

Crafton Hills College Perkins/SWP Funding Proposal 2019-2020

**Program:** Information Technology

**TOP Code:** 07xx

**Dept:** Multimedia, Information Technology and Noncredit

**Contact Faculty:**

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Participating Faculty:

Signatures:

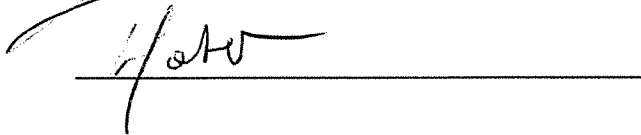
Denise Allen



Frank Madrid



Iris Kern-Foster



We understand that the funds requested in this plan cannot supplant college funding.

Expenditures cannot be used for general purposes, the maintenance of existing programs or to backfill funds shifted to other projects.

**Total Perkins/SWP funds requested: \$68,754 / \$110,230**

(**\$68,754 perkins + \$101,230 SWP: FT Multi Faculty**)

## College Core Indicator Information by 2-Digit TOP (2019-2020)

Perkins IV, Title I, Part C Local Application

Agreement # \_\_\_\_\_

District/College: SAN BERNARDINO/CRAFTON HILLS

### 07 - Information Technology

**Instructions: Print out forms. Complete and sign bottom of last page.**

**Cohort Year CTE Enrollments: 262**

**CTE Headcount: 169**

(includes CTE enrollments above introductory level only)

(CTE students enrolled above introductory level only)

Core Indicator 1 Technical Skill Attainment			Negotiated Level		College Performance	Percent Above or Below Negotiated Level
			State	District		
	Count	Total				
1	41	44	91.75	86.23	93.18	7.0
2	11	11	91.75	86.23	100.00	13.8
3			91.75	86.23	N/R	N/R
4	24	25	91.75	86.23	96.00	9.8
5			91.75	86.23	N/R	N/R
6	1	1	91.75	86.23	100.00	N/A
7	3	3	91.75	86.23	100.00	N/A
8			91.75	86.23	N/R	N/R

Core Indicator 2 Completions - Credential, Certificate, Degree or Transfer Ready			Negotiated Level		College Performance	Percent Above or Below Negotiated Level
			State	District		
	Count	Total				
9	22	24	89.00	85.40	91.67	6.3
10	7	7	89.00	85.40	100.00	N/A
11			89.00	85.40	N/R	N/R
12	17	18	89.00	85.40	94.44	9.0
13			89.00	85.40	N/R	N/R
14			89.00	85.40	N/R	N/R
15	2	2	89.00	85.40	100.00	N/A
16			89.00	85.40	N/R	N/R

Core Indicator 3 Persistence and Transfer			Negotiated Level		College Performance	Percent Above or Below Negotiated Level
			State	District		
	Count	Total				
17	39	42	91.00	89.71	92.86	3.1
18	10	11	91.00	89.71	90.91	1.2
19			91.00	89.71	N/R	N/R
20	22	24	91.00	89.71	91.67	2.0
21			91.00	89.71	N/R	N/R
22	1	1	91.00	89.71	100.00	N/A
23	3	3	91.00	89.71	100.00	N/A
24			91.00	89.71	N/R	N/R

### College Core Indicator Information by 2-Digit TOP (2019-2020)

#### Perkins IV, Title I, Part C Local Application

Core Indicator 4 Employment			Negotiated Level		College Performance	Percent Above or Below Negotiated Level
	Count	Total	State	District		
25 CTE Cohort*	7	10	73.23	73.23	70.00	-3.2
26 Non-Traditional	DR	DR	73.23	73.23	DR	N/A
27 Displaced Homemaker			73.23	73.23	N/R	N/R
28 Economically Disadvantaged	DR	DR	73.23	73.23	DR	N/A
29 Limited English Proficiency			73.23	73.23	N/R	N/R
30 Single Parent			73.23	73.23	N/R	N/R
31 Students with Disabilities			73.23	73.23	N/R	N/R
32 Migrant			73.23	73.23	N/R	N/R

Core Indicator 5a Nontraditional Participation			Negotiated Level		College Performance	Percent Above or Below Negotiated Level
	Count	Total	State	District		
33 CTE Cohort*	11	44	26.00	24.34	25.00	0.7
Non-Traditional	11	44	26.00	24.34	25.00	0.7
Displaced Homemaker			26.00	24.34	N/R	N/R
Economically Disadvantaged	6	25	26.00	24.34	24.00	-0.3
Limited English Proficiency			26.00	24.34	N/R	N/R
Single Parent	1	1	26.00	24.34	100.00	N/A
Students with Disabilities	3	3	26.00	24.34	100.00	N/A
Migrant			26.00	24.34	N/R	N/R

Core Indicator 5b Nontraditional Completions			Negotiated Level		College Performance	Percent Above or Below Negotiated Level
	Count	Total	State	District		
34 CTE Cohort*	7	24	30.00	28.16	29.17	1.0
Non-Traditional	7	24	30.00	28.16	29.17	1.0
Displaced Homemaker			30.00	28.16	N/R	N/R
Economically Disadvantaged	5	17	30.00	28.16	29.41	1.3
Limited English Proficiency			30.00	28.16	N/R	N/R
Single Parent			30.00	28.16	N/R	N/R
Students with Disabilities	2	2	30.00	28.16	100.00	N/A
Migrant			30.00	28.16	N/R	N/R

\*Note: Students meeting criteria for for this indicator with 12+ CTE units in a discipline (one course is above intro) in 3 years. See cohort specifications for full criteria.

