s)	Resources Used to Implement Plan	Outcome	Academic Year(s) this was addressed
AS in CIS	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**
Computer Applications Cert of Prep	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**
Computer Animation Cert of Prep	**#1**	**CIS 132**	**68.2% (2014) - 76% (2016)**	**Decided to spend more time stressing the importance of creating a multi-media portfolio**	**N/A**	**Increased 7.8 % the next time the class was offered.**	**2014 the problem was identified and the solution was implemented the next time the class was offered in 2016**
Graphic Design and Web Content Cert of Prep	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**
3D Printing Cert of Prep	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**
Mgmt Info Sys Cert of Prep	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**
Information Technology Literacy Cert of Career Prep	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**

a. **List courses for which CLOs have not been assessed. Provide an explanation why assessment of these CLOs have not been performed.**
N/A

b. **Were any CLOs or PLOs revised/deleted in the past year based on assessment evaluations or revision of the Course Outline of Record? If so, indicate the courses or the program and a detailed explanation for the changes.**
N/A

c. **Provide specific examples of course improvements resulting from the assessment of course SLOs.**
Each time assessments are conducted, data is collected and compared to previous assessment dates. This data is then discussed in department and division meetings. Through these discussions, ideas and implementation plans are formulated then action plans are designed to help course improvement.

d. **Provide specific examples of program and certificate improvements resulting from the assessment of program SLOs.**
We have found that through maintaining high quality programs that promote rigor, critical thinking, and independent inquiry into the CIS field that students have consistently met the goals set through the measureable SLOs identified for each course.

e. **Describe any differences in CLO achievement for different modalities (online, ITV, correspondence, face-to-face).**
We did notice a difference in results when courses were taught by adjunct instructors through the correspondence modality. SLO results were higher for the full-time instructor as compared to the adjunct instructor's SLO results. We believe that the full-time instructor consistently provided quality and timely feedback to students, sent regular progress reports to the students, and provided clear instructions through syllabi and other student contacts.

9. COURSE CURRENCY

a. List the courses in the program and the year in which the course outline of each was most recently reviewed and approved by the Curriculum Committee.

Course	Date
ACC-100	12/11/2014
BUS-201	11/16/2017
CIS-101	12/11/2014
CIS-102	12/11/2014

CIS-123	11/16/2017
CIS-124	11/16/2017
CIS-130	11/16/2017
CIS-131	11/16/2017
CIS-132	11/16/2017
CIS-133	11/16/2017
CIS-150	12/11/2014 (Inactive)
CIS-155	03/14/2013 (Inactive)
CIS-170	03/14/2013 (Inactive)
CIS-175	03/14/2013 (Inactive)
CIS-201	11/16/2017
CIS-202	11/16/2017
CIS-203	11/16/2017
CIS-204	11/16/2017
CIS-248	05/08/2014
CIS-260	11/16/2017
CIS-265	11/16/2017
MAN-105	11/16/2017
MAN-106	11/16/2017
MAN-107	11/16/2017

b. **Describe plans to revise and update course outlines of record that have not been reviewed and approved by the Curriculum Committee within the four (4) years preceding this program review report.**

CIS 101, 102, & 248, as well as ACC 100, will be updated this year through Curriculum. We are not sure of the future of some of these courses due to the loss of Correspondence offerings to the California prisons. This will also impact degrees and programs offered through both CIS and BUS departments. It will also potentially affect program completers.

10. PROGRAM AND COURSE COVERAGE

a. List the courses in the program and identify which are taught by full-time faculty only, which are taught by adjunct faculty only, and which are taught by both.

Course	Full-Time Only	Adjunct Only	Both Full-Time and Adjunct
ACC-100			X
BUS-201			X
CIS-101			X
CIS-102			X
CIS-123	X		
CIS-124	X		
CIS-130	X		
CIS-131	X		
CIS-132	X		
CIS-133	X		
CIS-150	Inactive		
CIS-155	Inactive		
CIS-170	Inactive		
CIS-175	Inactive		
CIS-201	X		
CIS-202	X		
CIS-203	X		
CIS-204	X		
CIS-248			X
CIS-260	X		
CIS-265	X		
MAN-105			X
MAN-106			X
MAN-107			X

b. **Explain how effectively the program is served with the current coverage.**
The CIS department consists of one full-time instructor and various adjuncts. In the past, the instructor has been responsible for program review, SLO Analysis, data collection, teaching all face to face courses, developing new curriculum, updating current curriculum, and chairing the Professional Technologies Division. This is a lot of work for a single full-time instructor. To help with the teaching load, adjuncts have filled the gap teaching introductory courses in CIS. There may have been a sustainable need for a second full-time instructor, but once Correspondence course offerings were lost through the prison system, this need no longer exists. In the event correspondence courses begin being offered again in the future, having qualified adjuncts will be a crucial link for student success.

c. **Describe plans to correct deficiencies, if any, in course and program coverage.**
There are no plans in action yet. Evidence demonstrating the differences in the goals and outcomes of our program as compared to what the CDCR offers in computer related courses have been collected. It is our hope that being able to distinguish the differences in our college level coursework and their office skills course differs greatly in both scope, content, and rigor. We are hoping that through continued discussions that CIS courses could once again be offered to incarcerated students who are interested in earning college credit as well as potential certificates and degrees relating to technology.

