# **PROGRAM REVIEW REPORT: COMPUTER INFORMATION SYSTEMS**

### 1. SUPPORT OF THE COLLEGE MISSION STATEMENT

The Computer Information Systems Department (CIS) offers an Associate in Science Degree in Computer Information Systems and Certificates of Preparation in Computer Animation, Graphic Design and Web Content, Computer Applications, Information Technology Literacy, Management Information Systems, and Computer Maintenance and Help Desk Support. The courses in these programs will prepare students for immediate employment in entry level positions within the local and regional community. After completing the degree and certificate programs, the student will be able to work as any of the following: productivity software specialist, computer repair technician, local area network technician, technical/software support specialist (help desk), entry level graphic and web designers, web coders, computer animators, and office professionals.

In accordance with the *Palo Verde Community College's Mission Statement* the Computer Information System Program's Associate in Science Degree and Certificates fulfill the primary mission of the college by offering transferable courses for a degree or certificates as well as preparing students with skills in vocational and occupational fields needed to secure employment, retraining, and economic development.

These programs develop computer competencies for the workplace, educational advancement, and personal use. *They provide a foundation for developing workplace and lifelong learning skills, and knowledge in accordance with the College's Strategic Plan*.

### 2. ACCOMPLISHMENTS IN ACHIEVING GOALS OUTLINED IN THE PREVIOUS PROGRAM REVIEW

### a. New Certificates: designed and updated as mentioned in the last program review:

- The CIS Department has created new certificates in Graphic Design and Web Content, updated the Computer Applications certificate, designed a new certificate program titled "Computer Maintenance and Help Desk Support", and has placed outdated, obsolete, or programs not demanded by students or industry on inactive status.
- 2. All courses and programs in the CIS discipline have updated Course Outlines which include measurable SLOs and PSLOs. Each course and program is regularly assessed by the full time CIS instructor.

### b. Computer Animation added to AS degree:

1. Computer Animation courses and courses of each of the other certificate programs are now a part of the newly adopted and approved AS degree in CIS.

### c. Course Additions and Revisions:

- 1. 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.
- 2. The CIS department placed the AS degree in CIS on inactive status while it closely monitored the TMC process according to SB1440 legislation. 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. Somehow the CIS AS degree fell through the cracks and was not submitted to the Chancellor's Office by the Instruction Office. The CIS department is still waiting for approval of the degree which was approved by the Curriculum Committee May 12, 2012.
- 3. The same process was followed for many of the certificate programs. The Computer Applications certificate of preparation was placed on inactive status, while the department addressed the same issues as mentioned in the revision of the AS degree. Through this process, the Computer Applications certificate and the Information Technology Literacy certificate were redesigned to offer a powerful program of study in which students could complete the entire certificate in a year, with all CIS courses being offered each year. This allows students to progress toward a degree or certificate regardless of which semester they enter Palo Verde College. Since the last full program review, the CIS department has created two new certificates titled: "Graphic Design and Web Content" and "Computer Maintenance and Help Desk Support". These programs have demonstrated their need due to the consistent enrollment and data demonstrating completion of the certificate programs.

### d. 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/PSLO assessment. The Instruction Office is now employing adjuncts which all utilize the same benchmark assessments for Pre and Post Tests.

### e. SLO Assessment of all CIS courses:

1. The Computer Information System's curriculum has been rewritten to include Student Learning Outcomes (SLOs) and Program Level SLOs (PSLOs) 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 PSLOs at Palo Verde College.

## 3. POPULATIONS SERVED

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, Computer Maintenance and Help Desk Support certificate, concurrently enrolled high school 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.

Our core classes span the curriculum of the College and are highly recommended for student success at the college level.

**These classes also draw members from the community who would not be regular students of the College**. These classes also are representative of the lifelong learning patterns and are the standard which businesses want information technology taught in the local and regional areas. Due to the nature of information technology, students, regardless of their physical abilities or age, will be able to take advantage of this field of study. In today's current global workplace, all jobs utilize and require competence in computer literacy.

# 4. CURRICULUM HISTORY

The total curriculum of the CIS Department has been updated, reviewed, and accepted for the new degrees and certificate programs. This curriculum is appropriate and follows the State guideline for the freshman and sophomore transferable courses. All courses in the program are offered within a two-year time frame and are transferrable.

### A.S. Degree, Computer Information Systems

### A minimum of 60 units of Associate Degree credit college work. For All Associate of Science (AS) Majors all listed Courses are required.

| DEPT  | COURSE #                                      | CIS CORE COURSE WORK   | REQUIRED<br>UNITS                         |
|---|---|--|---|
| CIS   | 101   | INTRODUCTION to COMPUTER & INFORMATION SCIENCE   | 3   |
| CIS   | 102`  | PERSONAL COMPUTER APPLICATIONS   | 3   |
| CIS   | 123   | WEB PAGE DESIGN - HTML   | 3   |
| CIS   | 130   | INTRODUCTION to 3D COMPUTER ANIMATION  | 3   |
| CIS   | 150   | Or<br>WINDOWS  | 3   |
| CIS   | 248   | SYSTEMS ANALYSIS AND DESIGN  | 3   |
| CIS   | 265   | ADOBE PHOTOSHOP<br>Or  | 3   |
| CIS   | 170   | COMPUTER MAINTENANCE   | 3   |
| CIS<br>CIS<br>CIS<br>CIS<br>CIS<br>CIS<br>CIS | 124<br>131<br>132<br>133<br>260<br>155<br>175 | <b>RESTRICTED ELECTIVES (CHOOSE 6 UNITS)</b><br>WEB PAGE DESIGN TOOLS<br>ANIMATION PRINCIPLES AND PRODUCTION I<br>ANIMATION PRINCIPLES AND PRODUCTION II<br>ADVANCED 3D COMPUTER ANIMATION<br>DESKTOP PUBLISHING<br>MANAGING OPERATING SYSTEMS<br>COMPUTER HELP DESK SUPPORT | 3<br>3<br>3<br>3<br>3<br>3<br>3<br>3<br>3 |
| REQUIRED<br>ELECTIVES                         |   | RESTRICTED COURSES CHOOSE 3 UNITS  |   |
| MAN<br>MAN<br>MAN<br>BUS                      | 105<br>106<br>107<br>201                      | PRINCIPLES OF MANAGEMENT AND ORGANIZATIONS<br>PERSONNEL MANAGEMENT<br>SMALL BUSINESS MANAGMENT<br>PRINCIPLES OF ORGANIZATIONAL LEADERSHIP  | 3<br>3<br>3<br>3                          |

### **CERTIFICATES IN COMPUTER INFORMATION SYSTEMS**

The Computer Information Systems Program is designed to offer six (6) certificates for the student seeking entry-level employment as a computer applications specialist, Web design specialist, Graphic Designer, life-long learner, MIS entry level position, computer animator, Office professional, computer technician, or Help Desk Support provider. These Certificates can be completed within one year.