The DR notation indicates privacy requirements - EDD requires that counts less than six not be displayed. N/A (Not Applicable) indicates denominators 10 or N/R (Not Reported) indicates categories where no participants were reported. These performance indicators include all vocational programs whether or not they are supported with Perkins Title IC Funds. For more detailed reports, see Core Indicators 'Summary' and 'Detail' Reports. Shaded areas are for your information and are not included as accountability measures.

By totaling each positive, negative, N/A, N/R outcome in the last column from items 1 - 34, I certify and acknowledge that performance in the 34 Core Indicator categories is as follows:

10 of the 34 are at or above the District negotiated level(s);  
1 of the 34 are below the District negotiated level(s);  
23 of the 34 are list as (N/A, N/R)

Department Chair (or authorized Designee) : \_\_\_\_\_

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## Program Analysis

Based upon Core Indicator data for your program found at <https://misweb.cccco.edu/perkins/Main.aspx>, identify your program performance compared to the State Negotiated Level of Performance:

The core indicator results from the 4-digit top code of 0702 were inconclusive. This lead us to conduct an analysis of our course top codes. What we discovered (see attached spreadsheet) is that several courses were coded incorrectly. We have begun the process of revising these codes for all CIS, CSCI and MULTI courses. Additionally, as a result of our research we discovered that all of 90% of the TOP Codes in the 07xx grouping are assigned to CTE technology courses. As such we have chosen to use the 2-digit TOP CODE of 07 as the 2-digit code reflects the majority of our courses and thus provides a better indicator of our program performance.

<b>Core Indicator of Performance</b>	<b>% Below college negotiated level</b>	<b>% Above college negotiated level</b>
<b>1. Skill Attainment</b>		7.0
<b>2. Certificates or Degrees Awarded</b>		6.3
<b>3. Persistence or Transfer</b>		3.1
<b>4. Employment</b>	<b>3.2</b>	
<b>5a. Non Traditional Participation</b>		0.7
<b>5b. Non Traditional Completion</b>		1.0

Describe program strategies to improve Program's Core Indicators that fall below the college Negotiated Level:

### **4. Employment:**

- ❖ Provide instruction using industry aligned software applications, hardware, technology tools and workstations
- ❖ Revise the CIS, CSCI and Multimedia courses and programs as required to match course content to current industry concepts and standards
- ❖ Implement the strategies delineated in the CHC work experience plan.
- ❖ Expand the IT work experience program to better match students to industry work experience opportunities aligned to their IT area of focus.
- ❖ Consistently offer CIS 095, which teaches students the employability skills (soft skills) required to secure a job and to advance in the industry.
- ❖ Continue to develop and enhance the Makerspace and the Center for Digital Media to provide students open access to creative industry tools, software and hardware.

## Crafton Hills College Perkins/SWP Funding Proposal 2019-2020

# Proposed Activities for Funding

**Directions:** For each required use of Perkins funds, describe the proposed activity you are requesting funding for. **All programs must include #6 to be eligible for funding.**

Perkins Required Uses	Proposed Activity
1. Strengthening the academic, and career and technical skills of students participating in CTE programs through the integration of academics with CTE programs.	<b>Project #1</b> Host an annual advisory committee meeting to enhance course and program input and advice from local industry professionals and educational partners. Project #1 addresses and supports Core Indicators 1, 2 & 3.
2. Link CTE at the secondary and the postsecondary levels,	<b>Project #2</b> Support MITN instructors/staff members with the funding and resources required to perform outreach activities at local community events, adult education facilities and K-12 schools. Outreach activities may involve presentations, interactive workshop activities, and community displays in order to help students from diverse backgrounds learn about IT and creative industry job opportunities that the MITN programs and courses prepare students to enter. Project #2 addresses and support Core Indicators 4 & 5a.
3. Provide students with strong experience in and understanding of all aspects of an industry, which may include work-based learning experiences.	<b>Project #3</b> <b>Support industry relevant work experience opportunities for students.</b> Provide funding to retain a PT faculty member to support industry relevant work experience opportunities for MITN program students. At the annual advisory committee meetings in April 2018, high school ROP representatives reiterated the importance of having dedicated staff to recruit business and community partners for providing student internships. Having a PT faculty member manage the work experience opportunities and partnerships will help expand student access to invaluable workplace experiences related to their areas of study. The work experience faculty member will identify students to participate in the program, match students to internships, and support the success of the work experience initiative. Project #3 addresses and supports Core Indicators 2, 3, 4, 5a & 5b.
4. Develop, improve, or expand the use of technology in CTE, which may include training to use technology, providing students with the skills needed to enter technology fields, and encouraging schools to collaborate with technology industries to offer internships and mentoring programs.	<b>Project #3</b> (defined above)
5. Provide in-service and pre-service professional development programs to faculty, administrators, and career guidance and academic counselors involved in integrated CTE programs, on topics including effective integration of academics and CTE, effective teaching skills based on research, effective practices to improve parental and community involvement, effective use of scientifically based research and data to improve instruction. Professional development should also ensure that faculty and personnel stay current with all aspects of an industry; involve internship programs that provide relevant business experience; and train faculty in the effective use and application of technology.	<b>Project #4</b> Support faculty professional development. Provide MITN faculty members the funding required to participate in professional development events and activities, such workshops and conferences related to their disciplines and/or to learning about instructional methods that help increase the participation and success of traditional and non-traditional IT students. Project #4 addresses and supports Core Indicators 1, 2, 3, 4, 5a & 5b.
<b>6. Develop and implement evaluations of the CTE</b>	<b>Project #5</b>