11. PROFESSIONAL DEVELOPMENT

a. Describe specific professional development activities in which faculty members in the program have participated over the past four (4) years, and explain how such activities benefited the program and supported and facilitated student learning outcomes.

There are many available seminars and conventions in information technology that are available to our department and division. The CIS faculty member has continued a program of self-study to enable himself to teach new subjects and to present classes on updated versions of various software packages. A list of the software and topics that were studied during the past 4 years appears below:

• Windows 10	• Robotics
• Android OS	• 3D Printing
• Mobile Platforms	• HTML and Cascading Style Sheets
• Blender Animation	• Adobe Photoshop
• Adobe Creative Suite	• Cinema 4D Animation
• HTML 5 and CSS	• Emerging Technologies

The CIS full-time faculty member regularly participates in webinars, web-based training, and other online professional development activities in the CIS discipline in order to stay current with

emerging technologies. This is demonstrated in the development of new courses and programs at PVC in the CIS field.

Information technology changes so rapidly (completely every three years) that professional development in the CIS department needs to have an extremely high priority just to keep up with the technological wave and learning curve. The ongoing funding for professional development will need to be budgeted at the departmental level each year. CIS faculty has over twenty (20) different workshops and seminars available to them in the Southern California area through the California College Consortium per year.

Flex Days give us time for in-service opportunities within the College. Institutional day is another opportunity for professional growth within the college community. The CIS faculty member participates in all these activities and will continue to be an active part of the future events.

The full-time faculty member from the CIS Department has served in leadership capacities on a variety of committees and professional groups. Most of the professional development that occurs is through individual participation. Presently, the full-time instructor takes courses to enrich his knowledge of the subject area. Staying ahead of the technological curve is an important task of the instructor. He devotes a large amount of time and resources to studying current and emerging trends as they relate to his department and discipline areas.

b. **Describe areas of unmet professional development needs among faculty in the program and identify specifically plans to address those needs.**

N/A

12. STUDENT SUCCESSFUL COMPLETION & RETENTION

Note: the Program Review Committee will research the required completion and retention data and provide it to program faculty members for their review and analysis for this report. **Completion** is defined as number of grades of A,B,C,CR divided by A,B,C,D,F,CR,NC,W,MW, IP. **Retention** is defined as number of grades of A,B,C,D,F,CR,NC, MW, IP divided by A,B,C,D,F,CR,NC,W,MW, IP

a. **Assess semester-by-semester course completion performance in each course in the program over the preceding eight (8) semesters and compare those rates with the Institutional Set standards.**

The Current Institutional Set Standard is: _____70.1_____

Year	2014	
Completion		
	2014FA	**2015SP**
ACC-100	60%	54%
BUS-201	-	-

Year	2014		
Completion			
	Correspondence	**Face to Face**	**Online**
ACC-100	57%	50%	-
BUS-201	-	-	-

CIS-101	77%	63%
CIS-102	52%	55%
CIS-123	-	-
CIS-124	-	-
CIS-130	82%	-
CIS-131	81%	-
CIS-132	-	96%
CIS-133	-	94%
CIS-150	67%	-
CIS-155	-	-
CIS-170	-	-
CIS-175	-	-
CIS-201	-	-
CIS-202	-	-
CIS-203	-	-
CIS-204	-	-
CIS-248	61%	75%
CIS-260	-	-
CIS-265	-	-
MAN-105	-	79%
MAN-106	44%	56%
MAN-107	58%	42%

CIS-101	69%	-	-
CIS-102	53%	-	-
CIS-123	-	-	-
CIS-124	-	-	-
CIS-130	-	82%	-
CIS-131	-	81%	-
CIS-132	-	96%	-
CIS-133	-	94%	-
CIS-150	-	67%	-
CIS-155	-	-	-
CIS-170	-	-	-
CIS-175	-	-	-
CIS-201	-	-	-
CIS-202	-	-	-
CIS-203	-	-	-
CIS-204	-	-	-
CIS-248	68%	-	-
CIS-260	-	-	-
CIS-265	-	-	-
MAN-105	79%	-	-
MAN-106	48%	-	-
MAN-107	51%	-	-

Year	2015

Completion		
	2015FA	**2016SP**
ACC-100	46%	50%
BUS-201	57%	-
CIS-101	67%	74%
CIS-102	48%	51%
CIS-123	70%	-
CIS-124	76%	-
CIS-130	-	-
CIS-131	-	-
CIS-132	-	-
CIS-133	-	-
CIS-150	-	-
CIS-155	-	-
CIS-170	-	-
CIS-175	-	-
CIS-201	-	-
CIS-202	-	-
CIS-203	-	-
CIS-204	-	-
CIS-248	68%	52%
CIS-260	-	68%
CIS-265	-	70%

