CTE Update

PALO VERDE COLLEGE

COMPUTER INFORMATION SYSTEMS

REPORTING FALL 2018 TO SPRING 2020

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

a. Describe the program, its mission, and target population.

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 six-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 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 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, the CIS program changed classroom and lab. The purpose of the move was to create a "Makerspace" lab that could accommodate the growing 3D Printing Program. The 3D printing Lab has grown from nine 3D printers to now having 12 3D printers from a variety of manufacturers, allowing students to experience 3D printing through numerous software interfaces.

2. DEMAND FOR THE PROGRAM

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

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.

Exhibit 1: Five-year projections for the computer information systems occupational group

2018 Jobs	2023 Jobs	5-Yr % Change (New Jobs)	5-Yr Openings (New + Replacement Jobs)	Annual Openings (New + Replacement Jobs)	% of workers age 55+
47,582	49,289	4%	17,747	3,549	14%

Source: EMSI 2018.4

Exhibit 2: Earnings for the computer information systems occupational group

Occupation	Entry to Experienced Hourly Wage Range*	Median Wage*	Average Annual Earnings
Computer Network Architects	$39.68 to $71.64	$54.09	$122,200
Information Security Analysts	$39.54 to $59.73	$50.52	$101,900
Computer Systems Analysts	$33.24 to $55.87	$43.21	$92,800
Network and Computer Systems Administrators	$32.34 to $54.54	$42.67	$90,800
Computer User Support Specialists	$20.23 to $33.62	$26.37	$57,000

Source: EMSI 2018.4

*Entry Hourly is 25th percentile wage, the median is 50th percentile wage, and experienced is 75th percentile wage.

- Employment for the computer information systems occupational group is expected to increase by 4% between 2018 and 2023 in the Inland Empire/Desert region. A total of 17,747 job openings or 3,549 annual job openings will be available over the five-year timeframe.

- The entry-level wages for the computer information systems occupational group are above the MIT Living Wage estimate of $12.39 per hour for a single adult living in the Inland Empire/Desert region.

- There appears to be an opportunity for program growth based on the annual average number of program credentials issued for the selected community college program in the region (152 annual average community college credentials, 19 other educational institution credentials, 171 total), and the annual openings for the computer information systems occupational group across the region (3,549 average annual openings).

3. QUALITY OF THIS PROGRAM

What is the quality of this program? Is it of the highest quality, adequately meeting student needs, or needing significant improvement? List core indicators, student learning outcomes, partnerships, certificates, degrees, articulation, faculty qualifications, diversity, grants, and equipment as evidence to support your answer.

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

All courses in the CIS Department have 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 2018-2020 program review update cycle.

During this Program Review Cycle, students have earned certificates and degrees in the CIS field, even though Covid-19 impacted courses starting Feb. 17, 2020.

Perkins funding continues to support the CIS program allowing equipment and supplies to be purchased.

4. EXTERNAL ISSUES

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 50-60% 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, Transfer 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 costs for transporting the high school students is paid by Palo Verde College. Continued support for transportation will be needed.

During the 2019-2020 academic year, the CIS Full-Time Faculty member designed an academic calendar which aligned closer to the Unified School District's calendar. The 2021-2022 academic calendar is currently being developed by the full-time CIS faculty member. Having a similar calendar to PVUSD was an area of importance for Palo Verde High School, as they were understaffed and unable to handle student course coverage during days where the PVC and PVHS calendars differed. 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. Continued funding of this dedicated position is vital to all CTE programs offering concurrent instruction to local high school students. Presently this position was removed, and an Academic Advisor is currently being funded attempting to do the duties of the previous position. There should be a significant cost savings to the Perkins grant as the previous full-time counselor position was funded through Perkins and CTE Transitions. We expect to now have a larger budget for each of the applicable CTE programs identified in the grant. Having someone whose sole focus is on the registration, retention, success, and job/career training for these students is vital to the goals of each department in the Professional Technologies Division and to continued Perkins funding.