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<p>programs carried out with Perkins IV funds, including an assessment of how the needs of special populations are being met.</p>	<p>Program Evaluations. Review core indicator data, local labor market research data, and course level SLO results on an annual basis to determine the success of the program and to revise, as needed course related projects or/and activities to support the needs of identified special populations. Project #5 addresses and supports Core Indicators 1, 2, 3, 4, 5a &amp; 5b.</p>
<p>7. Initiate, improve, expand and modernize quality CTE programs, including relevant technology.</p>	<p><b>Project #6:</b> Acquire industry aligned software. Purchase new licenses and/or update current software applications required for instructional use including: Adobe Creative Cloud, VMWare Workstation for virtualization, Zbrush, Octane rendering software, Autocad and Microsoft Products. Project #6 addresses and supports Core Indicators 1, 2 &amp; 5b.</p> <p><b>Project #7:</b> Purchase hardware and equipment necessary for maintaining currency of the hardware, Cisco systems, security and digital media curricula. Including new iMac's; Macbook Pros; color laser printer; multimedia production tools: external hard drives; computer kits with CPU, motherboard, RAM, hard drive, power supply, and case; Cisco networking equipment. Project #7 addresses and supports Core Indicators 1, 2 &amp; 5b.</p>
<p>8. Provide services and activities that are of sufficient size, scope and quality to be effective.</p>	<p><b>Project #8:</b> Support the MITN Open Labs and equipment access: Hire short-term hourly lab tech/tutors who can assist Creative students with course related assignments and projects during the Open Labs hours. The lab tech/tutors will also be able to provide Creative students access to industry standard equipment and tools on a managed/documented "check-out" basis. Project #8 addresses and supports Core Indicators 1, 2 &amp; 5b.</p> <p><b>Project #9</b> Support the activities of the CHC Computer Science and Technology Club, such as promoting the club to the campus community and developing technological applications. Project #9 addresses and supports Core Indicators 2, 3, 4, 5a &amp; 5b.</p> <p><b>Project #10</b> Support the growth and development of the CHC multimedia discipline through continued funding of the Full-time multimedia faculty position with SWP funds. Project #10 addresses and supports Core Indicators 1, 2, 3, 4, 5a &amp; 5b.</p> <p><b>Project #11</b> Support the continued growth, development and use of a Creative Industry aligned makerspace by providing access to creative industry aligned tools and equipment including: MakeMusic Finale v26, Akai Professional MPK mini MKIIs, Sennheiser HD Pro Headphones, SLR Tripods, front projection screens,</p>
<p>9. Provide activities to prepare special populations, including single parents and displaced homemakers enrolled in CTE programs, for high-skill, high-wage or high-demand occupations that will lead to self-sufficiency.</p>	<p><b>Project #2 (defined above)</b> <b>Project #3 (defined above)</b></p>

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### Description of Project Activities and Spending Plan (add rows as needed):

Project #	Describe Activity	Timeline	Approx Amount of Funds Requested	Object Code
1	Host an annual advisory committee meeting to involve and seek course and program input and advice from local industry professionals and educational partners. (18-19 #7)	annual	\$ 200	4000 Supplies
2	Support MITN instructors to perform outreach and marketing at local middle and/or high schools. (18-19 #8)	ongoing	\$ 1,500 \$ 184	2000 Hourly Personnel 3000 Benefits for personnel
3	PT faculty to support industry relevant work experience opportunities for students. (18-19 #6)	ongoing	\$ 15,000 \$ 1,845	2000 Hourly Personnel 3000 Benefits for personnel
4	Support faculty professional development. (18-19 #4)	ongoing	\$ 5,000	5000 Travel
5	Program Evaluations	ongoing	\$ 0	
6	Acquire and maintain current industry aligned software. (18-19 #2)	ongoing	\$ 1,500 \$ 73,500*	5621 Software
7	Purchase and/or upgrade hardware and equipment needed for courses* (18-19 #3)	ongoing	\$ 21,165 \$160,554*	6000 Equipment 6000 Equipment
8	Short term hourly lab tech/tutors (18-19 #1)	ongoing	\$ 24,000 \$ 2,160	2000 Hourly Personnel 3000 Benefits for personnel
9	Support the activities of the Computer Science & Technology Club. (18-19 #5)	ongoing	\$ 200	6000 Equipment
10	Support the growth and development of the CHC multimedia discipline through continued funding of the FT multimedia faculty position.	ongoing	\$ 100,000 \$ 1,230	1000 Personnel salaries 3000 Benefits for personnel
11	Support the continued growth, development and use of a Creative Industry aligned makerspace by providing access to creative industry aligned tools and equipment	One time	\$ 9,716*	6000 Equipment
	<b>Perkins/SWP</b>		<b>\$169,984</b>	<b>101,230 (FT Faculty) + 68,754</b>
	<b>*SBCCD Media Academy funds</b>		<b>\$243,770</b>	
	<b>TOTAL</b>		<b>\$413,754</b>	



## Crafton Hills College Perkins/SWP Funding Proposal 2019-2020

- 1 This proposal must support SLO's if it is to be recommended for funding. What are your program's SLO's and how does this proposal support them? What steps have you taken to measure SLO's? Please attach copies of your SLO's assessment (evaluation) statements.