#### **COMPUTER APPLICATIONS**

| Course# | <u>Course Title</u>                                     | <u>Units</u> |  |
|---------|---|--------------|--|
|         | (Required Courses for the Certificate – 12 U            | nits)        |  |
| CIS 101 | Introduction to Computers and Information Systems       | 3            |  |
| CIS 102 | Personal Computer Applications                          | 3            |  |
| CIS 123 | Web Design Using HTML                                   | 3            |  |
| CIS 260 | Desktop Publishing                                      | 3            |  |
|         | (Select at least three (3) elective units from the list | st below)    |  |
| CIS 124 | Web Page Design Tools                                   | 3            |  |
| CIS 130 | Introduction to 3D Computer Animation                   | 3            |  |
| CIS 131 | Animation Principles and Production I                   | 3            |  |
| CIS 132 | Animation Principles and Production II                  | 3            |  |
| CIS 133 | Advanced 3D Computer Animation                          | 3            |  |
| CIS 248 | Systems Analysis and Design                             | 3            |  |
| CIS 265 | Adobe Photoshop   | 3            |  |
|         | TOTAL REQUIRED UNITS                                    | 15           |  |
|         |   |              |  |

### **INFORMATION TECHNOLOGY LITERACY**

| Course# | <u>Course Title</u>                               | <u>Units</u> |
|---------|---|--------------|
| CIS 101 | Introduction to Computers and Information Systems | 3            |
| CIS 102 | Personal Computer Applications                    | 3            |
| CIS 248 | Systems Analysis and Design                       | 3            |
|         | TOTAL REQUIRED UNITS                              | 9            |

### MANAGEMENT INFORMATION SYSTEMS

| Course# | <u>Course Title</u>                               | <u>Units</u> |
|---------|---|--------------|
| CIS 101 | Introduction to Computers and Information Systems | 3            |
| CIS 248 | Systems Analysis and Design                       | 3            |
| MAN 105 | Principles of Management                          | 3            |
| ACC 100 | Basic Accounting                                  | 4            |
|         | TOTAL REQUIRED UNITS                              | 13           |

#### **3D COMPUTER ANIMATION**

| Course# | <u>Course Title</u>                    | <u>Units</u> |
|---------|--|--------------|
| CIS 130 | Introduction to 3D Computer Animation  | 3            |
| CIS 131 | Animation Principles and Production I  | 3            |
| CIS 132 | Animation Principles and Production II | 3            |
| CIS 133 | Advanced 3D Computer Animation         | 3            |
|         | TOTAL REQUIRED UNITS                   | 12           |

### **GRAPHIC DESIGN AND WEB CONTENT**

| Course# | <u>Course Title</u>   | <u>Units</u> |
|---------|-----------------------|--------------|
| CIS 123 | Web Design Using HTML | 3            |
| CIS 124 | Web Page Design Tools | 3            |
| CIS 260 | Desktop Publishing    | 3            |
| CIS 265 | Adobe Photoshop       | 3            |
|         | TOTAL REQUIRED UNITS  | 12           |

#### COMPUTER MAINTENANCE AND HELP DESK SUPPORT

| Course# | <u>Course Title</u>        | <u>Units</u> |
|---------|----------------------------|--------------|
| CIS 150 | Windows                    | 3            |
| CIS 155 | Managing Operating Systems | 3            |
| CIS 170 | Computer Maintenance       | 3            |
| CIS 175 | Help Desk Support          | 3            |
|         | TOTAL REQUIRED UNITS       | 12           |

# 5. SCHEDULING

- The CIS Department utilizes a one year certificate scheduling model.
- The CIS Department presents a two-year A.S. degree model for the students.
- At least five (5) sections of the introductory core classes are offered each semester.
- Students are encouraged to get their A.S. degree with multiple certificates.
- Certificates will be available for students working toward an A.A. or A.S. degree.
- Face to face classes are offered during mornings and afternoons.
- Classes are offered face to face on Fridays, as well as through online and correspondence modalities.
- Special attention has been given to the scheduling process so that local area high school students can concurrently enroll in CIS courses during their traditional high school day. Attention to scheduling courses around the local unified school district's bussing schedule is an area of emphasis when the schedule is being developed.

Currently there is only one full-time instructor teaching courses. This teacher has developed the program so that he could offer all courses each year so that students could succeed in the courses and complete certificates in a year's time. To support the student who can only take brick and mortar courses in the evening, an adjunct has been hired to teach introductory courses face to face in the evening. Online courses and correspondence courses are also utilized to reach the working student. The CIS department strives to accommodate all of our student's scheduling needs. We are continually expanding the distance education CIS course offerings through various modalities such as correspondence, and online courses. Summer courses are also offered in both the online and correspondence modalities.

# 6. STUDENT LEARNING OUTCOMES

It is our intent and practice to integrate information technology in all our students' lives from the point of view of lifelong learning. Since the last full program review, the CIS department has developed and implemented Student Learning Outcomes (SLOs) for every course in the discipline. Each of these SLOs have been assessed and evaluated. The data resulting from this process has provided valuable information which has helped in the focus of the department and the goals of the CIS curriculum. It is important to note, that the CIS department was quite pleased with the data collected for the SLOs. It appears that the department is offering challenging and rigorous curriculum in which the students are demonstrating proficiency and success. We have developed entrance and exit exams for the CIS classes as well as standardized exams for the department as a whole. We have participated in regional and state business and information technology consortiums and now utilize portfolios and capstone projects to measure success of Student Learning Outcomes.

We have been posting syllabi on-line for the CIS courses. All CIS syllabi list student learning outcomes which match the current Course Outline of Record.

During the 2012-2013 academic term, the CIS department worked as a model program developing, assessing, and implementing the data collected from Program Level Student Learning Outcomes. These PSLOs have been designed for each degree and certificate offered in the CIS discipline. The Business Division, and the CIS department in particular are the first to develop, assess, and implement these PSLOs. Though this is a labor intensive process, and having only one faculty member to do the work, the data collected has been invaluable to the success and direction of the CIS department, which has led to changes in SLOs, teaching methodologies, and assessment tools. Through SLO analysis and data collection, SLO have been revised Fall 2014 for two courses (CIS 101 & CIS 150). These changes have been a result of program review data collection and discussions resulting from SLO data collection.

CIS PROGRAM REVIEW 2014-15

Beginning Fall 2014, the CIS full-time faculty member mapped all CLOs to PLOs and all PLOs to ILOs for each course and program offered in the CIS department. The CIS Department was one of the only programs implementing, assessing, and utilizing SLO data. In addition, the full-time CIS faculty member switched to the new forms in the Fall 2014 term for SLO/PLO/ILO assessments.

We have introduced rubrics for the CIS Department. These rubrics are provided for all courses and assist the students with successful completion of major projects and reports. The use of rubrics was determined an important tool that was needed to implement through analysis of SLO data and has been incorporated into the entire program since 2011. We also have a module in every course outline dealing with critical thinking. Students in each CIS course are tasked with applying critical thinking to real-world scenarios. This process has helped students tie their education to business, educational, and real-world scenarios. All CIS classes require term projects, capstone projects, portfolios, or classroom presentations.

# Palo Verde College 2013-14 Program Student Learning Outcomes (Computer Information Systems)

#### AS Degree - Computer Information Systems

**<u>Certificate of Preparation</u>** - Information Technology Literacy, Computer Applications, Computer Animation, Graphic Design and Web Content, and Management Information Systems

| AS Degree - Computer Information Systems<br>Program Student Learning Outcomes (2013-2014)        |  |  |  |  |
|--|--|--|--|--|
| PSLO 1 (General Education): Acquire 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. (Assessment of this Program SLO is |  |  |  |  |
| based on the assessments of representative courses selected from each general education area.)   |  |  |  |  |
| PSLO 2 (Technology Skill Sets): 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.                         |  |  |  |  |

#### PROGRAM ASSESSMENT RESULTS:

Program Assessment of PSLO 1 (Based on assessments of ENG 101, MAT 86/88, BIO 100, POS145, & GES 115)

#### Program Assessment of PSLO 2 (Based on assessment of CIS 101 (01), (02), & (03) Summer 2014)

- In the CIS 101 (01) course, 28 of the 30 students (93.3%) completing the Final Exam met the baseline goal of 70%. In the CIS 101 (02) course, 20 of the 21 students (95.23%) completing the Final Exam met the baseline goal of 70%. In the CIS 101 (03) course, 15 of the 16 students (93.75%) completing the Final Exam met the baseline goal of 70%.
- In the CIS 101 (01) course, 21 of the 22 students (95.45%) completing the Final Paper project met the baseline goal of 80%. In the CIS 101 (02) course, 17 of the 17 students (100%) completing the Final Paper project met the baseline goal of 80%. In the CIS 101 (03) course, 15 of the 16 students (93.75%) completing the Final Paper project met the baseline goal of 80%.

