Plans for Computer Information Systems / Computer Science / Multimedia >> CIS, CSCI, and Multimedia 18-19 Program Review

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Name :
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Principal Preparer :
Denise Allen, Iris Kern-Foster, Frank Madrid
Planning Participants :
Denise Allen, Iris Kern-Foster, Frank Madrid
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Instructions

Please respond to the following questions. Please consult the Integrated Planning and Program Review Handbook for detailed instructions, the timeline for due dates, and the schedule for the four-year plan schedule.

1. Mission

a. Tell us your unit's mission: Provide a mission statement for your unit that clearly and succinctly describes your unit's purpose, idealistic motivations, and change it hopes to inspire.
b. Alignment with the college Mission: **Rubric Item** (Mission Alignment): The Mission of Crafton Hills College is to advance the educational, career, and personal success of our diverse campus community through engagement and learning. **In what ways does your program advance the mission of the college?**
The mission of Crafton Hills College is to advance the educational, career, and personal success of our diverse campus community through engagement and learning
A. Information Technologies (IT) Disciplines Mission
The mission of the CHC Information Technologies (CIS/CSCI/MULTI) disciplines is to support the educational, career, and personal success of our students through hands-on learning and active engagement. In particular, the disciplines

- prepare students for transfer to four-year institutions, and
- provide students the skills needed to succeed in a technologically dependent workforce

B. Alignment with the College's Mission:
The Information Technologies (IT) disciplines are dedicated to the mission of advancing the educational, career, and personal success of our diverse campus community through engagement

and learning. The discipline faculty actively engage students in the learning process through group discussions, skills-based projects, labs and hands-on tutorials. Recognizing the diversity of learning styles, the instructional faculty have modified the course delivery options, to include hybrid and fully online courses, flipped classrooms, project based learning, directed teaching and lecture based instruction. The IT faculty members value academic excellence and the advancement of each student's educational, career and personal success goals as evidenced by our commitment to remain current in our disciplines, to revise existing course outlines as well as developing new courses, certificates, and degrees that meet current and emerging workplace demands.

2. Description of Program

a. Organizational Structure and Staffing
b. Describe any activities in addition to instruction that you provide.
c. Describe any alternative modes of instruction and schedules of delivery: e.g.: online, hybrid, early morning, evening services.
d. **Rubric Item**: Describe how your curriculum is up-to-date and Needs-Based. Base the description on surveys, labor market data, transfer patterns such as GE, IGETC, CSU, AA-T, or AS-T, accreditation standards, and/or articulation agreements. Consider the results of your most recent curriculum reviews in this section.
e. **Rubric Item**: Attach your scheduling matrix to show when courses in your area are offered. Click here for sample!

A. Organizational Structure and Staffing

Computer Information Systems, Computer Sciences and Multimedia are three distinct disciplines housed under the Multimedia, Information Technology, and Noncredit (MITN) department within the Division of Social, Information and Natural Sciences. The department has traditionally offered courses in Computer Information Systems including courses on computer hardware, networking, operating systems, multimedia and programming. Over the past five years the department has strategically migrated the majority of the CIS programming courses to the CSCI discipline. The CSCI discipline currently includes five courses, a certificate and an Associate of Science degree focusing on transfer preparation for students who plan to pursue a four-year degree in computer science. Last spring a new full-time faculty member with expertise in the discipline of multimedia was hired. The new full-time hire has begun migrating courses from the CIS discipline to the MULTI discipline. A total of 15 new courses, 4 new certificates and 3 new AS degrees have been developed under the Multimedia discipline.

The department staffing includes three full-time instructors, eight part-time instructors, one full-time lab technician, and several hourly computer lab techs. One of the full-time faculty members has expertise in hardware and networking, a second full-time faculty member has expertise in programming and meets the minimum qualifications to oversee the growth and development of the computer science discipline. A third full-time faculty member with expertise in Multimedia was hired in the spring of 2018. She has been charged with growing the Multimedia discipline. The adjunct faculty members provide additional expertise in areas such as web design and development, digital media, cybersecurity, operating systems and hardware.

The department courses are taught in up-to-date computer-based classrooms. The MITN computer-based classrooms were renovated in the 2016-2017 academic year. The newly renovated computer wing was opened in the Fall of 2017 and includes 3 computer-based classrooms, an instructional support lab and a hardware lab. The classrooms in CNTL 118, 119 and 120 are equipped with 38 student-based workstations, a teaching station, a printer and a

video projector. The instructional support lab (CNTL 109a) has 36 student workstations, a video projector and a teaching station. The hardware lab is designed to support the hardware classes, the networking classes and CIS student's exploration of PC components including the installation and repair skills as required in the CIS 101 130, 140 and 141 courses.

In order to provide students with workforce relevant instruction, the course specific software applications and the classroom-based PCs must be kept current. Replacement costs for software suites, such as the Adobe Creative Cloud, Autodesk, and Microsoft office are included in each program review and subsequent annual plan goals and objectives as a top-level priority.

Upgrading the MITN classroom computers, printers and video projectors is the responsibility of the CHC IT department. The District Information Technology plan calls for the replacement of the lab-based computers every three years. As was previously stated, the labs were upgraded in the summer of 2017. The three-year replacement cycle should resume at the conclusion of the 2019-2020 academic year. The discipline faculty remain current with emerging trends in computer hardware and software by attending conferences, reading professional journals and participating in online technical and pedagogical workshops and seminars.

The CIS, CSCI and MULTI offerings are diverse and comprehensive, providing students with numerous options to explore a wide variety of technological fields. The CIS class with the most significant enrollment, CIS 101, is a foundational course providing students with technological and computer competency skills. CIS 101 is a required course for students preparing to transfer in many fields, including business administration, Radiologic technology, and education. A newly developed course, MULTI 100 has been designed to serve as a foundational course for the discipline providing students with a preview of the diverse offerings included within the Multimedia discipline.

The MITN classroom/labs are designed for hands-on learning, enabling students to practice the skills they are taught in a real-world environment. Open-lab time (currently held in CNTL 109a) is built into the class schedule. The open lab hours are staffed by highly skilled lab tech/tutors who assist students with their class assignments and projects. In addition, the computer lab-techs provide troubleshooting support, free of charge, for students who are experiencing application or hardware issues on their personal computers.

Finally, the department faculty and staff members help students acquire expensive software at drastically reduced costs through the maintenance of educational software purchasing agreements such as the Microsoft DreamSpark Program, which provides an inexpensive way for students to acquire the latest version of Microsoft applications that are identical to the versions installed on the classroom and lab PCs. Access to the instructional software at a very low or no cost is invaluable to the many students with limited incomes.

B. Activities in Addition to Instruction that we Provide

The discipline faculty support student learning though by promoting a variety of activities, clubs and events. This Fall, the Computer Science & Technology Club, under the leadership of the newly hired CSCI faculty member Frank Madrid, explored a variety of IT topics including robotics, Arduino programming, and video game programming. The Computer Science and Technology club holds 3 meetings each week, each focusing on a specific topic or project. The club has 18 members and provides a venue for CIS, CSCI, MULTI and students of from others disciplines to interact with each other.

CIS adjunct faculty member Ed Papp has been retained to update the Work Experience plan for CHC. Additionally, Mr. Papp is developing and coordinating partnerships, workshops, and events to enhance CIS, CSCI and MITN internships opportunities.

Tutors in the open lab are supporting students in their course assignments. Specialized turoring in the disciplines is provided, with the growth of students enrolled in multimedia classes, more tutors with emphasis in this areas will need to be added to the team of MITN tutors.
Corey Johnson, the full-time lab tech alos currently serves as the advisor for the student gaming club "PC Gaming Hub", which meets in lab 109a. The gaming club also functions as a recruitment potential for students to pursue carees in the gaming industries. The department is developing courses to cater to those careers. The club has began to explore the feasability of launching a competetive eSports team. This is an emerging opporutunity for the department.

C. Alternative Modes of Instruction

Our classes are taught in a variety of formats including day and evening, hybrid, and online. The discipline currently offers CIS 101 in face-to-face, hybrid, and fully online formats. The discipline is also in the process of evaluating the feasibility of offering additional courses via an online/hybrid format. The flexibility that exists with an online course may help increase enrollments in single-section upper-level classes. The new full time faculty member are working their way through the college online teaching approval process and we are encourgaing the PT fauclty to explore this as well. The department also offers internship courses in web design, hardware, and networking, in which students earn academic credits for practical work experience in their identified field of study.

D. Up-to-date and Needs-based Curriculum

All courses abide by the minimum six-year revision requirements. However, given the rapidly changing nature of technology, several discipline specific courses must be updated more frequently in order to meet current industry standards. For example, CIS 130 (IT Essentials) and CIS 140-143 (CCNA Networking) must use the Cisco Networking Academy curriculum which is revised every three to four years.
To support student transfer, the discipline faculty have revised existing courses and have added new courses and degrees to follow the C-ID descriptors and the Transfer Model Curriculum (TMC) provided by the California Community College Chancellor's Office. New Computer Science courses have also been added to the CSCI discipline to provide preparation for students who want to transfer to a four-year institution. These courses follow C-ID descriptors and the A.S.-T in Computer Science also follows the TMC. The full-time faculty members are currently investigating the feasibility of offering the newly adopted A.S.-T in Information Communications Technology (ICT).
The newly hired full-time faculty member in the multimedia discipline is working on revising courses, developing additional courses, certificates and degrees so that those students interested in pursuing a career in digital media will have access to the applications and equipment most relevant to current and emerging industry standards.
In collaboration with our local high school partners, articulation agreements of our CIS/CSCI/MULTI courses with equivalent high schools courses are periodically updated. As of fall 2018, **articulation agreements** for applicable IT courses with Yucaipa High School, Redlands East Valley High School, Redlands High School, San Bernardino School District have been updated. In addition, brochures providing the articulation information have been created.
The MITN advisory committee, which consists of local technology industry representatives, high school educators, and our college faculty members, meets in the spring term of each academic year to discuss topics related to program development, industry needs, and alignments with high school curriculum. The yearly discussion helps the discipline faculty continue improving the program to align to the educational and industry needs of the local region.

E. Scheduling Matrix
See CIS-CSCI-MULTI Course Matrix Fall2018 Revise
See CIS-CSCI Course Rotation Patterns F18

3. External Factors with Significant Impact

What external factors have a significant impact on your program? Please include the following as appropriate:
a. Budgetary constraints or opportunities
b. Competition from other institutions
c. Requirements of four-year institutions
d. Requirements imposed by regulations, policies, standards, and other mandates
e. Job market
  i) Requirements of prospective employers
  ii) Developments in the field (both current and future)

A. Budgetary Constraints or Opportunities

Growth for the MITN programs has been limited by budgetary constraints. During the budget crisis the department lost two full-time faculty members due to retirements. The department was able to hire one new full-time faculty member with expertise in programming who developed and authored 5 new CSCI course as well as two new CSCI degrees and a certificate. The implementation of the Strong Workforce Program by the state has provided a budgetary opportunity for the department. Strong Workforce funds have been used to hire an additional faculty member with expertise in digital media. The new full-time hire has begun migrating courses from the CIS discipline to the MULTI discipline. A total of 15 new courses, 4 new certificates and 3 new AS degrees have been developed under the Multimedia discipline and are currently working their way through the curriculum approval process.
The third full-time MITN faculty members serves as the President of the District Assembly, the campus grievance rep and the department chair. She receives a .9 release for these positions, which means the MITN disciplines are served by 2.1 full-time faculty members. This faculty member will be retiring at the end of the current academic year and a job announcement has been posted to hire a new full-time faculty member with expertise in computer hardware, networking, operating systems and security.