CIS program-level outcomes:

- **PLO #1:** Apply analytical and logical thinking to design and test solutions to problems. (Aligns to: CHC ILO#1 critical thinking)
- **PLO #2:** Use appropriate information and technology to analyze, evaluate, and solve technical problems. (Aligns to: CHC ILO#5 information literacy)
- **PLO #3:** Discuss the impact of information technology on the society and workplace. (Aligns to: CHC ILO#4 society and culture)

This proposal supports activities that improve student success in our degree and certificate programs by building a comprehensive, current CTE program that meets student needs to either further their technical education or enter the high-demand computing workforce. It also enhances student learning experiences by providing technically current learning environments and facilities, career training, and internship opportunities. Upon completion of our comprehensive program, students will be able to achieve the program-level SLOs by mastering essential skills to solve problems using the appropriate and current computer technologies.

SLO's are measured annually in each of the CIS courses. They have been mapped to our program-level SLOs, which are in turn mapped to the College's ILOs. SLO assessment results are tracked using the SLO Cloud. PLO #1 was assessed, and proposed actions were formulated in Fall 2017. PLO #2 and #3 were assessed in Spring 2017, no actions were required at that time. The 2016 – 2018 SLO assessment rate of CIS courses is currently at 71%. We have developed a plan to complete the assessment of course SLOs and PLOs and implemented the plan in the 2018-2019 academic year.

2. Industry input is vital to implement, develop and improve programs. Attach a copy of the most **recent Industry Advisory Committee minutes and the roster of members**. NOTE: Your advisory committee minutes *should document the need for the equipment expenditures*. Additionally, your advisory committee minutes *should address the need for major curriculum development and/or modification*

Our most recent industry advisory committee meeting was held on Thursday, April 26, 2018. What follows are the roster and minutes of the advisory committee meeting.



**Crafton Hills College  
 CIS Advisory Committee Meeting  
 Thursday, April 26, 2018  
 6:00 pm to 8:00 pm  
 Room: LRC 226**

**Roster:**

- Denise Allen, CIS Professor, CHC
- Mike Bagg, Computer Science, 3D Modeling and Animation Teacher, Yucaipa High School
- Heather Barger, Consultant/Adjunct Business Faculty, CHC
- Galen Dean, Consultant/Project Manager
- Kenneth George, Business Administration Assistant Professor, CHC
- LRod Jara, CRY-ROP Instructor, Cybersecurity, CISCO, & Art of Animation Instructor
- Bryan Mills, IE Web Services
- Edward Papp, Your Consulting Team & CIS Adjunct Professor
- Deidra Puentes, Community Recruiter, Colton-Redlands-Yucaipa Regional Occupational Program
- Yui Shin, Cybersecurity Teacher, Redlands High School
- Joel Thornton, Faculty GAD/MAA/INT, All - Inland Empire
- Paul Toomey, Director of Community Development, City of Yucaipa
- Steve Vu, Enterprise Architect Technology/Cloud, ESRI
- Mike Walter, CIS Adjunct Professor, CHC
- Dan Word, CTE Dean, CHC
- Margaret Yau, CIS Associate Professor, CHC

**Minutes:**

<p><b>Crafton Hills College</b>  <b>Computer Information Systems/Business</b>  <b>Administration Advisory Committee Meeting</b>  <b>Agenda</b></p>	<p><b>Date:</b>  <b>Thursday., Apr. 26, 2018</b>  <b>LRC 226, 6 – 8 pm</b></p> <p><b>Next Meeting:</b>  <b>Spring 2019, TBD</b></p>																
<p><b>Members Present:</b></p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">Denise Allen</td> <td style="width: 50%;">Deidra Puentes</td> </tr> <tr> <td>Mike Bagg</td> <td>Yui Shin</td> </tr> <tr> <td>Heather Barger</td> <td>Joel Thornton</td> </tr> <tr> <td>Galen Dean</td> <td>Paul Toomey</td> </tr> <tr> <td>Kenny George</td> <td>Steve Vu</td> </tr> <tr> <td>LRod Jara</td> <td>Mike Walter</td> </tr> <tr> <td>Bryan Mills</td> <td>Dan Word</td> </tr> <tr> <td>Edward Papp</td> <td>Margaret Yau</td> </tr> </table>	Denise Allen	Deidra Puentes	Mike Bagg	Yui Shin	Heather Barger	Joel Thornton	Galen Dean	Paul Toomey	Kenny George	Steve Vu	LRod Jara	Mike Walter	Bryan Mills	Dan Word	Edward Papp	Margaret Yau	
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<b>TOPIC</b>	<b>DISCUSSION</b>																
<b>Meeting Called to Order</b>	6:05 PM																
<b>Introductions</b>	Those in attendance provided brief introductions.																