#### PROGRAM ACTION PLAN

• Provide clearer information to student about the goals or objectives of the relevant assignment or assessment methods, increase student collaboration and/or peer review, and increase guidance for students.

#### Certificate of Preparation in Information Technology Literacy Program Student Learning Outcomes (2013-2014)

#### PSLO 1 (Information Competency):

Acquire and validate resources to solve technical problems; use information resources to gather discipline specific information or materials.

#### Program Assessment of PSLO 2 (Based on assessment of CIS 101 (01), (02), & (03) Summer 2014)

In the CIS 101 (01) course, 28 of the 30 students (93.3%) completing the Final Exam met the baseline goal of 70%. In the CIS 101 (02) course, 20 of the 21 students (95.23%) completing the Final Exam met the baseline goal of 70%. In the CIS 101 (03) course, 15 of the 16 students (93.75%) completing the Final Exam met the baseline goal of 70%.

• In the CIS 101 (01) course, 21 of the 22 students (95.45%) completing the Final Paper project met the baseline goal of 80%. In the CIS 101 (02) course, 17 of the 17 students (100%) completing the Final Paper project met the baseline goal of 80%. In the CIS 101 (03) course, 15 of the 16 students (93.75%) completing the Final Paper project met the baseline goal of 80%.

#### PROGRAM ACTION PLAN

• Increase in class discussions and activities, implement more student collaboration activities, utilize peer review, and provide more opportunities to work with formulas, graphs, and tables.

#### Certificate of Preparation in Computer Applications Program Student Learning Outcomes (2013-2014)

#### PSLO 1 (Information Competency):

Students will demonstrate understanding of the basics of computers and applications, including web page design and desktop publishing.

#### PROGRAM ASSESSMENT RESULTS:

#### Program Assessment of PSLO 1 (Based on assessment of CIS 124 (01) Fall 2013)

In the CIS 124 (01) course, 4 of the 5 students (80%) completing the final website project met the baseline of 70%. Unfortunately there were
many students who dropped the class early on for various reasons. It is the CIS department's belief that this course has been offered too many
times recently and there is not a complete pool of students to fill this class. For that reason, the CIS 124 course is not scheduled to be offered
during the 2014-15 academic year. Each student was able to upload content to a web server to host their personal website project. This was
the capstone project for this class.

#### PROGRAM ACTION PLAN

• I will continue to model the steps necessary to upload a site definition plan, folder hierarchy, webpage structure, and peer review. The CIS department will not offer this program during the 2014-15 academic year due to low enrollment. The CIS department will wait until the 2015-16 academic year until they offer the course again.

Certificate of Preparation in Computer Animation Program Student Learning Outcomes (2012-2014)

#### PSLO 1 (Information Competency):

Students will demonstrate understanding of 3D animation principles in 3D production.

#### PROGRAM ASSESSMENT RESULTS:

#### Program Assessment of PSLO 1 (Based on assessments of CIS 133 (01) Spring 2013)

• In the CIS 133 (01) course, 7 of the 8 students (87.5%) completing the capstone animation project met the baseline of 70%. Students once again demonstrated an understanding and comprehension of the skills and tools associated with 3D animation. It is the CIS department's belief that this course had been offered too many times recently and there was not a complete pool of students to fill this class. For that reason, the CIS 133 course was not scheduled to be offered until the 2014-15 academic year.

#### PROGRAM ACTION PLAN

 Revise activities leading up to and/or supporting assignments or assessment methods and increase student collaboration and/or peer review. In addition, utilization of rubrics will help students check their progress in regards to successfully meeting the highest standards set for this SLO and lesson. The CIS department will not offer this program during the 2013-14 academic year due to low enrollment. The CIS department will wait until the 2014-15 academic year until they offer the course again.

> Certificate of Preparation in Graphic Design and Web Content Program Student Learning Outcomes (2013-2014)

#### PSLO 1 (Technology Skill Sets):

Demonstrate knowledge of technology applicable to the field, and a proficiency in appropriate software; adapt to technological changes and select a current solution for a given problem.

#### PROGRAM ASSESSMENT RESULTS:

#### Program Assessment of PSLO 1 (Based on assessments of CIS 265 (01) Spring 2014)

• In the CIS 265 (01) course, 6 of the 6 students (100%) completing the Final Graphic Design Project met the baseline of 80%. This assessment was based on students completing a multimedia portfolio highlighting their favorite work creations, detailing a description of the tools used to complete the work, as well as describing the length of time spent on each project. It is the CIS department's belief that this course had been offered too many times recently and there was not a complete pool of students to fill this class. For that reason, the CIS 265 course was not scheduled to be offered again until the 2015-16 academic year.

#### PROGRAM ACTION PLAN

Increase student collaboration and/or peer review and increase guidance for students. Special attention will need to be focused on the completion of individual assignments so that student in the future will be able to have a comprehensive portfolio of assignments to choose from to demonstrate in their capstone project. Continued use of portfolios will be key, as they were quite helpful with student success in this SLO/project. The CIS department will not offer this program during the 2014-15 academic year due to low enrollment. The CIS department will wait until the 2015-16 academic year until they offer the course again.

#### Certificate of Preparation in Management Information Systems Program Student Learning Outcomes (2013-2014)

#### PSLO 1 (Technology Skill Sets):

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 environments.

#### PROGRAM ASSESSMENT RESULTS:

#### Program Assessment of PSLO 2 (Based on assessment of CIS 101 (01), (02), & (03) Summer 2014)

- In the CIS 101 (01) course, 28 of the 30 students (93.3%) completing the Final Exam met the baseline goal of 70%. In the CIS 101 (02) course, 20 of the 21 students (95.23%) completing the Final Exam met the baseline goal of 70%. In the CIS 101 (03) course, 15 of the 16 students (93.75%) completing the Final Exam met the baseline goal of 70%.
- In the CIS 101 (01) course, 21 of the 22 students (95.45%) completing the Final Paper project met the baseline goal of 80%. In the CIS 101 (02) course, 17 of the 17 students (100%) completing the Final Paper project met the baseline goal of 80%. In the CIS 101 (03) course, 15 of the 16 students (93.75%) completing the Final Paper project met the baseline goal of 80%.

#### PROGRAM ACTION PLAN

• Provide clearer information to student about the goals or objectives of the relevant assignment or assessment methods, increase student collaboration and/or peer review, and increase guidance for students.

#### Certificate of Preparation in Computer Maintenance and Help Desk Support Program Student Learning Outcomes (2013-14)

#### PSLO 1 (Technology Skill Sets):

Demonstrate knowledge of technology applicable to the field, and a proficiency in appropriate software, adapt to technological changes and select a current solution for a given problem in today's computing environments.

#### PROGRAM ASSESSMENT RESULTS:

#### Program Assessment of PSLO 1 (Based on assessments of CIS 170 (01) & 175 (01) Spring 2014)

• In the CIS 170 (01) course, 10 of the 15 students (66.6%) completing the Final Exam met the baseline of 70%. In the CIS 175 (01) course, 14 of the 14 students (100%) completing a complete Dual Boot Operating Systems build and deployment met the baseline of 100%. 100% of the students were able to build a successfully running computer which utilized both single operating system deployment and dual operating systems. In addition students were expected to take an outdated computer, disassemble and reassemble it, configure the BIOS, install device drivers, install and run antivirus software and perform a disk defragmentation.