Year	2015		
Completion			
	Correspondence	**Face to Face**	**Online**
ACC-100	48%	47%	-
BUS-201	57%	-	-
CIS-101	71%	55%	81%
CIS-102	46%	-	73%
CIS-123	-	70%	-
CIS-124	-	76%	-
CIS-130	-	-	-
CIS-131	-	-	-
CIS-132	-	-	-
CIS-133	-	-	-
CIS-150	-	-	-
CIS-155	-	-	-
CIS-170	-	-	-
CIS-175	-	-	-
CIS-201	-	-	-
CIS-202	-	-	-
CIS-203	-	-	-
CIS-204	-	-	-
CIS-248	59%	-	-
CIS-260	-	68%	-
CIS-265	-	70%	-

MAN-105	67%	67%
MAN-106	35%	58%
MAN-107	63%	51%

MAN-105	67%	-	-
MAN-106	47%	-	-
MAN-107	55%	-	-

Year	2016

Completion		
	2016FA	**2017SP**
ACC-100	58%	75%
BUS-201	77%	83%
CIS-101	48%	84%
CIS-102	62%	56%
CIS-123	-	-
CIS-124	-	-
CIS-130	90%	-
CIS-131	95%	-
CIS-132	-	93%
CIS-133	-	94%
CIS-150	-	-
CIS-155	-	-
CIS-170	-	-
CIS-175	-	-
CIS-201	86%	-
CIS-202	91%	-
CIS-203	-	100%
CIS-204	-	100%
CIS-248	59%	65%
CIS-260	-	-
CIS-265	-	-
MAN-105	73%	63%
MAN-106	59%	77%
MAN-107	50%	77%

Year	2016		
Completion			
	Correspondence	**Face to Face**	**Online**
ACC-100	66%	57%	-
BUS-201	79%	-	-
CIS-101	65%	-	80%
CIS-102	56%	-	68%
CIS-123	-	-	-
CIS-124	-	-	-
CIS-130	-	90%	-
CIS-131	-	95%	-
CIS-132	-	93%	-
CIS-133	-	94%	-
CIS-150	-	-	-
CIS-155	-	-	-
CIS-170	-	-	-
CIS-175	-	-	-
CIS-201	-	86%	-
CIS-202	-	91%	-
CIS-203	-	100%	-
CIS-204	-	100%	-
CIS-248	61%	-	63%
CIS-260	-	-	-
CIS-265	-	-	-
MAN-105	67%	-	-
MAN-106	68%	-	-
MAN-107	64%	-	-

Year	2017

Completion		
	2017FA	**2018SP**
ACC-100	75%	78%
BUS-201	82%	80%
CIS-101	73%	75%
CIS-102	57%	56%
CIS-123	61%	-
CIS-124	67%	-
CIS-130	-	-
CIS-131	-	-

Year	2017		
Completion			
	Correspondence	**Face to Face**	**Online**
ACC-100	76%	80%	-
BUS-201	81%	-	-
CIS-101	74%	-	-
CIS-102	49%	73%	67%
CIS-123	-	61%	-
CIS-124	-	67%	-
CIS-130	-	-	-
CIS-131	-	-	-

CIS-132	-	-
CIS-133	-	-
CIS-150	-	-
CIS-155	-	-
CIS-170	-	-
CIS-175	-	-
CIS-201	83%	-
CIS-202	91%	-
CIS-203	-	82%
CIS-204	-	88%
CIS-248	73%	89%
CIS-260	-	80%
CIS-265	-	81%
MAN-105	85%	83%
MAN-106	78%	83%
MAN-107	77%	72%

CIS-132	-	-	-
CIS-133	-	-	-
CIS-150	-	-	-
CIS-155	-	-	-
CIS-170	-	-	-
CIS-175	-	-	-
CIS-201	-	83%	-
CIS-202	-	91%	-
CIS-203	-	82%	-
CIS-204	-	88%	-
CIS-248	83%	-	64%
CIS-260	-	80%	-
CIS-265	-	81%	-
MAN-105	84%	-	-
MAN-106	80%	-	-
MAN-107	75%	-	-

b. **Assess semester-by-semester course retention performance in each course in the program over the preceding eight (8) semesters.**

Year	2014

Retention		
	2014FA	**2015SP**
ACC-100	84%	84%
BUS-201	-	-
CIS-101	85%	87%
CIS-102	74%	70%
CIS-123	-	-
CIS-124	-	-
CIS-130	96%	-
CIS-131	95%	-
CIS-132	-	96%
CIS-133	-	94%
CIS-150	89%	-
CIS-155	-	-
CIS-170	-	-
CIS-175	-	-
CIS-201	-	-
CIS-202	-	-
CIS-203	-	-
CIS-204	-	-
CIS-248	82%	85%
CIS-260	-	-
CIS-265	-	-
MAN-105	-	82%