B. Competition from Other Institutions

The MITN department understands the issues related to competition from neighboring educational institutions. Community Colleges in our service area, including SBVC, RCC and CCC have larger student populations and as such, are able to offer a wider variety of technical courses, certificates, and degrees. A wider offering of courses draws students to a campus. The discipline faculty will continue to evaluate existing program offerings and explore new degrees and certificates in order to attract students to our programs. For example, recognizing the value of a CS transfer degree, we have worked hard to develop the CSCI program and are encouraged by the continued and steady increase in enrollments. Additionally, we have identified digital media as a growing industry in our service area. The new digital media courses, certificates and degrees should attack additional student from the region to our program which has been designed to provide students with the industry relevant technical skills needed to excel in a media dependent workforce. Finally, our new spring hire should help with the growth and development of our Network Technician programs providing the most current knowledge and training for

students interested in computer hardware, networking, wireless networking, server services, operating systems, and cybersecurity.

C. Requirements of Four-Year Institutions

As discussed in question 1, the discipline faculty have focused on developing and authoring courses and degrees that follow the C-ID descriptors and the Transfer Model Curriculum (TMC) provided by the California Community College Chancellor's Office in order to fulfill the requirements of four-year institutions. New Computer Science courses have been added to the discipline in order to prepare students who want to transfer to four-year institutions. The faculty members will investigate the possibility of offering an A.S.-T in Information Communications Technology, for which the TMC is currently being developed.

After thorough research of degree conventions in 4 year institutions, the new multimedia degrees will be offered as AS degrees in alignment with 4 year degrees.

D. Regulatory Requirements

The only requirements the discipline currently has in terms of mandates is with the Cisco Networking Academy courses. The CCNA courses are developed by Cisco and academy instructors must complete mandated training for each course they are certified to teach. Academy course curriculum and materials are updated every 18 months with major revisions every three to four years. Instructors are required to use the latest versions of the CCNA and A+ curriculums which places an additional demand on the program and instructors.

E. Job Market

According to data contained in the current environmental scan reports, the job market outlook for the Riverside/San Bernardino/Ontario metropolitan area, identifies several high demand information technology positions including web development, software development, information systems, and network support and administration. Our existing CIS/CSCI degrees and certificates are designed to provide students with essential job skills in web development, programming, and network support knowledge and skills as required by the industry. The discipline will continue to evaluate the program degrees and certificates and will revise as needed to align to the identified local workforce needs, especially in database and network administration.

For MULTI degrees and certificates the job market analysis also identifies the Orange County region, as an area with high market density in digital media fields. Additionally the Orange County region is within an acceptable commutable radius. In anticipation of start-up potential and freelance opportunities in the digital media areas, the MITN department is also seeking collaboration with the business department to include the instruction of entrepreneurial skills.

i) Requirements of prospective employers

At our annual advisory committee meetings, employers in technology-related fields provide input into desirable skills of prospective employees. Besides technical skills, soft skills have repeatedly been brought up as an essential skill. In response to this identified need, we have added a soft skills course to our curriculum offerings. We have also developed and have begun offering a series of four noncredit courses which teach the essential skills required for workplace success. Additional courses in the Adobe Creative Cloud have also been added to our program to enrich our digital media program. We will continue to obtain input from local employers in order to refine and revise our courses and programs to meet current industry needs.

ii) Developments in the field (both current and future)

There is no downtime in the information technology field and there are very few jobs and industries that have not been impacted by or become dependent on technology. In fact,

technological know-how has become an essential skill in both education and in the workforce. The constant evolution of technology has a significant impact on our disciplines. Major changes in software and hardware can occur every 18 months, presenting a constant challenge in terms of program currency. Many of the discipline courses must be redesigned every three to four years to address emerging trends. It is also essential that the discipline be allocated the funds required to purchase the latest software and hardware. Additionally, the classroom PCs must be upgraded every three years (as per the CHC IT plan), at minimum in order to deliver the latest application versions quickly and efficiently. IT professors must spend numerous hours learning about new hardware components, software releases, operating systems revisions, and new developments in the industry and as such, conference attendance is essential for maintaining currency.

4. Progress on Outcomes Assessment (Four-Year Question)

Refer to the SLO Cloud to evaluate the results from your program level outcomes and to develop actions reflected in your program review action plan (i.e. Question 10). **Rubric Item**: Program Learning Outcomes

a. Please summarize **Program Level Outcomes (PLO) assessment results**. Include a discussion of whether or not the program met its target for each PLO.

b. Please describe any program/course and/or instructional improvements you plan to make as a result of the PLO assessment(s).

c. What objective(s) or action step(s) will you add to Question 10 as a result of the PLO assessment(s)? If none, please explain.

A. Program Level Outcome (PLO) assessment results.

The program level outcomes for CIS and the 3-year achievement percentages are as follows:

1. Apply logical and critical thinking skills to the computing discipline. 87.44%
2. Use appropriate information and technology to analyze, evaluate, and solve technical problems. 89.00%
3. Collaborate effectively in teams. 75.00%
4. Discuss the impact of information technology on the society and workplace. 78.05%

In the 2017 - 2018 academic year the performance percentages on CIS PLOs 1, 2 & 4 were: 90.43%, 89.4, & 92.4 respectively. This indicates progress has been made toward achieving our target of achieving an 80% or higher on all PLOs.

The Program Level Outcomes for CSCI and the 3-year achievement percentages are as follows:

1. Apply knowledge of computer science and mathematics to design computing systems and to solve a variety of problems. 100.00%
2. Analyze a problem and identify and define the computing requirements appropriate to its solution. (not assessed)
3. Design, implement, and evaluate software solutions that satisfy problem requirements. 81.69%
4. Collaborate effectively in teams. (not assessed)
5. Communicate technical contents effectively in both written and spoken formats. 85.71%

The discipline has consistently achieved its target of 80% or higher on all CSCI PLOs that have been assessed over the past 3 years.

As of Fall 2018, all course level SLOs have been reviewed, updated as needed, and mapped to their corresponding PLOs. The discipline faculty members are now using the SLOCloud tool to submit SLO & PLO results. At the last department meeting of the spring 2018 term discipline faculty members met to discuss the SLO & PLO assessment results.

B1. Program/course and/or instructional improvements made as a result of the PLO assessment process
Instructional improvements made as a result of SLO/PLO assessment results include: development of practical projects to help CIS 101 students to apply skills acquired in Microsoft Office, incorporation of creative team projects that addresses social issues in CSCI 120 and connect the learned to real-world applications. Cisco academy instructors discussed SLO assessment results in both CIS 140 and 141. Additional instruction on related to the 7 layer OSI model was incorporated into the CIS 140 class. In the CIS 141 course, basic router and switch commands were enhanced using Lynda.com tutorials, instructor led demo's and CLI hands on labs.
The IT faculty will assess at least one SLO for each course that is offered each academic year. We will continue to hold one department meeting per year dedicated to SLO/PLO discussion and improvement recommendations. Our plan for assessing SLOs and PLOs in 2018 - 2019 academic year is as follows:

- Fall 2018: CIS 091, 095, 101, 111**,** 113, 130, 161, 173, 190A; CSCI 110, 120, 240
- Spring 2017: CIS 105, 106, 125, 134, 140, 141, 162, 163, 165, 180, 182, 211; CSCI 200, 230

C. Objective or Action steps included in this plan:

1. All courses will be taught in a high quality technically current environment.
2. At least 75% of FTE instructional load in our program will be taught by full-time faculty.
3. Increase student success by providing daily access to lab tech tutors
4. IT instructors will maintain professional currency by attending workshops and conference related to new and emerging technologies
5. Providing IT student internship and mentoring opportunities

5. Unit's Performance on Institutional Quantitative Effectiveness Indicators

Please discuss your program's performance on each data item below.
a. Instructional Program Health Evaluation Rubric
i) **Rubric Item**: Use Office of Institutional Effectiveness, Research, and Planning (OIERP) data to set a Course Completion Rate target and provide an explanation for the target that has been set. Click HERE to access your program specific data.
ii) **Rubric Item**: Use OIERP data to set a Course Success Rate target and provide an explanation for the target that has been set. Click HERE to access your program specific data.
iii) **Rubric Item**: What is your FT/PT Faculty Ratio, how is it impacting your program, and student success? Click HERE to access your program specific data.
iv) **Rubric Item**: Use OIERP data to set a WSCH/FTEF Ratio target and provide an explanation for the target that has been set. Based on Faculty dialogue what is a feasible WSCH/FTEF (productivity) target for your area? (Note: 525 may not be a realistic target for your area.) Click HERE to access your program specific data.
v) **Rubric Item**: The Fill rate target is 80% or higher. Use the data provided by the OIERP and please provide a reason for any deviation from the target. This may involve a discussion around the appropriateness of the cap and how it was set. Click HERE to access your program specific data.
I. Course Completion Rate

The CIS course completion rate for 2017-18 is 86.2%. The CSCI course completion rate is 80.3%. The target for course completion rate for our program is set to 88%, which is in line with the Crafton completion rate of 90.1% and the trends within both disciplines for the last four years. Courses in Multimedia will be offered starting in the 2019-2020 academic year.
The Quantitative Effectiveness Indicators for the Multimedia discipline will be reviewed as part of the the 2020-2021 annual planning process.
The current trend for the course completion rate has seen a steady decrease over the past five years, from 89.8% to 80.3%. As of Fall 2018, the course completion rate for the entire CSCI currciculum has stabilized at 80.9% with a total of 110 enrolled students. The course with lowest completion rate is CSCI 110 at 76.2%. This can be attributed to the common misconception that CSCI 110 is not a course which focuses on the programming and development of mobile or game applications but rather emphasizes programming fundamentals. To address this, the department should consider authoring and subsequently offering coures in mobile applications and game development where students who are interested in creating content as opposed to transferring to a four-year institution will flourish (see **Figure 1** below).

(Figure 1) Course Completion Rates: Fall 2018

CSCI 110 Introduction to Computer Science I (C++): 76.2%
CSCI 120 Introduction to Computer Science II (C++): 84.6%
CSCI 240 Computer Organization and Assembly Language Programming: 86.7%

II. Course Success Rate

The course success rate for CIS courses in 2017-18 is at 69.8% which is a 6% increase form 2016-17. The course success rate for CSCI is 65.3% which is a 3.3% decrease from 2016-2017. A reasonable target for our disciplines is 70%, which is in line with the discipline success rates for the past five years and is also in line with the college wide success rate 71.7%.
As of Fall 2018, the course success rate has *jumped to a high 80.3%* and can only increase as we continue to roll out exciting and engaging new content. The low completion rate for CSCI 120 is attributed to a disconnect between instructor expectations and student workloads which is in the process of being corrected beginning the Spring 2019 term. (See **Figure 2** below).