#### PROGRAM ACTION PLAN

• The use of guided practice, teacher modeling, peer modeling, check-off sheets, and rubrics helped students succeed in this lesson. Peer collaboration and peer review also helped students with this SLO/Project. Additional effort will need to be focused on student preparation for the CIS 170 (01) Final Exam. Study groups, peer review, quizzes, and Q & A sessions might help prepare student in future sections of this course.

| 2012-2014 PSLO Data, Assessments, & Outcomes |                             |             |  |   |  |  |  |
|--|-----------------------------|-------------|--|---|--|--|--|
| Program Title                                | Course # & Sec. #           | Term        | Assessment Method                      | Outcome(s)  |  |  |  |
| A.S. Degree CIS                              | CIS 101 (01), (02), & (03)  | Summer 2014 | Final Exam                             | CIS 101 (01) 93.30% met baseline of 70%<br>CIS 101 (02) 95.23% met baseline of 70%<br>CIS 101 (03) 93.75% met baseline of 70% |  |  |  |
| A.S. Degree CIS                              | CIS 101 (01), (02), & (03)  | Summer 2014 | Final Paper                            | CIS 101 (01) 95.45% met baseline of 80%<br>CIS 101 (02) 100.0% met baseline of 80%<br>CIS 101 (03) 93.75% met baseline of 80% |  |  |  |
|  | CIS 101 (01), (02), & (03)  | Summer 2014 | Final Exam                             | CIS 101 (01) 93.30% met baseline of 70%<br>CIS 101 (02) 95.23% met baseline of 70%<br>CIS 101 (03) 93.75% met baseline of 70% |  |  |  |
| Cert. Info. Tech. Literacy                   |                             |             | Final Paper                            | CIS 101 (01) 95.45% met baseline of 80%<br>CIS 101 (02) 100.0% met baseline of 80%<br>CIS 101 (03) 93.75% met baseline of 80% |  |  |  |
| Cert. Computer Applications                  | CIS 124 (01)                | Fall 2013   | Final Website Capstone Project         | CIS 124 (01) 80.00% met baseline of 70%   |  |  |  |
| Cert. Computer Animation                     | CIS 133 (01)                | Spring 2013 | Computer Animation Capstone Project    | CIS 133 (01) 87.50% met baseline of 70%   |  |  |  |
| Cert. Graphic & Web Design                   | CIS 265 (01)                | Spring 2014 | Final Graphic Design Portfolio Project | CIS 265 (01) 100.0% met baseline of 80%   |  |  |  |
| Cort Mamt Info Systems                       |                             | Summer 2014 | Final Exam                             | CIS 101 (01) 93.30% met baseline of 70%<br>CIS 101 (02) 95.23% met baseline of 70%<br>CIS 101 (03) 93.75% met baseline of 70% |  |  |  |
| Cert. Mgmt. Info. Systems                    | CIS 101 (01), (02), & (03)  | Summer 2014 | Final Paper                            | CIS 101 (01) 95.45% met baseline of 80%<br>CIS 101 (02) 100.0% met baseline of 80%<br>CIS 101 (03) 93.75% met baseline of 80% |  |  |  |
| Cert. Comp. Maintenance                      | CIS 170 (01) & CIS 175 (01) | Spring 2014 | Final Exam<br>Dual Boot Comp. Build    | CIS 170 (01) 66.60% met baseline of 70%<br>CIS 175 (01) 100.0% met baseline of 100%   |  |  |  |

# 2012-2014 Course SLO Data, Assessments, & Outcomes

| Course<br># | Section<br># | Term           | SLO   | Assessment Method(s)                   | Outcome(s)   |
|-------------|--------------|----------------|-------|--|--|
|             | (01), (02),  | Summer         | SLO 1 | Ch. 8 Assignment                       | 97.18% of the students completing the project met the baseline of 80%  |
| CIS 101     | & (03)       | 2014           | SLO 2 | Ch. 14 Assignment                      | 94.59% of the students completing the project met the baseline of 80%  |
|             | u (00)       | 2014           | SLO 3 | Ch. 15 Assignment                      | 95.77% of the students completing the project met the baseline of 80%  |
| CIS 102     | (01)         | Fall 2012      | SLO 1 | MS WORD Unit D Lesson                  | 100.0% of the students completing the project met the baseline of 80%  |
| 010 102     | (01)         | 1 011 2012     | SLO 2 | MS Excel Unit D Lesson                 | 100.0% of the students completing the project met the baseline of 80%  |
|             |              |                | SLO 1 | Project 3 Assignment                   | 87.50% of the students completing the project met the baseline of 80%  |
| CIS 123     | (01)         | Fall 2013      | SLO 2 | Project 6 Assignment                   | 100.0% of the students completing the project met the baseline of 80%  |
|             |              |                | SLO 3 | Project 7 Assignment                   | 85.70% of the students completing the project met the baseline of 80%  |
|             |              |                | SLO 1 | Project 5 Assignment                   | 100.0% of the students completing the project met the baseline of 80%  |
| CIS 124     | (01)         | Fall 2013      | SLO 2 | Project 6 Assignment                   | 100.0% of the students completing the project met the baseline of 80%  |
|             |              |                | SLO 3 | Capstone Website Project               | 80.00% of the students completing the project met the baseline of 70%  |
| CIS 130     | (01)         | Fall 2012      | SLO 1 | Lighting Project                       | 71.43% of the students completing the project met the baseline of 80%  |
| 013 130     | (01)         | 1 all 2012     | SLO 2 | Building and Using a Portfolio Project | 100.0% of the students completing the project met the baseline of 100% |
| CIS 131     | (01)         | Fall 2012      | SLO 1 | Thinking Particles Lesson              | 100.0% of the students completing the project met the baseline of 80%  |
| 013 131     | (01)         | 1 all 2012     | SLO 2 | Cloth Nurbs Lesson                     | 80.00% of the students completing the project met the baseline of 80%  |
| CIS 132     | (01)         | Spring         | SLO 1 | Stylistic Orb Animation                | 87.50% of the students completing the project met the baseline of 80%  |
| 015 132     | (01)         | 2013           | SLO 2 | Portfolio Assignment                   | 85.71% of the students completing the project met the baseline of 70%  |
| CIS 133     | (01)         | Spring         | SLO 1 | Xpresso Cylinder Project               | 83.33% of the students completing the project met the baseline of 80%  |
| 015 133     | (01)         | 2013           | SLO 2 | Capstone Project                       | 87.50% of the students completing the project met the baseline of 70%  |
|             |              |                | SLO 1 | Ch. 7 Class Project                    | 87.50% of the students completing the project met the baseline of 80%  |
| CIS 150     | (01)         | Fall 2013      | SLO 2 | Ch. 8 Class Project                    | 68.75% of the students completing the project met the baseline of 70%  |
|             |              |                | SLO 3 | Computer Build Lesson                  | 93.75% of the students completing the project met the baseline of 70%  |
|             |              |                | SLO 1 | Computer Build Class Project           | 50.00% of the students completing the project met the baseline of 100% |
| CIS 155     | (01)         | Fall 2013      | SLO 2 | Ch. 16 Projects                        | 50.00% of the students completing the project met the baseline of 70%  |
|             |              |                | SLO 3 | CAT 5-e Cable Build (Ch. 17)           | 78.57% of the students completing the project met the baseline of 70%  |
|             |              | Spring         | SLO 1 | Dual Boot Computer Build Project       | 76.47% of the students completing the project met the baseline of 80%  |
| CIS 170     | (01)         | 2014           | SLO 2 | Troubleshooting and Ubuntu Tweaks      | 73.68% of the students completing the project met the baseline of 85%  |
|             |              | 2014           | SLO 3 | Operating Systems Debate               | 100.0% of the students completing the project met the baseline of 100% |
|             |              | Spring         | SLO 1 | Ch. 7 & Brainbench Exam                | 86.66% of the students completing the project met the baseline of 100% |
| CIS 175     | (01)         | 2014           | SLO 2 | Help Desk Sim. Project                 | 100.0% of the students completing the project met the baseline of 80%  |
|             |              | 2014           | SLO 3 | Darik's Boot and Nuke Project          | 100.0% of the students completing the project met the baseline of 100% |
|             |              | 0              | SLO 1 | Assignment 3                           | 94.40% of the students completing the project met the baseline of 90%  |
| CIS 248     | (01)         | Summer<br>2014 | SLO 2 | Assignment 6                           | 100.0% of the students completing the project met the baseline of 90%  |
|             | . ,          | 2014           | SLO 3 | Assignment 7                           | 85.70% of the students completing the project met the baseline of 90%  |
| 010.000     | (04)         | Spring         | SLO 1 | Lesson 6                               | 100.0% of the students completing the project met the baseline of 80%  |
| CIS 260     | (01)         | 2014           | SLO 2 | In-Design Project Flyer                | 100.0% of the students completing the project met the baseline of 80%  |
| 010 005     | (04)         | Spring         | SLO 1 | Peer Tutorial Project                  | 100.0% of the students completing the project met the baseline of 80%  |
| CIS 265     | (01)         | 2014           | SLO 2 | Final Project                          | 100.0% of the students completing the project met the baseline of 80%  |