Year	2014

Retention			
	Correspondence	**Face to Face**	**Online**
ACC-100	84%	75%	-
BUS-201	-	-	-
CIS-101	86%	-	-
CIS-102	72%	-	-
CIS-123	-	-	-
CIS-124	-	-	-
CIS-130	-	96%	-
CIS-131	-	95%	-
CIS-132	-	96%	-
CIS-133	-	94%	-
CIS-150	-	89%	-
CIS-155	-	-	-
CIS-170	-	-	-
CIS-175	-	-	-
CIS-201	-	-	-
CIS-202	-	-	-
CIS-203	-	-	-
CIS-204	-	-	-
CIS-248	84%	-	-
CIS-260	-	-	-
CIS-265	-	-	-
MAN-105	82%	-	-

MAN-106	65%	85%
MAN-107	76%	79%

MAN-106	72%	-	-
MAN-107	77%	-	-

Year	2015

Year	2015

Retention		
	2015FA	**2016SP**
ACC-100	68%	77%
BUS-201	100%	-
CIS-101	84%	90%
CIS-102	70%	70%
CIS-123	91%	-
CIS-124	90%	-
CIS-130	-	-
CIS-131	-	-
CIS-132	-	-
CIS-133	-	-
CIS-150	-	-
CIS-155	-	-
CIS-170	-	-
CIS-175	-	-
CIS-201	-	-
CIS-202	-	-
CIS-203	-	-
CIS-204	-	-
CIS-248	89%	79%
CIS-260	-	100%
CIS-265	-	100%
MAN-105	79%	87%
MAN-106	67%	75%
MAN-107	75%	79%

Retention			
	Correspondence	**Face to Face**	**Online**
ACC-100	72%	74%	-
BUS-201	100%	-	-
CIS-101	87%	85%	88%
CIS-102	67%	-	87%
CIS-123	-	91%	-
CIS-124	-	90%	-
CIS-130	-	-	-
CIS-131	-	-	-
CIS-132	-	-	-
CIS-133	-	-	-
CIS-150	-	-	-
CIS-155	-	-	-
CIS-170	-	-	-
CIS-175	-	-	-
CIS-201	-	-	-
CIS-202	-	-	-
CIS-203	-	-	-
CIS-204	-	-	-
CIS-248	83%	-	-
CIS-260	-	100%	-
CIS-265	-	100%	-
MAN-105	84%	-	-
MAN-106	71%	-	-
MAN-107	78%	-	-

Year	2016

Year	2016

Retention		
	2016FA	**2017SP**
ACC-100	79%	86%
BUS-201	86%	92%
CIS-101	81%	90%
CIS-102	84%	76%
CIS-123	-	-
CIS-124	-	-
CIS-130	95%	-
CIS-131	95%	-
CIS-132	-	100%

Retention			
	Correspondence	**Face to Face**	**Online**
ACC-100	82%	79%	-
BUS-201	88%	-	-
CIS-101	86%	-	88%
CIS-102	79%	-	87%
CIS-123	-	-	-
CIS-124	-	-	-
CIS-130	-	95%	-
CIS-131	-	95%	-
CIS-132	-	100%	-

CIS-133	-	100%
CIS-150	-	-
CIS-155	-	-
CIS-170	-	-
CIS-175	-	-
CIS-201	91%	-
CIS-202	91%	-
CIS-203	-	100%
CIS-204	-	100%
CIS-248	80%	77%
CIS-260	-	-
CIS-265	-	-
MAN-105	91%	74%
MAN-106	90%	89%
MAN-107	80%	86%

CIS-133	-	100%	-
CIS-150	-	-	-
CIS-155	-	-	-
CIS-170	-	-	-
CIS-175	-	-	-
CIS-201	-	91%	-
CIS-202	-	91%	-
CIS-203	-	100%	-
CIS-204	-	100%	-
CIS-248	77%	-	83%
CIS-260	-	-	-
CIS-265	-	-	-
MAN-105	82%	-	-
MAN-106	89%	-	-
MAN-107	83%	-	-

Year	2017

Year	2017

Retention		
	2017FA	**2018SP**
ACC-100	89%	87%
BUS-201	91%	96%
CIS-101	87%	92%
CIS-102	79%	78%
CIS-123	78%	-
CIS-124	83%	-
CIS-130	-	-
CIS-131	-	-
CIS-132	-	-
CIS-133	-	-
CIS-150	-	-
CIS-155	-	-
CIS-170	-	-
CIS-175	-	-
CIS-201	92%	-
CIS-202	100%	-
CIS-203	-	100%
CIS-204	-	100%
CIS-248	85%	96%
CIS-260	-	100%
CIS-265	-	94%
MAN-105	92%	88%
MAN-106	91%	91%
MAN-107	92%	96%