(Figure 2) Course Completion Rates: Fall 2018

CSCI 110 Introduction to Computer Science I (C++): 88.9%
CSCI 120 Introduction to Computer Science II (C++): 68.2%
CSCI 240 Computer Organization and Assembly Language Programming: 76.9%

III. FT/PT Faculty Ratio

The FT/PT faculty ratio for CHC has decrease from 43.8 to 37.3 or 6.5% over the past 5 years. The FT/PT ratio for the CIS discipline has decreased from 34.1% to 26.3% which represents a 7.8% decrease over the past 5 years. The CSCI FT/PT ratio is 46.7% which represents a 18.9% decrease from 2014-2015. Last fall, the full-time Cisco Networking Academy CIS Instructor was elected as the President of the District Assembly and as the grievance rep for the Union. This resulted in an 80% reduction in the teaching load of this FT faculty member leaving only one full-time faculty members in a program that requires multiple areas of expertise. The lack of FT faculty in a multi discipline program is a major concern. As has already been stated, the discipline also lacked full-time faculty expertise in digital media which has made planning for a comprehensive digital media degree difficult at best. To support students who are interested in digital media, a full-time faculty member with digital media expertise was hired in the spring of 2018. New multimedia courses, certificates, and degrees that are closely aligned with the four-year institutions and the industry trends are currently working

their way through the curriculum approval process. This spring, the Cisco Networking Academy instructor will be retiring and the department has already begun the process to replace this instructor with a new hire with expertise in hardware, networking, operating systems and cyber security. Our goal is to have 75% of our courses taught by full-time faculty. To achieve this goal we would need to hire a fourth full-time faculty member.

IV. WSCH/FTEF Ratio

The WSCH/FTEF ratio for CIS courses in 2017-18 is at 301, and the WSCH/FTEF ratio for CSCI courses is at 327. The disciplines have set a target WSCH/FTEF ratio of 350. This would equate to approximately 20-35 students per class. The one issue is with our advanced classes. These classes traditionally do not fill. We would need to be able to offer multiple sections of the beginning courses in the sequence which we have not be able to do because of the budget and enrollment constraints. Additionally our multimedia courses have lacked full-time expertise which we believe has had a negative impact on enrollments. Active and targeting marketing of the CIS, CSCI, and Multimedia courses and programs should help increase the WSCH/FTEF ratio.

V. Fill Rate

The 2017-18 fill rate in CIS courses is 63.8%, and the fill rate in CSCI courses is 66.8%. In order to increase the number of students who enroll in our program, marketing efforts need to increase to include advertising our courses and program courses to the community at large. Additionally, part of the reduction in CIS and CSCI course enrollments may be related to the improving economy which traditionally has a negative impact on Community College CTE programs.

6. Other Unit-Specific Quantitative and Qualitative Results

a. **Rubric Item**: How do your program student demographics relate to the college demographics? What are the discrepancies? – **Click HERE to view program and college demographics by year.**

b. Summarize the results of any quantitative or qualitative measures not provided in the previous question that you have chosen to gauge your program's effectiveness (e.g.: transfers, degrees, certificates, satisfaction, enrollments, Perkin's data, equity data, student research experience, student clubs, etc.) **Click HERE to access your program specific data on degrees and certificates.**

c. What improvements/changes have you implemented or do you plan to implement as a result of your analysis of the measures illustrated in 6a and 6b?

A. Whom We Serve

The IT disciplines serves students who are:

- transferring to four-year colleges or universities;
- obtaining a two-year associate degree;
- acquiring and/or updating the technological skills required to succeed in the workforce;
- seeking industry recognized certificates such as the Cisco Certified Network Associate (CCNA), Network+ certification, and/or the A+ certification.

Data provided by the CHC research department indicates our courses service the same percentages of students as the college in terms of age. In terms of gender, the ratio of females to males in CIS courses is lower than the college ratio. In 2013-2014, the percentage of Females in CIS courses was 42% and in 2017-18, the percentage of females was 35%, which represents a 7% decrease. The percentage of Hispanic students in CIS courses is 43% which is lower than the college average by 5% whereas the percentage of Caucasian students in CIS courses is 39%, which is higher than the college average of 4%. Although our proportion of Hispanic students is

lower than the college average, the percentage has been steadily increasing. In the 2013-2014 academic year 37% of the students were Hispanic. In 2017-2018 the percentage was 43% which represents an increase of 6%.
CSCI courses were offered the first time in the year 2013-14. Enrollment data for the 2017-2018 academic year indicates that 16% of CSCI students are female, and 84% male. The percentage of females in CSCI courses is significantly lower than the college average of 55%. The CSCI courses service similar proportions of students as the college in terms of age and ethnicity.
A lower percentage of women in IT courses is a recognized norm for technical disciplines; and while this may be the norm it is a program deficiency, we are dedicated to improving. As such, the IT faculty will continue to evaluate and improve our courses, programs, and marketing strategies in order to attract and retain more female students. In general women tend to prefer courses on the creative side of the industry and growing the multimedia discipline has been identified as a department priority for the past 15 years. However, the lack of full-time expertise in the multimedia discipline has resulted in a lack of progress in the growth and development of the multimedia discipline. As has already been mentioned, a new full-time faculty with expertise in Multimedia was hired and has begun developing new courses, certificated and degrees. It is anticipated that the number of females participating in the program will increase once the course offerings, degrees and certificates have been approved and the courses are available for enrollment. This should begin with the fall 2019 term.

B. Program Effectiveness Measures

We have chosen the following quantitative measures to gauge our program's effectiveness:

1. Number of Degrees and Certificates
2. Perkins IV Core Indicators of Performance
    a. Technical Skill Attainment: percentage of students enrolled in our CTE courses above the introductory level who have earned a GPA of 2.0 or higher
    b. Completions: percentage of students who have successfully completed a minimum 12 or more units in the CTE program and who have receive a degree, certificate or equivalent or have completed a transfer program
    c. Persistence: percentage of students who persisted in education at the community college level or transferred to a two or four-year institution
    d. Employment: percentage of students who did not transfer to a two or four-year institution and were found during one of the four quarters following the cohort year in an apprenticeship program, Unemployment Insurance (UI) covered employment, the Federal Government, or the military
    e. Nontraditional Participation: percentage of nontraditional students participating in the program
    f. Nontraditional Completion: the percentage of nontraditional students completion of the program
3. In terms of our efforts in improving transfer rate in our discipline, we will use the measure of the number of transfer applicants to IT related programs.

B. Results of Program Effectiveness Measures

1. Number of Degrees and Certificates

In the past five years, a total of 41 students were awarded an Associate of Science Degree. 11 students were awarded an AS-T in Computer Science, 8 students were awarded an AS in Computer Science, 18 students were awarded an AS in Computer Information Systems and 4 Students were awarded an AS degree with an emphasis in Webmaster.

In the past five years, a total of 30 students were awarded a certificate in CIS. 15 out of the 30 certificates awarded were Cisco Networking Academy certificates and 8 certificates were awarded in Web Design.
The number of Associate of Sciences degrees awarded has steadily increased over the past five years. The addition of new multimedia degrees and certificates should have a positive impact on the number of degrees and certificates awarded.
2. Perkins IV Core Indicators of Performance

Core 1 - *Skill Attainment, GPA 2.0 & Above*: 87.5% (1.5% above the performance goal of 85.99%)
Core 2 - *Completions, Certificates, Degrees and Transfer Ready*: 100% (18.2% above the performance goal of 81.85%)
Core 3 - *Persistence in Higher Education*: 100% (13.1% above the performance goal of 86.87%)
Core 4 - *Employment*: 66.67% (5.33% below the performance goal of 72.00%)
Core 5a - Training Leading to *Non-traditional Employment Participation*: 12.5% (12.1% below the performance goal of 24.54%)
Core 5b - Training Leading to *Non-traditional Employment Completion*: 12.5% (16% below the performance goal of 28.57%)

3. Data provided by the Transfer Center indicates that 14 CHC students applied to computer science or electrical engineering majors at UCs and 22 CHC students applied to computer science, computer systems, or information systems majors at CSUs in 2017- 2018.

C. Reflection and Plan for Improvements

1. A majority of the discipline degrees or certificates are awarded in the Computer Science, Programming and Webmaster areas of focus. The number of degrees and certificates should increase with the implementation of the new courses, certificates and degrees being offered in the new multimedia discipline. We also plan to improve the number of degrees awarded by establishing clear pathways to transfer. We already have an A.S.-T in Computer Science that is designed for transfer. We are exploring the possibility of the A.S.-T in Information and Communication Technologies (ICT) and Graphic Design in order to help students successfully transfer to four-year institutions.
2. According to our Perkins data, our CTE students' level of technical skill attainment, completion and persistence are above the performance goals. The identified gaps in the core indicators are employment, as well as our program nontraditional participation and completion. Our plan to address these gaps include:

Employment

- Work with the career center coordinator to expand the number of outside agencies who provide internships and/or employment opportunities for IT students.
- Hire a PT faculty member to assist IT students with internships and employment opportunities.
- Promote the CIS and WFP/N internship and employment skills courses.
- Research Adobe certification exams and update as needed the related course outlines to align to the certification exam objectives.

Nontraditional participation and completion

- Distribute information on department certificates, degrees, and employment opportunities for nontraditional students in both printed and digital formats.

- Expand program offerings in distance education formats in order to increase course enrollment options.
- Maintain open lab hours in order to assist students with the completion of course specific assignments using up-to-date equipment and support from lab tutors.
- Reevaluate course offering matrix on an annual basis to ensure students can complete degrees and certificates in a maximum of a two-year cycle.
- Develop and launch new multimedia certificates and degrees to attract nontraditional students.

3. The prior transfer advocate resigned in the spring of 2018. Having a faculty transfer advocate with knowledge of the department disciplines has been an excellent resource for students interested in continuing in the field of Information Technologies. The department will need to provide training as required for our newly hired full-time faculty members to serve as transfer advocates for IT students seeking to transfer to a four-year degree program.

7. Evaluation

Evaluation: You have already provided a description and analysis of the program in questions 1-6, please provide an analysis of what is going well/not well and why, in the following areas:

- Alternative modes and schedules of delivery (e.g.: online, hybrid, early morning, evening services, etc.)
- Partnerships (internal and external)
- Innovation and Implementation of best practices
- Efficiency in resource use
- Staffing
- Participation in shared governance (e.g., do unit members feel they participate effectively in planning and decision-making?)
- Professional development and training
- Compliance with applicable mandates

Overall the department disciplines continue to be effective. However, there is concern about maintaining forward progress and ongoing improvement with the impending retirement of the full-time faculty member who also serves as the department chair. The highest priority for the discipline is to replace the full-time faculty member prior to the end of the 2018-2019 academic year.

One of the continuing strengths of the discipline is the collaboration and mutual respect between the FT faculty, PT Faculty and lab-tech tutors. Ongoing collaborations includes regular conversations regarding student success, sharing of information and training on new technologies and instructional methodologies, as well as sharing the responsibilities for program review, planning and SLOs.

The department offers a broad range of classes (introduction to computers, programming, web design, Cisco networking, graphics design, hardware etc.). By retaining three full-time faculty members, the department will be able to remain current with emerging research and techniques for all courses and programs. The addition of one more full-time faculty member in CIS with expertise in Web development and user interface design would help to strengthen a high demand program with tremendous growth potential. Additionally a new FT faculty member is required in order for the department to meet its goal of having 75% of the department courses taught by FT faculty.