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(5 min)	
<p><b>Curriculum Overview and Updates</b> (15 min, George, Yau)</p>	<p>Professor Yau provided a brief introduction of the courses and degrees in the Computer Information Systems (CIS) and Computer Science offered at Crafton Hills College (CHC). Updates to CIS curriculum this year include CIS 162 (update to Adobe Animate) and CIS 211 (inclusion of topics such as responsive web design and content management system).</p> <p>Professor George provided an overview of the courses and degrees we offer in business, marketing, and accounting. All of the business classes have been approved for online delivery. Course alignment with the other colleges in the area is being developed.</p>
<p><b>Business Incubator / Makerspace Project</b> (incubator: 20 min, Barger) (makerspace: 20 min, Thornton)</p>	<p>We received regional Strong Workforce funding for the business incubator/makerspace project in Fall 2017. We are currently in development with the city of Yucaipa. Heather Barger, the consultant of the business incubator project, covered what she is doing with promoting and developing a learning space within the city of Yucaipa's business incubator center. Ms. Barger provided an overview of the courses that she is intending to launch at the center. Idea is to have a YBI (Yucaipa business incubator) web site for promoting the courses and opportunities that will be offered in the center. Sponsors for the incubator are being sought.</p> <p>Paul Toomey provided an overview of the services that the business incubator provides to local business startups in the community. So far the center is very successful in terms of launching and supporting new businesses.</p> <p>The progress of the makerspace was presented by Joel Thornton, the consultant of the makerspace project. The vision is to launch a digital makerspace. The goal is to create classes that will focus on digital media/virtual reality (VR). Mr. Thornton discussed and provided details on the proposed courses and the plan to align the program to the workforce as well as the growing, evolving VR job market. Mr. Thornton asked for ideas from the group on what type of certificates we may want to offer/develop. Suggestion was made to survey certificate names that appeal to students.</p>
<p><b>Internships</b> (20 min, Papp)</p>	<p>Ed Papp reported on how internships are progressing at CHC. Ed started the pilot internship program. He has 11 students who are interested in completing an internship. The first internship position involves web development for an entrepreneur. Mr. Papp is serving as the internship advisor whose responsibilities include tracking hours and helping interns acquire soft skills as well as other job-related skills. The student interns will provide weekly reports. He will also be contacting the employer to check in on how the students are doing and how they may be able to</p>

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	improve.
<b>Suggestions: Curriculum, Software, Equipment</b> (15 min)	Yui Shin offered some suggestions on the gaming/VR pathway and potential job-related pathways. A suggestion was made to explore a pipeline from high school to CHC to a four-year institution. Unity is a 3D engine that may have some place in the curriculum development considerations for our program.
<b>Articulation Agreements</b> (5 min)	Professor Yau presented a list of courses we currently have articulated. A question was asked about Web Page programming and design, which is regularly offered in CIS. GIS may be a new (or renewed) course that we could build out in CIS. It could include a pathway from CHC to a four-year institution, and we may want to explore what is being offered at University of Redlands.
<b>Marketing Courses and Programs</b> (10 min)	To help marketing the CIS program, instructors can go visit the high school classes and talk about the courses and programs offered at CHC.
<b>Next Meeting – Spring 2019</b> <b>Future Agenda Items</b> (5 min)	Next meeting will be held in spring 2019.
<b>Adjournment</b>	Meeting adjourned at 7:50 pm