Retention			
	Correspondence	**Face to Face**	**Online**
ACC-100	87%	93%	-
BUS-201	94%	-	-
CIS-101	90%	-	-
CIS-102	79%	91%	73%
CIS-123	-	78%	-
CIS-124	-	83%	-
CIS-130	-	-	-
CIS-131	-	-	-
CIS-132	-	-	-
CIS-133	-	-	-
CIS-150	-	-	-
CIS-155	-	-	-
CIS-170	-	-	-
CIS-175	-	-	-
CIS-201	-	92%	-
CIS-202	-	100%	-
CIS-203	-	100%	-
CIS-204	-	100%	-
CIS-248	93%	-	71%
CIS-260	-	100%	-
CIS-265	-	94%	-
MAN-105	90%	-	-
MAN-106	91%	-	-
MAN-107	94%	-	-

Course	AVG % Course Completion 2014-18	AVG % Course Retention 2014-18

	AVG % 2014-15	AVG % 2015-16	AVG % 2016-17	AVG % 2017-18	Combined AVG 2014-18	AVG % 2014-15	AVG % 2015-16	AVG % 2016-17	AVG % 2017-18	Combined AVG 2014-18
CIS 101	70	70.5	66	74	**70.13**	86	87	85.5	89.5	**87**
CIS 102	53.5	49.5	59	56.5	**54.63**	72	70	80	78.5	**75.13**
CIS 123		70		61	**65.5**		91		78	**84.5**
CIS 124		76		67	**71.5**		90		83	**86.5**
CIS 130	82		90		**86**	96		95		**95.5**
CIS 131	81		95		**88**	95		95		**95**
CIS 132	96		93		**94.5**	96		100		**98**
CIS 133	94		94		**94**	94		100		**97**
CIS 150	67				**67**	89				**89**
CIS 155										
CIS 170										
CIS 175										
CIS 201			86	83	**84.5**			91	92	**91.5**
CIS 202			91	91	**91**			91	100	**95.5**
CIS 203			100	82	**91**			100	100	**100**
CIS 204			100	88	**94**			100	100	**100**
CIS 248	68	60	62	81	**71.5**	83.5	84	78.5	90.5	**84.13**
CIS 260		68		80	**74**		100		100	**100**
CIS 265		70		81	**75.5**		100		94	**97**
AVG Completion (ALL CLASSES) 2014-18					**79.55%**	AVG Retention (ALL CLASSES) 2014-18				**92.24%**

c. Based on the number of annual awards over the preceding four (4) years, assess trends in the number of program certificates and degrees awarded.

Name of Award	2014-15	2015-16	2016-17	2017-18
Computer Information Systems Associate of Science	1	-	2	1
Computer Applications Certificate of Career Preparation	2	-	1	3
3D Computer Animation Certificate of Career Preparation	13	-	15	1
Graphic Design & Web Content Cert of Career Prep	-	12	-	11
3D Printing & Rapid Prototyping Cert of Career Prep	-	-	13	6
Information Tech Literacy Cert of Career Preparation	27	29	43	23
Computer Management Info Systems Cert of Career Prep	21	28	26	18
Computer Maintenance & Help Desk Support Cert of Prep	-	-	-	1

The CIS program is quite popular. Many students enroll in the courses and end up completing many certificates through the latticed and stacked nature of the certificates leading to the AS Degree in CIS. A large number of the people walking across the stage at the graduation ceremony each year are students who have earned certificates and degrees in CIS. This number

is likely to be reduced as now students pursing degrees and certificates from California prisons will no longer be able to take CIS courses.

13. ENROLLMENT TRENDS

Note: the Program Review Committee will research the required enrollment data and provide it to program faculty members for their review and analysis for this report.

Comment on semester-by-semester enrollments, providing explanation of increases, declines or erratic fluctuations in enrollment. Be sure to comment on enrollment trends based on modality as well.

Year	2014

Enrollment		
	2014FA	**2015SP**
ACC-100	67	91
BUS-201	-	-
CIS-101	122	165
CIS-102	50	53
CIS-123	-	-
CIS-124	-	-
CIS-130	28	-
CIS-131	21	-
CIS-132	-	23
CIS-133	-	17
CIS-150	9	-
CIS-155	-	-
CIS-170	-	-
CIS-175	-	-
CIS-201	-	-
CIS-202	-	-
CIS-203	-	-
CIS-204	-	-
CIS-248	33	40
CIS-260	-	-
CIS-265	-	-
MAN-105	-	28
MAN-106	66	34
MAN-107	33	24

Year	2014

Enrollment			
	Correspondence	**Face to Face**	**Online**
ACC-100	146	12	-
BUS-201	-	-	-
CIS-101	287	-	-
CIS-102	103	-	-
CIS-123	-	-	-
CIS-124	-	-	-
CIS-130	-	28	-
CIS-131	-	21	-
CIS-132	-	23	-
CIS-133	-	17	-
CIS-150	-	9	-
CIS-155	-	-	-
CIS-170	-	-	-
CIS-175	-	-	-
CIS-201	-	-	-
CIS-202	-	-	-
CIS-203	-	-	-
CIS-204	-	-	-
CIS-248	73	-	-
CIS-260	-	-	-
CIS-265	-	-	-
MAN-105	28	-	-
MAN-106	100	-	-
MAN-107	57	-	-