Alternative Modes and Schedules of Delivery

Alternative modes and schedules of delivery was addressed in question 2c - We are carefully monitoring the attrition and success rates in the online and hybrid classes. In each semester for the past two years, we have offered three sections of online CIS 101. These courses are the first to fill and we believe may be having a negative impact on the enrollment in our evening 101 classes. The attrition rate for the online classes is slightly higher than in the face to face classes, but the overall success rate is also higher. We believe this is because students think an online class is going to be easier, however after two or three weeks they realize the class is actually more difficult than expected and so they drop. Unlike the face-to-face classes, the online students must possess independent time management and problem-solving skills and a higher level of technical savvy, which may explain the higher success rate for those who remain in the class.

Partnerships (internal and external)

The department faculty have established strong partnerships with our local feeder high schools. We have identified courses offered at the local high schools and have established articulation agreements with several of the High School courses. The discipline faculty members assist with articulation agreements and promote articulation pathways to local high school students. The discipline faculty also hold an annual advisory committee meeting where business and educational partners are provided an opportunity to provide ideas and suggestions for course sequencing and essential workplace knowledge and skills. As has already been mentioned, new courses and programs have been added as a result of these annual advisory committee meetings. An important internal partnership is between the the CIS lab techs and the CIS faculty. The lab techs provide support to faculty with technical requests free of charge. This is a highly valued service and as such should continue to be funded at or above current funding levels. Another important partnership is with the Cisco Networking Academy program. The CCNA program was launched in the fall of 2003 and the partnership has continued to bring additional opportunities including access to current industry standards and media rich instructional courses and materials. The Cisco Academy program authors have developed several cybersecurity courses which the department faculty have uses to author new CHC courses which align to the Cisco Academy cybersecurity courses. These new courses are currently working their way thorough the CHC curriculum approval process. We hope to be able to launch the Cisco Cybersecurity courses starting in the Fall term of 2019.

Innovation and Implementation of Best Practices

As has been previously stated the MITN disciplines require instructors to remain innovative and responsive. Innovations like cloud storage, server side services, wireless networking, mobile app development, esports, hardware and software security, and identity theft are examples of recent trends and innovations worthy of program consideration. The current shift toward cloud computing and cybersecurity have been identified as the next major wave of change removing the tether to classroom-based PCs to a more efficient use of resources via the implementation of virtual machines.

Implementation of best practices includes the standardization of the CIS 101 curriculum including course materials, quizzes and exams, SLOs, the use of Canvas, and SAM. SAM (Skills Assessment Manager) is a proficiency-based assessment and training environment for Microsoft Office, focusing on outcomes. Class coordination promotes student collaboration and supports consistent evaluation of course SLOs. Another best practice is the discipline-wide use of Canvas. Canvas is used for all courses, which has improved student access to course materials, assignments and instructor support. Additional best practices include: instructor driven updates

for classroom software and hardware and the use of lab-tech tutors for the support of student learning.
We have continued to focus on implementing best practices throughout the department. As a result we now offer three areas of emphasis for the CIS Associate of Science Degree: Programming, Web Design and Computer Assisted Graphics Design and five certificates. Additionally, we have shifted the programming emphasis in CIS to CSCI and have developed both degrees and certificates for CSCI with a focus on transfer.
The newly hired full-time faculty member in the multimedia is working on revising courses, developing additional courses, certificates and degrees so that those students interested in pursuing a career in digital media will have access to the applications and equipment most relevant to the current and emerging industries. This fall, under the leadership of the new full-time hire, we have written and submitted over 15 new courses, 4 new certificates and 3 degrees in the Multimedia discipline. The multimedia specific courses that were offered under the CIS discipline have also been migrated over to Multimedia. Having courses aligned to disciplines is a best practice and will help attract new students, including nontraditional students to the IT arena.

Efficiency in Resource Use

Another area of strength is the full-time and part-time lab tech/tutors. The lab tech/tutors are responsible for the ongoing and routine maintenance of the classroom-based PCs. They are responsible for making sure all necessary hardware and software modifications are completed in a timely fashion to provide the best possible technical environment for both teaching and learning. Additionally, the lab techs manage the open lab hours, providing access to the technical resources and support students need to complete course specific labs, assignments, exams, etc. Another good example of efficiency in resource use was the development of a dedicated lab for the CIS 130 course. The change significantly increased the workspace for the CIS 130 students and enabled us to reorganize equipment storage and access which has resulted in increased efficiency.

Staffing

This is addressed in 2a - What is also working well is that instructors are assigned to courses based on their expressed interests and identified strengths.

Participation in Shared Governance

The department faculty members actively participate in shared governance. Department meetings are held the first Wednesday of every month and are well attended by the adjunct faculty members, whose inputs is sought for various discipline matters. One of the full-time faculty members is heavily involved in shared governance and is currently serving as the Department chair, the President of the District Assembly, and the CTA grievance rep. She is also a member of the Crafton Council, the Academic Senate, and the district budget committee. The second full-time faculty member serves as a member of the Academic Senate and is also charged with the growth and development of the CHC media Academy. The third full-time faculty member has been attending the department chair meetings to better understand the roles and responsibilities as the current department chair who will be retiring at the end of the 18-19 academic year. He also serves as the faculty advisor for two student clubs.

Professional Development and Training

The nature of the IT disciplines is one of constant change. This presents an ongoing challenge for IT instructors. There is never any down time. The industry can change dramatically in as little as 18 months. To remain current the full-time faculty members must engage in a number of professional development activities including: canvas training, online classes, reading

professional and technical journals, web-based research, investing in new hardware and software, attending networking shows, annual IT conferences and engaging in regular dialog with other professionals in the field. Staff development funds are needed to support attendance at technical conferences as this is one of the best ways to acquire information on new and emerging trends in IT. Both Perkins and Strong Workforce funds have been a used as a funding source for professional development.

Compliance with Applicable Mandates

The department has been working on offering courses and degrees that align to the C-ID descriptors and the Transfer Model Curriculum (TMC) provided by the California Community College Chancellor's Office in order to align to the expectations of four-year institutions. New Computer Science courses have been added to the discipline in order to prepare students who want to transfer to four-year institutions. The faculty members will investigate the possibility of offering an A.S.-T in Information Communications Technology, for which the TMC is currently being developed.

The department is required to abide by all terms and conditions as delineated in the Cisco Networking Academy annual contract which is renewed each year at the end of the spring term. The CCNA courses are developed by Cisco and academy instructors must complete mandated training for each course they are certified to teach. Academy course curriculum and materials are updated every 18 months with major revisions every three to four years. Instructors are required to use the latest versions of the Academy curriculums which places an additional burden on the program and instructors.

8. Vision

a. Tell us your unit's vision: Where would you like your program to be four years from now? Dream big while considering any upcoming changes (e.g.: new buildings, labs, growth, changes in the discipline etc.).

b. Alignment with the college Vision: **Rubric Item** (Vision Alignment): The Vision of Crafton Hills College is to be the college of choice for students who seek deep learning, personal growth, a supportive community, and a beautiful collegiate setting. In what ways does your program advance and align with the vision of the college?

A. VISION

The Vision of the department is to be the program of choice for students who want to acquire the knowledge and skills needed to transfer to a four-year institution with an IT degree and/or to secure an IT job as the result of acquiring the most current knowledge and skills. In order to achieve this we must:

- Grow our courses offerings
    - We hope to attract more students to our disciplines through targeted outreach and marketing. We plan to increase the number of courses that we offer each semester, as well as add new courses in order to meet the demands of the workforce. We also plan to increase our online / hybrid course offerings to meet student needs.
    - Specifically for the CSCI program, we intend to offer more sections of introductory CSCI classes so that the advanced courses realize a student population of at least 25.

    - To grow our program, we must maintain at least three full-time faculty members and must advocate for one additional new hire with expertise in 3D modeling, digital scuplting and VR.
- Provide a robust Multimedia program, focusing on identified high-need career and transfer pathways
    - Next fall, we expect to have three new A.S. degrees and four new certificates in multimedia that are aligned with transfer institutions and prepare students for employment in the media rich workforce.
- Increase transfer rate and the completion of AS-T degrees
    - We aim to be the program of choice for transfer-oriented students majoring in an IT discipline. By having clear transfer pathways between our program and transfer institutions, students will be able to establish their transfer plans and complete their coursework within a reasonable time frame.
- Offer courses in high growth areas, including software development, game development, multimedia, networking, cybersecurity and database administration
    - We plan to add new courses in network design and management,multimedia, system administration, cybersecruity as well as courses in mobile app development and systems analysis. We also want to regularly offer our spreadsheet course, which we have not been able to offered for the past number of years due to budget constraints.
- Promote student success
    - Our faculty members focus on supporting students in achieving their educational, career, and personal goals. Faculty members will continue to discuss how to improve student learning and how to help students transfer and enter the workforce. Faculty members will continue to learn about best teaching practices and instructional resources available for helping students succeed.
- Increase Distance Education Course Offerings
    - Next fall we will begin to implementing our first *hybrid* courses to gauge the efficacy of switching to an *online* course model for choice CSCI courses. This plan attempts to realize the growing desire for distance education coursework in a discipline which has been predominantly taught online by both accredited programs and learning platforms like Udemy, Coursera, and Lynda.

B. Alignment with the College's Mission and Vision

The department faculty will continue to improve and enhance our curriculum in order to be recognized as the program of choice for students who seek deep learning, personal growth, and a supportive faculty. The discipline faculty will continue to examine the current course offerings and research emerging trends in technology and teaching to determine which IT courses, programs and services best meet the needs of both the transfer-focused and career-oriented students.

Mission:The mission of Crafton Hills College is to advance the educational, career, and personal success of our diverse campus community through engagement and learning.
Vision: Crafton Hills College will be the college of choice for students who seek deep learning, personal growth, a supportive community, and a beautiful collegiate setting.

Crafton Hills College values academic excellence, inclusiveness, creativity, and the advancement of each individual.

9. Progress on Prior Goals

Briefly summarize the progress your unit has made in meeting the goals and objectives identified in your last Four-Year Action Plan.