COURSE ID	TITLE (C802)	DEPARTMENT NAME (CB01A)	TOP CODE (CB03)	LAST UPDATED BY COLLEGE	curriculum Status	Recommended TOP CODE
53516	COMPUTER LITERACY	C&IS 100	0701.00* Information Technology, General	6/29/2017	no record	REMOVE
54034	INTRODUCTION TO COMPUTERS AND INFORMATION TECHNOLOGY	C&IS 101	0701.00* Information Technology, General	6/29/2017	no record	REMOVE
53378	BASIC LANGUAGE & PROBLEM SOLVING I	C&IS 102	0701.00* Information Technology, General	6/29/2017	no record	REMOVE
54405	PROGRAMMING IN VISUAL BASIC	C&IS 103	0701.00* Information Technology, General	6/29/2017	no record	REMOVE
53793	FORTRAN 77 (COMPUTER PROGRAMMING)	C&IS 104	0701.00* Information Technology, General	6/29/2017	no record	REMOVE
53637	DATABASE CONCEPTS AND DESIGN	C&IS 105	0701.00* Information Technology, General	6/29/2017	no record	REMOVE
53384	BASICS OF PC/MS DOS (DISK OPERATING SYSTEM)	C&IS 107	0701.00* Information Technology, General	6/29/2017	no record	REMOVE
54345	PASCAL	C&IS 110	0701.00* Information Technology, General	6/29/2017	no record	REMOVE
53382	BASIC LANGUAGE AND PROBLEM SOLVING II	C&IS 112	0701.00* Information Technology, General	6/29/2017	no record	REMOVE
54403	PROGRAMMING IN C	C&IS 115	0701.00* Information Technology, General	6/29/2017	no record	REMOVE
54240	MINICOMPUTER CONCEPTS, CHARACTERISTICS AND COMPONENTS	C&IS 120	0701.00* Information Technology, General	6/29/2017	no record	REMOVE
54400	PROGRAMMING BUSINESS APPLICATIONS: COBOL I	C&IS 200	0701.00* Information Technology, General	6/29/2017	no record	REMOVE
54399	PROGRAMMING BUSINESS APPLICATIONS: COBOL II	C&IS 201	0701.00* Information Technology, General	6/29/2017	no record	REMOVE
54289	NUMERICAL COMPUTING	C&IS 250	0701.00* Information Technology, General	6/29/2017	no record	REMOVE
53220	ADVANCED INTEGRATED BASIC PROGRAMMING	C&IS 270	0701.00* Information Technology, General	6/29/2017	no record	REMOVE
54033	INTRODUCTION TO COMPUTERS AND	C&IS-101	0701.00* Information Technology, General	6/29/2017	no record	REMOVE
53379	BASIC LANGUAGE & PROBLEM SOLVING I	C&IS-102	0701.00* Information Technology, General	6/29/2017	no record	REMOVE
54404	PROGRAMMING IN VISUAL BASIC	C&IS-103	0701.00* Information Technology, General	6/29/2017	no record	REMOVE
53638	DATABASE CONCEPTS AND DESIGN	C&IS-105	0701.00* Information Technology, General	6/29/2017	no record	REMOVE
53381	BASIC LANGUAGE AND PROBLEM SOLVING II	C&IS-112	0701.00* Information Technology, General	6/29/2017	no record	REMOVE
54401	PROGRAMMING IN C	C&IS-115	0701.00* Information Technology, General	6/29/2017	no record	REMOVE
54125	Introduction to Online Learning	CIS-062	0701.00* Information Technology, General	6/29/2017	Historical	REMOVE CHC 062
331308	Essential Technology Skills for College and Career Success	CIS-091	0514.00* Office Technology/Office Computer Applications	6/29/2017		070200
328461	Employability Skills for Technical Careers	CIS-095	0799.00* Other Information Technology	6/29/2017		070200
360115	Introduction to Computer and Information Technology	CIS-101	0701.00* Information Technology, General	7/3/2018		070200
53380	BASIC LANGUAGE AND PROBLEM SOLVING I	CIS-102	0701.00* Information Technology, General	6/29/2017	no record	REMOVE
55188	Visual Basic	CIS-103	0707.10* Computer Programming	6/29/2017	Historical	REMOVE CIS 104
54323	Object Oriented Programming with Visual Basic	CIS-104	0707.10* Computer Programming	6/29/2017		✓
359012	Database Concepts and Design	CIS-105	0701.00* Information Technology, General	7/3/2018		070720
359013	Spreadsheet Concepts and Application with Excel	CIS-106	0702.10* Software Applications	6/29/2017		✓
356747	Operating Systems and Environments	CIS-109	0701.00* Information Technology, General	7/3/2018		070820
55207	Web Page Programming and Design	CIS-111	0799.00* Other Information Technology	6/29/2017		061430
54176	Java and J++ Programming	CIS-113	0701.00* Information Technology, General	6/29/2017		070710
54402	PROGRAMMING IN C	CIS-115	0701.00* Information Technology, General	6/29/2017	Historical	REMOVE offered
54911	Scripting	CIS-117	0799.00* Other Information Technology	6/29/2017		0709.00
55209	Web Site Management	CIS-118	0701.00* Information Technology, General	6/29/2017	Historical	070900 Hold for now
324028	Android Application Development	CIS-121	0707.00* Computer Software Development	6/29/2017		0707.00
54088	Introduction to C#.NET Programming	CIS-125	0707.10* Computer Programming	6/29/2017		✓
53976	Hardware and Information Technology	CIS-130	0701.00* Information Technology, General	6/29/2017		070820
356804	Systems and Network Administration	CIS-132	0702.00* Computer Information Systems	6/29/2017		070800
356805	Introduction to Information Systems Security	CIS-134	0702.00* Computer Information Systems	6/29/2017		✓
317392	Introduction to Networks (Cisco CCNA 1)	CIS-140	0799.00* Other Information Technology	6/29/2017		070810