Year	2015

Enrollment		
	2015FA	**2016SP**

Year	2015

Enrollment			
	Correspondence	**Face to Face**	**Online**

ACC-100	125	106
BUS-201	7	-
CIS-101	171	191
CIS-102	27	70
CIS-123	23	-
CIS-124	21	-
CIS-130	-	-
CIS-131	-	-
CIS-132	-	-
CIS-133	-	-
CIS-150	-	-
CIS-155	-	-
CIS-170	-	-
CIS-175	-	-
CIS-201	-	-
CIS-202	-	-
CIS-203	-	-
CIS-204	-	-
CIS-248	53	82
CIS-260	-	19
CIS-265	-	20
MAN-105	24	46
MAN-106	46	48
MAN-107	24	43

ACC-100	212	19	-
BUS-201	7	-	-
CIS-101	326	20	16
CIS-102	82	-	15
CIS-123	-	23	-
CIS-124	-	21	-
CIS-130	-	-	-
CIS-131	-	-	-
CIS-132	-	-	-
CIS-133	-	-	-
CIS-150	-	-	-
CIS-155	-	-	-
CIS-170	-	-	-
CIS-175	-	-	-
CIS-201	-	-	-
CIS-202	-	-	-
CIS-203	-	-	-
CIS-204	-	-	-
CIS-248	135	-	-
CIS-260	-	19	-
CIS-265	-	20	-
MAN-105	70	-	-
MAN-106	94	-	-
MAN-107	67	-	-

Year	2016

Enrollment		
	2016FA	**2017SP**
ACC-100	121	97
BUS-201	22	12
CIS-101	128	142
CIS-102	74	34
CIS-123	-	-
CIS-124	-	-
CIS-130	20	-
CIS-131	19	-
CIS-132	-	15
CIS-133	-	17
CIS-150	-	-
CIS-155	-	-
CIS-170	-	-
CIS-175	-	-
CIS-201	22	-
CIS-202	22	-
CIS-203	-	20
CIS-204	-	18
CIS-248	69	57

Year	2016

Enrollment			
	Correspondence	**Face to Face**	**Online**
ACC-100	204	14	-
BUS-201	34	-	-
CIS-101	245	-	25
CIS-102	70	-	38
CIS-123	-	-	-
CIS-124	-	-	-
CIS-130	-	20	-
CIS-131	-	19	-
CIS-132	-	15	-
CIS-133	-	17	-
CIS-150	-	-	-
CIS-155	-	-	-
CIS-170	-	-	-
CIS-175	-	-	-
CIS-201	-	22	-
CIS-202	-	22	-
CIS-203	-	20	-
CIS-204	-	18	-
CIS-248	96	-	30

CIS-260	-	-
CIS-265	-	-
MAN-105	22	27
MAN-106	41	44
MAN-107	20	22

CIS-260	-	-	-
CIS-265	-	-	-
MAN-105	49	-	-
MAN-106	85	-	-
MAN-107	42	-	-

Year	2017

Year	2017

Enrollment		
	2017FA	**2018SP**
ACC-100	99	90
BUS-201	22	25
CIS-101	155	153
CIS-102	63	41
CIS-123	18	-
CIS-124	18	-
CIS-130	-	-
CIS-131	-	-
CIS-132	-	-
CIS-133	-	-
CIS-150	-	-
CIS-155	-	-
CIS-170	-	-
CIS-175	-	-
CIS-201	12	-
CIS-202	11	-
CIS-203	-	11
CIS-204	-	8
CIS-248	67	57
CIS-260	-	15
CIS-265	-	16
MAN-105	39	42
MAN-106	46	23
MAN-107	26	25

Enrollment			
	Correspondence	**Face to Face**	**Online**
ACC-100	174	15	-
BUS-201	47	-	-
CIS-101	308	-	-
CIS-102	63	11	30
CIS-123	-	18	-
CIS-124	-	18	-
CIS-130	-	-	-
CIS-131	-	-	-
CIS-132	-	-	-
CIS-133	-	-	-
CIS-150	-	-	-
CIS-155	-	-	-
CIS-170	-	-	-
CIS-175	-	-	-
CIS-201	-	12	-
CIS-202	-	11	-
CIS-203	-	11	-
CIS-204	-	8	-
CIS-248	110	-	14
CIS-260	-	15	-
CIS-265	-	16	-
MAN-105	81	-	-
MAN-106	69	-	-
MAN-107	51	-	-

14. QUALITY OF THIS PROGRAM

List core indicators, student outcomes, partnerships, certificates, degrees, articulation, faculty qualifications, diversity, grants, equipment, and refer back your responses in sections 5 – 13 to give a complete analysis of the quality of this program.