Through Perkins I-C funding and involvement in activities supported by CTE Transitions funding, the CIS department can grow and flourish. Perkins funding has allowed new technologies, tools, and supplies to be purchased for CIS programs, supporting the goals of the CIS department and the goal of the grants. With new programs added to the Perkins grant, the budget will decrease.

It will be vital to the success and growth of the CIS Program to receive General Budget funding as all the other Professional Technologies Departments receive.

5. REVENUE AND EXPENSES

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

CIS	
Term	**FTES**
2018FA	24.80
2019SP	22.33
2019SU	1.20
2019FA	39.10
2020SP	27.53
	114.97

1 FTES=	$4564.83
114.97 FTES=	$523,586

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

Row Labels	Source	Budgeted	Expended
2018-2019			
Overload Salaries	OVL/Overload	$0.00	$32,631.75
Overload Benefits	OVL/Overload	$0.00	$6,331.89
Supplies	LOT/Lottery	$2,110.14	$2,110.14
	VEA/Vatea Funds	$6,228.11	$6,228.11
	DCT/Division-CTE	$250.00	$140.10
Benefits	CIS	$20,534.00	$20,849.04
	NDL/Needles	$1,270.00	$361.32
Copying/Printing	VEA/Vatea Funds	$10.09	$10.09
Equipment	VEA/Vatea Funds	$2,179.36	$2,179.36
Professional Growth	DCT/Division-CTE	$2,500.00	$1,620.00
Salaries	CIS	$96,051.00	$104,851.00
	NDL/Needles	$6,534.00	$3,875.10
Student Workers	CIS	$0.00	$4,507.25
Transportation	CIS	$4,000.00	$6,284.39
2019-2020			
Overload Salaries	OVL/Overload	$35,238.69	$35,238.69
Overload Benefits	OVL/Overload	$7,113.67	$7,113.67
Supplies	LOT/Lottery	$4,837.93	$4,837.93
	VEA/Vatea Funds	$2,630.16	$2,630.16
	DCT/Division-CTE	$250.00	$250.00
Benefits	CIS	$24,283.48	$24,283.48
	CHM/Chair/Committee Seat	$1,295.94	$1,295.94
Books/Mags/Instruct	LOT/Lottery	$8,033.39	$8,033.39
Copying/Printing	LOT/Lottery	$1.18	$1.18
	VEA/Vatea Funds	$38.75	$38.75

Equipment	VEA/Vatea Funds	$5,881.09	$5,881.09
Salaries	CIS	$117,247.50	$117,247.50
	CHM/Chair/Committee Seat	$6,419.76	$6,419.76
Student Workers	CIS	$3,964.00	$3,964.00
Transportation	CIS	$3,944.21	$3,944.21

c.

c. State the dollar value of in-kind contributions of time and/or resources 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.

6. TWO YEAR PLAN

List recommendations, project future trends, personnel and equipment need, 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.

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.

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.

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.

Purchase additional 3D printing related technologies to adapt to changes and improvements in the 3D Printing field of study.

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

Continue evaluating and assessing data collected from SLO analysis.

Look into feasibility of designing courses in Robotics as mentioned in the last two annual Advisory Committee Meetings and other emerging technology programs.

a. 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 to stay current and make sure its goals are aligned with the goals and outcomes of the College mission.

ADDITIONAL DATA

STUDENT SUCCESSFUL COMPLETION & RETENTION

CIS	Y
Year	2018

Completion		
	2018FA	2019SP
ACC-100	55%	65%
BUS-201	92%	89%
CIS-101	55%	-
CIS-102	60%	-
CIS-123	80%	-
CIS-124	-	83%
CIS-130	79%	-
CIS-131	85%	-
CIS-132	-	60%
CIS-133	-	79%
CIS-201	73%	-
CIS-202	73%	-
CIS-203	-	92%
CIS-204	-	88%
CIS-248	-	-
CIS-260	-	60%
CIS-265	56%	-
MAN-105	89%	83%
MAN-106	79%	87%
MAN-107	-	73%