# 7. PROGRAM AND COURSE COVERAGE

The CIS department consists of one full-time instructor. In the past, this instructor has been responsible for program review, SLO analysis, data collection, teaching face to face courses, developing curriculum, and chairing the Business Division (now the CIS department is part of the Professional Technologies Division – 2014-15). This has been a lot of work for the instructor. For this reason, adjuncts have assisted in teaching many of the correspondence courses offered through the CIS department. With that being said, an evaluation process for adjuncts was attempted during the Fall 2012 term. Unfortunately there were obstacles that were encountered in this process and the effort seemed to be a waste of time. Fourteen (14) adjuncts were evaluated in the Business Division, unfortunately these evaluations were lost by the Instruction Office. Having qualified, professional, and dedicated adjuncts will be a crucial link for student success, SLO assessment, and demonstrating program completers. Since many of the adjunct faculty are not qualified to teach the upper-level courses, the full-time instructor teaches those face to face.

It has been found that the lack of connection with students in the introductory courses offered by adjuncts through the correspondence modalities does not necessarily promote retention and pursuit of certificates and degrees in the CIS field. For this reason, the full-time instructor has been attempting to meet with the adjuncts to address the goals of Palo Verde College and the CIS department in particular. In addition, the full-time instructor teaches introductory courses each semester to ensure students are aware of all CIS Programs and course offerings. This has helped students understand that there are pathways, degrees, and certificates that are available in this field.

In addition, Palo Verde College is currently employing adjuncts which help promote rigor, data collection, and qualify instruction.

# 8. PROFESSIONAL DEVELOPMENT

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 mastered during the past 3 years appears below:

| • Windows 7 & 8      | Computer Maintenance            |
|----------------------|---------------------------------|
| Android OS           | Help Desk Support               |
| Mobile Platforms     | HTML and Cascading Style Sheets |
| Blender Animation    | Adobe Photoshop                 |
| Adobe Creative Suite | Cinema 4D Animation             |
| • HTML 5             | MS Office                       |

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 funds for professional development need to be allocated and budgeted at the departmental level. 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. Unfortunately many of these workshops are costly and are only offered during the school year. Due to budget constraints at Palo Verde College, there have not been funds available for attendance at these conferences and workshops. Another issue that has

CIS PROGRAM REVIEW 2014-15

Page 11 of 21

1/21/2015 1:58 PM

occurred is that the full-time instructor could not attend many of these conferences during the school term due to the lack of qualified instructors who could cover the courses in the instructor's absence.

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.

## 9. STUDENT PERFORMANCE AND COMPLETION

2010-2012 CIS AS Degree and Certificate Completion Data:

|       |  |                              | 2011 | 2012 | 2013 | 2014 | Total |
|-------|--|------------------------------|------|------|------|------|-------|
| CISAN | Computer Animation Ct.                   | Certificate – 6.0-17.9 Units | 15   | 2    | 4    |      | 21    |
| CIS   | Computer & Information Systems           | Associate of Science         |      | 1    | 1    | 1    | 3     |
| CIS   | Computer & Information Systems           | Certificate – 6.0-17.9 Units |      |      |      | 9    | 9     |
| CIMIS | Computer Mgmt. Info. Systems             | Certificate – 6.0-17.9 Units |      |      | 5    | 16   | 21    |
| CISRP | Computer Repair                          | Certificate – 6.0-17.9 Units |      | 2    |      |      | 2     |
| CISGD | Graphic Design & Web Content             | Certificate – 6.0-17.9 Units |      | 9    | 7    | 3    | 19    |
| CISLT | Information Technology Literacy          | Certificate – 6.0-17.9 Units | 13   | 9    | 3    | 13   | 38    |
| CISAP | Personal Computer Application Technology | Certificate – 6.0-17.9 Units | 1    | 1    | 4    | 1    | 7     |



Although the total number of people completing the A.S. Degree in Computer Information Systems has been low in the past, we anticipate steady growth over the next five years due, in large part, to the new certificates being introduced in this year's catalog and due to the fact that the AS degree has been revised. This growth should become more evident in future Program Review Cycles, as the current AS degree in CIS is still awaiting approval, even though it was approved May 2012 by the Curriculum Committee. This revision of the AS degree in CIS occurred because many of the courses that were required for the older AS degree were never offered and students were not able to complete the AS degree in two years because of this. The courses that are a part of the current AS degree in CIS are all offered in a two year cycle. It is our belief that as more students become aware of the degree, more students will pursue it and complete it. In the past three years, (3) A.S. Degrees in Computer Information Systems have been awarded. It is important to note that the AS degree in CIS was inactive from Spring 2010 - Fall 2012 while it was being revised and updated. During that time the AS degree was being revised to align with state standards and SB1440 legislation. Presently many students are in the pipeline pursuing the new AS Degree but are awaiting the college to place it in the catalog. This AS degree was approved by the Curriculum Committee in May of 2012.

During the past three years, all of the certificates offered in the CIS discipline have been revised and updated. Some of the certificates were placed on inactive status during the revision process. The Computer Repair Certificate was put on inactive status beginning Spring 2010 as the competencies and courses did not align with the content that was to be addressed. This lack of cohesion resulted in the full-time faculty member working on revising the certificate program. The new certificate program in Computer Maintenance and Help Desk Support has been approved and is currently being offered. This new certificate will address the skills and competencies needed to maintain a computing system and help desk support position.

The Personal Computer Applications certificate also demonstrated low completion rates during this program review cycle. During this time, the certificate program was on inactive status from Spring 2010 – Fall 2012. This certificate program was revised to also address the competencies expected for this certificate. We already have an increase in students pursuing this certificate. This will be demonstrated in the next program review "snapshot". It is our belief that the courses offered in each of these certificates directly relate to industry expectations and are vital to entry-level employment in the CIS field. We expect to see significant progress in our completion rates due to the revisions made to the AS degree in CIS and the certificates that are currently offered and those pending curriculum approval.



|                                      | Fall 2011 | Spring 2012 | Fall 2012 | Spring 2013 | Fall 2013 | Spring 2014 |
|--------------------------------------|-----------|-------------|-----------|-------------|-----------|-------------|
| Total Students (minus W Students)    | 217       | 172         | 209       | 238         | 217       | 207         |
| Student Completion C/P or Better     | 143       | 119         | 166       | 183         | 177       | 170         |
| % Completion C/P or Better (minus W) | 65.8%     | 69.1%       | 79.4%     | 76.89%      | 81.56%    | 82.12%      |

The introductory CIS class (CIS 102) is the practical, hands-on component of the total curricula at the College, preparing students for success in all other areas of study.