- **1 - Goal - Increase student success by providing a well-rounded, effective CIS/CS program**
  Priority Rank:
  1
  Objectives:
  - **1.1 - Objective - All courses will be taught in a high quality technically current environment.**
    Priority Rank:
    3
    Original Start Date:
    08/15/2014
    Original End Date:
    06/30/2019
    Revised Start Date:
    08/15/2014
    Revised End Date:
    06/30/2019
    Responsible Person:
    CIS Department Chair
    Strategic Direction:
    1. Promote Student Success
    Impact Type:
    Department
    Institutional Learning Outcome:
    -- Pick One --
    Resource Requests:
    - **1.1.r1 - New CIS Building**
      Description
      In order to offer high-quality instruction in current and emerging technologies, the discipline requires a new high-tech teaching and learning facility that is specifically engineered for technology instruction.
      As such, we are requesting a new building dedicated to CIS. Additionally, the building could provide technically enhanced instructional space for such business courses as accounting, business law, marketing, and entrepreneurship. It will also include a makerspace.
      Rationale
      Emerging technologies and the rapid pace at which technology changes require the discipline to reinvent in a regular basis and to have well-engineered instructional space to meet the demands of the instructional workspace.
      Resource Type:

One-time
Expenditure Category:
New Buildings (6210)
Funded:
No
Funding Source:
First Year Cost/Savings:
$10,000,000.00/$0.00

- **1.1.r2 - Replacement of all CIS lab PCs**
  Description
  In order to maintain a quality learning environment, the computer hardware should be upgraded on a regular cycle.
  Rationale
  In order to maintain a quality learning environment, the computer hardware should be upgraded on a three-year cycle. The CHC IT plan calls for the replacement of the CIS lab computers every four years. The CIS facilities will be under renovation during the 2015 - 2017, and new equipments will be in place in the new facilities, at which point we will reinitiate the replacement cycle.
  Resource Type:
  Ongoing
  Expenditure Category:
  Computer & Information Technology Equipment (6420)
  Funded:
  No
  Funding Source:
  First Year Cost/Savings:
  $51,000.00/$0.00
- **1.1.r3 - Non-instructional Supplies**
  Description
  Rationale
  Toner $1000
  Paper $100
  Assorted Supplies $200
  Resource Type:
  Ongoing
  Expenditure Category:
  Non-Instructional Supplies (4500)
  Funded:
  No
  Funding Source:
  First Year Cost/Savings:
  $1,300.00/$0.00
  Second Year Cost/Savings:
  $1,300.00/$0.00
  Third Year Cost/Savings:

$1,300.00/$0.00

Actions/Activities:

- **1.1.a1 - Upgrade PCs in all CIS labs as per the established replacement cycle**
  Start Date:
  06/01/2014
  End Date:
  06/30/2018
  Responsible Person:
  CHC IT Department
  Status Code:
  Work is Completed and Ongoing
  Progress Description:
  Plan calls for the computers to be upgraded every 4 years.
  Measurements/Documentation of Progress:
  computers are upgraded as per the established cycle.

- **1.2 - Objective - At least 75% of FTE instructional load in our program will be taught by full-time faculty.**
  Priority Rank:
  1
  Original Start Date:
  02/01/2016
  Original End Date:
  06/30/2019
  Revised Start Date:
  02/01/2016
  Revised End Date:
  06/30/2019
  Responsible Person:
  CIS Faculty
  Strategic Direction:
  1. Promote Student Success
  Impact Type:
  Department
  Institutional Learning Outcome:
  -- Pick One --
  Status Code:
  Work is Planned but not yet firmly scheduled
  Progress Description:
  A new faculty member with expertise in multimedia was hired in the spring of 2018 and began teaching this fall. The addition of this new faculty member has restored the discipline to our 2004 staffing levels. In order to get to our 75% goal we will need to add an additional faculty member in the CIS discipline.
  Resource Requests:
  - **1.2.r1 - CIS Full-time Faculty**
    Description

Hire a new full-time faculty member to maintain the target ratio and to replace the faculty lost due to reassignment.

Rationale

Hire a new full-time faculty member to maintain the target ratio and to replace the faculty lost due to reassignment.

Resource Type:
Ongoing
Expenditure Category:
Contract Classroom Inst. (1100)
Funded:
No
Funding Source:
First Year Cost/Savings:
$80,000.00/$0.00
Second Year Cost/Savings:
$82,000.00/$0.00
Third Year Cost/Savings:
$84,000.00/$0.00

- **1.3 - Objective - Upgrade essential software applications and hardware instructional tools to promote transfer and workforce preparedness**

In order to retain and attract students and prepare them to enter the workforce and/or transfer to four-year programs and continue to provide a quality relevant program the discipline must keep all instructional software and hardware up to date (3 year replacement cycle).

Priority Rank:
4
Original Start Date:
08/15/2014
Original End Date:
08/31/2019
Revised Start Date:
08/15/2014
Revised End Date:
08/31/2019
Responsible Person:
CIS Department Chair
Strategic Direction:
1. Promote Student Success
Impact Type:
Department
Institutional Learning Outcome:
-- Pick One --

Resource Requests:

- **1.3.r1 - Software Acquisition**

Description

Upgrade the following software titles and suites follows:

- NetOp: $1300
- MSDNAA: free with school licensing
- Adobe Creative Suite: $23,000
- Autodesk Entertainment Creation suite: currently free
- VMWare: $300

Rationale

In order to promote transfer and workforce preparedness, essential software applications and hardware instructional tools must be upgraded as neccessary.

Resource Type:
Ongoing
Expenditure Category:
Software (4430)
Funded:
No
Funding Source:
First Year Cost/Savings:
$25,000.00/$0.00
Third Year Cost/Savings:
$25,000.00/$0.00

- **1.3.r2 - Hardware Class Instructional Supplies**

Description

- Intel barebones kits
- barebones laptop kit
- Laser networkable printer
- Wireless router
- LAN/WAN router
- variable voltage control
- isolation transformer
- NAS external drives
- Wireless AP
- Wireless access card
- Multifunction meter with temp measure

Rationale

The hardware class instructional supplies need to be upgraded regularly.

Resource Type:
Ongoing
Expenditure Category:
Instructional Supplies (4300)
Funded:
No
Funding Source:
First Year Cost/Savings:
$1,000.00/$0.00
Second Year Cost/Savings:
$1,000.00/$0.00

Third Year Cost/Savings:
$1,000.00/$0.00

- **1.3.r3 - Cisco Routers and Switches**
  Description
  Routers and switches needed for CIS 140-143 (Cisco Networking) course labs and related hands-on activities.
  Rationale
  The current equipment was purchased 15 years ago and is approaching end of life. The equipment needs to be to meet industry standards. A regular replacement cycle is needed to maintain the currency of the equipoment.
  Resource Type:
  Ongoing
  Expenditure Category:
  Computer & Information Technology Equipment (6420)
  Funded:
  No
  Funding Source:
  First Year Cost/Savings:
  $10,000.00/$0.00
  Second Year Cost/Savings:
  $10,000.00/$0.00
  Third Year Cost/Savings:
  $10,000.00/$0.00

Actions/Activities:

- **1.3.a1 - Upgrade and acquire necessary software programs**
  Upgrade the following software titles and suites follows:
  - NetOp
  - MSDNAA
  - Adobe Creative Suite
  - Autodesk Entertainment Creation suite
  - VMWare
  - Keyboarding software

  Start Date:
  08/01/2014
  End Date:
  08/31/2019
  Responsible Person:
  CIS Fulltime Lab-Tech
  Status Code:
  Work is Completed and Ongoing
  Progress Description:
  ongoing
  Measurements/Documentation of Progress:
  Purchase orders completed
- **1.3.a2 - Purchase Hardware Class Instructional Supplies**

Start Date:
08/01/2014
End Date:
07/31/2019
Responsible Person:
Lab-tech
Status Code:
Work is Completed and Ongoing
Progress Description:
ongoing
Measurements/Documentation of Progress:
Completed POs

- **1.4 - Objective - Increase student success by providing daily access to lab tech tutors**
  The lab tutor/techs (short term hourly) positions are necessary to provide support to the students outside of the classroom and support to the faculty for software and hardware needs as they arise.
  Priority Rank:
  5
  Original Start Date:
  08/01/2014
  Original End Date:
  08/31/2019
  Revised Start Date:
  08/01/2014
  Revised End Date:
  08/31/2019
  Responsible Person:
  CIS Department Chair
  Strategic Direction:
  1. Promote Student Success
  Impact Type:
  Department
  Institutional Learning Outcome:
  -- Pick One --
  Resource Requests:
  - **1.4.r1 - Funds to hire Part-time lab techs**
    Description
    3-15 Hourly lab tutors/techs
    Rationale
    Part-time lab techs are needed to maintain regular open lab hours and provide technical assistance to students.
    Resource Type:
    Ongoing
    Expenditure Category:
    Part-Time / Overtime / Student (2380)

Funded:
No
Funding Source:
First Year Cost/Savings:
$10,000.00/$0.00
Second Year Cost/Savings:
$10,000.00/$0.00
Third Year Cost/Savings:
$10,000.00/$0.00

Actions/Activities:

- **1.4.a1 - Hire Part-time Lab Techs**
  Interview and hire part-time lab tech for each academic year.
  Start Date:
  08/08/2014
  End Date:
  08/31/2019
  Responsible Person:
  CIS Lab Tech & Division Dean
  Status Code:
  Work is Completed and Ongoing
  Progress Description:
  ongoing
  Measurements/Documentation of Progress:
  lab tech hours documented

- **2 - Goal - Become the premier CIS/CS program in the Inland Empire**

Priority Rank:
2

Objectives:

- **2.1 - Objective - CIS/CS instructors will maintain professional currency**
  Priority Rank:
  6
  Original Start Date:
  08/01/2014
  Original End Date:
  08/31/2019
  Revised Start Date:
  08/01/2014
  Revised End Date:
  08/31/2019
  Responsible Person:
  CIS Instructors
  Strategic Direction:
  3. Develop Teaching and Learning Practices
  Impact Type:

Department
Institutional Learning Outcome:
-- Pick One --
Resource Requests:

- **2.1.r1 - Funds for workshops and conferences**
  Description
  Rationale
  Necessary to maintain professional currency.
  Resource Type:
  Ongoing
  Expenditure Category:
  Conference and Travel (5200)
  Funded:
  No
  Funding Source:
  First Year Cost/Savings:
  $3,500.00/$0.00
  Second Year Cost/Savings:
  $3,500.00/$0.00
  Third Year Cost/Savings:
  $3,500.00/$0.00

Actions/Activities:

- **2.1.a1 - Attend technical and/or education workshops and conferences**
  Start Date:
  08/01/2014
  End Date:
  08/31/2019
  Responsible Person:
  CIS Instructors
  Status Code:
  Work is Completed and Ongoing
  Progress Description:
  Have attended workshops and Conferences
  Measurements/Documentation of Progress:
  Courses have been updated

- **2.2 - Objective - Provide transfer and workforce relevant CIS/CS courses, degrees, and certificates in multiple modalities**

Review, revise and update all CIS degrees and certificates to increase efficiency, transfer rate and workforce relevancy.