CIS	Y
Year	2018

Completion			
	Corr	F2F	Online
ACC-100	63%	40%	-
BUS-201	90%	-	-
CIS-101	55%	-	-
CIS-102	-	-	60%
CIS-123	-	80%	-
CIS-124	-	83%	-
CIS-130	-	79%	-
CIS-131	-	85%	-
CIS-132	-	60%	-
CIS-133	-	79%	-
CIS-201	-	73%	-
CIS-202	-	73%	-
CIS-203	-	92%	-
CIS-204	-	88%	-
CIS-248	-	-	-
CIS-260	-	60%	-
CIS-265	-	56%	-
MAN-105	86%	-	-
MAN-106	83%	-	-
MAN-107	73%	-	-

CIS	Y
Year	2019

Completion		
	2019FA	2020SP
ACC-100	63%	69%
BUS-201	62%	76%
CIS-101	64%	40%
CIS-102	-	100%
CIS-123	56%	-
CIS-124	-	90%
CIS-130	69%	-
CIS-131	75%	-
CIS-132	-	88%
CIS-133	-	100%
CIS-201	88%	-
CIS-202	96%	-
CIS-203	-	90%
CIS-204	100%	91%
CIS-248	-	100%
CIS-260	-	89%
CIS-265	54%	-
MAN-105	62%	55%
MAN-106	89%	76%
MAN-107	75%	84%

CIS	Y
Year	2019

Completion			
	Corr	F2F	Online
ACC-100	68%	53%	-
BUS-201	69%	-	-
CIS-101	56%	-	-
CIS-102	-	100%	-
CIS-123	-	56%	-
CIS-124	-	90%	-
CIS-130	-	69%	-
CIS-131	-	75%	-
CIS-132	-	88%	-
CIS-133	-	100%	-
CIS-201	-	88%	-
CIS-202	-	96%	-
CIS-203	-	90%	-
CIS-204	-	92%	-
CIS-248	-	100%	-
CIS-260	-	89%	-
CIS-265	-	54%	-
MAN-105	58%	-	-
MAN-106	82%	-	-
MAN-107	79%	-	-

CIS	Y
Year	2018

Retention		
	2018FA	2019SP
ACC-100	88%	87%
BUS-201	92%	100%
CIS-101	90%	-
CIS-102	100%	-
CIS-123	100%	-
CIS-124	-	100%
CIS-130	100%	-
CIS-131	100%	-
CIS-132	-	100%
CIS-133	-	100%
CIS-201	100%	-
CIS-202	100%	-
CIS-203	-	100%
CIS-204	-	100%
CIS-248	-	-

CIS	Y
Year	2018

Retention			
	Corr	F2F	Online
ACC-100	88%	80%	-
BUS-201	96%	-	-
CIS-101	90%	-	-
CIS-102	-	-	100%
CIS-123	-	100%	-
CIS-124	-	100%	-
CIS-130	-	100%	-
CIS-131	-	100%	-
CIS-132	-	100%	-
CIS-133	-	100%	-
CIS-201	-	100%	-
CIS-202	-	100%	-
CIS-203	-	100%	-
CIS-204	-	100%	-
CIS-248	-	-	-

CIS-260	-	90%
CIS-265	89%	-
MAN-105	92%	94%
MAN-106	91%	87%
MAN-107	-	88%

CIS-260	-	90%	-
CIS-265	-	89%	-
MAN-105	93%	-	-
MAN-106	89%	-	-
MAN-107	88%	-	-

CIS	Y
Year	2019

CIS	Y
Year	2019

Retention		
	2019FA	**2020SP**
ACC-100	86%	90%
BUS-201	81%	97%
CIS-101	91%	90%
CIS-102	-	100%
CIS-123	83%	-
CIS-124	-	100%
CIS-130	69%	-
CIS-131	75%	-
CIS-132	-	100%
CIS-133	-	100%
CIS-201	96%	-
CIS-202	100%	-
CIS-203	-	100%
CIS-204	100%	100%
CIS-248	-	100%
CIS-260	-	100%
CIS-265	77%	-
MAN-105	82%	88%
MAN-106	92%	100%
MAN-107	87%	100%