We will maintain our level of rigor in regards to the CIS core classes, making them available to day, evening, week-end, and to distance learning students along with ensuring that the IGETC requirement is always articulated for the transfer students.

CIS PROGRAM REVIEW 2014-15

## 10. ENROLLMENT AND FINANCIAL TRENDS

|                      | Fall 2011 |       | Fall 2012 | Spring 2013 | Fall 2013 | Spring 2014 |  |
|----------------------|-----------|-------|-----------|-------------|-----------|-------------|--|
| Total Classes        | 12        | 9     | 12        | 13          | 12        | 11          |  |
| Total Students       | 240       | 200   | 255       | 281         | 256       | 250         |  |
| AVG # Students/Class | 20        | 22.2  | 21.25     | 21.61       | 21.33     | 22.72       |  |
| % C/P or Better      | 59.6%     | 59.5% | 65%       | 65.1%       | 69.1%     | 68%         |  |
| % F Grades           | 23%       | 13.5% | 13.3%     | 14.2%       | 12.1%     | 14%         |  |
| % Withdrawals        | 14.5%     | 14%   | 18%       | 15.3%       | 15.2%     | 17.2%       |  |

### Student enrollment in CIS classes has been strong over the past three years.



It is a concern of the CIS department and PVC in particular that a large percentage of students begin a course but withdraw prior to completing it. To address this, the CIS faculty member regularly emails students that are absent from class, utilizes the bridge to promote important dates and events in each course, and provides students assistance outside of regularly scheduled class times. Persistence in courses is a focus of the CIS department and the full-time faculty member is aware of this issue. It is our belief that even though a significant portion of students are withdrawing from courses, the percentage of students withdrawing from other disciplines will be the same or greater. From data collected to date, many of these students are inmate students who do not begin the course after completing a pre-test and completing the syllabus receipt form. In addition, a large portion of these students are receiving financial assistance and do not drop the course because they do not want to lose their financial assistance for having a smaller course load.

| Fiscal Year | Department | Salaries &<br>Overload | Benefits     | Supplies  | Contracts | Capital  | Total         |  |  |
|-------------|------------|------------------------|--------------|-----------|-----------|----------|---------------|--|--|
| 2011-2012   | CIS        | \$ 101,646.34          | \$ 32,770.74 | 0         | 0         | 0        | \$ 134,417.08 |  |  |
| 2012-2013   | CIS        | \$ 132,388.98          | \$ 31,947.97 | \$ 12,123 | \$ 50.86  | \$ 2,102 | \$ 178,612.81 |  |  |
| 2013-2014   | CIS        | \$ 139,541.24          | \$ 20,413.90 | \$ 2,002  | \$ 46.00  | \$ 7,161 | \$ 169,164.14 |  |  |
| 2011-2014   | CIS        | \$ 373,576.56          | \$ 85,132.61 | \$ 14,125 | \$ 96.86  | \$ 9,263 | \$ 482,194.03 |  |  |

# COST OF PROGRAM 2011-2014 (CIS)

### 1 FTES = \$4564.83 (\*See Appendix A)

| <u>2011-2012</u>                                       |                   |               | - | <u>2012-2013</u>                                       |                   |               | - | <u>2013-2014</u>   |                   |               |  |
|--|-------------------|---------------|---|--|-------------------|---------------|---|--|-------------------|---------------|--|
| Class<br><u>Hrs./Wk.</u>                               | <u># Students</u> | <u>FTES</u>   | - | Class<br><u>Hrs./Wk.</u>                               | <u># Students</u> | <u>FTES</u>   | - | Class<br><u>Hrs./Wk.</u>                                 | <u># Students</u> | <u>FTES</u>   |  |
| 3 hrs/week   | 347               | 34.7          |   | 3 hrs/week   | 354               | 35.4          |   | 3 hrs/week   | 343               | 34.3          |  |
| 5 hrs/week   | 93                | 15.5          |   | 5 hrs/week   | 182               | 30.33         |   | 5 hrs/week   | 163               | 27.16         |  |
|  | Total FTES=       | 50.2          |   |  | Total FTES=       | 65.73         |   |  | Total FTES=       | 61.46         |  |
| <u>\$ Generated by FTES 2011-2012</u><br>\$ 229,154.47 |                   |               | - | <u>\$ Generated by FTES 2012-2013</u><br>\$ 300,046.28 |                   |               |   | - <u>\$ Generated by FTES 2013-2014</u><br>\$ 280,554.45 |                   |               |  |
| Total FTE \$-Cost of Program (2011-2012)               |                   |               | - | Total FTE \$-Cost of Program (2012-2013)               |                   |               |   | Total FTE \$-Cost of Program (2013-2014)                 |                   |               |  |
| Total FT   | E \$ Generated=   | \$ 229,154.47 |   | Total FTE \$ Generated= \$ 30                          |                   | \$ 300,046.28 |   | Total FTE \$ Generated=                                  |                   | \$ 280,554.45 |  |
| Co   | ost of Program=   | \$ 134,417.08 |   | (  | Cost of Program=  | \$ 178,612.81 |   | Co   | ost of Program=   | \$ 169,164.14 |  |
|  | Total Profit=     | \$ 94,737.39  |   |  | Total Profit=     | \$ 121,433.47 |   |  | Total Profit=     | \$ 111,390.31 |  |

# Equations for FTES Calculation: #Students x #hours per week x 18(weeks) / 540=

- During the 2011-2012 academic year, 440 students enrolled in CIS courses. The cost of Salaries, Benefits, Contracts, and Supplies during this time totaled \$134,417.08. This equates to a cost of \$305.49 per student. In addition, this also results in a profit (\$94,737.39 profit divided by 440 students) of \$215.21 per student.
- During the 2012-2013 academic year, 536 students enrolled in CIS courses. The cost of Salaries, Benefits, Contracts, and Supplies during this time totaled \$178,612.81. This equates to a cost of \$333.23 per student. In addition, this also results in a profit (\$ 121,433.47 profit divided by 536 students) of \$226.55 per student.
- During the 2013-2014 academic year, 506 students enrolled in CIS courses. The cost of Salaries, Benefits, Contracts, and Supplies during this time totaled \$169,164.14. This equates to a cost of \$318.18 per student. In addition, this also results in a profit (\$111,390.31 profit divided by 506 students) of \$220.14 per student.
- It appears that having only one full-time faculty member reduces the overall cost per student. It also is clear that having larger class sizes (enrollment) has also helped reduced the cost per student. In addition the full-time faculty member sold back his health insurance to save the college over \$7,000 per year.

# 11. FACILITIES AND EQUIPMENT

During the 2012-13 academic year, computers were brought into the computer lab to replace the outdated computers in the lab. Now current programs are supported by our hardware. This replacement plan was brought about my last two program reviews. It is nice for students who are studying Computer Information Systems to interact with efficient computing devices and resources.

One of the major needs of the program was a modern and powerful LCD projector. In the past, the courses taught have utilized an outdated projector that does not brightly or accurately display information on the projection screen in the front of the classroom. To address this, the CIS department has submitted numerous

requests for a new projector, as this projector was used daily in all courses taught by the full-time faculty member. Through this process, a new projector was recommended by administration, but lack of budget resources prevailed. During the middle of the 2013-14 academic year, the IT department replaced the old projector with a new and fully functioning projector. This has helped students in the back of the room see the vivid images and content projected on the screen in the front of the classroom.