54594	Routers and Routing Basics: Cisco Certified Network Associate (CCNA	CIS-141	0799.00* Other Information Technology	6/29/2017	no record	REMOVE	Duplicate
336739	Working At a Small-To-Medium Business or ISP (Cisco CCNA 2)	CIS-141	0799.00* Other Information Technology	6/29/2017		070810	
330942	Advanced Routing and Switching (Cisco CCNA 3)	CIS-142	0799.00* Other Information Technology	6/29/2017		070810	
330941	WAN Technologies and Network Services (Cisco CCNA 4)	CIS-143	0799.00* Other Information Technology	6/29/2017		070810	
53319	Advanced Routing - LANs Cisco Semester V (Cisco Networking Academ	CIS-144	0701.00* Information Technology, General	6/29/2017	Historical	070810	Hold for now
53328	Advanced WANs-Cisco Semester VI (Cisco Networking Academy)	CIS-145	0701.00* Information Technology, General	6/29/2017	Historical	070810	Hold for now
54191	LAN Switching-Cisco Semester VII (Cisco Networking Academy)	CIS-146	0799.00* Other Information Technology	6/29/2017	Historical	070810	Hold for now
54298	Network Troubleshooting-Cisco Semester VIII (Cisco Networking Acad	CIS-147	0799.00* Other Information Technology	6/29/2017	Historical	070810	Hold for now
54287	NETWORKING ESSENTIALS WITH TCP/IP	CIS-150	0701.00* Information Technology, General	6/29/2017	Historical	REMOVE	
54295	Network Client Administration	CIS-151	0799.00* Other Information Technology	6/29/2017	Historical	070800	Hold for now
54297	Network Server Administration	CIS-152	0799.00* Other Information Technology	6/29/2017	Historical	070800	Hold for now
54296	Network Operating Systems	CIS-153	0799.00* Other Information Technology	6/29/2017	Historical	070800	Hold for now
53358	Authoring Usable and Accessible Web Pages	CIS-160	0708.10* Computer Networking	6/29/2017	Historical	061430	
55208	Web Site Design and Programming Using Dreamweaver	CIS-161	0799.00* Other Information Technology	6/29/2017		061440	
54109	Introduction to Flash	CIS-162	0799.00* Other Information Technology	6/29/2017	Historical	REMOVE	?? Duplicate
54132	Introduction to PhotoShop	CIS-163	0799.00* Other Information Technology	6/29/2017	Historical	061460	
359253	Adobe Photoshop	CIS-163	0799.00* Other Information Technology	6/29/2017	Historical	REMOVE	offered
54108	Introduction to Fireworks	CIS-164	0701.00* Information Technology, General	6/29/2017	Historical	REMOVE	
54092	Introduction to Computer Animation	CIS-165	0614.40* Animation	6/29/2017		✓	
54093	Introduction to Computer Animation	CIS-165X3	0614.40* Animation	6/29/2017	no record	REMOVE	
53193	3D Animation with Maya	CIS-166	0614.40* Animation	6/29/2017		✓	
53686	E-Commerce Programming and Design	CIS-168	0799.00* Other Information Technology	6/29/2017	Historical	REMOVE	
54142	Introduction to Robotics	CIS-171	0799.00* Other Information Technology	6/29/2017	Historical	070200	Hold for now
310161	Introduction to Adobe After Effects	CIS-173	0702.10* Software Applications	6/29/2017	Historical	061440	
334124	Introduction to Adobe Premiere	CIS-174	0702.10* Software Applications	6/29/2017		061400	
54120	Introduction to Information Mapping	CIS-175	0702.00* Computer Information Systems	6/29/2017	Historical	0799.00	Hold for now
54118	Introduction to Illustrator	CIS-180	0614.60* Computer Graphics and Digital Imagery	6/29/2017	Historical	REMOVE	?? Duplicate
302995	Computer Graphics with Adobe Illustrator	CIS-180	0614.60* Computer Graphics and Digital Imagery	6/29/2017		✓	
53639	DESKTOP PUBLISHING WITH ADOBE INDESIGN	CIS-182	0702.10* Software Applications	6/29/2017		061450	
54421	Photoshop and Digital Photography	CIS-184	0702.10* Software Applications	6/29/2017		061460	
54933	Selected Topics in Computer Information Systems	CIS-195A	0702.00* Computer Information Systems	6/29/2017		✓	
53327	Advanced Visual Basic	CIS-203	0707.10* Computer Programming	6/29/2017		✓	
53553	Cascading Style Sheet (CSS) Web Design	CIS-211	0614.30* Website Design and Development	6/29/2017		✓	
53719	EXPLORING THE INFORMATION SUPERHIGHWAY	CIS-250	0701.00* Information Technology, General	6/29/2017	no record	REMOVE	
54032	INTRODUCTION TO COMPUTER TECHNOLOGY FOR EDUCATORS	CIS-255	0701.00* Information Technology, General	6/29/2017	Historical	REMOVE	needed
283948	Beginning Computing	CIS-900	0702.00* Computer Information Systems	6/29/2017	no record	REMOVE	?? Duplicate
303010	Beginning Computing	CIS-900	0702.00* Computer Information Systems	6/29/2017		✓	
54189	LABORATORY FOR COMPUTER INFORMATION	CIS-916X1	0701.00* Information Technology, General	6/29/2017	no record	REMOVE	
313150	Introduction to Computer Science I	CSCI-110	0706.00 Computer Science (Transfer)	6/29/2017		✓	
313427	Introduction to Computer Science II	CSCI-120	0706.00 Computer Science (Transfer)	6/29/2017		✓	
281578	Discrete Structures	CSCI-200	0706.00 Computer Science (Transfer)	6/29/2017		✓	
313162	Introduction to Data Structures and Algorithms	CSCI-230	0706.00 Computer Science (Transfer)	6/29/2017		✓	
313163	Computer Organization and Assembly Language Programming	CSCI-240	0706.00 Computer Science (Transfer)	6/29/2017		✓	

	WHERE ARE THESE COURSES? In the state inventory?						
	C++ Programming I	CIS 114			ACTIVE	070710	
	C++ Programming II	CIS 116			ACTIVE	070710	
	Digital Video Editing with Adobe Premiere and After Effects	CIS 172			ACTIVE	061440	
	Web Design Work Experience	CIS 190A			ACTIVE	493200	
	Network Administration Work Experience	CIS 190B			ACTIVE	493200	
	Hardware Technician Work Experience	CIS 190C			ACTIVE	493200	
	Software Development Work Experience	CIS 190D			ACTIVE	493200	
	Digital Media Design Work Experience	CIS 190E			ACTIVE	493200	