Priority Rank:
9
Original Start Date:
08/01/2014
Original End Date:
08/31/2019

Revised Start Date:
08/01/2014
Revised End Date:
08/31/2019
Responsible Person:
CIS Faculty
Strategic Direction:
1. Promote Student Success
Impact Type:
Department
Institutional Learning Outcome:
-- Pick One --

Actions/Activities:

- **2.2.a1 - Revise CIS/CS degrees and certificate as needed**
  - Review and revise current degrees and certificates as needed
  - Gain discipline wide support for revisions

  Start Date:
  08/01/2004
  End Date:
  08/31/2019
  Responsible Person:
  CIS Department Chair
  Status Code:
  Work is Completed and Ongoing
  Progress Description:
  Revised as per the 6 year cycle
  Measurements/Documentation of Progress:
  tracked in curricunet
- **2.2.a2 - Develop new courses, certificates, and/or degrees in high-growth areas.**
  Status Code:
  Work is Completed and Ongoing
  Progress Description:
  Ongoing
  Measurements/Documentation of Progress:
  Ongoing
- **2.2.a3 - Continue to hold annual advisory meetings with industry and education representatives**
  Status Code:
  Work is Completed and Ongoing
  Progress Description:
  Advisory meeting is held in the spring of each academic year.
  Measurements/Documentation of Progress:
  Meeting minutes and attendance roster

- **2.3 - Objective - Provide student internship and mentoring opportunities in CIS**

Priority Rank:
11
Original Start Date:
10/01/2014
Original End Date:
08/31/2019
Revised Start Date:
10/01/2014
Revised End Date:
08/31/2019
Responsible Person:
CIS Faculty
Strategic Direction:
1. Promote Student Success
Impact Type:
Department
Institutional Learning Outcome:
-- Pick One --

Resource Requests:

- **2.3.r1 - Provide funding for a professional expert to coordinate internship/mentoring opportunities for students**
  Description
  Rationale
  A professional expert will identify and coordinate internship opportunities for CIS students.
  Resource Type:
  Ongoing
  Expenditure Category:
  Professonal Expert - Non FTE (2389)
  Funded:
  No
  Funding Source:
  First Year Cost/Savings:
  $8,000.00/$0.00
  Second Year Cost/Savings:
  $8,000.00/$0.00
  Third Year Cost/Savings:
  $8,000.00/$0.00

Actions/Activities:

- **2.3.a1 - Establishing internship and mentoring opportunities**
  Status Code:
  Work is Completed and Ongoing
  Progress Description:
  Courses and internships are being offered each semester
  Measurements/Documentation of Progress:
  Students are gaining career relevant skills

        - **2.3.a2 - Offer internship courses**
          Status Code:
          Work is Completed and Ongoing
          Progress Description:
          190 Courses are offered each semester
          Measurements/Documentation of Progress:
          Students are enrolling
    - **2.4 - Objective - Increase the number of students in our program as well as the diversity of our program student body.**
      Priority Rank:
      17
      Original Start Date:
      10/01/2014
      Original End Date:
      08/31/2019
      Revised Start Date:
      10/01/2014
      Revised End Date:
      08/31/2019
      Responsible Person:
      CIS Faculty
      Strategic Direction:
      2. Build Campus Community
      Impact Type:
      Department
      Institutional Learning Outcome:
      -- Pick One --
      Actions/Activities:
        - **2.4.a1 - Update, develop and distribute marketing materials targeting different students**
          Status Code:
          Work is Completed and Ongoing
          Progress Description:
          ongoing
          Measurements/Documentation of Progress:
          Revised marketing materials
        - **2.4.a2 - Participate in outreach events**
          Status Code:
          Work is Completed and Ongoing
          Progress Description:
          ongoing
          Measurements/Documentation of Progress:
          Distribution of marketing materials at HS events.
- **3 - Goal - Develop and implement a industry-relevant multimedia/graphic design program.**
  Priority Rank:

3

Objectives:

- **3.1 - Objective - Secure Full-time expertise for the multimedia/graphic design program**

  Priority Rank:
  2
  Original Start Date:
  08/01/2014
  Original End Date:
  08/31/2019
  Revised Start Date:
  08/01/2014
  Revised End Date:
  08/31/2019
  Responsible Person:
  CIS Department Chair
  Strategic Direction:
  1. Promote Student Success
  Impact Type:
  Site
  Institutional Learning Outcome:
  -- Pick One --

  Resource Requests:

  - **3.1.r1 - Hire a Full-time multimedia/graphic design Faculty Member**

    Description

    Rationale

    The new full-time multimedia/graphic design faculty member would be responsible for managing, growing and updating as required the program courses, certificates and degree. The disicipline is currently lacking a full-time member with expertise in this field, which has been indentified as a rapidly expanding high paying career option.

    Resource Type:
    Ongoing
    Expenditure Category:
    Contract Classroom Inst. (1100)
    Funded:
    No
    Funding Source:
    First Year Cost/Savings:
    $75,000.00/$0.00
    Second Year Cost/Savings:
    $75,000.00/$0.00
    Third Year Cost/Savings:
    $75,000.00/$0.00

  Actions/Activities:

- **3.1.a1 - Hire new full-time faculty member**
  - Obtain approval for hiring
  - Develop a job description
  - Post job opening
  - Interview
  - Hire

  Responsible Person:
  CIS Department Chair
  Status Code:
  Work is Completed
  Progress Description:
  completed
  Measurements/Documentation of Progress:
  Faculty member hired in Spring of 2018

- **3.2 - Objective - Develop a fully-transferable multimedia/graphic design degree**

  Priority Rank:
  12
  Original Start Date:
  09/01/2014
  Original End Date:
  08/31/2019
  Revised Start Date:
  09/01/2014
  Revised End Date:
  08/31/2019
  Responsible Person:
  CIS Full-time Faculty
  Strategic Direction:
  7. Develop Programs and Services
  Impact Type:
  Department
  Institutional Learning Outcome:
  -- Pick One --
  Actions/Activities:
  - **3.2.a1 - Develop New Courses**

    Plan and develop new courses in areas that are identified by the digital media expert and/or full-time instructor.
    Start Date:
    09/01/2014
    End Date:
    08/31/2019
    Responsible Person:
    CIS Department Chair
    Status Code:
    Work is Underway

Progress Description:
ongoing
Measurements/Documentation of Progress:
15 new courses were developed in the Fall of 2018 and approved in spring 2019

- **3.2.a2 - Develop transfer degree in multimedia/graphic design**
  Status Code:
  Work is Underway
  Progress Description:
  ongoing
  Measurements/Documentation of Progress:
  3 new degress have been developed and will be approved spring 2019
- **3.2.a3 - Align program courses, degrees, and certificates to industry certifications and demands**
  Status Code:
  Work is Underway
  Progress Description:
  ongoing
  Measurements/Documentation of Progress:
  Have developed 4 new certificates aligning to industry standards

- **3.3 - Objective - Continue to develop the makerspace project, which was initially funded by the strong workforce grant.**
  Priority Rank:
  16
  Original Start Date:
  06/01/2018
  Original End Date:
  07/31/2019
  Revised Start Date:
  06/01/2018
  Revised End Date:
  07/31/2019
  Responsible Person:
  Makerspace consultant, CIS faculty and staff
  Strategic Direction:
  1. Promote Student Success
  Impact Type:
  Site
  Institutional Learning Outcome:
  -- Pick One --
  Resource Requests:
  - **3.3.r1 - Provide funding for a consultant/coordinator of the makerspace project**
    Description
    Rationale
    A digital media expert is needed to oversee and develop the makerspace.

Resource Type:
Ongoing
Expenditure Category:
Professonal Expert - Non FTE (2389)
Funded:
No
Funding Source:
First Year Cost/Savings:
$35,000.00/$0.00
Second Year Cost/Savings:
$35,000.00/$0.00
Third Year Cost/Savings:
$35,000.00/$0.00

- **3.3.r2 - Purchase supplies and equipment for the makerspace project**
  Description
  Rationale
  Equipment, software, and supplies for emerging technologies, such as 3D printers and virtual reality headsets.
  Resource Type:
  Ongoing
  Expenditure Category:
  Computer & Information Technology Equipment (6420)
  Funded:
  No
  Funding Source:
  First Year Cost/Savings:
  $10,000.00/$0.00
  Second Year Cost/Savings:
  $8,000.00/$0.00
  Third Year Cost/Savings:
  $8,000.00/$0.00
- **3.3.r3 - Part-time Makerspace Staff**
  Description
  Rationale
  Part-time staff is needed to oversee the space during its open hours.
  Resource Type:
  Ongoing
  Expenditure Category:
  Part-Time / Overtime / Student (2380)
  Funded:
  No
  Funding Source:
  First Year Cost/Savings:
  $10,000.00/$0.00
  Second Year Cost/Savings:
  $10,000.00/$0.00

Third Year Cost/Savings:
$10,000.00/$0.00

Actions/Activities:

- **3.3.a1 - Secure and develop a space for the project**
  Status Code:
  Work is Planned but not yet firmly scheduled
  Progress Description:
  ongoing
  Measurements/Documentation of Progress:
  CNTL 109a is being upgraded to include industry standard multimedia PCs, audio software and equipment.

10. Four-Year Action Plan (Goals, Objectives, Resources, and Actions)

Rubric Item: Reflect on your responses to all the previous questions. Complete the Four-Year Action Plan, entering the specific program goals (goal rubric) and objectives (objective rubric) you have formulated to maintain or enhance your strengths, or to address identified weaknesses. **In writing your objectives and developing your resource requests, take into account student learning and program assessment results.** Assign an overall priority to each goal and each objective. In addition, enter any actions and/or resources required to achieve each objective. (Click here to see a definition of goals, objectives, actions, and how they work together.)

- **1 - Goal - Increase student success by providing a well-rounded, effective IT program**
  Priority Rank:
  1
  Objectives:
  - **1.1 - Objective - All courses will be taught in a high quality technically current environment.**
    Priority Rank:
    2
    Start Date:
    08/01/2019
    End Date:
    08/01/2022
    Responsible Person:
    MITN Department Chair
    Strategic Direction:
    1. Promote Student Success
    Impact Type:
    Department
    Institutional Learning Outcome:
    Not Applicable
    Resource Requests:
    - **1.1.r1 - Multimedia capable iMacs for CNTL 118**
      Description
      40 - 27 inch iMacs with Retina 5k displays

Rationale
In order to teach current concepts using the most relevant software available, the lab PCs in CNTL 118 must be upgraded to meet the standards of the mulitimedia industry. The current PCs are inadequate.
Resource Type:
One-time
Expenditure Category:
Computer & Information Technology Equipment (6420)
First Year Cost/Savings:
$181,716.00/$0.00

- **1.1.r2 - MacBook Pros**
  Description
  20 MacBook Pros for students to check out to complete course related projects.
  Rationale
  In order for students to complete projects using the most relevant software available, they must have access to laptops that meet the standards of the mulitimedia industry. We currently do not have any laptops avaiable for student use.
  Resource Type:
  One-time
  Expenditure Category:
  Computer & Information Technology Equipment (6420)
  First Year Cost/Savings:
  $52,900.00/$0.00
- **1.1.r3 - Replacement of all lab PCs**
  Description
  In order to maintain a quality learning environment, the computer hardware should be upgraded on a regular cycle.
  Rationale
  In order to maintain a quality learning environment, the computer hardware should be upgraded on a three-year cycle. The CHC technology plan calls for the replacement of the IT lab equipment every four years. The IT instructional space was renovated during the 2016 - 2017 academic year, and new equipment was installed in the rennovated space in the Fall of 2017. The equipment should be replaced at the end of the Spring 2021 term.
  Resource Type:
  Ongoing
  Expenditure Category:
  Computer & Information Technology Equipment (6420)
  First Year Cost/Savings:
  $51,000.00/$0.00
- **1.1.r4 - Non-instructional Supplies**
  Description
  Rationale

Toner $1000
Paper $200
Assorted Supplies $300
Resource Type:
Ongoing
Expenditure Category:
Instructional Supplies (4300)
First Year Cost/Savings:
$1,500.00/$0.00
Second Year Cost/Savings:
$1,500.00/$0.00
Third Year Cost/Savings:
$1,500.00/$0.00

- **1.1.r5 - HP Color LaserJet Enterprise Printer**

  Description

  HP Color LaserJet Enterprise M750n
  - Print only
  - Print speed letter: Up to 30 ppm (black and color)
  - Prints up to 12x18"; 3 paper trays (standard)
  - FCC Class A emissions - for use in commercial environments, not residential environments

  Rationale

  The multimedia class need to be able to print their 4 color design work for gallary displays.