During the fall 2012 semester, the CIS department presented a "Program Amendment Request" for Perkins/VTEA funding. Through this process, the CIS department was able to purchase equipment and specialized tools which will support existing courses and provide support for new certificate programs. Networking, help desk, and computer maintenance tools and equipment were purchased for this certificate program, and graphic tablets were purchased to support the Computer Animation and Graphic Design and Web Content certificate program.

Presently, the CIS department is utilizing the latest stable Microsoft Operating System (Windows 7), and utilizes the current Microsoft Office Suite and Adobe Creative Suite. This has been a change implemented by the full-time faculty member in this discipline. This was also a recommendation by the program review committee at the last two-year review.

During the past year, the full-time faculty member worked on obtaining a donation of computer animation software by one of the industry leading animation companies (Maxon). The software that we were using was quite outdated and was lacking many of the current features and components of the software. Also compatibility issues were also a major concern. To rectify this, Scott Peterson contacted Maxon directly and appealed to the president of the company to possibly donate or reduce cost of the software. Through this process the latest software was donated by Maxon for all computers in the CL130 classroom. In addition, Maxon donated the software to each student enrolled in the program for 18 month use free. The software retails for over \$4,000 per computer. This donation was for 33 computer and 33 student licenses at home. This donation would regularly cost \$264,000. The students appreciate the donation and are actively using the software at home.

The physical classroom space is quite adequate. The rapidly changing technology will always make equipment and software upgrades a constant budgetary requirement.

# 12. STRENGTHS AND WEAKNESSES

# STRENGTHS:

- <u>Enrollment</u>: Overall enrollment in CIS classes has been excellent with an average number of students per class of 21.52. (Please see chart in *Enrollment Trends* section of this review.) The CIS department has been able to promote degrees and certificates through various enrollment and course modalities. The CIS department has offered numerous courses through correspondence to local and incarcerated students. In addition, the CIS department offers courses to local high school students through concurrent enrollment during their traditional school day. The CIS department has also offered courses online and continues to offer courses during the summer term when courses are offered.
- <u>Programs</u>: We have recently reviewed and rewritten the A.S. Degree and Certificate programs to match current trade advisory committee recommendations. We have rewritten or revised all of our course outlines to ensure we are meeting state and federal standards. Currently we offer an AS degree in CIS, and six certificates.
- <u>SLOs/PSLOs/ILOs</u>: Currently the CIS full-time faculty member has written SLOs for all CIS courses offered at PVC. In addition, the full-time faculty member has evaluated and assessed each of these SLOs

and has created an action plan to address each of these items. Program Level SLOs have been designed for each degree and certificate program offered by the CIS Department. Each of these PSLOs have been assessed and evaluated and an action plan has been created to address these items. The CIS department is one of the first departments to complete SLO assessment and PSLO assessment. The full time faculty member regularly works on SLOs (Course and Program Level) and updates the course outline of record and syllabi to match the currently adopted SLOs. In addition, regular meetings occur between department members, division members, advisory committees, and CTE faculty and staff to discuss and analyze SLOs for this program. Every course has measurable SLOs that have been assessed, evaluated, implemented, and revised as needed.

The full-time CIS instructor has mapped all SLOs to PLOs and all PLOs to ILOs during the Fall 2014 term. In addition, all courses offered during Fall 2014 will be assessed by the new data collection and reporting forms provided by the Instruction Office.

- <u>VTEA & CTE Participation</u>: During the Fall 2012 semester, the CIS full-time faculty member completed a program amendment to allow participation in the VTEA/CTE Transitions program. Through this involvement, the CIS faculty member has been able to purchase equipment and technical supplies which will offer students the opportunity to utilize cutting-edge technology and tools to enrich the curriculum offered by the CIS department. In addition, the CIS full-time faculty member also serves as the Director of all CTE programs at Palo Verde College. During this last program review cycle, Palo Verde College has met all core indicators as was removed from "Diagnostic Study" status. In addition, a new CTE Enhancement Fund Grant was submitted for CIS and Health by the CIS faculty member. This grant will provide roughly \$87,000 to enhance, retool, and enrich these programs, with the intention of creating more marketable employees.
- <u>Software</u>: Presently the CIS department has been able to offer courses utilizing the latest MS Office software suite and the latest Adobe Creative Suite. This helps students gain the skills and competencies necessary for employment in the CIS field. In addition, the CIS department utilizes Open Source software for many of the courses offered at PVC. A leading computer animation company (Maxon) donated over \$240,000 of software to Palo Verde College and its students for the computer animation certificate program.
- <u>Computer Animation</u>: Palo Verde College was one of the first community colleges in the state to offer a computer animation certificate program. Students are able to complete a certificate program in computer animation in a year's time. These students are able to utilize cutting-edge software to produce professional work, the same software utilized by animation studios throughout the world. The quality of work produced by these students is exceptional. There are traditional college students in the course as well as high school students who attend the computer animation courses during their traditional school day.
- <u>Computer Maintenance & Web Design/Graphic Design</u>: These two certificates have demonstrated their success by their continued enrollment and completion rates. Students in these courses are learning skills and tools that are expected by people in these industries. Students are able to take the skills that they learn in these certificate programs and apply them immediately for personal or financial gain. Palo Verde High School students as well as traditional college students enroll in both of these certificate programs.

### WEAKNESSES:

CIS PROGRAM REVIEW 2014-15

• <u>Equipment</u>: It will be interesting to see what Windows 10 will look like and how it might be integrated into Palo Verde College. Windows 8 is the current operating systems implemented by Microsoft, but there have been many issues and bugs with this operating system. For this reason, the PVC IT department has not deployed this operating system on the campus computers. When the new operating systems from Microsoft is released, we will find out if there are software and hardware issues that might affect instruction.

A technology replacement plan for all computers throughout the College needs to be implemented. There does not seem to be any consistency to how a computer is replaced, when it is replaced, etc. In all other professional settings technology has a useful life cycle in which the oldest computers are replaced. This comes directly from a Technology Replacement Plan.

We have a uniform hardware/software platform throughout the College community, and we must strive to keep it. The high-speed Internet connection is very useful in enhancing instruction, and in communications throughout the College community.

- <u>Promotion and Advertising</u>: The CIS department will need to find methods to promote and advertise online computer courses before they are scheduled to be offered. This might be an avenue to enhance FTES for the college.
- <u>Data Collection</u>: It is very difficult to obtain accurate and timely data to address program improvement and to support the goals and requirements of the VTEA/CTE Transitions grant. It appears that we do not have a local expert on hand that can create the queries and reports necessary for program improvement through our current MIS system. Finding timely and accurate data has been a nightmare for faculty and staff at Palo Verde College.
- <u>Qualified Adjuncts & Additional Full-Time CIS Instructor</u>: Unfortunately, there are not many people living in the local region who are qualified to teach CIS courses. Many of the adjuncts that are currently employed by PVC do not fulfill the requirements of the CIS department. This includes uploading content and syllabi to the "Bridge", maintaining regular and effective contact with students, providing feedback on student work, returning graded work back to the student in a timely fashion, evaluating SLOs, designing powerful and useful syllabi, turning in grades in a timely fashion to the PVC registrar, and maintaining rigor consistent with the course outline for courses in which they teach. An evaluation process for adjuncts was completed during the Fall 2012 semester but nothing ever took place from this process.