Retention			
	Corr	**F2F**	**Online**
ACC-100	89%	79%	-
BUS-201	89%	-	-
CIS-101	91%	-	-
CIS-102	-	100%	-
CIS-123	-	83%	-
CIS-124	-	100%	-
CIS-130	-	69%	-
CIS-131	-	75%	-
CIS-132	-	100%	-
CIS-133	-	100%	-
CIS-201	-	96%	-
CIS-202	-	100%	-
CIS-203	-	100%	-
CIS-204	-	100%	-
CIS-248	-	100%	-
CIS-260	-	100%	-
CIS-265	-	77%	-
MAN-105	85%	-	-
MAN-106	96%	-	-
MAN-107	92%	-	-

ENROLLMENT TRENDS

CIS	Y
Year	2018

CIS	Y
Year	2018

Enrollment		
	2018FA	**2019SP**
ACC-100	73	83
BUS-201	24	27
CIS-101	20	-
CIS-102	10	-
CIS-123	10	-
CIS-124	-	12
CIS-130	14	-

Enrollment			
	Corr	**F2F**	**Online**
ACC-100	136	20	-
BUS-201	51	-	-
CIS-101	20	-	-
CIS-102	-	-	10
CIS-123	-	10	-
CIS-124	-	12	-
CIS-130	-	14	-

CIS-131	13	-
CIS-132	-	15
CIS-133	-	14
CIS-201	11	-
CIS-202	11	-
CIS-203	-	12
CIS-204	-	8
CIS-248	-	-
CIS-260	-	10
CIS-265	9	-
MAN-105	38	36
MAN-106	33	39
MAN-107	-	52

CIS-131	-	13	-
CIS-132	-	15	-
CIS-133	-	14	-
CIS-201	-	11	-
CIS-202	-	11	-
CIS-203	-	12	-
CIS-204	-	8	-
CIS-248	-	-	-
CIS-260	-	10	-
CIS-265	-	9	-
MAN-105	74	-	-
MAN-106	72	-	-
MAN-107	52	-	-

CIS	Y
Year	2019

CIS	Y
Year	2019

Enrollment		
	2019FA	**2020SP**
ACC-100	73	68
BUS-201	42	38
CIS-101	22	10
CIS-102	-	1
CIS-123	18	-
CIS-124	-	10
CIS-130	16	-
CIS-131	12	-
CIS-132	-	8
CIS-133	-	9
CIS-201	26	-
CIS-202	27	-
CIS-203	-	21
CIS-204	2	23
CIS-248	-	1
CIS-260	-	9
CIS-265	13	-
MAN-105	93	121
MAN-106	37	46
MAN-107	60	43

Enrollment			
	Corr	**F2F**	**Online**
ACC-100	122	19	-
BUS-201	80	-	-
CIS-101	32	-	-
CIS-102	-	1	-
CIS-123	-	18	-
CIS-124	-	10	-
CIS-130	-	16	-
CIS-131	-	12	-
CIS-132	-	8	-
CIS-133	-	9	-
CIS-201	-	26	-
CIS-202	-	27	-
CIS-203	-	21	-
CIS-204	-	25	-
CIS-248	-	1	-
CIS-260	-	9	-
CIS-265	-	13	-
MAN-105	214	-	-
MAN-106	83	-	-
MAN-107	103	-	-

PROGRAM AWARDS

Name of Award	2016-17	2017-18	2018-19	2019-20
Computer Information Systems Associate of Science	2	1	1	1
3D Computer Animation Certificate of Career Preparation	15	1	7	6
3D Printing & Rapid Prototyping Cert of Career Prep	13	6	7	18
Computer Applications Certificate of Career Preparation	1	3	1	-
Computer Maintenance & Help Desk Support Cert of Prep	-	1	-	-
Computer Management Info Systems Cert of Career Prep	24	24	19	3
Graphic Design & Web Content Cert of Career Prep	-	11	5	5
Information Tech Literacy Cert of Career Preparation	37	31	6	1