  Resource Type:
  One-time
  Expenditure Category:
  Computer & Information Technology Equipment (6420)
  First Year Cost/Savings:
  $2,874.98/$0.00

- **1.1.r6 - Multimedia production Tools***

  Description
  - 50 compartment Mobile Roll Files ($343)
  - Mobile shelving units ($269)
  - 2 Manfrotto Compact Advanced Aluminum Tripods (Black) ($99.88 each)
  - ALZO 100 LED Macro Studio Tabletop Product Photography Kit ($275)
  - 1 Elite Screens Yard Master 2 Front Projection Screen ($147)

  Rationale

  In order to teach current concepts using industry relevant standard and techniques, the multimedia staff must have production level tools and staging equipment.

  Resource Type:
  One-time
  Expenditure Category:

Equipment & Furniture (6400)
First Year Cost/Savings:
$2,206.00/$0.00

- **1.1.r7 - Media & Audio Makerspace items***
  Description
  - 25 x MakeMusic Finale v26 - Music Notation Software (Academic, 5-29 Site Licenses, Download) $119.00 each
  - 25 x Akai Professional MPK mini MKII - Compact Keyboard and Pad Controller (Black-on-White) $99.00 each
  - 25 x Sennheiser HD 280 Pro Circumaural Closed-Back Monitor Headphones $99.95 each
  - 2 x KRK Rokit 5 G3 - 50W 5" Two-Way Active Studio Monitor (Single, Black) $149.50 each *
  - 1 x Hosa Technology Stereo Mini (3.5mm) Male to 2 RCA Male Y-Cable - 3' $5.45 each *

  Rationale
  Sound equipment needed to meet audio production standards.
  Resource Type:
  One-time
  Expenditure Category:
  Computer & Information Technology Equipment (6420)
  First Year Cost/Savings:
  $9,660.00/$0.00

Actions/Activities:

- **1.1.a1 - Add Multimedia capable PCs**
  Order and Install new iMacs in CNTL 118.
  Start Date:
  06/01/2019
  End Date:
  08/10/2019
  Responsible Person:
  MITN Dept Faculty and Staff
- **1.1.a2 - Upgrade PCs in all labs as per the established replacement cycle**
  Start Date:
  06/01/2021
  End Date:
  08/15/2021
  Responsible Person:
  CHC Technology Department

- **1.2 - Objective - At least 75% of FTE instructional load will be taught by full-time faculty.**
  Priority Rank:
  1
  Start Date:
  08/16/2019

End Date:
05/27/2022
Responsible Person:
CIS Faculty
Strategic Direction:
1. Promote Student Success
Impact Type:
Site
Institutional Learning Outcome:
Not Applicable

Resource Requests:

- **1.2.r1 - Full-time CIS Discipline Faculty**

  Description

  A new CIS faculty member with expertise in System Software and Cybersecurity.

  Rationale

  Hire a new full-time CIS faculty member to order to achieve the identified FT/PT target ratio.

  Resource Type:
  Ongoing
  Expenditure Category:
  Contract Classroom Inst. (1100)
  First Year Cost/Savings:
  $80,000.00/$0.00
  Second Year Cost/Savings:
  $82,000.00/$0.00
  Third Year Cost/Savings:
  $84,000.00/$0.00

- **1.3 - Objective - Acquire and/or upgrade essential software applications and hardware instructional tools to enhance transfer and workforce readiness**

Priority Rank:
4
Start Date:
08/01/2019
End Date:
08/01/2022
Responsible Person:
CIS Department Chair
Strategic Direction:
1. Promote Student Success
Impact Type:
Department
Institutional Learning Outcome:
Not Applicable

Resource Requests:

- **1.3.r1 - Software Acquisition and Maintenance**

Description

Acquire and keep current the following software titles and suites follows:

- NetOp: $1300
- MSDNAA: free with school licensing
- Adobe Creative Suite: $23,000
- Autodesk Entertainment Creation suite: currently free
- Octane rendering software (annual license): $27,960
- zBrush digital sculpting software: $35,800
- VMWare: $300
- Keyboarding software: TBD

Rationale

In order to promote transfer and workforce preparedness, essential software applications and hardware instructional tools must be upgraded as neccessary.

Resource Type:
Ongoing
Expenditure Category:
Software (4430)
First Year Cost/Savings:
$88,060.00/$0.00
Second Year Cost/Savings:
$60,000.00/$0.00
Third Year Cost/Savings:
$88,060.00/$0.00

- **1.3.r2 - Tablets for Multimedia**

  Description

  Wacom tablets

  Rationale

  Students in the Multimedia courses need drawing tablets in order to develop their skills and abilities with computer assisted graphic design.

  Resource Type:
  One-time
  Expenditure Category:
  Computer & Information Technology Equipment (6420)
  First Year Cost/Savings:
  $1,000.00/$0.00

- **1.3.r3 - Hardware Class Instructional Supplies**

  Description

  - Intel barebones kits
  - barebones laptop kit
  - Laser networkable printer
  - Wireless router
  - LAN/WAN router
  - variable voltage control
  - isolation transformer
  - NAS external drives

- Wireless AP
- Wireless access card
- Multifunction meter with temp measure

Rationale
The hardware class instructional supplies need to be upgraded regularly.
Resource Type:
Ongoing
Expenditure Category:
Instructional Supplies (4300)
First Year Cost/Savings:
$2,000.00/$0.00
Second Year Cost/Savings:
$2,000.00/$0.00
Third Year Cost/Savings:
$2,000.00/$0.00

- **1.3.r4 - Cisco Routers and Switches**
  Description
  Routers and switches needed for CIS 140-143 (Cisco Networking) course labs and related hands-on activities.
  - ConvergeOne - Cisco Equipment 11 sets consisting of the following: ($1923.02 for each set)
  - ISR4221-SEC/K9 Cisco ISR 4221 SEC Bundle with SEClic 1 $1,022.02
  - WS-C2960+24TC-L CAT2960 PLUS 24PORT + 2T SFP 1 $542.00
  - NIM-2T= 2-Port Serial WAN Interface card 1 $344.00
  - CAB-SS-26MTC-06 Smart Serial to Smart Serial DTE/DCE Assy, 6-FT 1 $15.00

  Rationale
  The current equipment was purchased 15 years ago and is approaching end of life. The equipment needs to be to meet industry standards. A regular replacement cycle is needed to maintain the currency of the equipoment.
  Resource Type:
  Ongoing
  Expenditure Category:
  Computer & Information Technology Equipment (6420)
  First Year Cost/Savings:
  $24,326.00/$0.00
  Second Year Cost/Savings:
  $20,000.00/$0.00
  Third Year Cost/Savings:
  $20,000.00/$0.00
- **1.3.r5 - Lynda.com Subscription**
  Description

Rationale
Provide open access to Lynda.com for all multimedia students.
Resource Type:
Ongoing
Expenditure Category:
Software (4430)
First Year Cost/Savings:
$20,000.00/$0.00
Second Year Cost/Savings:
$0.00/$20,000.00
Third Year Cost/Savings:
$20,000.00/$0.00

Actions/Activities:

- **1.3.a1 - Acquire and/or upgrade necessary software programs**
  Upgrade the following software titles and suites follows:
  - NetOp
  - MSDNAA
  - Adobe Creative Suite
  - Autodesk Entertainment Creation suite
  - Octane rendering software
  - zBrush digital sculpting software
  - VMWare
  - Keyboarding software

  Responsible Person:
  Fulltime Lab-Tech
- **1.3.a2 - Purchase Hardware Instructional Supplies**
  Responsible Person:
  Lab-tech

- **1.4 - Objective - Increase student success by providing daily access to lab tech tutors**

Priority Rank:
5
Start Date:
08/01/2019
End Date:
08/01/2022
Responsible Person:
Fulltime Lab-Tech
Strategic Direction:
1. Promote Student Success
Impact Type:
Department
Institutional Learning Outcome:
Not Applicable

Resource Requests:

- **1.4.r1 - Funds to hire Part-time lab techs**

Description
6-15 Hour hourly lab tutors/techs - 3 for CIS, 1 for CSCI and 2 for Multimedia
Rationale
Part-time lab techs are needed to maintain regular open lab hours and provide technical assistance to CIS, CSCI and Multimedia students.
Resource Type:
Ongoing
Expenditure Category:
Part-Time / Overtime / Student (2380)
First Year Cost/Savings:
$30,000.00/$0.00
Second Year Cost/Savings:
$30,000.00/$0.00
Third Year Cost/Savings:
$30,000.00/$0.00

- **1.4.r2 - Full time Lab Tech**
  Description
  Full-time MutliMedia Lab Tech
  Rationale
  A full time lab techs is needed to assist with classroom related projects, maintain lab hardware and software, provide support during open Multimedia lab hourse and provide technical assistance as needed for the CHC Multimedia students.
  Resource Type:
  Ongoing
  Expenditure Category:
  Cert Non-Mgt. Non-Teach (1283)
  First Year Cost/Savings:
  $60,000.00/$0.00
  Second Year Cost/Savings:
  $62,000.00/$0.00
  Third Year Cost/Savings:
  $64,000.00/$0.00

Actions/Activities:

- **1.4.a1 - Hire Part-time Lab Techs**
  Interview and hire 6 part-time lab tech for each academic year.
  Start Date:
  08/01/2019
  End Date:
  08/01/2022
  Responsible Person:
  Full time Lab Tech & Division Dean

- **2 - Goal - Become the premier IT program in the Inland Empire**
  Priority Rank:
  2

Objectives:

- **2.1 - Objective - Discipline faculty will maintain professional currency**

  Priority Rank:
  6
  Start Date:
  08/01/2019
  End Date:
  08/01/2022
  Responsible Person:
  Discipline faculty
  Strategic Direction:
  3. Develop Teaching and Learning Practices
  Impact Type:
  Department
  Institutional Learning Outcome:
  Not Applicable

  Resource Requests:

  - **2.1.r1 - Funds for workshops and conferences**

    Description

    Rationale

    Necessary to maintain professional currency.
    Resource Type:
    Ongoing
    Expenditure Category:
    Conference and Travel (5200)
    First Year Cost/Savings:
    $5,500.00/$0.00
    Second Year Cost/Savings:
    $5,500.00/$0.00
    Third Year Cost/Savings:
    $5,500.00/$0.00

  Actions/Activities:

  - **2.1.a1 - Attend technical and/or education workshops and conferences**

    Responsible Person:
    Discipline faculty

- **2.2 - Objective - Provide transfer and workforce relevant courses, degrees, and certificates in multiple modalities**

  Priority Rank:
  9
  Start Date:
  08/01/2019
  End Date:
  08/31/2022
  Responsible Person:

Discipline Faculty
Strategic Direction:
1. Promote Student Success
Impact Type:
Department
Institutional Learning Outcome:
Not Applicable
Actions/Activities:

- **2.2.a1 - Revise degrees and certificate as needed**
  - Review and revise current degrees and certificates as needed
  - Gain discipline wide support for revisions