Through analysis of the SLOs identified for the courses offered during this reporting period, students have demonstrated understanding, success, and application of the SLOs identified for these courses. Courses were offered by various instructors using different platforms and teaching techniques. For this reason, the data has been combined using a common SLO process. This method of data collection is the responsibility of the individual instructor and the overall analysis is conducted by the full-time CIS faculty member. During this reporting time, it was identified that

students may have not treated the pre/post-test as important. For that reason, much effort has been made by the full-time instructor to encourage adjunct faculty to correspond with their students regarding the importance of these tests as data collection tools. Syllabi content also has language which emphasizes the importance of this assessment and encourages students to take their time and complete the pre and post-tests to the best of their ability.

All courses in the CIS Department has SLOs identified for each course and program. In addition each course has its SLOs assessed on a regular basis as identified by Palo Verde College's Instruction Office. Regular meetings are held with each CTE funded program to discuss SLO data and its impact on student success.

The CIS Department has demonstrated success in all SLOs identified within the CIS program. Rigorous and relevant SLOs have been identified, developed, assessed, and implemented within the CIS Department. Continued emphasis will be placed on the collection, implementation, and assessment of SLOs within the CIS Department.

The Palo Verde College CIS Department has met or exceeded all 34 Core Indicator areas addressed in Perkins I-C funding during the 2014-18 program review update cycle.

Having a dedicated CTE counselor has helped to support students enrolled in CIS courses. The counselor's active participation and attendance at the local high schools has led to high-quality counseling services to those students enrolled in CIS courses as well as for those students interested in learning more about Palo Verde College's CIS course offerings.

15. FINANCIAL TRENDS

Comment on annual budgeted-vs.-actual program expenditures for each of the preceding five (5) years as to personnel salaries, benefits, supplies, contract services, capital outlay and other expenditures. Explain deviations from budget exceeding 10% of any line item. Describe plans for future budget changes.

Each year, the CIS department benefits from Perkins I-C funding. In addition, the full-time instructor also has written numerous grants to help the CIS program. These grants have assisted in building the successful 3D printing program as well as maintaining the technology needed for the program to be successful. The full-time instructor obtained a donation from Maxon Inc. of software for the Computer Animation program. This donation is worth roughly $250,000.

The CIS program spends its budget each year, does not go over, and plans ahead each year filling out the appropriate budget forms. The full-time CIS instructor will continue to need a student worker. This helps the instructor move around the room freely, instructing students.

16. REVENUE AND EXPENSES

a. State the revenue of the program (using FTE data, grants, and anything else) for the preceding two academic years.

Year	Term	Subject	FTES	Rate	Revenue
2014	2014FA	CIS	38.73	$4564.83	$176,795.87

2014	2015SP	CIS	38.27	$4564.83	$174,696.04
2015	2015FA	CIS	39.67	$4564.83	$181,086.81
2015	2016SP	CIS	46.53	$4564.83	$212,401.54
2016	2016FA	CIS	54.00	$4564.83	$246,500.82
2016	2017SP	CIS	46.53	$4564.83	$212,401.54
2017	2017FA	CIS	47.10	$4564.83	$215,003.49
2017	2018SP	CIS	41.00	$4564.83	$187,158.03

b. State the expenses of the program (salaries, equipment purchases, contracts, and supplies) for the preceding two academic years.

	Budgeted	Expended
2013-2014		
Benefits	$17,359.00	$14,507.84
Books/Mags/Instruct	$1,030.09	$20.53
Consultants	$0.00	$46.00
Equipment	$7,351.86	$6,447.08
Overload Benefits	$0.00	$5,906.06
Overload Salaries	$0.00	$23,387.26
Salaries	$75,769.00	$116,153.98
Supplies	$2,168.77	$1,715.42
Transportation	$1,000.00	$1,000.00
2014-2015		
Benefits	$11,446.00	$13,074.90
Books/Mags/Instruct	$553.06	$187.16
Equipment	$3,428.59	$31,137.00
Overload Benefits	$0.00	$3,883.51
Overload Salaries	$0.00	$31,995.00
Salaries	$79,139.00	$98,811.15
Supplies	$1,300.35	$11,641.45
Transportation	$1,000.00	$1,994.81
2015-2016		
Benefits	$15,834.00	$27,069.57
Contracts	$0.00	$7,774.21
Copying/Printing	$5.67	$24.16
Equipment	$9,052.00	$86,795.60
Overload Benefits	$3,363.00	$3,228.39
Overload Salaries	$24,000.00	$22,950.00
Salaries	$98,585.00	$125,596.00
Supplies	$2,348.33	$23,049.01
Transportation	$1,000.00	$1,104.00
2016-2017		
Benefits	$22,874.68	$22,874.68
Contracts	$231.27	$231.27
Copying/Printing	$20.79	$20.79
Equipment	$3,078.51	$3,078.51
Graduation	$584.07	$584.07
Overload Benefits	$6,457.63	$6,457.63
Overload Salaries	$40,837.50	$40,837.50
Salaries	$146,025.75	$146,025.75