It is the CIS department's hope that PVC will continue seeking qualified adjunct instructors from outside of the local area. In addition, the CIS department needs qualified adjuncts to teach face-to-face courses in the evenings. Currently the CIS program is utilizing a highly qualified instructor who teaches the introductory CIS courses and the Microsoft Office Courses. She has been a blessing to this program. Employing her to teach adjunct courses has freed the full-time instructor to teach the higher-level (advanced) courses in both face-to-face and distance education modalities.

• <u>High School Enrollment</u>: There needs to be a continued focus on advertising and enrolling concurrently enrolled high school students into the CIS programs. These local high school students do not have CIS courses offered at their schools and continually seek enrollment in PVC courses during their traditional school day. Unfortunately, many students are not aware that these courses are available to them and do not know which courses they are enrolling for. When a local high school student registers for their next year's

courses, they only see "Computers" as an option. We presently offer "Computer Animation", "Graphic Design and Web Design", and "Computer Maintenance and Help Desk Support".

# 13. PLANS TO REMEDY WEAKNESSES

**Promotion and Advertising**: We will continue a dialog with both the College and the public school counselors regarding our programs. We will continue to need a vocational counselor for not only the CIS department, but for all of the vocational departments at the College. We need to expand our marketing and promotion efforts to include brochures and flyers placed at the public school campuses, at the prisons, at our own facility, and around town. We would like to participate in the local fair by setting up a booth with demonstrations of computer animation and computer repair. This would be a great place to make contact with our future students. The current CTE counselor does an excellent job promotion CTE courses in the community and at the local area high schools. This consists of flyers, announcements, and outreach events.

**Grants and Funding**: CIS staff will look for new opportunities to provide greater financial resources to the program.

**Date Collection**: The CIS department will continue to pursue data collection as this is vital to the CIS department's involvement in the VTEA/CTE Transitions grant. Data is what is necessary to successfully respond to SLOs, grant reports, and grant applications. Having a qualified person employed who can interact and "pull" meaningful data in a timely manner from our MIS system is vital to our success.

**Technology**: Hopefully the IT department at Palo Verde College tests the newest Microsoft Operating System prior to deploying it to make sure that it functions correctly with current hardware and software utilized at Palo Verde College. In addition, the IT department should have a physical technology replacement plan that is visible to the faculty and staff. This plan should address when computers are replaced and which computers are to be replaced in the cycle. The IT budget should account for this process.

**Qualified Adjuncts**: It will be important for the Instruction Office to seek the guidance and input from the CIS Department prior to employing adjuncts. Finding qualified and professional adjuncts to teach courses is key to the success and retention of our students.

High School Enrollment: It will be important to continue having the CTE counselor promote and register High School Students in CTE programs. Through this process, the CTE counselor will be able to meet with CTE students to conduct Educational Planning, Career Guidance, Transfer Services, enrollment/registration, and petitions to graduate.

# 14. PLANS TO ADVANCE THE PROGRAM

**New Certificates**: Presently, the CIS department has rewritten and revised all courses and programs offered in the CIS Department. In addition, the CIS Department is awaiting curriculum approval for four new courses which are part of a new certificate program in Computer Maintenance and Help Desk Support. It is our intention to begin offering these courses fall 2013.

**Continued Pursuit of Local High School Student Enrollment:** The CIS department will continue to design courses which correspond to the bussing schedule of the local high schools. By designing these courses around their bussing schedule, high school students are able to enroll in CIS courses and programs during their traditional school day. It is important to note, that concurrently enrolled high school students are able to take college courses at no cost which is a big selling feature.

CIS PROGRAM REVIEW 2014-15

**Course Additions and Revisions**: All courses will continue to be revised and updated to stay current with current and emerging trends as they relate to CIS. In addition, SLOs and PSLOs will continue to be assessed, evaluated, and implemented in all CIS courses.

**Continued Annual Program Advisory Committee Meetings**: The CIS department will continue to hold annual advisory meetings, seeking insight, input, and information from local and regional businesses and employers. It is the goal of the CIS department to support the needs of our local industries and teach skills that will help students gain employment.

**Continue Seeking Open Source and Open Content Resources**: The full-time CIS faculty member will continue seeking open source alternatives to costly "mainstream" software packages. In addition, the CIS faculty member will continue seeking alternatives to costly textbooks in the CIS discipline. The current full-time CIS instructor has been looking into Open Content Resources to support instruction in the CIS programs.

**Continued Involvement in the VTEA/CTE Transitions Grant**: The CIS department will continue its involvement in the VTEA grant. Through participation in this grant, the faculty member is able to pursue non-traditional enrollment (females in male dominated fields) and provide all students will cutting edge equipment and resources which will help prepare them for employment in the CIS field.

**Continued Analysis & Implementation of SLO and PSLO Data**: The CIS full-time faculty member will continue analyzing SLO and PSLO data for each course, certificate, and degree it offers. In addition, it will implement the items addressed in the "Action Plan" portion of the SLO and PSLO analysis.

**Continue to Seek Software Donations by Maxon:** The full-time faculty member will continue to seek software donations from Maxon as the need arises. This has been a blessing to the computer animation certificate program.

### APPENDIX A

### PRIMER ON COMPUTING FULL-TIME EQUIVALENT STUDENT (FTES)

California Community Colleges state apportionment is primarily driven by the Full-Time Equivalent Student (FTES) workload measure. FTES is not "headcount enrollment," but is the equivalent of 525 hours of student instruction per each FTES. For the 2007-08 Fiscal Year, the funding rate for each CREDIT FTES is \$4,564.83 (this is a uniform CREDIT FTES rate for all community college districts and is adjusted annually for COLA) [the NONCREDIT FTES rate for the same period is \$2,744.96, while the rate for Career Development and College Preparation (CDCP) NONCREDIT FTES is \$3,232.07]. CDCP Noncredit FTES is generated by Noncredit courses that are eligible to received an enhanced noncredit rate because they are part of a program or sequence of courses approved by the Chancellor's Office pursuant to Title 5 Section 55151. As provided by Title 5 Section 55151, these CDCP noncredit courses must result in a noncredit certificate of completion leading to improved employment or a noncredit certificate of competency in a recognized career field articulated with degree applicable coursework.

Basically, an FTES [formerly called "average daily attendance," (ADA)] was theoretically derived by considering that one student could be enrolled in courses for 3 hours a day, 5 days a week, for an academic year of 35 weeks—so basically, a total of 525 hours per one FTES (3 x 5 x 35 = 525).

The FTES are computed under four different attendance accounting formulas; positive attendance (actual attendance each class meeting), weekly census, daily census, and the alternative attendance accounting procedure for independent study/work experience education and distance education courses not computed using the other basic procedures (see Calif. Code of Regulations, Title 5 section 58003.1). Each method of attendance accounting ultimately calculates to a number of FTES (workload in contact hours) based on the number of students enrolled, the length of the course, and divided by 525. Per Title 5 Section 58003.1(a), the determination of the which attendance accounting procedure to apply is based on the type of course, the way the course is scheduled, and the length of the course. In the case of Noncredit courses, Title 5 Sections 58006 and 58007 provide that contact hours and FTES shall be computed based on the count of students present at each course meeting ("positive attendance" procedure — actual student contact hours) except those noncredit distance education courses computed on the alternative attendance accounting procedure defined in section 58003.1(f)(2). Other than this fairly rare exception, noncredit courses must be on the positive attendance procedure (actual student contact hours/525 = FTES).

The major number of FTES reported by the colleges are generated in weekly census procedure courses that are scheduled in the primary terms (quarter or semester system colleges). Courses that are scheduled as "weekly census" must be scheduled the same number of hours each week of the primary term. The terms usually equate to 35 weeks, but in some instances there are more weeks, or fewer weeks, than 35. However, in the calculation of FTES for any primary