  Start Date:
  08/01/2019
  End Date:
  08/01/2022
  Responsible Person:
  Department Chair
- **2.2.a2 - Develop new courses, certificates, and/or degrees in high-growth areas.**
  Start Date:
  08/01/2019
  End Date:
  08/01/2022
  Responsible Person:
  Discipline faculty
- **2.2.a3 - Continue to hold annual advisory meetings with industry and education representatives**

- **2.3 - Objective - Provide student internship and mentoring opportunities**

Priority Rank:
8
Start Date:
08/01/2019
End Date:
08/01/2022
Responsible Person:
Discipline Faculty
Strategic Direction:
1. Promote Student Success
Impact Type:
Department
Institutional Learning Outcome:
Not Applicable
Resource Requests:

- **2.3.r1 - Provide funding for a professional expert to coordinate internship/mentoring opportunities for students**
  Description

Rationale
A professional expert will identify and coordinate internship opportunities for IT students.
Resource Type:
Ongoing
Expenditure Category:
Professonal Expert - Non FTE (2389)
First Year Cost/Savings:
$9,000.00/$0.00
Second Year Cost/Savings:
$9,000.00/$0.00
Third Year Cost/Savings:
$9,000.00/$0.00

- **2.3.r2 - Director of Interships and Workforce Development**
  Description
  Part time Director of Interships and Workforce Development
  Rationale
  A part-time director is needed to oversee and support internship workforce development opportunities for IT students.
  Resource Type:
  Ongoing
  Expenditure Category:
  Instructors Day/Hourly (1300)
  First Year Cost/Savings:
  $38,000.00/$0.00
  Second Year Cost/Savings:
  $40,000.00/$0.00
  Third Year Cost/Savings:
  $40,000.00/$0.00

Actions/Activities:

- **2.3.a1 - Establishing internship and mentoring opportunities**
- **2.3.a2 - Offer internship courses**

- **2.4 - Objective - Increase enrollments and diversity in IT courses and programs.**

Priority Rank:
12
Start Date:
08/01/2019
End Date:
08/01/2022
Responsible Person:
Discipline Faculty
Strategic Direction:
2. Build Campus Community
Impact Type:
Department

Institutional Learning Outcome:
Not Applicable
Actions/Activities:
- **2.4.a1 - Develop and distribute course and program specific marketing materials**
- **2.4.a2 - Participate in outreach events**

- **3 - Goal - Develop and implement a industry-relevant multimedia/graphic design program.**
Priority Rank:
3
Objectives:
  - **3.1 - Objective - Develop Associate of Science Multimedia Degrees and Certificates of Achievement with identified area of focus.**
Priority Rank:
10
Start Date:
08/01/2019
End Date:
08/01/2022
Responsible Person:
Full-time Multimedia Faculty
Strategic Direction:
7. Develop Programs and Services
Impact Type:
Department
Institutional Learning Outcome:
Not Applicable
Resource Requests:
    - **3.1.r1 - Release time for Multimedia faculty member**
Description
.4 release for the Spring 2019 term and the 2019-2020 academic year
Rationale
Provide the release time required for the development of a multimedia program that compliments the RTVF academy at SBVC
Resource Type:
One-time
Expenditure Category:
Reassigned Time (1102)
First Year Cost/Savings:
$10,000.00/$0.00
Second Year Cost/Savings:
$20,000.00/$0.00
    - **3.1.r2 - FT Multimedia Faculty***
Description
Full time Faculty with expertise in 3D modeling, digital sculpting and VR
Rationale

Expertise is required in order to design, develop and industry standard courses and programs in expertise in 3D modeling, digital sculpting and VR.
Resource Type:
Ongoing
Expenditure Category:
Contract Classroom Inst. (1100)
First Year Cost/Savings:
$85,000.00/$0.00
Second Year Cost/Savings:
$90,000.00/$0.00
Third Year Cost/Savings:
$95,000.00/$0.00

- **3.1.r3 - Summer Camp Support**
  Description
  Faculty and support staff
  Rationale
  The summer camps require staffing, marketing and support staff in order to be successful.
  Resource Type:
  Ongoing
  Expenditure Category:
  Non-Instructional Supplies (4500)
  First Year Cost/Savings:
  $15,000.00/$0.00
  Second Year Cost/Savings:
  $15,000.00/$0.00
  Third Year Cost/Savings:
  $15,000.00/$0.00

Actions/Activities:

- **3.1.a1 - Develop New Courses**
  Plan and develop new courses in areas as identified by the full-time faculty member with expertise in Multimedia
  Start Date:
  08/01/2019
  End Date:
  08/01/2022
  Responsible Person:
  Multimedia Faculty
- **3.1.a2 - Develop Associate of Science degrees in multimedia**
- **3.1.a3 - Develop Certificates of Achievement in Multimedia**
- **3.1.a4 - Align program courses, degrees, and certificates to industry certifications and demands**

- **3.2 - Objective - Continue to develop the makerspace project, which was initially funded by the strong workforce grant.**
  Priority Rank:

7
Start Date:
08/01/2018
End Date:
08/01/2022
Responsible Person:
Makerspace consultant, Discipline faculty and staff
Strategic Direction:
1. Promote Student Success
Impact Type:
Site
Institutional Learning Outcome:
Not Applicable

Resource Requests:

- **3.2.r1 - Provide funding for a consultant/coordinator of the makerspace project**

  Description

  Rationale

  A digital media expert is needed to oversee and develop the makerspace.

  Resource Type:
  Ongoing
  Expenditure Category:
  Professonal Expert - Non FTE (2389)
  First Year Cost/Savings:
  $35,000.00/$0.00
  Second Year Cost/Savings:
  $35,000.00/$0.00
  Third Year Cost/Savings:
  $35,000.00/$0.00

- **3.2.r2 - Purchase supplies and equipment for the makerspace project**

  Description

  - 2 - Green screens: 1,000
  - 36 Dell XPS 8930 PCs with Dell UltraSharpe 27” 4k monitors: $102,886
  - 36 Licences of Finale audio editing software: $14,000
  - 36 Akai Professional MKII audio editor controllers: $5,000
  - 36 Sennheiser HD 280 headphones: $5,000
  - 2 3D printers:$20,000
  - 30 VR headsheets: $15,000

  Rationale

  Equipment, software, and supplies for emerging digital media technologies, such as green screens, 3D printers and virtual reality headsets.

  Resource Type:
  Ongoing
  Expenditure Category:

Computer & Information Technology Equipment (6420)
First Year Cost/Savings:
$163,000.00/$0.00
Second Year Cost/Savings:
$20,000.00/$0.00
Third Year Cost/Savings:
$20,000.00/$0.00

- **3.2.r3 - Part-time Makerspace Staff**
  Description
  Rationale
  Part-time staff is needed to oversee the space during its open hours.
  Resource Type:
  Ongoing
  Expenditure Category:
  Part-Time / Overtime / Student (2380)
  First Year Cost/Savings:
  $10,000.00/$0.00
  Second Year Cost/Savings:
  $10,000.00/$0.00
  Third Year Cost/Savings:
  $10,000.00/$0.00

Actions/Activities:

- **3.2.a1 - Secure and develop a space for the project**

- **4 - Goal - Develop and implement a center for PC game competency.**
  Priority Rank:
  4
  Objectives:
  - **4.1 - Objective - Develop Associate of Science Gaming Degrees and Certificates of Achievement with identified area of focus.**
    Priority Rank:
    11
    Start Date:
    10/01/2019
    End Date:
    06/01/2021
    Responsible Person:
    Department Chair and discipline faculty
    Strategic Direction:
    7. Develop Programs and Services
    Impact Type:
    Department
    Institutional Learning Outcome:
    Not Applicable
    Resource Requests:
    - **4.1.r1 - Consultant**
      Description

There is a need to hire a consultant with expertise in gaming who can help with the program design as well as the develop game specific courses and programs of study.

Rationale

Need expertise in the field to determine which types of gaming courses are viable at the community college level as well designing appropriate course sequencing that will lead to a transfer pathway or workplace readiness.

Resource Type:
One-time
Expenditure Category:
Non-Instruction Hourly (1480)
First Year Cost/Savings:
$40,000.00/$0.00
Second Year Cost/Savings:
$40,000.00/$0.00

- **4.2 - Objective - All courses and PC games will be hosted in high quality technically current environments.**

Priority Rank:
3
Start Date:
08/01/2019
End Date:
08/01/2022
Responsible Person:
MITN Dept Chair
Strategic Direction:
1. Promote Student Success
Impact Type:
Department
Institutional Learning Outcome:
Not Applicable

Resource Requests:

- **4.2.r1 - eSports Arena**

Description

There is a need to establish a space with high end PCs and periphearl devices to support the eSport gaming experience.

Rationale

There is a need to establish a space with high end PCs and periphearl devices to support the eSport gaming experience.

Resource Type:
Ongoing
Expenditure Category:
Computer & Information Technology Equipment (6420)
First Year Cost/Savings:
$250,000.00/$0.00
Second Year Cost/Savings:

$100,000.00/$0.00
Third Year Cost/Savings:
$100,000.00/$0.00

- **4.2.r2 - Upgrade lab PCs**
  Description
  In order to maintain a quality learning environment, the computer hardware should be upgraded on a regular cycle.
  Rationale
  In order to maintain a quality learning environment, the lab-based computers should be upgraded on a three-year cycle. The CHC technology plan calls for the replacement of the IT lab equipment every four years. The IT instructional space was renovated during the 2016 - 2017 academic year, and new equipment was installed in the rennovated space in the Fall of 2017. The eGame equipment, whereever it is located should be upgraded in the Fall 2019 with hight end PCs and then upgraded every 3 years.
  Resource Type:
  Ongoing
  Expenditure Category:
  Computer & Information Technology Equipment (6420)
  First Year Cost/Savings:
  $70,000.00/$0.00
- **4.2.r3 - eSport Coach**
  Description
  Hire a PT eSport to oversee the growth and development of the eSport program
  Rationale
  Expertise in the field is required in order to provide a quality gaming program and experience.
  Resource Type:
  One-time
  Expenditure Category:
  Contract Coach Stipend (1306)
  First Year Cost/Savings:
  $20,000.00/$0.00

- **4.3 - Objective - To develop gender diversity in gaming**
  Priority Rank:
  13
  Start Date:
  09/01/2020
  End Date:
  08/01/2023
  Responsible Person:
  Department Chair and discipline faculty
  Strategic Direction:
  4. Expand Access

Impact Type:
Department
Institutional Learning Outcome:
Not Applicable

11. Comments

This space is provided for participants and managers to make additional comments. Comments are not required.

There are no comments for this plan.

12. Supporting Documents

This question is for attaching supplemental materials. Supporting documents are not required.

- Multimedia Certificates Fall 18 Revise.pdf
- CHC IT transfers to CSUs.pdf
- UC_F2018_Crafton Hills College.xlsx
- Cisco CCNA & Cybersecurity Certificates Fall 18 Revise.pdf
- CIS Degrees and Certificates for past 2013-2018.pdf
- CIS-CSCI Course Rotation Patterns_F18.pdf
- CIS-CSCI-MULTI Course Matrix Fall 18 Revise.pdf
- articulated course listing.pdf
- 2018 SummPerformDetailReportbyCollegeTOP4.pdf