Supplies	$6,265.04	$6,265.04
Transportation	$3,981.60	$3,981.60
2017-2018		
Benefits	$27,920.00	$26,092.32
Copying/Printing	$43.97	$34.91
Equipment	$3,000.00	$3,001.91
Overload Benefits	$0.00	$5,262.75
Overload Salaries	$0.00	$29,920.50
Professional Growth	$2,500.00	$0.00
Salaries	$96,362.00	$155,162.86
Student Workers	$0.00	$2,499.00
Supplies	$7,207.00	$5,946.46
Transportation	$1,000.00	$3,880.80

c. State the dollar value of in-kind contributions of time and/or resources during the preceding two academic years.

The full-time CIS Instructor secured a donation from Maxon Cinema 4D for software for its 3D Computer Animation program. 30 licenses were donated to Palo Verde College. The licenses if purchased would cost over $4000 each. In addition, 18 month licenses were also donated to the students from Maxon so that students could use the software at home. This equals roughly $240,000 of software donations by Maxon.

The Needles Social Security Office donated servers to the CIS department during the time of this program review. The value of these donations is roughly $5,000. These servers are now used to support the CIS programs offered at Palo Verde College.

17. FACILITIES AND EQUIPMENT

a. Are current facilities, such as classrooms, offices and equipment adequate to support the program? Explain.

Students currently are unable to benefit from an "open lab" which almost every college campus has. My students are unable to use the lab/classroom freely as other instructors often are assigned to the classroom. In addition, often times the room is used for various faculty and staff meetings. Most of the CIS courses require work to be completed using industry-specific software that is costly and that many students do not have access to outside of the computer classroom and lab.

The current 3D printing lab is contained in the full-time teacher's office. Now with all of the printers, tools, equipment, and supplies the program has outgrew the space. Discussions have already began regarding moving the CIS program to a designated secure space which has increased storage and space for current programs and future programs. It is key that the area

provided for the new classroom and lab be secure, not used for other courses, as there is over $300,000 of grant purchased equipment and supplies that are fragile to the untrained person.

b. Describe plans for future changes in facilities or equipment that would better support the program.

The plan is for the CIS department to move from the CL Building into the Performing Arts complex. The goal is to acquire a space such as the sewing lab or pottery lab. Each of these spaces are relatively unused currently and have a large space for computers to set up, a separate space for the 3D Printing lab, and storage to support all of the CIS programs. The Instruction Office Administration is looking into this and is hoping to make the change before Fall 2019. This will drastically help the CIS department grow and flourish, and will enable a location in which new programs can be developed and implemented. Having the support of the Board would be crucial to this move.

18. TWO YEAR PLAN

a. List recommendations, project future trends, personnel and equipment needs, as well as continuing and new goals. Describe activities to achieve these goals, timelines to complete these goals, and measures for evaluating success in achieving them.

1. The CIS department will continue to need student workers to support the program. It is important to have the assistance of these positions as well as offering critical job experience opportunities for students pursuing degrees and certificates in the CIS field. The CIS department will seek funding for these positions on an ongoing basis.

2. The CIS Department also receives specialized funding such as Perkins I-C, CTE Transitions, as well as other CTE related support. It is critical to CTE programs to have financial support as there are additional expenses associated with CTE programs. With the recent addition of a 3D printing certificate program and four new courses in 3D printing, materials and supplies will be needed on an ongoing basis to support the goals of this program. The CIS department will continue being involved in Perkins funding.

3. The CIS Department will also continue pursuing high school enrollment. The lead CIS faculty knows the importance of offering these courses to local high school students. Continued funding for transportation of these students will be needed. The CTE faculty in CIS, AUT, WEL, and BCT offer courses 5 days a week to students. This is not the traditional college faculty work schedule. The instructors in these departments know the value of offering these courses to these students as many of them attend Palo Verde College upon graduation from high school with a Certificate or more already completed. The CIS department will continue pursing high school enrollment and encourage administration to support the transportation costs associated with this endeavor.

4. Secure a Makerspace that is designated for CIS only. This needs to include a classroom and lab area. It is also important to have an office space located in close proximity to the classroom and lab.

5. Continue evaluating degrees and certificates in the CIS department for rigor, need, and applicability.

6. Continue evaluating and assessing data collected from SLO analysis.

7. Begin developing curriculum for Robotics courses as recommended by the CTE Advisory meeting over the last 2 years.

b. Describe the alignment between continuing and new program goals and institutional goals and objectives stated in the current Integrated Strategic Plan, which can be found on the college website.

The CIS program is aligned to both the institutional goals and objectives stated in the current Integrated Strategic Plan. The CIS program has CLOs, PLOs, and ILOs developed and implemented for each of its courses, programs, certificates, and degree. The CIS department is constantly working with the curriculum committee and instruction office so as to stay current and make sure its goals are aligned with the goals and outcomes of the College mission.