	TOP CODE
MULTI 100 Multimedia Foundations *Approved* **New Course**	061400
MULTI 111 Adobe Photoshop I *Approved* **New Course**	061460
MULTI 130 Digital Illustration with Adobe Illustrator I *Approved* **New Course**	061460
MULTI 131 Publication Design with Adobe InDesign *Approved* **New Course**	061450
MULTI 150 3D Modeling and Animation with Maya I *Approved* **New Course**	061440
MULTI 151 Video Editing with Adobe Premiere *Approved* **New Course**	061400
MULTI 152 Motion Graphics with Adobe After Effects *Approved* **New Course**	061440
MULTI 170 Website Design with Adobe Dreamweaver *Approved* **New Course**	061430
MULTI 171 Adobe Animate *Approved* **New Course**	061440
MULTI 173 User Experience Design (UXD) *Approved* **New Course**	061430
MULTI 211 Adobe Photoshop II *Approved* **New Course**	061460
MULTI 212 Digital Media Careers *Approved* **New Course**	061400
MULTI 214 Digital Media Portfolio *Approved* **New Course**	061400
MULTI 230 Digital Illustration with Adobe Illustrator II *Approved* **New Course**	061460
MULTI 250 3D Modeling and Animation with Maya II *Approved* **New Course**	061440



## TOP 06 – Media and Communications

Instructional programs that study the theory, principles and methods of creation, transmission, reception and evaluation of various media

- 0701.00 – Information Technology, General:** Information technology concepts, theories, principles, methods and related computer capabilities and applications related to business, technical, and scientific problems.
- 0702.00 – Computer Information Systems:** General programs in data and information storage and processing, including hardware, software, basic design principles, and user requirements.
- 0702.10 – Software Applications:** Computer application software used in a business or home environment ranging from an end user skill level to corporate level for the management of information. Concepts, theory, application of software for the design and development, distribution, publishing, presentation, and analysis of text, numeric, and graphic data. Procedures, information, and application of software including a variety of methods for inputting and retrieving data, records, and information. Application of software and computer-related tools such as e-mail and speech/voice recognition for the global dissemination of information.
- 0706.00 – Computer Science (transfer):** Scientific and mathematical principles used in designing and building computers and computing systems, including transfer-oriented programs.
- 0707.00 – Computer Software Development:** Design and development of computer-based applications. Includes systems analysis, design, specification, programming, database analysis and design, user interface development, maintenance, and testing.
- 0707.10 – Computer Programming:** Entry-level programming, including methods, procedures, symbols and rules used in planning and writing instructions in computer language for the solution of a problem. Includes programming for the World Wide Web.
- 0707.20 – Database Design and Administration:** Development of database applications in a business or organizational environment, including database architecture, programming languages, proprietary database software, and related skills and techniques.
- 0707.30 – Computer Systems Analysis:** Systems analysis and design, including the recognition, definition, and improvement of processes through the use of computer technology and methodologies.
- 0708.00 – Computer Infrastructure and Support:** Network and operation systems design and administration, including certification preparation.
- 0708.10 – Computer Networking:** Principles of local, metropolitan, and wide area computer networking design, installation, maintenance and troubleshooting.
- 0708.20 – Computer Support:** Preparation to provide technical assistance to computer system users. May include use of computer hardware and software, printing, installation, word processing, electronic mail, and operating systems.

**0709.00 – World Wide Web Administration:** Methods to develop and maintain web servers and hosted web pages, and to function as Webmaster. Includes computer systems and networks, servers, web design and editing, information resources management, web policies and security.

**0709.10 – E-Commerce (technology emphasis):** Programs that combine marketing and management principles with technical applications of the Internet and World Wide Web, with main emphasis on applications of technology.

**0799.00 – Other Information Technology:** Specify (includes all emerging occupations).

## **TOP 07 – Information Technology**

Instructional programs in the theories, principles, and methods of design, development and application of computer capabilities to data storage and manipulation.

**0614.00 – Digital Media:** A broad range of programs that combine computer and other electronic technologies with skills and techniques from various fine arts and communications disciplines

**0614.10 – Multimedia:** Principles and techniques of using computers to bring together text, sounds, animation, graphic art, and video to create interactive products to inform, educate, or entertain.

**0614.20 – Electronic Game Design**

**0614.30 – Website Design and Development:** Principles of design, user interface/navigation, graphics applications and other authoring tools to design, edit and publish web pages, documents, images, graphics, sound

**0614.40 – Animation:** Principles and techniques for creating the visual illusion of motion through sequenced images. Includes animation using digital technology.

**0614.50 – Desktop Publishing:** Methods of preparing text and images for presentation to readers, using computerized electronic page layout and publication programs.

**0614.60 – Computer Graphics and Digital Imagery:** Theories, principles, and uses of computer graphics vector- and raster-based software programs for consumer, commercial, and industrial applications.

**0699.00 – Other Media and Communications:** Specify (includes all emerging occupations).

**4932.00 – General Work Experience:** Supervised employment intended to assist students in acquiring desirable work habits, attitudes, and career awareness in an occupational program, should be reported in the T.O.P. code that designates the occupation in which the experience takes place.